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| <b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> PB 2016 Navy | <b>Date:</b> February 2015 |
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| <b>Appropriation/Budget Activity</b>                                                                    | <b>R-1 Program Element (Number/Name)</b>             |                |                |                     |                    |                      |                |                |                |                |                         |                   |
|---------------------------------------------------------------------------------------------------------|------------------------------------------------------|----------------|----------------|---------------------|--------------------|----------------------|----------------|----------------|----------------|----------------|-------------------------|-------------------|
| 1319: <i>Research, Development, Test &amp; Evaluation, Navy / BA 7: Operational Systems Development</i> | PE 0206624M / <i>Marine Corps Cmbt Services Supt</i> |                |                |                     |                    |                      |                |                |                |                |                         |                   |
| <b>COST (\$ in Millions)</b>                                                                            | <b>Prior Years</b>                                   | <b>FY 2014</b> | <b>FY 2015</b> | <b>FY 2016 Base</b> | <b>FY 2016 OCO</b> | <b>FY 2016 Total</b> | <b>FY 2017</b> | <b>FY 2018</b> | <b>FY 2019</b> | <b>FY 2020</b> | <b>Cost To Complete</b> | <b>Total Cost</b> |
| Total Program Element                                                                                   | 188.098                                              | 23.883         | 20.999         | 20.729              | -                  | 20.729               | 17.373         | 14.085         | 15.052         | 13.861         | Continuing              | Continuing        |
| 0201: <i>Logistical Veh Sys Replacement (LVSR)</i>                                                      | 36.046                                               | 2.212          | 0.385          | 0.261               | -                  | 0.261                | 0.267          | 0.237          | 0.211          | 0.215          | Continuing              | Continuing        |
| 2316: <i>Combat Service Support Eng Equip</i>                                                           | 55.355                                               | 10.217         | 7.271          | 4.655               | -                  | 4.655                | 6.431          | 8.118          | 7.416          | 7.563          | Continuing              | Continuing        |
| 2509: <i>Motor Transport Mod</i>                                                                        | 37.066                                               | 2.776          | 6.978          | 2.064               | -                  | 2.064                | 1.595          | 1.208          | 1.224          | 1.249          | Continuing              | Continuing        |
| 2510: <i>MAGTF CSSE &amp; SE</i>                                                                        | 12.648                                               | 4.179          | 4.930          | 9.167               | -                  | 9.167                | 7.285          | 3.167          | 4.461          | 4.053          | Continuing              | Continuing        |
| 2929: <i>Testing Measuring Diag Equip &amp; SE</i>                                                      | 6.120                                                | 1.897          | 0.248          | 0.516               | -                  | 0.516                | 0.544          | 0.580          | 0.622          | 0.636          | Continuing              | Continuing        |
| 9C90: <i>MTVR Mod</i>                                                                                   | 40.863                                               | 2.602          | 1.187          | 4.066               | -                  | 4.066                | 1.251          | 0.775          | 1.118          | 0.145          | Continuing              | Continuing        |

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

This program element (PE) provides funding for Marine Air-Ground Task Force requirements for Combat Service Support equipment improvement. It will enhance combat breaching capabilities of the ground combat elements, logistics, maintenance and transportation. The PE also provides improvements in all areas of Combat Service Support Equipment Vehicles by determining the replacement for the light fleet of vehicles. This includes projects such as: Alternative Power Sources for Communications Equipment (APSCE) which is a suite of devices that provide the commander with the capability to use existing power to operate his communication equipment, computers and peripheral equipment instead of using batteries or fossil fuel generators; the Marine Corps Family of Automatic Test Systems (ATS), formerly TETS, which provides automatic testing capability for use by technicians both in garrison and forward edge of the battlefield; improvements in all areas of the M1A1 main battle tank, LVSR & MTVR; the High Performance Capabilities for Military Vehicles Project which is dedicated to applying the best practices of the motor sports industry to military vehicles including engineering expertise, equipment and technology.

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| Exhibit R-2, RDT&E Budget Item Justification: PB 2016 Navy                                                                                                                          |         |                                               |              | Date: February 2015 |               |
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| Appropriation/Budget Activity                                                                                                                                                       |         | R-1 Program Element (Number/Name)             |              |                     |               |
| 1319: Research, Development, Test & Evaluation, Navy I BA 7: Operational Systems Development                                                                                        |         | PE 0206624M I Marine Corps Cmbt Services Supt |              |                     |               |
| B. Program Change Summary (\$ in Millions)                                                                                                                                          | FY 2014 | FY 2015                                       | FY 2016 Base | FY 2016 OCO         | FY 2016 Total |
| Previous President's Budget                                                                                                                                                         | 35.647  | 20.999                                        | 23.666       | -                   | 23.666        |
| Current President's Budget                                                                                                                                                          | 23.883  | 20.999                                        | 20.729       | -                   | 20.729        |
| Total Adjustments                                                                                                                                                                   | -11.764 | -                                             | -2.937       | -                   | -2.937        |
| • Congressional General Reductions                                                                                                                                                  | -       | -                                             |              |                     |               |
| • Congressional Directed Reductions                                                                                                                                                 | -       | -                                             |              |                     |               |
| • Congressional Rescissions                                                                                                                                                         | -       | -                                             |              |                     |               |
| • Congressional Adds                                                                                                                                                                | -       | -                                             |              |                     |               |
| • Congressional Directed Transfers                                                                                                                                                  | -       | -                                             |              |                     |               |
| • Reprogrammings                                                                                                                                                                    | -1.084  | -                                             |              |                     |               |
| • SBIR/STTR Transfer                                                                                                                                                                | -4.080  | -                                             |              |                     |               |
| • Program Adjustments                                                                                                                                                               | -       | -                                             | -7.193       | -                   | -7.193        |
| • Rate/Misc Adjustments                                                                                                                                                             | -       | -                                             | 4.256        | -                   | 4.256         |
| • Congressional Rescission Adjustments                                                                                                                                              | -6.600  | -                                             | -            | -                   | -             |
| <b>Change Summary Explanation</b>                                                                                                                                                   |         |                                               |              |                     |               |
| The \$6.600M reduction in FY14 is due to a Congressional rescission. The \$2.937M reduction in FY16 is due to the rephasing of funding to align with the revised program schedules. |         |                                               |              |                     |               |

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|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------|---------|--------------|------------------------------------------------------------------------------------|---------------|---------|---------|-----------------------------------------------------------------------|---------------------|------------------|---------------|
| Exhibit R-2A, RDT&E Project Justification: PB 2016 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |             |         |         |              |                                                                                    |               |         |         |                                                                       | Date: February 2015 |                  |               |
| Appropriation/Budget Activity<br>1319 / 7                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |             |         |         |              | R-1 Program Element (Number/Name)<br>PE 0206624M / Marine Corps Cmbt Services Supt |               |         |         | Project (Number/Name)<br>0201 / Logistical Veh Sys Replacement (LVSR) |                     |                  |               |
| COST (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Prior Years | FY 2014 | FY 2015 | FY 2016 Base | FY 2016 OCO                                                                        | FY 2016 Total | FY 2017 | FY 2018 | FY 2019                                                               | FY 2020             | Cost To Complete | Total Cost    |
| 0201: Logistical Veh Sys Replacement (LVSR)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 36.046      | 2.212   | 0.385   | 0.261        | -                                                                                  | 0.261         | 0.267   | 0.237   | 0.211                                                                 | 0.215               | Continuing       | Continuing    |
| Quantity of RDT&E Articles                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |             | -       | -       | -            | -                                                                                  | -             | -       | -       | -                                                                     | -                   |                  |               |
| A. Mission Description and Budget Item Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |             |         |         |              |                                                                                    |               |         |         |                                                                       |                     |                  |               |
| The Logistics Vehicle System Replacement (LVSR) is the USMC Marine Air-Ground Task Force (MAGTF) Heavy Lift Capability system. The Medium/Heavy Modification line funds numerous modifications and initiatives that are required to address operational priorities, engineering change proposals, safety concerns, support equipment inefficiencies, tool malfunctions, product quality deficiencies, and other issues that effect vehicle reliability, availability, maintainability and readiness. A proactive and focused approach ensures proper vehicle sustainment and life cycle management and it allows the flexibility to develop and implement improvements as needed to respond to the evolving needs of the Marine Corps.                                                                                                                                                                                                                                       |             |         |         |              |                                                                                    |               |         |         |                                                                       |                     |                  |               |
| B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |             |         |         |              |                                                                                    |               |         | FY 2014 | FY 2015                                                               | FY 2016 Base        | FY 2016 OCO      | FY 2016 Total |
| Title: Product Development<br><br>Articles:<br><br>FY 2014 Accomplishments:<br>Completed safety & ECP modification development required to meet the diverse environments of current and future operations of Marine Air Ground Task Force Expeditionary Maneuver Warfare. Specifically, funding supported the development of the Wrecker Underbody Improvement Kits (UIK) and Automatic Fire Extinguishing System (AFES) for the unarmored vehicles. Also developed Emergency Egress Windows for the LVSR Wrecker variant and 360 Degree Lighting for all variants (cargo, tractor, and wrecker).<br><br>FY 2015 Plans:<br>N/A<br><br>FY 2016 Base Plans:<br>Continue to support safety & ECP development required to meet the diverse environments of current and future operations of Marine Air Ground Task Force Expeditionary Maneuver Warfare as continual changes in threat environment requires an on-going and proactive approach.<br><br>FY 2016 OCO Plans:<br>N/A |             |         |         |              |                                                                                    |               |         | 1.962   | -                                                                     | 0.131               | -                | 0.131         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |             |         |         |              |                                                                                    |               |         | -       | -                                                                     | -                   | -                | -             |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |             |         |         |              |                                                                                    |               |         |         |                                                                       |                     |                  |               |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |             |         |         |              |                                                                                    |               |         |         |                                                                       |                     |                  |               |
| Title: Support                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |             |         |         |              |                                                                                    |               |         | 0.051   | -                                                                     | 0.130               | -                | 0.130         |
| Articles:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |             |         |         |              |                                                                                    |               |         | -       | -                                                                     | -                   | -                | -             |

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| Exhibit R-2A, RDT&E Project Justification: PB 2016 Navy                                                                                                                                                                                                                                                                                                      |  |                                                                                       |         | Date: February 2015                                                      |                |                  |
| Appropriation/Budget Activity<br>1319 / 7                                                                                                                                                                                                                                                                                                                    |  | R-1 Program Element (Number/Name)<br>PE 0206624M / Marine Corps Cmbt<br>Services Supt |         | Project (Number/Name)<br>0201 / Logistical Veh Sys Replacement<br>(LVSR) |                |                  |
| B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)                                                                                                                                                                                                                                                                             |  | FY 2014                                                                               | FY 2015 | FY 2016<br>Base                                                          | FY 2016<br>OCO | FY 2016<br>Total |
| <b>FY 2014 Accomplishments:</b><br>-Completed safety support required to meet the diverse environments of current and future operations of Marine Air Ground Task Force Expeditionary Maneuver Warfare. Specifically, funding supported the Wrecker Underbody Improvement Kits (UIK) effort.<br>-Completed Modeling & Simulation support for the LVSR.       |  |                                                                                       |         |                                                                          |                |                  |
| <b>FY 2015 Plans:</b><br>N/A                                                                                                                                                                                                                                                                                                                                 |  |                                                                                       |         |                                                                          |                |                  |
| <b>FY 2016 Base Plans:</b><br>Initiate ECP support safety required to meet the diverse environments of current and future operations of MAGTF Expeditionary Maneuver Warfare. Incorporating new safety upgrades that will protect the warfighter and LVSR vehicle from possible catastrophic events as warranted by continual changes in threat environment. |  |                                                                                       |         |                                                                          |                |                  |
| <b>FY 2016 OCO Plans:</b><br>N/A                                                                                                                                                                                                                                                                                                                             |  |                                                                                       |         |                                                                          |                |                  |
| <b>Title:</b> Test and Evaluation                                                                                                                                                                                                                                                                                                                            |  | 0.199                                                                                 | 0.385   | -                                                                        | -              | -                |
| <b>Articles:</b>                                                                                                                                                                                                                                                                                                                                             |  | -                                                                                     | -       | -                                                                        | -              | -                |
| <b>FY 2014 Accomplishments:</b><br>Completed testing events to support safety & ECP development required to meet the diverse environments of current and future operations of Marine Air Ground Task Force Expeditionary Maneuver Warfare. Specifically, funding supported the Wrecker 360 lighting & Emergency Egress Window follow-on testing efforts      |  |                                                                                       |         |                                                                          |                |                  |
| <b>FY 2015 Plans:</b><br>Continue testing events to support safety & ECP development required to meet the diverse environments of current and future operations of Marine Air Ground Task Force Expeditionary Maneuver Warfare. Specifically, funding will support the Stability Control testing.                                                            |  |                                                                                       |         |                                                                          |                |                  |
| <b>FY 2016 Base Plans:</b><br>N/A                                                                                                                                                                                                                                                                                                                            |  |                                                                                       |         |                                                                          |                |                  |
| <b>FY 2016 OCO Plans:</b><br>N/A                                                                                                                                                                                                                                                                                                                             |  |                                                                                       |         |                                                                          |                |                  |
| Accomplishments/Planned Programs Subtotals                                                                                                                                                                                                                                                                                                                   |  | 2.212                                                                                 | 0.385   | 0.261                                                                    | -              | 0.261            |

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| <b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Navy                                                                                                                                                                                                                                                                                                                      |                |                |                         |                                                                                           |                          |                |                |                                                                              |                | <b>Date:</b> February 2015  |                   |
| <b>Appropriation/Budget Activity</b><br>1319 / 7                                                                                                                                                                                                                                                                                                                                        |                |                |                         | <b>R-1 Program Element (Number/Name)</b><br>PE 0206624M / Marine Corps Cmbt Services Supt |                          |                |                | <b>Project (Number/Name)</b><br>0201 / Logistical Veh Sys Replacement (LVSR) |                |                             |                   |
| <b>C. Other Program Funding Summary (\$ in Millions)</b>                                                                                                                                                                                                                                                                                                                                |                |                |                         |                                                                                           |                          |                |                |                                                                              |                |                             |                   |
| <b>Line Item</b>                                                                                                                                                                                                                                                                                                                                                                        | <b>FY 2014</b> | <b>FY 2015</b> | <b>FY 2016<br/>Base</b> | <b>FY 2016<br/>OCO</b>                                                                    | <b>FY 2016<br/>Total</b> | <b>FY 2017</b> | <b>FY 2018</b> | <b>FY 2019</b>                                                               | <b>FY 2020</b> | <b>Cost To<br/>Complete</b> | <b>Total Cost</b> |
| • 505000: Motor Transport Modifications                                                                                                                                                                                                                                                                                                                                                 | 1.579          | 0.469          | 2.310                   | -                                                                                         | 2.310                    | 1.785          | 1.357          | 1.976                                                                        | 2.024          | Continuing                  | Continuing        |
| <b>Remarks</b>                                                                                                                                                                                                                                                                                                                                                                          |                |                |                         |                                                                                           |                          |                |                |                                                                              |                |                             |                   |
| <b>D. Acquisition Strategy</b>                                                                                                                                                                                                                                                                                                                                                          |                |                |                         |                                                                                           |                          |                |                |                                                                              |                |                             |                   |
| The LVSR program uses a two-phase, single-step acquisition approach rather than an evolutionary acquisition approach. Phase I developed the Cargo variant and Phase II developed the Tractor and Wrecker variants. The program is currently in sustainment utilizing RDT&E funding to address required ECPs to maintain relevancy on the battlefield and implement system requirements. |                |                |                         |                                                                                           |                          |                |                |                                                                              |                |                             |                   |
| <b>E. Performance Metrics</b>                                                                                                                                                                                                                                                                                                                                                           |                |                |                         |                                                                                           |                          |                |                |                                                                              |                |                             |                   |
| N/A                                                                                                                                                                                                                                                                                                                                                                                     |                |                |                         |                                                                                           |                          |                |                |                                                                              |                |                             |                   |

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| Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Navy |                        |                                |             |         |            |                                                                                       |            |                 |            |                                                                          |            | Date: February 2015 |                  |            |                          |
|--------------------------------------------------------|------------------------|--------------------------------|-------------|---------|------------|---------------------------------------------------------------------------------------|------------|-----------------|------------|--------------------------------------------------------------------------|------------|---------------------|------------------|------------|--------------------------|
| Appropriation/Budget Activity<br>1319 / 7              |                        |                                |             |         |            | R-1 Program Element (Number/Name)<br>PE 0206624M / Marine Corps Cmbt<br>Services Supt |            |                 |            | Project (Number/Name)<br>0201 / Logistical Veh Sys Replacement<br>(LVSR) |            |                     |                  |            |                          |
| Product Development (\$ in Millions)                   |                        |                                |             | FY 2014 |            | FY 2015                                                                               |            | FY 2016<br>Base |            | FY 2016<br>OCO                                                           |            | FY 2016<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 |
| LVSR Safety Mod Development                            | SS/FFP                 | Oshkosh Corp : Oshkosh, WI     | 0.884       | 0.912   | Jun 2014   | -                                                                                     |            | 0.066           | Apr 2016   | -                                                                        |            | 0.066               | Continuing       | Continuing | Continuing               |
| LVSR ECP Development                                   | SS/FFP                 | Oshkosh Corp : Oshkosh, WI     | 0.000       | 1.050   | May 2015   | -                                                                                     |            | 0.065           | Apr 2016   | -                                                                        |            | 0.065               | -                | 1.115      | -                        |
| Prior Years Cumulative Funding                         | C/FFP                  | Various : Various              | 17.398      | -       |            | -                                                                                     |            | -               |            | -                                                                        |            | -                   | -                | 17.398     | -                        |
| Subtotal                                               |                        |                                | 18.282      | 1.962   |            | -                                                                                     |            | 0.131           |            | -                                                                        |            | 0.131               | -                | -          | -                        |
| Support (\$ in Millions)                               |                        |                                |             | FY 2014 |            | FY 2015                                                                               |            | FY 2016<br>Base |            | FY 2016<br>OCO                                                           |            | FY 2016<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 |
| LVSR Engineer Change Support                           | SS/FFP                 | Oshkosh Corp : Oshkosh, WI     | 0.743       | -       | Jun 2014   | -                                                                                     |            | 0.065           | May 2016   | -                                                                        |            | 0.065               | Continuing       | Continuing | Continuing               |
| Modeling & Simulation                                  | Reqn                   | NSWC : Indian Head, MD         | 0.000       | 0.024   | Jun 2014   | -                                                                                     |            | -               |            | -                                                                        |            | -                   | -                | 0.024      | -                        |
| LVSR Safety Support                                    | WR                     | ARL : Aberdeen, MD             | 0.000       | 0.027   | Jul 2014   | -                                                                                     |            | 0.065           | Jun 2016   | -                                                                        |            | 0.065               | -                | 0.092      | -                        |
| Prior Years Cumulative Funding                         | Various                | Various : Various              | 1.648       | -       |            | -                                                                                     |            | -               |            | -                                                                        |            | -                   | -                | 1.648      | -                        |
| Subtotal                                               |                        |                                | 2.391       | 0.051   |            | -                                                                                     |            | 0.130           |            | -                                                                        |            | 0.130               | -                | -          | -                        |
| Test and Evaluation (\$ in Millions)                   |                        |                                |             | FY 2014 |            | FY 2015                                                                               |            | FY 2016<br>Base |            | FY 2016<br>OCO                                                           |            | FY 2016<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 |
| LVSR ECP Testing                                       | SS/FFP                 | Oshkosh Corp : Oshkosh, WI     | 1.422       | 0.066   | Jun 2014   | -                                                                                     |            | -               |            | -                                                                        |            | -                   | -                | 1.488      | -                        |
| LVSR Safety Testing                                    | SS/FFP                 | Oshkosh Corp : Oshkosh, WI     | 0.000       | 0.133   | Aug 2014   | -                                                                                     |            | -               |            | -                                                                        |            | -                   | -                | 0.133      | -                        |
| LVSR ECP Testing                                       | MIPR                   | ATC : Aberdeen, MD             | 0.000       | -       |            | 0.385                                                                                 | Oct 2015   | -               |            | -                                                                        |            | -                   | -                | 0.385      | -                        |

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| <b>Exhibit R-3, RDT&amp;E Project Cost Analysis: PB 2016 Navy</b> |                                   |                                           |                    |                |                   |                                                                                           |                   |                     |                   |                                                                              |                   |                      | <b>Date:</b> February 2015 |                   |                                 |
| <b>Appropriation/Budget Activity</b><br>1319 / 7                  |                                   |                                           |                    |                |                   | <b>R-1 Program Element (Number/Name)</b><br>PE 0206624M / Marine Corps Cmbt Services Supt |                   |                     |                   | <b>Project (Number/Name)</b><br>0201 / Logistical Veh Sys Replacement (LVSR) |                   |                      |                            |                   |                                 |
| <b>Test and Evaluation (\$ in Millions)</b>                       |                                   |                                           |                    | <b>FY 2014</b> |                   | <b>FY 2015</b>                                                                            |                   | <b>FY 2016 Base</b> |                   | <b>FY 2016 OCO</b>                                                           |                   | <b>FY 2016 Total</b> |                            |                   |                                 |
| <b>Cost Category Item</b>                                         | <b>Contract Method &amp; Type</b> | <b>Performing Activity &amp; Location</b> | <b>Prior Years</b> | <b>Cost</b>    | <b>Award Date</b> | <b>Cost</b>                                                                               | <b>Award Date</b> | <b>Cost</b>         | <b>Award Date</b> | <b>Cost</b>                                                                  | <b>Award Date</b> | <b>Cost</b>          | <b>Cost To Complete</b>    | <b>Total Cost</b> | <b>Target Value of Contract</b> |
| Prior Years Cumulative Funding                                    | Various                           | Various : Various                         | 11.004             | -              |                   | -                                                                                         |                   | -                   |                   | -                                                                            |                   | -                    | -                          | 11.004            | -                               |
| <b>Subtotal</b>                                                   |                                   |                                           | 12.426             | 0.199          |                   | 0.385                                                                                     |                   | -                   |                   | -                                                                            |                   | -                    | -                          | 13.010            | -                               |
| <b>Management Services (\$ in Millions)</b>                       |                                   |                                           |                    | <b>FY 2014</b> |                   | <b>FY 2015</b>                                                                            |                   | <b>FY 2016 Base</b> |                   | <b>FY 2016 OCO</b>                                                           |                   | <b>FY 2016 Total</b> |                            |                   |                                 |
| <b>Cost Category Item</b>                                         | <b>Contract Method &amp; Type</b> | <b>Performing Activity &amp; Location</b> | <b>Prior Years</b> | <b>Cost</b>    | <b>Award Date</b> | <b>Cost</b>                                                                               | <b>Award Date</b> | <b>Cost</b>         | <b>Award Date</b> | <b>Cost</b>                                                                  | <b>Award Date</b> | <b>Cost</b>          | <b>Cost To Complete</b>    | <b>Total Cost</b> | <b>Target Value of Contract</b> |
| Prior Years Cumulative Funding                                    | Various                           | Various : Various                         | 2.947              | -              |                   | -                                                                                         |                   | -                   |                   | -                                                                            |                   | -                    | -                          | 2.947             | -                               |
| <b>Subtotal</b>                                                   |                                   |                                           | 2.947              | -              |                   | -                                                                                         |                   | -                   |                   | -                                                                            |                   | -                    | -                          | 2.947             | -                               |
|                                                                   |                                   |                                           | <b>Prior Years</b> | <b>FY 2014</b> |                   | <b>FY 2015</b>                                                                            |                   | <b>FY 2016 Base</b> |                   | <b>FY 2016 OCO</b>                                                           |                   | <b>FY 2016 Total</b> | <b>Cost To Complete</b>    | <b>Total Cost</b> | <b>Target Value of Contract</b> |
| <b>Project Cost Totals</b>                                        |                                   |                                           | 36.046             | 2.212          |                   | 0.385                                                                                     |                   | 0.261               |                   | -                                                                            |                   | 0.261                | -                          | -                 | -                               |
| <b>Remarks</b>                                                    |                                   |                                           |                    |                |                   |                                                                                           |                   |                     |                   |                                                                              |                   |                      |                            |                   |                                 |

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|---------------------------------------------------|---------|----|----|----|---------|----|----|----|---------|----|----|---------------------------------------------------------------------------------------|---------|----|----|---------------------|---------|----|----|--------------------------------------------------------------------------|---------|----|----|----|---------|----|----|----|
| Exhibit R-4, RDT&E Schedule Profile: PB 2016 Navy |         |    |    |    |         |    |    |    |         |    |    |                                                                                       |         |    |    | Date: February 2015 |         |    |    |                                                                          |         |    |    |    |         |    |    |    |
| Appropriation/Budget Activity<br>1319 / 7         |         |    |    |    |         |    |    |    |         |    |    | R-1 Program Element (Number/Name)<br>PE 0206624M / Marine Corps Cmbt<br>Services Supt |         |    |    |                     |         |    |    | Project (Number/Name)<br>0201 / Logistical Veh Sys Replacement<br>(LVSR) |         |    |    |    |         |    |    |    |
| Proj 0201                                         | FY 2014 |    |    |    | FY 2015 |    |    |    | FY 2016 |    |    |                                                                                       | FY 2017 |    |    |                     | FY 2018 |    |    |                                                                          | FY 2019 |    |    |    | FY 2020 |    |    |    |
|                                                   | 1Q      | 2Q | 3Q | 4Q | 1Q      | 2Q | 3Q | 4Q | 1Q      | 2Q | 3Q | 4Q                                                                                    | 1Q      | 2Q | 3Q | 4Q                  | 1Q      | 2Q | 3Q | 4Q                                                                       | 1Q      | 2Q | 3Q | 4Q | 1Q      | 2Q | 3Q | 4Q |
|                                                   | Safety  |    |    |    |         |    |    |    |         |    |    |                                                                                       |         |    |    |                     |         |    |    |                                                                          |         |    |    |    |         |    |    |    |
|                                                   | ECP     |    |    |    |         |    |    |    |         |    |    |                                                                                       |         |    |    |                     |         |    |    |                                                                          |         |    |    |    |         |    |    |    |
|                                                   |         |    |    |    |         |    |    |    | Testing |    |    |                                                                                       |         |    |    |                     |         |    |    |                                                                          |         |    |    |    |         |    |    |    |
|                                                   |         |    |    |    |         |    |    |    |         |    |    |                                                                                       |         |    |    |                     |         |    |    |                                                                          |         |    |    |    |         |    |    |    |
|                                                   |         |    |    |    |         |    |    |    |         |    |    |                                                                                       |         |    |    |                     |         |    |    |                                                                          |         |    |    |    |         |    |    |    |
|                                                   |         |    |    |    |         |    |    |    |         |    |    |                                                                                       |         |    |    |                     |         |    |    |                                                                          |         |    |    |    |         |    |    |    |
|                                                   |         |    |    |    |         |    |    |    |         |    |    |                                                                                       |         |    |    |                     |         |    |    |                                                                          |         |    |    |    |         |    |    |    |
|                                                   |         |    |    |    |         |    |    |    |         |    |    |                                                                                       |         |    |    |                     |         |    |    |                                                                          |         |    |    |    |         |    |    |    |
| 2016PB - 0206624M - 0201                          |         |    |    |    |         |    |    |    |         |    |    |                                                                                       |         |    |    |                     |         |    |    |                                                                          |         |    |    |    |         |    |    |    |

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| <b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2016 Navy |                                                                                                  | <b>Date:</b> February 2015                                                          |
| <b>Appropriation/Budget Activity</b><br>1319 / 7              | <b>R-1 Program Element (Number/Name)</b><br>PE 0206624M / <i>Marine Corps Cmbt Services Supt</i> | <b>Project (Number/Name)</b><br>0201 / <i>Logistical Veh Sys Replacement (LVSR)</i> |

Schedule Details

| Events by Sub Project   | Start   |      | End     |      |
|-------------------------|---------|------|---------|------|
|                         | Quarter | Year | Quarter | Year |
| <b><i>Proj 0201</i></b> |         |      |         |      |
| Safety Mod Development  | 1       | 2014 | 4       | 2020 |
| ECP Development         | 1       | 2014 | 4       | 2020 |
| Stability Testing       | 1       | 2016 | 3       | 2016 |

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| Exhibit R-2A, RDT&E Project Justification: PB 2016 Navy |                |         |         |                 |                                                                                       |                  |         |         |                                                                  | Date: February 2015 |                     |               |
|---------------------------------------------------------|----------------|---------|---------|-----------------|---------------------------------------------------------------------------------------|------------------|---------|---------|------------------------------------------------------------------|---------------------|---------------------|---------------|
| Appropriation/Budget Activity<br>1319 / 7               |                |         |         |                 | R-1 Program Element (Number/Name)<br>PE 0206624M / Marine Corps Cmbt<br>Services Supt |                  |         |         | Project (Number/Name)<br>2316 / Combat Service Support Eng Equip |                     |                     |               |
| COST (\$ in Millions)                                   | Prior<br>Years | FY 2014 | FY 2015 | FY 2016<br>Base | FY 2016<br>OCO                                                                        | FY 2016<br>Total | FY 2017 | FY 2018 | FY 2019                                                          | FY 2020             | Cost To<br>Complete | Total<br>Cost |
| 2316: Combat Service Support<br>Eng Equip               | 55.355         | 10.217  | 7.271   | 4.655           | -                                                                                     | 4.655            | 6.431   | 8.118   | 7.416                                                            | 7.563               | Continuing          | Continuing    |
| Quantity of RDT&E Articles                              |                | -       | -       | -               | -                                                                                     | -                | -       | -       | -                                                                | -                   |                     |               |

## A. Mission Description and Budget Item Justification

The M1A1 Mod Kit effort includes improvements in all areas of the M1A1 main battle tank and the Armored Vehicle Launched Bridge (AVLB). The M1A1 tank provides armor protected firepower to the USMC ground combat element. Efforts under the mod line pertaining to the M1A1 include improvements such as lethality systems to increase armament accuracy, increase the crew's situational awareness through sensor enhancements and intra-vehicular data sharing, providing for off-board targeting improvement, and environmental testing of components. The AVLB provides the Marine Corps only armor-protected assault gap crossing capability. Continued funding is required to address obsolescence and address operational deficiencies to adapt the tank and AVLB to a changing operational environment and support user-defined product improvements. These improvements directly address Marine Corps Lessons Learned, after action reports, and will ensure maximum survivability, sustainability, and readiness. Funds decreased from FY15 to FY16 to support the original acquisition strategy to defer all new modernization and obsolescence mitigation efforts until after completion of current development projects.

Route Reconnaissance and Clearance (R2C) is an incremental development project to enhance the capabilities of the R2C systems, a family of systems fielded in support of Operation Iraqi Freedom (OIF) via the Urgent Needs Statement (UNS) process. This research and development effort will integrate future vehicles, robots, and associated equipment to provide standoff detection, marking, and neutralization of Explosive Hazards such as mines and Improvised Explosive Devices (IEDs). Enhancements for R2C will provide capabilities not found in the current inventory to defeat explosive hazards and will protect Marines and equipment while conducting route and area clearance operations. The integration of the next generation of armored security and support vehicles, Vehicle Mounted Mine Detectors (VMMDs), specialized robots, and a new suite of detection, marking, and neutralization systems will enable maneuver commanders to make timely and informed decisions in avoiding or neutralizing explosive hazards that impede their missions. Multiple detection and marking capabilities will detect a broader spectrum of explosive hazards and achieve higher overall effectiveness rates, while standoff and remote-controlled detection, marking, and neutralization capabilities will enhance force protection and system survivability. Operational speeds and rates will increase, which will better support the maneuver force operational tempo. This program does not have funding beyond FY2014.

The Engineer Mods and Tool Kits line funds modifications and initiatives which are required to address operational priorities, engineering change proposals, safety concerns, support equipment inefficiencies, product quality deficiencies and other issues that affect vehicle reliability, availability and readiness. This approach ensures proper vehicle sustainment and life cycle management in response to evolving needs of the Marine Corps fleet. Operational needs to provide personnel survivability on engineer equipment is essential to current and future operations. Research and development funding develops and integrates new lighter, compact armor technology and supports ballistic testing for applications to existing and future acquisitions.

Corrosion Prevention and Control (CPAC): The useful life of Marine Corps assets will be extended through a comprehensive CPAC RDT&E program aimed at identifying and certifying new corrosion control products, materials, processes and procedures for legacy and new acquisition. The CPAC RDT&E Program works to standardize

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| Exhibit R-2A, RDT&E Project Justification: PB 2016 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |  |                                                                                    | Date: February 2015 |                                                                  |         |              |             |               |
| Appropriation/Budget Activity<br>1319 / 7                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |  | R-1 Program Element (Number/Name)<br>PE 0206624M / Marine Corps Cmbt Services Supt |                     | Project (Number/Name)<br>2316 / Combat Service Support Eng Equip |         |              |             |               |
| and substantially improve strategies, objectives and processes to prevent, detect, and treat corrosion and its effects on Marine Corps ground vehicles and weapons systems. This mission responds to the Congressional directives and DoD and SECNAV instruction to reduce the negative operational effects and associated total ownership cost of Marine Corps ground vehicles and weapons systems.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  |                                                                                    |                     |                                                                  |         |              |             |               |
| The Mine Resistant Ambush Protected (MRAP) Family of Vehicles (FoV) provides tactical mobility for Warfighters with multi-mission vehicles designed to support urgent operational needs and protect personnel from the effects of improvised explosive devices (IEDs), underbody mines, and small arms fire threats. Five vehicle categories (CATs) have been tested, procured, fielded and sustained: Category I - Urban combat operations, ambulance. Category II - Multi-mission ops-convoy lead, troop transport, ambulance, utility vehicle. Category III - Mine/IED clearance ops, explosive ordnance disposal. MRAP All Terrain Vehicle (M-ATV) - Combat operations (ops) in rural, mountainous, urban terrain. Other Protected Vehicles- Specialty mission or unique configuration. Provides the same threshold ballistic, mine and IED protection as other MRAP vehicles. Includes the MRAP Recovery Vehicle (MRV) variant. Operational needs to provide personnel survivability is essential to current and future operations. Research and development funding develops and integrates new armor technology and supports ballistic testing. Decrease in funding from FY14 to FY15 reflects the adjustment of priorities for research and development to integrate and test new armor technology. |  |                                                                                    |                     |                                                                  |         |              |             |               |
| B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |                                                                                    |                     | FY 2014                                                          | FY 2015 | FY 2016 Base | FY 2016 OCO | FY 2016 Total |
| <b>Title:</b> Engineer Mods and Tool Kits<br><br><b>Articles:</b><br><br><b>FY 2014 Accomplishments:</b><br>Continued Ballistic and Add-on-Armor applications for Extended Boom Forklift in support of the Engineer Family of Systems.<br><br><b>FY 2015 Plans:</b><br>Initiate support work for Matting applications in support of the Engineer Family of Systems.<br><br><b>FY 2016 Base Plans:</b><br>Continue support work for Matting applications in support of the Engineer Family of Systems<br><br><b>FY 2016 OCO Plans:</b><br>N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  |                                                                                    |                     | 0.344                                                            | 0.254   | 0.634        | -           | 0.634         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |                                                                                    |                     | -                                                                | -       | -            | -           | -             |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |                                                                                    |                     |                                                                  |         |              |             |               |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |                                                                                    |                     |                                                                  |         |              |             |               |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |                                                                                    |                     |                                                                  |         |              |             |               |
| <b>Title:</b> M1A1 Modifications<br><br><b>Articles:</b><br><br><b>FY 2014 Accomplishments:</b><br>Continued to identify and develop upgrades to the M1A1 turret to include obsolescence mitigation, lethality, and survivability enhancement and evaluate broader platform modernization needs. Specifically, the preliminary research and development for the Abrams Integrated Target and Display System (AIDATS) upgrade commenced. This upgrade allows the tank commander to accurately identify and engage targets under all                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |                                                                                    |                     | 3.166                                                            | 3.911   | 1.084        | -           | 1.084         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |                                                                                    |                     | -                                                                | -       | -            | -           | -             |

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| Exhibit R-2A, RDT&E Project Justification: PB 2016 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  |                                                                                       |         | Date: February 2015                                              |                |                  |
| Appropriation/Budget Activity<br>1319 / 7                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  | R-1 Program Element (Number/Name)<br>PE 0206624M / Marine Corps Cmbt<br>Services Supt |         | Project (Number/Name)<br>2316 / Combat Service Support Eng Equip |                |                  |
| B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |  | FY 2014                                                                               | FY 2015 | FY 2016<br>Base                                                  | FY 2016<br>OCO | FY 2016<br>Total |
| visibility conditions at ranges approaching the full capability of the tank commander's weapon system; thereby, reducing the risk of fratricide and collateral damage. Additionally, the Slew-to-Cue upgrade that will allow the tank commander to automatically traverse the main gun to the same azimuth and elevation as the Stabilized Comander's Weapons Station (SCWS) sight with a single push of a button was continued and the Forward Observer/Forward Air Controller Modificaiton for satellite communication on the move began.<br><br><b>FY 2015 Plans:</b><br>Continue to identify and develop upgrades to the M1A1 turret to include obsolescence mitigation, lethality, and survivability enhancement and evaluate broader platform modernization needs.<br><br><b>FY 2016 Base Plans:</b><br>Complete the research and development effort for AIDATS and begin other development efforts such as the Radio Communication Integration upgrade.<br><br><b>FY 2016 OCO Plans:</b><br>N/A |  |                                                                                       |         |                                                                  |                |                  |
| <b>Title:</b> Route Reconnaissance and Clearance (R2C):<br><br><b>Articles:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  | 2.544<br>-                                                                            | -<br>-  | -<br>-                                                           | -<br>-         | -<br>-           |
| <b>FY 2014 Accomplishments:</b><br>Completed development and testing of the Unmanned Launch Vehicle (ULV) and Electronically Triggered Explosive Obstacle Neutralization (ETEON) integrations.<br><br><b>FY 2015 Plans:</b><br>N/A<br><br><b>FY 2016 Base Plans:</b><br>N/A<br><br><b>FY 2016 OCO Plans:</b><br>N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |  |                                                                                       |         |                                                                  |                |                  |
| <b>Title:</b> Mine Resistant Ambush Protected Family of Vehicles<br><br><b>Articles:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  | 2.200<br>-                                                                            | -<br>-  | 0.126<br>-                                                       | -<br>-         | 0.126<br>-       |
| <b>FY 2014 Accomplishments:</b><br>-Initiated ballistic testing and engineering support efforts on Cougar Egress and Seat Solution upgrades in support of Urgent Universal Needs Statement/Joint Urgent Operational Needs Statement (UUNS/JUONS).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |  |                                                                                       |         |                                                                  |                |                  |

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| Exhibit R-2A, RDT&E Project Justification: PB 2016 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |  |                                                                                    |            | Date: February 2015                                              |             |               |
| Appropriation/Budget Activity<br>1319 / 7                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |  | R-1 Program Element (Number/Name)<br>PE 0206624M / Marine Corps Cmbt Services Supt |            | Project (Number/Name)<br>2316 / Combat Service Support Eng Equip |             |               |
| B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  | FY 2014                                                                            | FY 2015    | FY 2016 Base                                                     | FY 2016 OCO | FY 2016 Total |
| -Initiated other research and development efforts associated with Engineering Change Proposals (ECP) such as survivability and mobility upgrades.<br><br><b>FY 2015 Plans:</b><br>N/A<br><br><b>FY 2016 Base Plans:</b><br>Continue research and development efforts associated with Engineering Change Proposals (ECP) such as survivability and mobility upgrades.<br><br><b>FY 2016 OCO Plans:</b><br>N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |  |                                                                                    |            |                                                                  |             |               |
| <b>Title:</b> Corrosion Prevention and Control (CPAC)<br><br><b>Articles:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  | 1.963<br>-                                                                         | 3.106<br>- | 2.811<br>-                                                       | -<br>-      | 2.811<br>-    |
| <b>FY 2014 Accomplishments:</b><br>Continued to identify new corrosion control products, materials, processes and procedures and continued to impact Marine Corps corrosion control processes through Science and Technology initiatives in some of the following areas: Thermally Sprayed Metal Coatings (TSMC) for Corrosion Protection of Areas Subject to Wear, Compatibility of Chemical Agent Resistant Coating (CARC) Systems During Re-Paint, Chip Resistant, Flexible Nonslip Coatings and Corrosion Resistant Insulating Foams. Along with stewardship of the Corrosion Products, Processes and Materials project for vendor submissions to the Marine Corps and product qualification for chip and abrasion resistant coatings.<br><br><b>FY 2015 Plans:</b><br>Continue and increase the identification of new corrosion control products, materials, processes and procedures and continues to impact Marine Corps corrosion control processes through Science and Technology initiatives in some of the following areas: Thermally Sprayed Metal Coatings (TSMC) for Corrosion Protection of Areas Subject to Wear, Compatibility of Chemical Agent Resistant Coating (CARC) Systems During Re-Paint, Chip Resistant, Flexible Nonslip Coatings and Corrosion Resistant Insulating Foams. Along with stewardship of the Corrosion Products, Processes and Materials project for vendor submissions to the Marine Corps and product qualification for chip and abrasion resistant coatings.<br><br><b>FY 2016 Base Plans:</b><br>Continue and increase the identification of new corrosion control products, materials, processes and procedures that impact Marine Corps corrosion control processes through Science and Technology initiatives in some of the |  |                                                                                    |            |                                                                  |             |               |

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| Exhibit R-2A, RDT&E Project Justification: PB 2016 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |         |         |                 |                                                                                       |                  |         |         |                                                                  | Date: February 2015 |                     |                |                  |
| Appropriation/Budget Activity<br>1319 / 7                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |         |         |                 | R-1 Program Element (Number/Name)<br>PE 0206624M / Marine Corps Cmbt<br>Services Supt |                  |         |         | Project (Number/Name)<br>2316 / Combat Service Support Eng Equip |                     |                     |                |                  |
| B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |         |         |                 |                                                                                       |                  |         |         | FY 2014                                                          | FY 2015             | FY 2016<br>Base     | FY 2016<br>OCO | FY 2016<br>Total |
| following areas: Thermally Sprayed Metal Coatings (TSMC) for Corrosion Protection of Areas Subject to Wear, Compatibility of Chemical Agent Resistant Coating (CARC) Systems During Re-Paint, Chip Resistant, Flexible Nonslip Coatings and Corrosion Resistant Insulating Foams. Along with stewardship of the Corrosion Products, Processes and Materials project for vendor submissions to the Marine Corps and product qualification for chip and abrasion resistant coatings and other Corrosion Prevention Compounds that retard/arrest corrosion.                                                                                                                                                     |         |         |                 |                                                                                       |                  |         |         |                                                                  |                     |                     |                |                  |
| FY 2016 OCO Plans:<br>N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |         |         |                 |                                                                                       |                  |         |         |                                                                  |                     |                     |                |                  |
| Accomplishments/Planned Programs Subtotals                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |         |         |                 |                                                                                       |                  |         |         | 10.217                                                           | 7.271               | 4.655               | -              | 4.655            |
| C. Other Program Funding Summary (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |         |         |                 |                                                                                       |                  |         |         |                                                                  |                     |                     |                |                  |
| Line Item                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | FY 2014 | FY 2015 | FY 2016<br>Base | FY 2016<br>OCO                                                                        | FY 2016<br>Total | FY 2017 | FY 2018 | FY 2019                                                          | FY 2020             | Cost To<br>Complete | Total Cost     |                  |
| • PMC/6520-01: EOD Systems<br>- Route Reconnaissance<br>& Clearance (R2C)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 44.121  | -       | -               | -                                                                                     | -                | -       | -       | -                                                                | -                   | -                   | 288.678        |                  |
| • PMC/6670: Items Less than \$5M<br>- CPAC & Eng Mods & Tool Kits                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 6.509   | 4.272   | 4.322           | -                                                                                     | 4.322            | 4.386   | 4.440   | 4.675                                                            | 4.770               | Continuing          | Continuing     |                  |
| • PMC/2061: M1A1 Modification Kit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 32.121  | 18.406  | 11.827          | -                                                                                     | 11.827           | 12.700  | 14.949  | 15.267                                                           | 15.365              | Continuing          | Continuing     |                  |
| • PMC/6520-02: EOD<br>Systems - MRAP                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | -       | 0.245   | 0.047           | -                                                                                     | 0.047            | 0.349   | 1.157   | 1.219                                                            | 1.243               | Continuing          | Continuing     |                  |
| • PMC/7000: M1A1 Modification Kit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | -       | -       | 2.090           | -                                                                                     | 2.090            | 2.514   | 0.364   | -                                                                | -                   | -                   | 4.968          |                  |
| Remarks                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |         |         |                 |                                                                                       |                  |         |         |                                                                  |                     |                     |                |                  |
| D. Acquisition Strategy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |         |         |                 |                                                                                       |                  |         |         |                                                                  |                     |                     |                |                  |
| (U) The M1A1 modification kits program will leverage Army initiatives to the maximum extent and incorporate modifications to adapt Army solutions to the USMC environment. The USMC will research, develop, and evaluate programs to improve the survivability and lethality of the USMC tank. These efforts include the Abrams integrated Display and Targeting System, threat detection and warning, situational awareness, survivability, and ownership cost reduction work. M1A1 Mods will exercise options on existing contracts of varying types to conduct research and analysis associated with the development of modifications and corrosion prevention to the M1A1 Tank and supporting platforms. |         |         |                 |                                                                                       |                  |         |         |                                                                  |                     |                     |                |                  |
| (U) Route Reconnaissance and Clearance (R2C): Starting in FY10, the Marine Corps began to procure a fleet of standardized Route Reconnaissance and Clearance systems based upon the successful route clearance teams operating in Iraq using Capabilities Production Documents for current systems and leveraging contracts                                                                                                                                                                                                                                                                                                                                                                                  |         |         |                 |                                                                                       |                  |         |         |                                                                  |                     |                     |                |                  |

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|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------|
| <b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                  | <b>Date:</b> February 2015                                                     |
| <b>Appropriation/Budget Activity</b><br>1319 / 7                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | <b>R-1 Program Element (Number/Name)</b><br>PE 0206624M / <i>Marine Corps Cmbt Services Supt</i> | <b>Project (Number/Name)</b><br>2316 / <i>Combat Service Support Eng Equip</i> |
| <p>already in place. Concurrently, supports a research and development effort to integrate future vehicles with enhanced mobility and survivability, a suite of improved detection and marking capabilities, and robots with greater detection, marking, and neutralization capabilities. As a result of adjustments to Marine Corps fiscal priorities the R2C program has been terminated. This program does not have funding beyond FY14.</p> <p>(U) Engineer Mods and Tool Kits: This is a roll-up line of various engineering efforts, modifications and other related items less than \$5 Million each. This program provides for significant improvements to various pieces of engineering equipment by enhancing their capabilities and improving readiness.</p> <p>(U) Corrosion Prevention and Control (CPAC) Program: The Program will execute the RDT&amp;E Program through direct allocation of funding to the Naval Surface Warfare Center - Carderock Division Corrosion Research and Engineering Branch for a comprehensive program aimed at identifying and certifying new corrosion control products, materials, processes and procedures for legacy and new acquisition.</p> <p>(U) Mine Resistant Ambush Protected (MRAP): The Program will execute RDT&amp;E funds in support of research and development efforts associated with Engineering Change Proposals (ECP) for survivability and mobility upgrades such as the Cougar Egress and Seat Survivability testing.</p> <p><b><u>E. Performance Metrics</u></b><br/>N/A</p> |                                                                                                  |                                                                                |

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|                                                        |                        |                                        |             |         |            |                                                                                       |            |                 |            |                                                                  |            |                     |                  |            |                          |
|--------------------------------------------------------|------------------------|----------------------------------------|-------------|---------|------------|---------------------------------------------------------------------------------------|------------|-----------------|------------|------------------------------------------------------------------|------------|---------------------|------------------|------------|--------------------------|
| Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Navy |                        |                                        |             |         |            |                                                                                       |            |                 |            |                                                                  |            | Date: February 2015 |                  |            |                          |
| Appropriation/Budget Activity<br>1319 / 7              |                        |                                        |             |         |            | R-1 Program Element (Number/Name)<br>PE 0206624M / Marine Corps Cmbt<br>Services Supt |            |                 |            | Project (Number/Name)<br>2316 / Combat Service Support Eng Equip |            |                     |                  |            |                          |
| Product Development (\$ in Millions)                   |                        |                                        |             | FY 2014 |            | FY 2015                                                                               |            | FY 2016<br>Base |            | FY 2016<br>OCO                                                   |            | FY 2016<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 |
| M1A1 Modifications                                     | C/FFP                  | MCSC : Quantico, VA                    | 0.000       | -       |            | 2.980                                                                                 | Jan 2015   | -               |            | -                                                                |            | -                   | -                | 2.980      | -                        |
| MRAP Engineering                                       | WR                     | NSWC : Panama City, FL                 | 0.898       | 1.314   | Oct 2014   | -                                                                                     |            | 0.126           | Dec 2015   | -                                                                |            | 0.126               | Continuing       | Continuing | Continuing               |
| R2C-Increment II                                       | WR                     | SPAWAR : Charleston, SC                | 12.297      | 2.544   | Feb 2015   | -                                                                                     |            | -               |            | -                                                                |            | -                   | -                | 14.841     | -                        |
| M1A1 Modifications                                     | WR                     | SPAWAR : Charleston, SC                | 0.000       | 0.337   | Jan 2014   | -                                                                                     |            | 0.213           | Dec 2015   | -                                                                |            | 0.213               | -                | 0.550      | -                        |
| M1A1 Modifications                                     | MIPR                   | FORT BELVOIR : Ft Belvoir, VA          | 0.559       | 2.295   | Jan 2014   | -                                                                                     |            | -               |            | -                                                                |            | -                   | -                | 2.854      | -                        |
| M1A1 Modifications                                     | MIPR                   | TACOM : Warren, MI                     | 3.091       | 0.086   | Nov 2014   | 0.450                                                                                 | Mar 2015   | -               |            | -                                                                |            | -                   | -                | 3.627      | -                        |
| M1A1 Modifications                                     | MIPR                   | ABERDEEN PROVING GROUND : Aberdeen, MD | 2.610       | 0.378   | Dec 2013   | -                                                                                     |            | 0.250           | Dec 2015   | -                                                                |            | 0.250               | -                | 3.238      | -                        |
| M1A1 Modifications                                     | MIPR                   | BENET LABS : Watervliet, NY            | 0.847       | 0.070   | Nov 2013   | -                                                                                     |            | -               |            | -                                                                |            | -                   | -                | 0.917      | -                        |
| M1A1 Modifications                                     | MIPR                   | Picatinny Arsenal : Picatinny, NJ      | 1.174       | -       |            | -                                                                                     |            | 0.383           | Dec 2015   | -                                                                |            | 0.383               | -                | 1.557      | -                        |
| Prior Year Cumulative. Funding                         | Various                | VARIOUS : VARIOUS                      | 22.418      | -       |            | -                                                                                     |            | -               |            | -                                                                |            | -                   | -                | 22.418     | -                        |
| M1A1 Modifications                                     | MIPR                   | NVL : Fort Belvoir, VA                 | 0.000       | -       |            | 0.481                                                                                 | Jan 2015   | 0.238           | Jan 2016   | -                                                                |            | 0.238               | -                | 0.719      | -                        |
| Subtotal                                               |                        |                                        | 43.894      | 7.024   |            | 3.911                                                                                 |            | 1.210           |            | -                                                                |            | 1.210               | -                | -          | -                        |
| Support (\$ in Millions)                               |                        |                                        |             | FY 2014 |            | FY 2015                                                                               |            | FY 2016<br>Base |            | FY 2016<br>OCO                                                   |            | FY 2016<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 |
| Prior Year Cumulative Funding                          | Various                | Various : various                      | 0.300       | -       |            | -                                                                                     |            | -               |            | -                                                                |            | -                   | -                | 0.300      | -                        |
|                                                        |                        |                                        |             |         |            |                                                                                       |            |                 |            |                                                                  |            |                     |                  |            |                          |

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| Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Navy |                        |                                        |             |         |            |                                                                                    |            |              |            |                                                                  |            |               | Date: February 2015 |            |                          |
|--------------------------------------------------------|------------------------|----------------------------------------|-------------|---------|------------|------------------------------------------------------------------------------------|------------|--------------|------------|------------------------------------------------------------------|------------|---------------|---------------------|------------|--------------------------|
| Appropriation/Budget Activity<br>1319 / 7              |                        |                                        |             |         |            | R-1 Program Element (Number/Name)<br>PE 0206624M / Marine Corps Cmbt Services Supt |            |              |            | Project (Number/Name)<br>2316 / Combat Service Support Eng Equip |            |               |                     |            |                          |
| <b>Support (\$ in Millions)</b>                        |                        |                                        |             | FY 2014 |            | FY 2015                                                                            |            | FY 2016 Base |            | FY 2016 OCO                                                      |            | FY 2016 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 |
| CPAC                                                   | C/FFP                  | NSWC : Bethesda, MD                    | 0.000       | -       |            | 1.303                                                                              | Dec 2014   | 1.155        | Dec 2015   | -                                                                |            | 1.155         | -                   | 2.458      | -                        |
| <b>Subtotal</b>                                        |                        |                                        | 0.300       | -       |            | 1.303                                                                              |            | 1.155        |            | -                                                                |            | 1.155         | -                   | 2.758      | -                        |
| <b>Test and Evaluation (\$ in Millions)</b>            |                        |                                        |             | FY 2014 |            | FY 2015                                                                            |            | FY 2016 Base |            | FY 2016 OCO                                                      |            | FY 2016 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 |
| MRAP FoV Ballistic Evaluations                         | MIPR                   | ATC : Aberdeen, MD                     | 1.600       | 0.886   | Jun 2014   | -                                                                                  |            | -            |            | -                                                                |            | -             | -                   | 2.486      | -                        |
| Prior Year Cumulative Funding                          | Various                | Various : Various                      | 1.500       | -       |            | -                                                                                  |            | -            |            | -                                                                |            | -             | -                   | 1.500      | -                        |
| Engineer Modification Kits                             | MIPR                   | Aberdeen Proving Grounds : Aberdeen MD | 1.085       | 0.344   | Dec 2013   | 0.254                                                                              | Dec 2014   | 0.634        | Dec 2015   | -                                                                |            | 0.634         | Continuing          | Continuing | Continuing               |
| CPAC                                                   | WR                     | NSWC : Bethesda, MD                    | 6.589       | 1.963   | Dec 2013   | 1.303                                                                              | Nov 2014   | 1.156        | Dec 2015   | -                                                                |            | 1.156         | -                   | 11.011     | -                        |
| CPAC                                                   | WR                     | NRL : Arlington, VA                    | 0.387       | -       |            | 0.500                                                                              | Dec 2014   | 0.500        | Dec 2015   | -                                                                |            | 0.500         | -                   | 1.387      | -                        |
| <b>Subtotal</b>                                        |                        |                                        | 11.161      | 3.193   |            | 2.057                                                                              |            | 2.290        |            | -                                                                |            | 2.290         | -                   | -          | -                        |
|                                                        |                        |                                        | Prior Years | FY 2014 |            | FY 2015                                                                            |            | FY 2016 Base |            | FY 2016 OCO                                                      |            | FY 2016 Total | Cost To Complete    | Total Cost | Target Value of Contract |
| <b>Project Cost Totals</b>                             |                        |                                        | 55.355      | 10.217  |            | 7.271                                                                              |            | 4.655        |            | -                                                                |            | 4.655         | -                   | -          | -                        |
| <b>Remarks</b>                                         |                        |                                        |             |         |            |                                                                                    |            |              |            |                                                                  |            |               |                     |            |                          |

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PE 0206624M: *Marine Corps Cmbt Services Supt*  
Navy

R-1 Line #199

**R-1 Program Element (Number/Name)**  
PE 0206624M / Marine Corps Cmbt  
Services Supt

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| Proj 2316               |  | FY 2014            |    |          |    | FY 2015 |                    |          |    | FY 2016 |    |    |    | FY 2017 |    |    |    | FY 2018 |    |    |    | FY 2019 |    |    |    | FY 2020 |    |    |    |
|-------------------------|--|--------------------|----|----------|----|---------|--------------------|----------|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|
|                         |  | 1Q                 | 2Q | 3Q       | 4Q | 1Q      | 2Q                 | 3Q       | 4Q | 1Q      | 2Q | 3Q | 4Q | 1Q      | 2Q | 3Q | 4Q | 1Q      | 2Q | 3Q | 4Q | 1Q      | 2Q | 3Q | 4Q | 1Q      | 2Q | 3Q | 4Q |
| R2C                     |  |                    |    | SRR<br>◆ |    |         | TRR<br>◆           |          |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |
|                         |  |                    |    |          |    |         | LUE                |          |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |
|                         |  |                    |    |          |    |         | ENFIRE<br>ATO<br>▼ |          |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |
|                         |  |                    |    |          |    |         | CDR<br>◆           | SVR<br>◆ |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |
| MRAP Family of Vehicles |  | Upgrades & Eng Spt |    |          |    |         |                    |          |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |
|                         |  |                    |    |          |    |         |                    |          |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |
|                         |  |                    |    |          |    |         |                    |          |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |
|                         |  |                    |    |          |    |         |                    |          |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |
|                         |  |                    |    |          |    |         |                    |          |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |
|                         |  |                    |    |          |    |         |                    |          |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |
|                         |  |                    |    |          |    |         |                    |          |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |
|                         |  |                    |    |          |    |         |                    |          |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |
|                         |  |                    |    |          |    |         |                    |          |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |
|                         |  |                    |    |          |    |         |                    |          |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |
|                         |  |                    |    |          |    |         |                    |          |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |
|                         |  |                    |    |          |    |         |                    |          |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |
|                         |  |                    |    |          |    |         |                    |          |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |
|                         |  |                    |    |          |    |         |                    |          |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |
|                         |  |                    |    |          |    |         |                    |          |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |
|                         |  |                    |    |          |    |         |                    |          |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |
|                         |  |                    |    |          |    |         |                    |          |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |
|                         |  |                    |    |          |    |         |                    |          |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |
|                         |  |                    |    |          |    |         |                    |          |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |
|                         |  |                    |    |          |    |         |                    |          |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |
|                         |  |                    |    |          |    |         |                    |          |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |
|                         |  |                    |    |          |    |         |                    |          |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |
|                         |  |                    |    |          |    |         |                    |          |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |
|                         |  |                    |    |          |    |         |                    |          |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |
|                         |  |                    |    |          |    |         |                    |          |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |
|                         |  |                    |    |          |    |         |                    |          |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |
|                         |  |                    |    |          |    |         |                    |          |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |
|                         |  |                    |    |          |    |         |                    |          |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |
|                         |  |                    |    |          |    |         |                    |          |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |
|                         |  |                    |    |          |    |         |                    |          |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |
|                         |  |                    |    |          |    |         |                    |          |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |
|                         |  |                    |    |          |    |         |                    |          |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |
|                         |  |                    |    |          |    |         |                    |          |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |
|                         |  |                    |    |          |    |         |                    |          |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |
|                         |  |                    |    |          |    |         |                    |          |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |
|                         |  |                    |    |          |    |         |                    |          |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |
|                         |  |                    |    |          |    |         |                    |          |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |
|                         |  |                    |    |          |    |         |                    |          |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |
|                         |  |                    |    |          |    |         |                    |          |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |
|                         |  |                    |    |          |    |         |                    |          |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |

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| <b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2016 Navy |                                                                                                  |                                                                                | <b>Date:</b> February 2015 |
| <b>Appropriation/Budget Activity</b><br>1319 / 7              | <b>R-1 Program Element (Number/Name)</b><br>PE 0206624M / <i>Marine Corps Cmbt Services Supt</i> | <b>Project (Number/Name)</b><br>2316 / <i>Combat Service Support Eng Equip</i> |                            |

**Schedule Details**

| Events by Sub Project                                                                         | Start   |      | End     |      |
|-----------------------------------------------------------------------------------------------|---------|------|---------|------|
|                                                                                               | Quarter | Year | Quarter | Year |
| <b>Proj 2316</b>                                                                              |         |      |         |      |
| R2C: System Readiness Review                                                                  | 4       | 2014 | 4       | 2014 |
| R2C: Technical Readiness Review                                                               | 3       | 2015 | 3       | 2015 |
| R2C: Limited User Evaluation                                                                  | 3       | 2015 | 4       | 2015 |
| R2C: ENFIRE Authority to Operate                                                              | 3       | 2015 | 3       | 2015 |
| R2C: Critical Design Review                                                                   | 3       | 2015 | 3       | 2015 |
| R2C: System Verification Review                                                               | 4       | 2015 | 4       | 2015 |
| MRAP Family of Vehicles: Survivability and Mobility Upgrade Ballistic and Engineering Support | 1       | 2014 | 1       | 2020 |

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| Exhibit R-2A, RDT&E Project Justification: PB 2016 Navy |                |         |         |                 |                                                                                       |                  |         |         |                                                     | Date: February 2015 |                     |               |
|---------------------------------------------------------|----------------|---------|---------|-----------------|---------------------------------------------------------------------------------------|------------------|---------|---------|-----------------------------------------------------|---------------------|---------------------|---------------|
| Appropriation/Budget Activity<br>1319 / 7               |                |         |         |                 | R-1 Program Element (Number/Name)<br>PE 0206624M / Marine Corps Cmbt<br>Services Supt |                  |         |         | Project (Number/Name)<br>2509 / Motor Transport Mod |                     |                     |               |
| COST (\$ in Millions)                                   | Prior<br>Years | FY 2014 | FY 2015 | FY 2016<br>Base | FY 2016<br>OCO                                                                        | FY 2016<br>Total | FY 2017 | FY 2018 | FY 2019                                             | FY 2020             | Cost To<br>Complete | Total<br>Cost |
| 2509: Motor Transport Mod                               | 37.066         | 2.776   | 6.978   | 2.064           | -                                                                                     | 2.064            | 1.595   | 1.208   | 1.224                                               | 1.249               | Continuing          | Continuing    |
| Quantity of RDT&E Articles                              |                | -       | -       | -               | -                                                                                     | -                | -       | -       | -                                                   | -                   |                     |               |

## A. Mission Description and Budget Item Justification

The Marine Corps Tactical Motor Transport Modification project manages procurement and life cycle sustainment for more than 40,000 principle end items divided among four fleets: Light Fleet, Medium Fleet, Heavy Fleet, and Special Fleet. A sustained effort is maintained in the Marine Corps for development and testing in support of fleet Service Life Extension Program (SLEP) initiatives, vehicle quality deficiency resolutions, safety initiatives, environmental/state transportation mandated vehicle changes, and system component refresh modifications efforts. Since transportation asset operational availability declines at a steady rate over time, SLEP, fleet overhauls, and enhanced depot level modifications are essential in maintaining a viable transportation capability in the Marine Corps Operating Forces.

The Improved Recovery Vehicle (IRV) project includes improvements in all areas of the M88A2 Improved Recovery Vehicle. Continued funding is required to address obsolescence and support pre-planned product improvements. In addition, lessons learned will be implemented and used to develop safety related Engineering Change Proposals (ECPs) to correct hazards noted during the standard day to day operation of the M88A2 Improved Recovery Vehicle.

The HMMWV Sustainment Modification Initiative (SMI) program was cancelled effective FY 2016. FY 2015 funding will support engineering studies and analysis to evaluate the vehicle performance, safety and reliability. This program does not have funding beyond FY15. Future Legacy HMMWV improvements and sustainment efforts will be funded in the Motor Transport Modification project.

The Material Handling Equipment (MHE) line is a roll-up line that provides for the replacement and Service Life Extension Program (SLEP) of Marine Corps MHE including forklifts, cranes, and container handlers. Funds will be used to explore techniques and technology to help survivability of the various platforms while also working to help sustain reliability and performance of the equipment.

The Family of Construction Equipment (FCE) line is a roll-up line that provides for the replacement and Service Life Extension Program (SLEP) of Marine Corps construction equipment. Funds will be used for Ballistic and Add on Armor (AoA) application tests and integration into the Engineer Family of Systems construction equipment. This program does not have funding beyond FY15.

P-19 Replacement (P-19R) will replace the aging A/S32P-19A Crash Fire Rescue fleet in support of expeditionary airfield operations and the supporting establishment. The vehicle will be outfitted with advanced fire suppression equipment and provide rescue and aircraft fire fighting capabilities to permanent and expeditionary airfields throughout the Marine Corps. The P-19 Replacement may also be employed to fight structure fires in support of base camps and as firefighting support to other elements of the Marine Air Ground Task Force, such as ammunition supply points, Petroleum, Oil, and Lubricant (POL) distribution points, or hazardous material storage facilities. The decrease in funding from FY15 to FY16 is due to program entering production phase.

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| Exhibit R-2A, RDT&E Project Justification: PB 2016 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  |                                                                                    | Date: February 2015 |                                                     |         |              |             |               |
| Appropriation/Budget Activity<br>1319 / 7                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  | R-1 Program Element (Number/Name)<br>PE 0206624M / Marine Corps Cmbt Services Supt |                     | Project (Number/Name)<br>2509 / Motor Transport Mod |         |              |             |               |
| <p>The Medium Tactical Vehicle Replacement (MTVR) Trailer program explored options for "lightening the Marine Air Ground Task Force (MAGTF)" weight and cube attributes of the medium trailer fleet and sought technologies and other current and emerging options to be employed to achieve optimum lift capability while constrained to the desired weight and cube. Transportation and expeditionary goals were considered in the research and development phase for the trailer fleet. The MTVR Trailer program is a USMC initiative to replace the current M105/MK149/M353 Trailers with a trailer capable of augmenting the MTVR's increased mobility without degrading its operational capabilities. This program will develop and field a trailer which will have greater mobility characteristics while increasing the payload up to 11,500 lbs. MTVR Trailer funding ended in FY14 and will transition to the Family of Tactical Trailers program in FY16.</p> <p>The Family of Tactical Trailers program will explore options for "lightening the Marine Air Ground Task Force (MAGTF)" weight and cube attributes of the light and medium/heavy trailer fleet. Seeking technologies and other current and emerging options that can be employed to achieve optimum lift capability while constrained to the desired weight and cube. Transportation and expeditionary goals will be considered in the research and development phase for the trailer fleet. Develop long-term modernization plans for the medium and heavy trailers within the Marine Corps to address operating safety enhancements, maintainability enhancements, and crew ergonomic improvements. The FY15 to FY16 increase is due to the inclusion of the MTVR Trailer to address safety and performance needs once fielded.</p> <p>Family of Material Handling Equipment is exploring ways to armor or design survivability for various pieces of equipment in the Material Handling Family. This program does not have funding beyond FY14.</p> |  |                                                                                    |                     |                                                     |         |              |             |               |
| B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |  |                                                                                    |                     | FY 2014                                             | FY 2015 | FY 2016 Base | FY 2016 OCO | FY 2016 Total |
| <p>Title: Improved Recovery Vehicle (IRV)</p> <p>Articles:</p> <p><b>FY 2014 Accomplishments:</b><br/>Continued to develop long-term modernization plans for the M88A2 within the Marine Corps to address safety, obsolescence mitigation and mobility improvement; to include Situational Awareness, exhaust system redesign, Improved Track and Electronic Fuel Injection.</p> <p><b>FY 2015 Plans:</b><br/>Continue to develop long-term modernization plans for the M88A2 within the Marine Corps to address operating safety enhancements, maintainability enhancements, and crew ergonomic improvements.</p> <p><b>FY 2016 Base Plans:</b><br/>Initiate the development of modifications for the M88A2 and supporting equipment to increase Reliability, Availability, and Maintainability (RAM), decrease operating costs, and address obsolescence, crew ergonomics, Command and Control improvements, increase towing capacity to address supported platform weight growth.</p> <p><b>FY 2016 OCO Plans:</b></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  |                                                                                    |                     | 0.259                                               | 0.208   | 0.305        | -           | 0.305         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |  |                                                                                    |                     | -                                                   | -       | -            | -           | -             |
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| Exhibit R-2A, RDT&E Project Justification: PB 2016 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |                                                                                       |            | Date: February 2015                                 |                |                  |
| Appropriation/Budget Activity<br>1319 / 7                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  | R-1 Program Element (Number/Name)<br>PE 0206624M / Marine Corps Cmbt<br>Services Supt |            | Project (Number/Name)<br>2509 / Motor Transport Mod |                |                  |
| B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)                                                                                                                                                                                                                                                                                                                                                                                                                    |  | FY 2014                                                                               | FY 2015    | FY 2016<br>Base                                     | FY 2016<br>OCO | FY 2016<br>Total |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |  |                                                                                       |            |                                                     |                |                  |
| <b>Title:</b> High Mobility Multipurpose Wheeled Vehicle ECV (HMMWV-ECV)<br><br><b>Articles:</b>                                                                                                                                                                                                                                                                                                                                                                                                    |  | 0.503<br>-                                                                            | 5.355<br>- | -<br>-                                              | -<br>-         | -<br>-           |
| <b>FY 2014 Accomplishments:</b><br>Completed the analysis and review of the final Concept test reports from NATC.                                                                                                                                                                                                                                                                                                                                                                                   |  |                                                                                       |            |                                                     |                |                  |
| <b>FY 2015 Plans:</b><br>Continue engineering studies and analysis to evaluate the vehicle performance, safety and reliability. Efforts will be focused on developing improvements to vehicle performance, safety and reliability.                                                                                                                                                                                                                                                                  |  |                                                                                       |            |                                                     |                |                  |
| <b>FY 2016 Base Plans:</b><br>N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |  |                                                                                       |            |                                                     |                |                  |
| <b>FY 2016 OCO Plans:</b><br>N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |  |                                                                                       |            |                                                     |                |                  |
| <b>Title:</b> P-19 Replacement<br><br><b>Articles:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                              |  | 1.007<br>-                                                                            | 1.008<br>- | 0.172<br>-                                          | -<br>-         | 0.172<br>-       |
| <b>FY 2014 Accomplishments:</b><br>Completed Milestone B and awarded prime contract. Funded prototype development, performance & reliability testing, developed engineering data packages, and program management activities in support of the P-19R award. P-19R provides rescue and firefighting capabilities to permanent and expeditionary airfields throughout the Marine Corps and allows the MAGTF the capability to defend itself against aircraft fires caused by crashes or other causes. |  |                                                                                       |            |                                                     |                |                  |
| <b>FY 2015 Plans:</b><br>Continue testing of the P-19R in support of LRIP and Full Rate Production (FRP).                                                                                                                                                                                                                                                                                                                                                                                           |  |                                                                                       |            |                                                     |                |                  |
| <b>FY 2016 Base Plans:</b><br>Continue testing of the P-19R in support of Full Rate Production (FRP).                                                                                                                                                                                                                                                                                                                                                                                               |  |                                                                                       |            |                                                     |                |                  |
| <b>FY 2016 OCO Plans:</b><br>N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |  |                                                                                       |            |                                                     |                |                  |
| <b>Title:</b> Motor Transport Modification (MTM)<br><br><b>Articles:</b>                                                                                                                                                                                                                                                                                                                                                                                                                            |  | 0.597<br>-                                                                            | 0.108<br>- | 0.854<br>-                                          | -<br>-         | 0.854<br>-       |

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| Exhibit R-2A, RDT&E Project Justification: PB 2016 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                           |  |                                                                                       | Date: February 2015 |                                                     |                |                  |
| Appropriation/Budget Activity<br>1319 / 7                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  | R-1 Program Element (Number/Name)<br>PE 0206624M / Marine Corps Cmbt<br>Services Supt |                     | Project (Number/Name)<br>2509 / Motor Transport Mod |                |                  |
| B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)                                                                                                                                                                                                                                                                                                                                                                                                                  |  | FY 2014                                                                               | FY 2015             | FY 2016<br>Base                                     | FY 2016<br>OCO | FY 2016<br>Total |
| <b>FY 2014 Accomplishments:</b><br>-Completed evaluation, testing, and integration of system modifications identified for application on Motor Transportation light, medium, and heavy tactical assets as well as enhancements to improve vehicle performance including testing in support of the Internally Transportable Vehicle (ITV).<br>-Completed development and procurement of the MK1077 Flatrack and integrated the PLS-T for use with the Logistics Vehicle System Replacement (LVSR). |  |                                                                                       |                     |                                                     |                |                  |
| <b>FY 2015 Plans:</b><br>Continue to evaluate, test, and integrate system modifications to improve vehicle performance and correct deficiencies identified for application on Motor Transportation light, medium, and heavy tactical assets including testing in support of the Internally Transportable Vehicle (ITV).                                                                                                                                                                           |  |                                                                                       |                     |                                                     |                |                  |
| <b>FY 2016 Base Plans:</b><br>Continue to evaluate, test, and integrate system modifications to improve vehicle performance and correct deficiencies identified for application on Motor Transportation light, medium, and heavy tactical assets.                                                                                                                                                                                                                                                 |  |                                                                                       |                     |                                                     |                |                  |
| <b>FY 2016 OCO Plans:</b><br>N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |  |                                                                                       |                     |                                                     |                |                  |
| <b>Title:</b> MTRV Trailers<br><br><b>Articles:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                               |  | 0.086<br>-                                                                            | -<br>-              | -<br>-                                              | -<br>-         | -<br>-           |
| <b>FY 2014 Accomplishments:</b><br>Completed testing of the modular trailer.                                                                                                                                                                                                                                                                                                                                                                                                                      |  |                                                                                       |                     |                                                     |                |                  |
| <b>FY 2015 Plans:</b><br>N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |  |                                                                                       |                     |                                                     |                |                  |
| <b>FY 2016 Base Plans:</b><br>N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |  |                                                                                       |                     |                                                     |                |                  |
| <b>FY 2016 OCO Plans:</b><br>N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |  |                                                                                       |                     |                                                     |                |                  |
| <b>Title:</b> Family of Tactical Trailers<br><br><b>Articles:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                 |  | 0.167<br>-                                                                            | 0.099<br>-          | 0.733<br>-                                          | -<br>-         | 0.733<br>-       |
| <b>FY 2014 Accomplishments:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |  |                                                                                       |                     |                                                     |                |                  |

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| Exhibit R-2A, RDT&E Project Justification: PB 2016 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  |                                                                                       |            | Date: February 2015                                 |                |                  |
| Appropriation/Budget Activity<br>1319 / 7                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |  | R-1 Program Element (Number/Name)<br>PE 0206624M / Marine Corps Cmbt<br>Services Supt |            | Project (Number/Name)<br>2509 / Motor Transport Mod |                |                  |
| B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  | FY 2014                                                                               | FY 2015    | FY 2016<br>Base                                     | FY 2016<br>OCO | FY 2016<br>Total |
| Completed safety testing to maintain reliability and effectiveness of Light Tactical Trailers (LTT) with the High Mobility Multipurpose Wheeled Vehicle (HMMWV) fleet and Heavy Tactical Trailers (HTT) designed for the Logistics Vehicle System (LVS)/Logistical Vehicle System Replacement (LVSR).<br><b>FY 2015 Plans:</b><br>Continue reliability testing to ensure effectiveness of Light Tactical Trailers (LTT) with the High Mobility Multipurpose Wheeled Vehicle (HMMWV) fleet and also for the Heavy Tactical Trailers (HTT) designed for the Logistics Vehicle System (LVS)/Logistical Vehicle System Replacement (LVSR), enabling the fleet to maintain mobility requirements.<br><b>FY 2016 Base Plans:</b><br>Continue testing to ensure effectiveness of Light Tactical Trailers (LTT) with the High Mobility Multipurpose Wheeled Vehicle (HMMWV) fleet, Medium Tactical Vehicle Replacement (MTVR) Trailer with the MTVR, and also for the Heavy Tactical Trailers (HTT) designed for the Logistics Vehicle System (LVS)/Logistical Vehicle System Replacement (LVSR), enabling the fleet to maintain mobility requirements. The FY15 to FY16 increase is due to the inclusion of the MTVR Trailer to address safety and performance needs once fielded.<br><b>FY 2016 OCO Plans:</b><br>N/A |  |                                                                                       |            |                                                     |                |                  |
| <b>Title:</b> Family of Material Handling Equipment<br><br><b>Articles:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |  | 0.157<br>-                                                                            | -<br>-     | -<br>-                                              | -<br>-         | -<br>-           |
| <b>FY 2014 Accomplishments:</b><br>Completed exploring techniques and technology for survivability on various platforms and worked to help sustain reliability and performance of the equipment.<br><b>FY 2015 Plans:</b><br>N/A<br><b>FY 2016 Base Plans:</b><br>N/A<br><b>FY 2016 OCO Plans:</b><br>N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |  |                                                                                       |            |                                                     |                |                  |
| <b>Title:</b> Family of Construction Equipment<br><br><b>Articles:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  | -<br>-                                                                                | 0.200<br>- | -<br>-                                              | -<br>-         | -<br>-           |

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| Exhibit R-2A, RDT&E Project Justification: PB 2016 Navy                                                                                                                                          |         |         |                 |                                                                                       |                  |         |         |                                                     | Date: February 2015 |                     |                 |                |                  |
| Appropriation/Budget Activity<br>1319 / 7                                                                                                                                                        |         |         |                 | R-1 Program Element (Number/Name)<br>PE 0206624M / Marine Corps Cmbt<br>Services Supt |                  |         |         | Project (Number/Name)<br>2509 / Motor Transport Mod |                     |                     |                 |                |                  |
| B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)                                                                                                                 |         |         |                 |                                                                                       |                  |         |         |                                                     | FY 2014             | FY 2015             | FY 2016<br>Base | FY 2016<br>OCO | FY 2016<br>Total |
| FY 2014 Accomplishments:<br>N/A                                                                                                                                                                  |         |         |                 |                                                                                       |                  |         |         |                                                     |                     |                     |                 |                |                  |
| FY 2015 Plans:<br>Initiate exploration of techniques and technology for crew survivability on various platforms while also working to help sustain reliability and performance of the equipment. |         |         |                 |                                                                                       |                  |         |         |                                                     |                     |                     |                 |                |                  |
| FY 2016 Base Plans:<br>N/A                                                                                                                                                                       |         |         |                 |                                                                                       |                  |         |         |                                                     |                     |                     |                 |                |                  |
| FY 2016 OCO Plans:<br>N/A                                                                                                                                                                        |         |         |                 |                                                                                       |                  |         |         |                                                     |                     |                     |                 |                |                  |
| Accomplishments/Planned Programs Subtotals                                                                                                                                                       |         |         |                 |                                                                                       |                  |         |         |                                                     | 2.776               | 6.978               | 2.064           | -              | 2.064            |
| C. Other Program Funding Summary (\$ in Millions)                                                                                                                                                |         |         |                 |                                                                                       |                  |         |         |                                                     |                     |                     |                 |                |                  |
| Line Item                                                                                                                                                                                        | FY 2014 | FY 2015 | FY 2016<br>Base | FY 2016<br>OCO                                                                        | FY 2016<br>Total | FY 2017 | FY 2018 | FY 2019                                             | FY 2020             | Cost To<br>Complete | Total Cost      |                |                  |
| • PMC/5230: Motor T Mod                                                                                                                                                                          | 2.856   | 2.964   | 1.108           | -                                                                                     | 1.108            | 4.344   | 4.023   | 3.325                                               | 3.392               | Continuing          | Continuing      |                |                  |
| • PMC/5045: HMMWV                                                                                                                                                                                | 0.979   | 57.255  | -               | -                                                                                     | -                | -       | -       | -                                                   | -                   | -                   | 539.382         |                |                  |
| • PMC/5097-01: Family of Tactical Trailers                                                                                                                                                       | 3.962   | 0.175   | 3.157           | -                                                                                     | 3.157            | 3.017   | 1.950   | 3.181                                               | 3.247               | Continuing          | Continuing      |                |                  |
| • PMC/2061: IRV                                                                                                                                                                                  | 2.193   | 5.593   | 2.640           | -                                                                                     | 2.640            | 2.700   | 2.749   | 2.801                                               | 2.857               | Continuing          | Continuing      |                |                  |
| • PMC/4630: IRV                                                                                                                                                                                  | 0.132   | 0.158   | 0.162           | -                                                                                     | 0.162            | 0.165   | 0.168   | 0.171                                               | 0.174               | Continuing          | Continuing      |                |                  |
| • PMC/5097-02: Flatrack Refueler Capability (FRC)                                                                                                                                                | 8.883   | -       | -               | -                                                                                     | -                | -       | -       | -                                                   | -                   | -                   | 50.619          |                |                  |
| • PMC/5097-03: MTVR Trailers                                                                                                                                                                     | -       | 10.004  | -               | -                                                                                     | -                | -       | -       | -                                                   | -                   | -                   | 78.711          |                |                  |
| • PMC/5006: P19R                                                                                                                                                                                 | 16.771  | 11.035  | 18.946          | -                                                                                     | 18.946           | 69.541  | 58.459  | 0.330                                               | 0.357               | Continuing          | Continuing      |                |                  |
| • PMC/6462: Family of Material Handling Equipment                                                                                                                                                | 36.227  | 12.037  | -               | -                                                                                     | -                | 8.406   | 11.587  | 8.855                                               | 9.090               | Continuing          | Continuing      |                |                  |
| • PMC/6544: Family of Construction Equipment                                                                                                                                                     | 36.221  | 15.669  | 6.545           | -                                                                                     | 6.545            | 7.169   | 9.217   | 12.999                                              | 13.360              | Continuing          | Continuing      |                |                  |
| • PMC/7000: Family of Material Handling Equipment                                                                                                                                                | -       | 0.070   | 0.050           | -                                                                                     | 0.050            | 0.051   | 0.052   | 0.053                                               | 0.054               | Continuing          | Continuing      |                |                  |

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| Exhibit R-2A, RDT&E Project Justification: PB 2016 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |         |         |                 |                                                                                       |                  |         |         |                                                     |         | Date: February 2015 |            |
| Appropriation/Budget Activity<br>1319 / 7                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |         |         |                 | R-1 Program Element (Number/Name)<br>PE 0206624M / Marine Corps Cmbt<br>Services Supt |                  |         |         | Project (Number/Name)<br>2509 / Motor Transport Mod |         |                     |            |
| C. Other Program Funding Summary (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |         |         |                 |                                                                                       |                  |         |         |                                                     |         |                     |            |
| Line Item                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | FY 2014 | FY 2015 | FY 2016<br>Base | FY 2016<br>OCO                                                                        | FY 2016<br>Total | FY 2017 | FY 2018 | FY 2019                                             | FY 2020 | Cost To<br>Complete | Total Cost |
| Remarks                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |         |         |                 |                                                                                       |                  |         |         |                                                     |         |                     |            |
| D. Acquisition Strategy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |         |         |                 |                                                                                       |                  |         |         |                                                     |         |                     |            |
| <p>The Improved Recovery Vehicle (IRV) program leverages Army developmental projects to create a system that more readily meets Marine Corps Heavy Recovery Vehicle requirements. Improvements include Engineering Change Proposals addressing safety, reliability, and technology upgrades.</p> <p>The HMMWV Sustainment Modification Initiative (SMI) program was cancelled effective FY 2016. FY 2015 funding will support engineering studies and analysis to evaluate the vehicle performance, safety and reliability. Efforts will be focused on developing improvements to vehicle performance, safety and reliability.</p> <p>The P-19 Replacement leverages COTS and NDI components in an effort to minimize costs, test requirements, and reduce development time. P-19R will supplant the aging A/S32P-19A fleet in support of expeditionary airfield operations and the supporting establishment. The vehicle will be outfitted with advanced fire suppression equipment and provide rescue and aircraft fire fighting capabilities to permanent and expeditionary airfields throughout the Marine Corps. The P-19 Replacement may also be employed to fight structure fires in support of base camps and as firefighting support to other elements of the MAGTF, such as ammunition supply points, Petroleum, Oil, and Lubricants (POL) distribution points, or hazardous material storage facilities.</p> <p>Motor Transport Modification funding will focus on streamlined acquisitions of Commercial-Off-The-Shelf/Non-Developmental Items (COTS/NDI) that can be identified, integrated, and tested in a short amount of time. Successful modifications and tests are intended for follow-on procurement and incorporation into existing system component upgrades, SLEPs, or rapid COTS/NDI fielding for the Fleet Marine Forces (FMF).</p> <p>The Family of Material Handling Equipment acquisition strategy will use RDT&amp;E funding to explore current and new armor options that can be used to achieve optimum crew survivability performance.</p> <p>The MTRV Trailer program's original acquisition strategy consisted of procuring three variants of trailers that would have greater mobility characteristics, while maximizing the commonality of parts, across the three trailer platform. FY05 RDT&amp;E funds were used to procure six prototypes trailers (two of each variants) developed by Choctaw Manufacturing Developing Contractors (CMDC). Prior to a fielding decision, the original MTRV Trailer program was halted due to concerns the trailers did not meet the Commandant of the Marine Corps goal to lighten the MAGTF. As a result, the MTRV Trailer program was restructured for re-design of the cargo trailer and to delay procurement of the Water and General Purpose trailers. On 29 November 2012, a Combat Development &amp; Integration (CD&amp;I) letter directed that the trailer requirement would now be constructed as a modular trailer capable of hauling the water Six Container and all expeditionary power units, to include the 100Kw generator. The new modular design replaces the MK149, M353, and M105 trailer and will be designated as the MTRV Modular Trailer, MK593.</p> <p>The Family of Construction Equipment acquisition strategy will use RDT&amp;E funding to explore current and new armor options that can be used to achieve optimum crew survivability performance.</p> |         |         |                 |                                                                                       |                  |         |         |                                                     |         |                     |            |

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| Exhibit R-2A, RDT&E Project Justification: PB 2016 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                       | Date: February 2015                                 |
| Appropriation/Budget Activity<br>1319 / 7                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | R-1 Program Element (Number/Name)<br>PE 0206624M / Marine Corps Cmbt<br>Services Supt | Project (Number/Name)<br>2509 / Motor Transport Mod |
| <p>The Family of Tactical Trailer (FTT) acquisition strategy will use RDT&amp;E funding to explore current and new technological options that can be used to achieve optimum lift within the desired weight and cube constraints in support of the "Lightening the MAGTF" initiative, as well as sustaining and/or improving capabilities. Transportation and expeditionary goals will be considered in the research and development for the light and medium/heavy trailer fleet.</p> <p><b>E. Performance Metrics</b><br/>N/A</p> |                                                                                       |                                                     |

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|--------------------------------------------------------|------------------------------|----------------------------------------|----------------|---------|---------------|---------------------------------------------------------------------------------------|---------------|-----------------|---------------|----------------|-----------------------------------------------------|---------------------|---------------------|---------------|--------------------------------|
| Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Navy |                              |                                        |                |         |               |                                                                                       |               |                 |               |                |                                                     | Date: February 2015 |                     |               |                                |
| Appropriation/Budget Activity<br>1319 / 7              |                              |                                        |                |         |               | R-1 Program Element (Number/Name)<br>PE 0206624M / Marine Corps Cmbt<br>Services Supt |               |                 |               |                | Project (Number/Name)<br>2509 / Motor Transport Mod |                     |                     |               |                                |
| Product Development (\$ in Millions)                   |                              |                                        |                | FY 2014 |               | FY 2015                                                                               |               | FY 2016<br>Base |               | FY 2016<br>OCO |                                                     | FY 2016<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 |
| Improved Recovery Vehicle                              | MIPR                         | TACOM : WARREN, MI                     | 1.354          | 0.159   | Mar 2014      | 0.208                                                                                 | Feb 2015      | 0.305           | Apr 2016      | -              |                                                     | 0.305               | Continuing          | Continuing    | Continuing                     |
| Improved Recovery Vehicle                              | WR                           | SPAWAR : Charleston, SC                | 0.000          | 0.100   | Sep 2014      | -                                                                                     |               | -               |               | -              |                                                     | -                   | -                   | 0.100         | -                              |
| HMMWV Engineering Studies and Analysis                 | Various                      | Various : Various                      | 0.000          | -       |               | 5.073                                                                                 | Jun 2015      | -               |               | -              |                                                     | -                   | -                   | 5.073         | -                              |
| P-19 Replacement Development                           | C/FFP                        | OshKosh : Oshkosh, WI                  | 6.616          | 0.841   | Apr 2014      | -                                                                                     |               | -               |               | -              |                                                     | -                   | -                   | 7.457         | -                              |
| MTM (Heavy) Safety Testing                             | C/CPFF                       | OshKosh : Oshkosh, WI                  | 0.000          | -       |               | 0.054                                                                                 | Jan 2015      | -               |               | -              |                                                     | -                   | -                   | 0.054         | -                              |
| MTM (Heavy) Trailer Modification                       | Various                      | TBD : TBD                              | 0.000          | 0.351   | Sep 2014      | -                                                                                     |               | -               |               | -              |                                                     | -                   | -                   | 0.351         | -                              |
| MTM (Light) M&S Tool                                   | MIPR                         | NSWC IH : Indian Head, MD              | 0.000          | 0.019   | Jun 2014      | -                                                                                     |               | -               |               | -              |                                                     | -                   | -                   | 0.019         | -                              |
| FTT (Light) Reliability Testing                        | Various                      | TBD : TBD                              | 0.000          | 0.083   | Nov 2014      | 0.049                                                                                 | Jun 2015      | -               |               | -              |                                                     | -                   | -                   | 0.132         | -                              |
| FTT (Medium) ECP Development                           | C/CPFF                       | TBD : TBD                              | 0.000          | -       |               | -                                                                                     |               | 0.185           | Mar 2016      | -              |                                                     | 0.185               | Continuing          | Continuing    | Continuing                     |
| Prior Years Cumulative Funding                         | Various                      | Various : Various                      | 20.117         | -       |               | -                                                                                     |               | -               |               | -              |                                                     | -                   | -                   | 20.117        | 19.769                         |
| Subtotal                                               |                              |                                        | 28.087         | 1.553   |               | 5.384                                                                                 |               | 0.490           |               | -              |                                                     | 0.490               | -                   | -             | -                              |
| Test and Evaluation (\$ in Millions)                   |                              |                                        |                | FY 2014 |               | FY 2015                                                                               |               | FY 2016<br>Base |               | FY 2016<br>OCO |                                                     | FY 2016<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 |
| P19 Developmental Testing                              | C/BA                         | NATC : Carson City, NV                 | 0.000          | -       |               | 0.504                                                                                 | Jun 2015      | -               |               | -              |                                                     | -                   | -                   | 0.504         | -                              |
| P19 ATC Reliability Testing                            | MIPR                         | Aberdeen Testing Center : Aderdeen, MD | 1.200          | 0.166   | Sep 2014      | 0.504                                                                                 | Jun 2015      | 0.172           | Jun 2016      | -              |                                                     | 0.172               | Continuing          | Continuing    | Continuing                     |
| MTM (Light) Safety Testing                             | MIPR                         | Various : Various                      | 0.000          | -       |               | 0.054                                                                                 | Jun 2015      | 0.427           | Feb 2016      | -              |                                                     | 0.427               | Continuing          | Continuing    | Continuing                     |

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|--------------------------------------------------------|------------------------|----------------------------------------|-------------|---------|------------|---------------------------------------------------------------------------------------|------------|-----------------|------------|----------------|------------|-----------------------------------------------------|------------------|------------|--------------------------|
| Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Navy |                        |                                        |             |         |            |                                                                                       |            |                 |            |                |            | Date: February 2015                                 |                  |            |                          |
| Appropriation/Budget Activity<br>1319 / 7              |                        |                                        |             |         |            | R-1 Program Element (Number/Name)<br>PE 0206624M / Marine Corps Cmbt<br>Services Supt |            |                 |            |                |            | Project (Number/Name)<br>2509 / Motor Transport Mod |                  |            |                          |
| Test and Evaluation (\$ in Millions)                   |                        |                                        |             | FY 2014 |            | FY 2015                                                                               |            | FY 2016<br>Base |            | FY 2016<br>OCO |            | FY 2016<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 |
| MTM (Light) Engineering Analysis Suppt                 | MIPR                   | DTIC : Ft. Belvoir, VA                 | 0.000       | 0.227   | Jun 2014   | -                                                                                     |            | -               |            | -              |            | -                                                   | -                | 0.227      | -                        |
| MTM (Heavy) Testing                                    | TBD                    | Various : Various                      | 0.000       | -       |            | -                                                                                     |            | 0.427           | Apr 2016   | -              |            | 0.427                                               | Continuing       | Continuing | Continuing               |
| MTVR Trailer Testing                                   | SS/CPFF                | NATC : Carson City, NV                 | 1.374       | 0.086   | Apr 2014   | -                                                                                     |            | -               |            | -              |            | -                                                   | -                | 1.460      | -                        |
| FTT (Heavy) Reliability Testing                        | MIPR                   | Aberdeen Testing Center : Aberdeen, MD | 0.000       | 0.084   | Mar 2015   | 0.050                                                                                 | Mar 2015   | 0.370           | Mar 2016   | -              |            | 0.370                                               | Continuing       | Continuing | Continuing               |
| FTT (Medium) Testing                                   | SS/CPFF                | NATC : Carson City, NV                 | 0.000       | -       |            | -                                                                                     |            | 0.178           | Aug 2016   | -              |            | 0.178                                               | Continuing       | Continuing | Continuing               |
| Family of Material Handling Equipment                  | MIPR                   | Aberdeen Test Center : Aberdeen, MD    | 0.000       | 0.157   | May 2014   | -                                                                                     |            | -               |            | -              |            | -                                                   | -                | 0.157      | -                        |
| Family of Construction Equipment                       | MIPR                   | Aberdeen Test Center : Aberdeen, MD    | 0.000       | -       |            | 0.200                                                                                 | Dec 2014   | -               |            | -              |            | -                                                   | -                | 0.200      | -                        |
| Prior Years Cumulative Funding                         | Various                | Various : Various                      | 6.405       | -       |            | -                                                                                     |            | -               |            | -              |            | -                                                   | -                | 6.405      | -                        |
| Subtotal                                               |                        |                                        | 8.979       | 0.720   |            | 1.312                                                                                 |            | 1.574           |            | -              |            | 1.574                                               | -                | -          | -                        |
| Management Services (\$ in Millions)                   |                        |                                        |             | FY 2014 |            | FY 2015                                                                               |            | FY 2016<br>Base |            | FY 2016<br>OCO |            | FY 2016<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 |
| HMMWV Program Management                               | Various                | Various : Various                      | 0.000       | 0.503   | Aug 2014   | 0.282                                                                                 | Dec 2014   | -               |            | -              |            | -                                                   | -                | 0.785      | -                        |
| Subtotal                                               |                        |                                        | 0.000       | 0.503   |            | 0.282                                                                                 |            | -               |            | -              |            | -                                                   | -                | 0.785      | -                        |
|                                                        |                        |                                        | Prior Years | FY 2014 |            | FY 2015                                                                               |            | FY 2016<br>Base |            | FY 2016<br>OCO |            | FY 2016<br>Total                                    | Cost To Complete | Total Cost | Target Value of Contract |
| Project Cost Totals                                    |                        |                                        | 37.066      | 2.776   |            | 6.978                                                                                 |            | 2.064           |            | -              |            | 2.064                                               | -                | -          | -                        |

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|-------------------------------------------------------------------|--------------------|----------------|--------------------------------------------------------------------------------------------------|---------------------|--------------------|-------------------------------------------------------------------|----------------------------|-------------------|---------------------------------|--|
| <b>Exhibit R-3, RDT&amp;E Project Cost Analysis:</b> PB 2016 Navy |                    |                |                                                                                                  |                     |                    |                                                                   | <b>Date:</b> February 2015 |                   |                                 |  |
| <b>Appropriation/Budget Activity</b><br>1319 / 7                  |                    |                | <b>R-1 Program Element (Number/Name)</b><br>PE 0206624M / <i>Marine Corps Cmbt Services Supt</i> |                     |                    | <b>Project (Number/Name)</b><br>2509 / <i>Motor Transport Mod</i> |                            |                   |                                 |  |
|                                                                   | <b>Prior Years</b> | <b>FY 2014</b> | <b>FY 2015</b>                                                                                   | <b>FY 2016 Base</b> | <b>FY 2016 OCO</b> | <b>FY 2016 Total</b>                                              | <b>Cost To Complete</b>    | <b>Total Cost</b> | <b>Target Value of Contract</b> |  |
| <b>Remarks</b>                                                    |                    |                |                                                                                                  |                     |                    |                                                                   |                            |                   |                                 |  |
|                                                                   |                    |                |                                                                                                  |                     |                    |                                                                   |                            |                   |                                 |  |

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PE 0206624M: *Marine Corps Cmbt Services Supt*  
Navy

R-1 Line #199

|                                                  |                                                                                                  |
|--------------------------------------------------|--------------------------------------------------------------------------------------------------|
| <b>Appropriation/Budget Activity</b><br>1319 / 7 | <b>R-1 Program Element (Number/Name)</b><br>PE 0206624M / <i>Marine Corps Cmbt Services Supt</i> |
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| <b>Project (Number/Name)</b><br>2509 / Motor Transport Mod |  |
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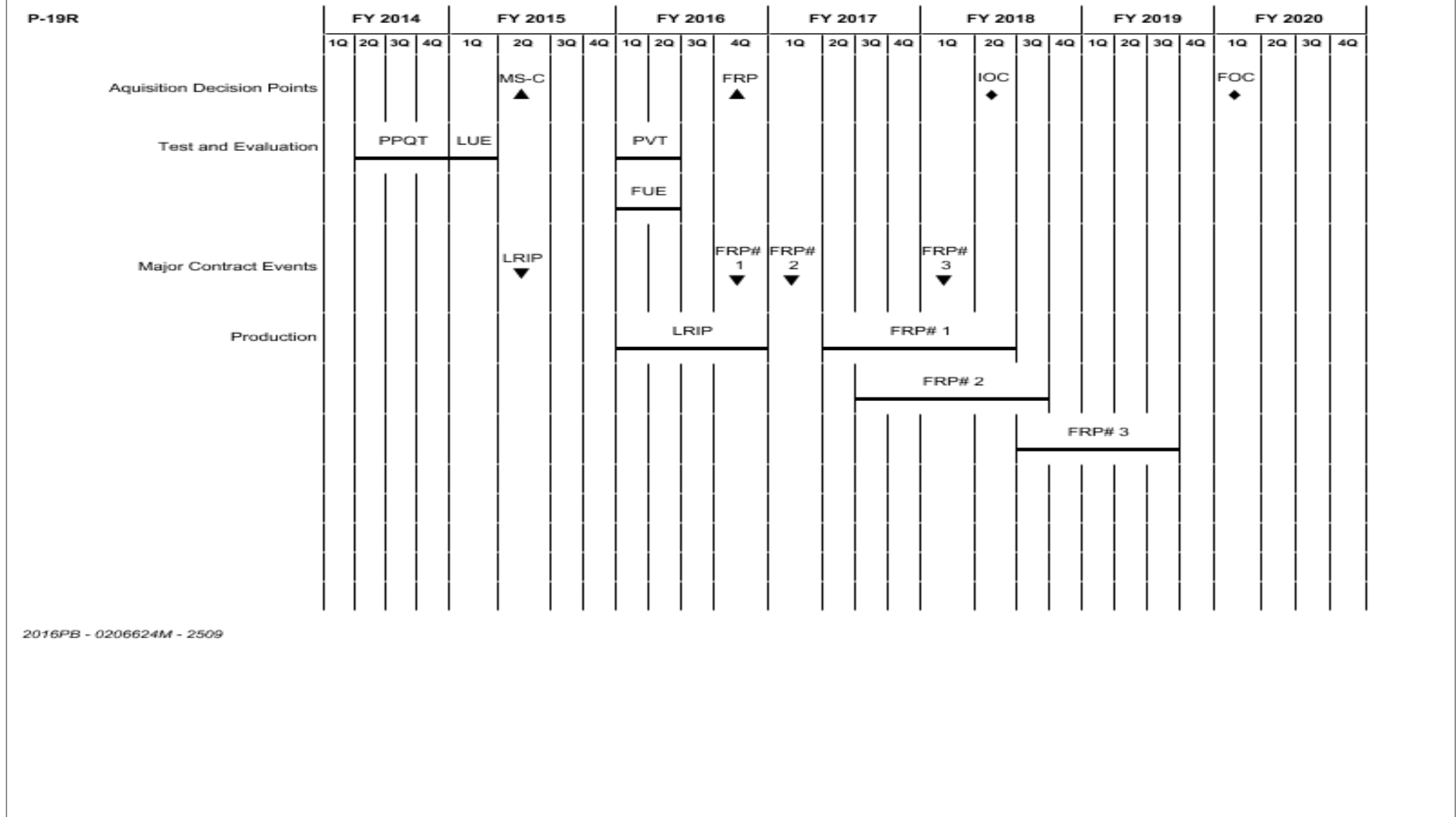
**Exhibit R-4, RDT&E Schedule Profile: PB 2016 Navy**

**Date:** February 2015

**Appropriation/Budget Activity**  
1319 / 7

**R-1 Program Element (Number/Name)**  
PE 0206624M / Marine Corps Cmbt  
Services Supt

**Project (Number/Name)**  
2509 / Motor Transport Mod



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**Appropriation/Budget Activity**  
1319 / 7

**R-1 Program Element (Number/Name)**  
PE 0206624M / Marine Corps Cmbt  
Services Supt

**Project (Number/Name)**  
2509 / Motor Transport Mod

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2016PB - 0206624M - 2509

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Exhibit R-4A, RDT&amp;E Schedule Details: PB 2016 Navy

Date: February 2015

## Appropriation/Budget Activity

1319 / 7

## R-1 Program Element (Number/Name)

PE 0206624M / Marine Corps Cmbt  
Services Supt

## Project (Number/Name)

2509 / Motor Transport Mod

## Schedule Details

| Events by Sub Project                                        | Start   |      | End     |      |
|--------------------------------------------------------------|---------|------|---------|------|
|                                                              | Quarter | Year | Quarter | Year |
| <b>MTVR Trailers</b>                                         |         |      |         |      |
| Acquisition Decision Points: Initial Operating Capability    | 1       | 2015 | 1       | 2015 |
| Acquisition Decision Points: Full Operating Capability       | 3       | 2019 | 3       | 2019 |
| Major Contract Events: Production Contract Award             | 3       | 2014 | 3       | 2014 |
| Major Contract Events: Delivery Order Award #1 (FY12 PMC)    | 3       | 2014 | 3       | 2014 |
| Major Contract Events: Delivery Order Award #2 (FY13 PMC)    | 1       | 2015 | 1       | 2015 |
| Major Contract Events: Delivery Order Award #3 (FY15 PMC)    | 1       | 2015 | 1       | 2015 |
| Production: Production Verification Test Trailers            | 1       | 2014 | 1       | 2014 |
| Production: Production                                       | 4       | 2014 | 4       | 2016 |
| <b>P-19R</b>                                                 |         |      |         |      |
| Aquisition Decision Points: Milestone C                      | 2       | 2015 | 2       | 2015 |
| Aquisition Decision Points: Full Rate Production Decision    | 4       | 2016 | 4       | 2016 |
| Aquisition Decision Points: Initial Operating Capability     | 2       | 2018 | 2       | 2018 |
| Aquisition Decision Points: Full Operating Capability        | 1       | 2020 | 1       | 2020 |
| Test and Evaluation: Pre-Production Qualification Testing    | 2       | 2014 | 4       | 2014 |
| Test and Evaluation: Limited User Evaluation                 | 1       | 2015 | 1       | 2015 |
| Test and Evaluation: Production Verification Testing         | 1       | 2016 | 2       | 2016 |
| Test and Evaluation: Full User Evaluation                    | 1       | 2016 | 2       | 2016 |
| Major Contract Events: Low Rate Initial Production Award     | 2       | 2015 | 2       | 2015 |
| Major Contract Events: Full Rate Initial Production Award #1 | 4       | 2016 | 4       | 2016 |
| Major Contract Events: Full Rate Initial Production Award #2 | 1       | 2017 | 1       | 2017 |
| Major Contract Events: Full Rate Initial Production Award #3 | 1       | 2018 | 1       | 2018 |

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|---------------------------------------------------------|--|---------------------------------------------------------------------------------------|---------------------|-----------------------------------------------------|------|
| Exhibit R-4A, RDT&E Schedule Details: PB 2016 Navy      |  |                                                                                       | Date: February 2015 |                                                     |      |
| Appropriation/Budget Activity<br>1319 / 7               |  | R-1 Program Element (Number/Name)<br>PE 0206624M / Marine Corps Cmbt<br>Services Supt |                     | Project (Number/Name)<br>2509 / Motor Transport Mod |      |
|                                                         |  | Start                                                                                 |                     | End                                                 |      |
| Events by Sub Project                                   |  | Quarter                                                                               | Year                | Quarter                                             | Year |
| Production: Low Rate Initial Production                 |  | 1                                                                                     | 2016                | 4                                                   | 2016 |
| Production: Full Rate Initial Production #1             |  | 2                                                                                     | 2017                | 2                                                   | 2018 |
| Production: Full Rate Initial Production #2             |  | 3                                                                                     | 2017                | 3                                                   | 2018 |
| Production: Full Rate Initial Production #3             |  | 3                                                                                     | 2018                | 3                                                   | 2019 |
| HMMWV SMI                                               |  |                                                                                       |                     |                                                     |      |
| Major Contract Events: Engineering Studies and Analysis |  | 3                                                                                     | 2015                | 2                                                   | 2016 |

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| Exhibit R-2A, RDT&E Project Justification: PB 2016 Navy |             |         |         |              |                                                                                    |               |         |         |                                                 | Date: February 2015 |                  |            |
|---------------------------------------------------------|-------------|---------|---------|--------------|------------------------------------------------------------------------------------|---------------|---------|---------|-------------------------------------------------|---------------------|------------------|------------|
| Appropriation/Budget Activity<br>1319 / 7               |             |         |         |              | R-1 Program Element (Number/Name)<br>PE 0206624M / Marine Corps Cmbt Services Supt |               |         |         | Project (Number/Name)<br>2510 / MAGTF CSSE & SE |                     |                  |            |
| COST (\$ in Millions)                                   | Prior Years | FY 2014 | FY 2015 | FY 2016 Base | FY 2016 OCO                                                                        | FY 2016 Total | FY 2017 | FY 2018 | FY 2019                                         | FY 2020             | Cost To Complete | Total Cost |
| 2510: MAGTF CSSE & SE                                   | 12.648      | 4.179   | 4.930   | 9.167        | -                                                                                  | 9.167         | 7.285   | 3.167   | 4.461                                           | 4.053               | Continuing       | Continuing |
| Quantity of RDT&E Articles                              |             | -       | -       | -            | -                                                                                  | -             | -       | -       | -                                               | -                   |                  |            |

**Note**

Environmental Control Equipment, Mobile Power Equipment and Advanced Power Sources are a part of Expeditionary Energy Initiatives

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

Environmental Control Equipment:

The Enhanced Environmental Control Unit (E2CU) program is the second generation of a family of environmental control units from 9,000 BTU to 60,000 BTU/Hr cooling output. The E2CU program will provide tactical Heating, Ventilation and Air Conditioning (HVAC) and superior reliability for all MAGTF units in all operational concepts. E2CU will replace all legacy ECUs starting in 2014 in the following sizes: 9,000 BTU/Hr; 18,000 BTU/Hr. These higher reliability and higher efficiency sets will use EPA-approved refrigerants, will be more energy efficient, be more mobile, easier to repair, and quieter than their predecessors. A significant average fuel efficiency improvement over the current ECU family has been demonstrated. With environmental control systems consuming 50-70% of tactical electric power in theater, this savings will be a significant contribution to reducing the USMC fuel demand, and lightening the Marine Air-Ground Task Force (MAGTF). The Warfighter benefit includes a decreased logistics footprint, less reliance on petroleum-derived fuels, increased local energy security, and reduced tanker losses (fewer on the road). The operational imperative to reduce fuel usage will consequently reduce refueling operations and exposing Marines to hazardous fuel convoy operations. The funding decrease from FY15 to FY16 reflects the requirements and resource realignment of all commodity areas and budget adjustments made by the Marine Corps Combat Development Command.

Mobile Power Equipment:

The Family of Mobile Electric Power Equipment consists of skid and trailer mounted tactical generators ranging from 2 to 200 kilowatts, Mobile Electric Power Distribution Systems, Load Banks, and Electrician's Tool Kits. This equipment is procured and fielded to provide electricity on the battlefield. Combat, combat support, and combat service support units all require tactical power to operate weapons systems, Command, Control, Communications, Computers and Intelligence (C4I) systems, medical and messing facilities, environmental control equipment, and water purification systems. With over 10,000 generators and using diesel engines in the Operating Forces, improving their fuel efficiency and reliability will be a significant contribution to reducing the USMC fuel demand, and lightening the MAGTF. The Warfighter benefit includes a decreased logistics footprint, less reliance on petroleum-derived fuels, increased local energy security, and reduced tanker losses (fewer on the road). The operational imperative to reduce fuel usage will consequently reduce refueling operations and exposing Marines to hazardous fuel convoy operations.

Four discrete efforts will be pursued as follows:

(1) Hybrid Generator: Funding to integrate new AMMPS 10kW Generator and energy storage devices onto a Light Tactical Trailer. Will provide capability to deliver 10kW steady state, supply up to 13kW peak demand for several hours using stored energy, and provide 3kW silent operations for several hours (battery only). Will transition into production of a unit that can be integrated with the AMMPS generator.

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| Exhibit R-2A, RDT&E Project Justification: PB 2016 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  |                                                                                    | Date: February 2015 |                                                 |             |               |
| Appropriation/Budget Activity<br>1319 / 7                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |  | R-1 Program Element (Number/Name)<br>PE 0206624M / Marine Corps Cmbt Services Supt |                     | Project (Number/Name)<br>2510 / MAGTF CSSE & SE |             |               |
| <p>(2) Next Generation Power Distribution: Intelligent power management devices that can integrate with existing Mobile Electric Power Distribution System Replacement (MEPDIS-R) Boxes and AMMPS generators. Provides capability for safe, efficient centralized power distribution from a single source to multiple loads, Automatic phase balancing of loads, and power monitoring and data collection/dissemination for remote system monitoring.</p> <p>(3) Next-Generation Floodlight System (FLS): Funding to integrate new 10kW AMMPS Generator and a new light tower (floodlight system) onto a Light Tactical Trailer. Provides tactical lighting and exportable 3-phase electrical power. Will transition into production of a unit that can be integrated with the AMMPS generator.</p> <p>(4) 1kW Diesel Generator: Integration and product qualification testing of new 1kW diesel generator for USMC-unique applications. Generator procurement will be by customers on a DoD contract.</p> <p>The funding decrease from FY15 to FY16 reflects the requirements and resource realignment of all commodity areas and budget adjustments made by the Marine Corps Combat Development Command.</p> <p>Advanced Power Sources:<br/>These R&amp;D efforts will focus on achieving the Marine Corps goal of lightening the MAGTF and the individual Marine combat load though reduced battery weight and logistical fuel resupply needs. The Mobile Electric Hybrid Power System and Medium Hybrid Expeditionary Energy Systems (MHEES) will focus on hybrid power systems capable of improved fuel efficiency and silent operations in the 0.5-5kW power range. These systems will be smaller, lighter and more efficient systems. The conformal/CFX battery effort will focus on testing and integrating next generation batteries. The On Board Vehicle Power (OBVP) will focus on flexibility and efficiency of research and development to save fuel at idle conditions and improve vehicle energy efficiency on MTVR platforms. The funding increase from FY15 to FY16 reflects the requirements and resource realignment of all commodity areas and budget adjustments made by the Marine Corps Combat Development Command.</p> |  |                                                                                    |                     |                                                 |             |               |
| <b>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  |                                                                                    |                     |                                                 |             |               |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |  | FY 2014                                                                            | FY 2015             | FY 2016 Base                                    | FY 2016 OCO | FY 2016 Total |
| <b>Title:</b> Environmental Control Equipment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |  | 0.917                                                                              | 0.435               | 0.202                                           | -           | 0.202         |
| <b>Articles:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  | -                                                                                  | -                   | -                                               | -           | -             |
| <b>FY 2014 Accomplishments:</b><br>-Initiated prototype testing of the Enhanced ECUs developed during FY13.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |  |                                                                                    |                     |                                                 |             |               |
| <b>FY 2015 Plans:</b><br>-Continue prototype testing and integration of ECP (Engineering Change Proposals) for the Enhanced Environmental Control Units (E2CUs).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  |                                                                                    |                     |                                                 |             |               |
| <b>FY 2016 Base Plans:</b><br>-Initiate design of legacy Environmental Control Units to increase energy efficiency.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |                                                                                    |                     |                                                 |             |               |
| <b>FY 2016 OCO Plans:</b><br>N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  |                                                                                    |                     |                                                 |             |               |
| <b>Title:</b> Mobile Power Equip/Hybrid Generator/Next Gen Power Distribution System                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  | 1.645                                                                              | 3.660               | 2.979                                           | -           | 2.979         |
| <b>Articles:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  | -                                                                                  | -                   | -                                               | -           | -             |

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| Exhibit R-2A, RDT&E Project Justification: PB 2016 Navy                                                                                                                                                                                                                                                              |  |                                                                                       |            | Date: February 2015                             |                |                  |
| Appropriation/Budget Activity<br>1319 / 7                                                                                                                                                                                                                                                                            |  | R-1 Program Element (Number/Name)<br>PE 0206624M / Marine Corps Cmbt<br>Services Supt |            | Project (Number/Name)<br>2510 / MAGTF CSSE & SE |                |                  |
| B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)                                                                                                                                                                                                                                     |  | FY 2014                                                                               | FY 2015    | FY 2016<br>Base                                 | FY 2016<br>OCO | FY 2016<br>Total |
| FY 2014 Accomplishments:<br>-Initiated testing and integration of the Hybrid Generator and Next Generation Power Distribution systems (AMEPDIS).                                                                                                                                                                     |  |                                                                                       |            |                                                 |                |                  |
| FY 2015 Plans:<br>-Continue testing of the Next Generation Power Distribution system (AMEPDIS).<br>-Initiate integration and testing of AMMPS Generators with new COTS Floodlight System.<br>-Initiate integration and testing of 1KW Generator with Ground Renewable Expeditionary Energy Systems (GREENS).         |  |                                                                                       |            |                                                 |                |                  |
| FY 2016 Base Plans:<br>-Initiate testing and evaluation of commercial micro-grid components and commercial Floodlight Sets.                                                                                                                                                                                          |  |                                                                                       |            |                                                 |                |                  |
| FY 2016 OCO Plans:<br>N/A                                                                                                                                                                                                                                                                                            |  |                                                                                       |            |                                                 |                |                  |
| Title: Advanced Power Sources<br><br>Articles:                                                                                                                                                                                                                                                                       |  | 1.617<br>-                                                                            | 0.835<br>4 | 5.986<br>12                                     | -<br>-         | 5.986<br>12      |
| FY 2014 Accomplishments:<br>-Completed testing of Medium Hybrid Expeditionary Energy Systems (MHEES) developmental articles.                                                                                                                                                                                         |  |                                                                                       |            |                                                 |                |                  |
| FY 2015 Plans:<br>CONFORMAL/CFX BATTERY<br>-Initiate test, integrate, and qualify Conformal/CFX batteries for Marine Corps use - Naval Surface Warfare Center Carderock Division, Carderock, MD will procure batteries and test. Plan for government testing in mid FY15.                                            |  |                                                                                       |            |                                                 |                |                  |
| ON BOARD VEHICLE POWER (OBVP)<br>-Continue development of NEXGEN On Board Vehicle Power, fuel efficiency study - Award two one-year RDT&E contracts to develop more fuel efficient OBVP kits. Each contractor to produce 2 each for total of 4 test articles. Plan for government testing in FY15 on MTRV platforms. |  |                                                                                       |            |                                                 |                |                  |
| FY 2016 Base Plans:<br>MOBILE ELECTRIC HYBRID POWER SOURCES (MEHPS)                                                                                                                                                                                                                                                  |  |                                                                                       |            |                                                 |                |                  |

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| <b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Navy |  |                                                                                                  |  | <b>Date:</b> February 2015                                        |  |
| <b>Appropriation/Budget Activity</b><br>1319 / 7                   |  | <b>R-1 Program Element (Number/Name)</b><br>PE 0206624M / <i>Marine Corps Cmbt Services Supt</i> |  | <b>Project (Number/Name)</b><br>2510 / <i>MAGTF CSSE &amp; SE</i> |  |

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| <b>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</b>                                                                                                                                                                                                                                       | <b>FY 2014</b> | <b>FY 2015</b> | <b>FY 2016 Base</b> | <b>FY 2016 OCO</b> | <b>FY 2016 Total</b> |
| <p>-Initiate Engineering, Manufacturing and Development (EMD) of the Mobile Electric Hybrid Power Sources- Award two RDT&amp;E contracts. Each contractor to produce 6 each for a total of 12 test articles. Plan for government testing in FY17 with completion in FY18.</p> <p><b><i>FY 2016 OCO Plans:</i></b><br/>N/A</p> |                |                |                     |                    |                      |
| <b>Accomplishments/Planned Programs Subtotals</b>                                                                                                                                                                                                                                                                             | 4.179          | 4.930          | 9.167               | -                  | 9.167                |

| <b>C. Other Program Funding Summary (\$ in Millions)</b> |                |                |                     |                    |                      |                |                |                |                |                         |                   |
|----------------------------------------------------------|----------------|----------------|---------------------|--------------------|----------------------|----------------|----------------|----------------|----------------|-------------------------|-------------------|
| <u>Line Item</u>                                         | <u>FY 2014</u> | <u>FY 2015</u> | <u>FY 2016 Base</u> | <u>FY 2016 OCO</u> | <u>FY 2016 Total</u> | <u>FY 2017</u> | <u>FY 2018</u> | <u>FY 2019</u> | <u>FY 2020</u> | <u>Cost To Complete</u> | <u>Total Cost</u> |
| • PMC/6054: <i>Environmental Control Equipment</i>       | 11.593         | 0.994          | 0.094               | -                  | 0.094                | 0.698          | 1.003          | 4.287          | 3.397          | Continuing              | Continuing        |
| • PMC/6366-1: <i>Mobile Power Equipment</i>              | 48.021         | 4.890          | 0.738               | -                  | 0.738                | 3.528          | 6.725          | 9.794          | 6.114          | Continuing              | Continuing        |
| • PMC/6366-2: <i>Advanced Power Sources</i>              | 25.956         | 4.095          | 10.054              | -                  | 10.054               | 14.845         | 3.232          | 15.384         | 15.666         | Continuing              | Continuing        |

**Remarks**

**D. Acquisition Strategy**

Initial focus on development of more efficient 30,000 BTU/Hr and 60,000 BTU/Hr size model Environmental Control Units (ECUs), since they make up the greatest percentage of the inventory and are used extensively for shelter heating and cooling. Full and open competition. Three contractors to develop and deliver prototypes in two size models. Government testing to validate performance. Single contractor to produce both models using multi-year ID/IQ production contract. Low Rate Initial Production (LRIP), followed by LRIP testing, then Full Rate Production (FRP) to procure using PMC funds on annual Delivery Orders. ECUs are organically supported by Marines.

Initial focus on development of Hybrid Generator Systems using AMMPS generators began in FY13, and Power Distribution, followed by New Floodlight Set development in FY14. For each effort, strategies are very similar: Full and open competition. Three contractors to develop and deliver prototypes in two size models. Government testing to validate performance. Single contractor to produce both models using multi-year ID/IQ production contract. LRIP, followed by LRIP testing, then Full Rate Production to procure using PMC funds on annual Delivery Orders. All equipment is organically supported by Marines. The 1kW Generator effort will be to integrate and test these generators in USMC unique applications. Generators will be procured by others on a DoD contract.

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| <b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                  | <b>Date:</b> February 2015                                        |
| <b>Appropriation/Budget Activity</b><br>1319 / 7                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | <b>R-1 Program Element (Number/Name)</b><br>PE 0206624M / <i>Marine Corps Cmbt Services Supt</i> | <b>Project (Number/Name)</b><br>2510 / <i>MAGTF CSSE &amp; SE</i> |
| <p>The acquisition strategy for the Renewable Energy Program is to focus on improvements for the next generation Solar Portable Alternative Communications Energy System (SPACES), Ground Renewable Expeditionary Energy System (GREENS)/Medium Hybrid Expeditionary Energy Systems (MHEES), and Mobile Electric Hybrid Power System (MEHPS). These R&amp;D efforts will focus on achieving the Marine Corps goal of lightening the MAGTF and the individual Marine combat load through reduced battery weight and logistical fuel resupply needs. In particular, the development will focus on making these systems smaller, lighter and more efficient. In addition, this development effort will also focus on development needed to transition the Office of Naval Research (ONR), Reliable S (SAP - Service Accessible Point) Update Protocol (RSUP), Future Naval Capability (FNC) effort.</p> <p>The acquisition strategy for the Battery Management and Sustainment System (BMAS) is to focus on the development of the next generation portable Marine Corps batteries and chargers and a Portable Lithium Battery Maintainer. These R&amp;D efforts will focus on developing a capability which allow the Marine Corps the ability to support battery needs in all locations and environments of operation (land, sea and air). In particular, the development will focus on making the next generation Conformal/CFX battery.</p> <p>The acquisition strategy for the On Board Vehicle Power Program is to focus on the continued adaptation and development of technologies transitioned from the Office of Naval Research Future Naval Capability. Primary focus will be on adaptation for different vehicle platform models (M1151, M1165) as well as updates to system configuration due to Armor requirement changes. Further, changes in deployment methodology with command guidance to focus on flexibility and efficiency will drive research and development to save fuel at idle conditions and improve energy export efficiency.</p> <p><b>E. Performance Metrics</b></p> <p>E2CU: Energy efficiency; size; weight; EPA-approved refrigerant; affordability; organically supportable.</p> <p>MOBILE POWER: Energy efficiency; size; weight; affordability; organically supportable.</p> <p>SPACES: 50% size reduction of controller, 50% reduction in panel surface area, 50% increase in panel efficiency</p> <p>GREENS/MHEES/MEHPS): 20% reduction in weight, 50% increase in power capability, 20% reduction in volume</p> <p>BMAS: Energy efficiency; size; weight; ability to charge specified batteries</p> <p>OBVP: N/A</p> |                                                                                                  |                                                                   |

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| Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Navy                                       |                        |                                     |             |         |            |                                                                                       |            |                 |            |                                                 |            | Date: February 2015 |                  |            |                          |
| Appropriation/Budget Activity<br>1319 / 7                                                    |                        |                                     |             |         |            | R-1 Program Element (Number/Name)<br>PE 0206624M / Marine Corps Cmbt<br>Services Supt |            |                 |            | Project (Number/Name)<br>2510 / MAGTF CSSE & SE |            |                     |                  |            |                          |
| Product Development (\$ in Millions)                                                         |                        |                                     |             | FY 2014 |            | FY 2015                                                                               |            | FY 2016<br>Base |            | FY 2016<br>OCO                                  |            | FY 2016<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 |
| E2CU DEVELOPMENT                                                                             | C/FFP                  | VAR : VAR                           | 3.002       | -       |            | -                                                                                     |            | 0.202           | Mar 2016   | -                                               |            | 0.202               | Continuing       | Continuing | Continuing               |
| APS OBVP MTVR DEVELOPMENT                                                                    | C/IDIQ                 | TBD : TBD                           | 0.000       | -       |            | 0.300                                                                                 | Mar 2015   | -               |            | -                                               |            | -                   | -                | 0.300      | -                        |
| APS CONFORMAL/CFXI BATTERY DEVELOPMENT                                                       | C/IDIQ                 | NSWC : CARDEROCK, MD                | 0.000       | -       |            | 0.300                                                                                 | Mar 2015   | -               |            | -                                               |            | -                   | -                | 0.300      | -                        |
| APS MEHPS EMD                                                                                | C/IDIQ                 | TBD : TBD                           | 0.000       | -       |            | -                                                                                     |            | 5.986           | Dec 2015   | -                                               |            | 5.986               | Continuing       | Continuing | Continuing               |
| Prior Years Cumulative Funding                                                               | Various                | VAR : VAR                           | 8.120       | -       |            | -                                                                                     |            | -               |            | -                                               |            | -                   | -                | 8.120      | -                        |
| Subtotal                                                                                     |                        |                                     | 11.122      | -       |            | 0.600                                                                                 |            | 6.188           |            | -                                               |            | 6.188               | -                | -          | -                        |
| Support (\$ in Millions)                                                                     |                        |                                     |             | FY 2014 |            | FY 2015                                                                               |            | FY 2016<br>Base |            | FY 2016<br>OCO                                  |            | FY 2016<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 |
| AMEPDIS SUPPORT                                                                              | Various                | VAR : VAR                           | 0.000       | 0.059   | Aug 2014   | 0.050                                                                                 | Apr 2015   | -               |            | -                                               |            | -                   | -                | 0.109      | -                        |
| Subtotal                                                                                     |                        |                                     | 0.000       | 0.059   |            | 0.050                                                                                 |            | -               |            | -                                               |            | -                   | -                | 0.109      | -                        |
| Remarks                                                                                      |                        |                                     |             |         |            |                                                                                       |            |                 |            |                                                 |            |                     |                  |            |                          |
| Travel to support testing verification for Mobile Power Distribution (AMEPDIS) in 2014-2015. |                        |                                     |             |         |            |                                                                                       |            |                 |            |                                                 |            |                     |                  |            |                          |
| Test and Evaluation (\$ in Millions)                                                         |                        |                                     |             | FY 2014 |            | FY 2015                                                                               |            | FY 2016<br>Base |            | FY 2016<br>OCO                                  |            | FY 2016<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 |
| E2CU TESTING                                                                                 | Various                | ABERDEEN TEST CENTER : ABERDEEN, MD | 0.000       | 0.917   | Aug 2014   | -                                                                                     |            | -               |            | -                                               |            | -                   | -                | 0.917      | -                        |
| HYBRID GENERATOR/ NEXT GEN POWER DIST SYS                                                    | MIPR                   | ABERDEEN TEST CENTER : ABERDEEN, MD | 0.000       | 1.586   | Apr 2014   | 2.578                                                                                 | Mar 2015   | -               |            | -                                               |            | -                   | -                | 4.164      | -                        |

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|--------------------------------------------------------|------------------------------|-------------------------------------------|----------------|---------|---------------|---------------------------------------------------------------------------------------|---------------|-----------------|---------------|----------------|---------------|-------------------------------------------------|---------------------|---------------|--------------------------------|
| Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Navy |                              |                                           |                |         |               |                                                                                       |               |                 |               |                |               | Date: February 2015                             |                     |               |                                |
| Appropriation/Budget Activity<br>1319 / 7              |                              |                                           |                |         |               | R-1 Program Element (Number/Name)<br>PE 0206624M / Marine Corps Cmbt<br>Services Supt |               |                 |               |                |               | Project (Number/Name)<br>2510 / MAGTF CSSE & SE |                     |               |                                |
| Test and Evaluation (\$ in Millions)                   |                              |                                           |                | FY 2014 |               | FY 2015                                                                               |               | FY 2016<br>Base |               | FY 2016<br>OCO |               | FY 2016<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 |
| APS MHEES/MEHPS-L<br>TESTING                           | WR                           | NSWC :<br>CARDEROCK, MD                   | 0.000          | 1.617   | Mar 2014      | -                                                                                     |               | -               |               | -              |               | -                                               | -                   | 1.617         | -                              |
| APS CONFORMAL/CFXI<br>BATTERY TEST PLAN<br>AND PREP    | WR                           | NSWC :<br>CARDEROCK, MD                   | 0.000          | -       |               | 0.100                                                                                 | Mar 2015      | -               |               | -              |               | -                                               | -                   | 0.100         | -                              |
| APS OBVP MTRV TEST<br>PLAN AND PREP                    | MIPR                         | ABERDEEN<br>TEST CENTER :<br>ABERDEEN, MD | 0.000          | -       |               | 0.100                                                                                 | Mar 2015      | -               |               | -              |               | -                                               | -                   | 0.100         | -                              |
| Prior Year Cumulative<br>Funding                       | Various                      | Various : Various                         | 1.339          | -       |               | -                                                                                     |               | -               |               | -              |               | -                                               | -                   | 1.339         | -                              |
| E2CU INTEGRATION<br>TESTING                            | MIPR                         | ABERDEEN<br>TEST CENTER :<br>ABERDEEN MD  | 0.000          | -       |               | 0.435                                                                                 | Apr 2015      | -               |               | -              |               | -                                               | -                   | 0.435         | -                              |
| MPE MICRO GRID<br>TESTING                              | MIPR                         | ABERDEEN<br>TEST CENTER :<br>ABERDEEN MD  | 0.000          | -       |               | -                                                                                     |               | 2.003           | Feb 2016      | -              |               | 2.003                                           | Continuing          | Continuing    | Continuing                     |
| MPE FLS AND 1KW<br>INTEGRATION TESTING                 | MIPR                         | ABERDEEN<br>TEST CENTER :<br>ABERDEEN MD  | 0.000          | -       |               | 1.032                                                                                 | Apr 2015      | 0.976           | Apr 2016      | -              |               | 0.976                                           | Continuing          | Continuing    | Continuing                     |
| Subtotal                                               |                              |                                           | 1.339          | 4.120   |               | 4.245                                                                                 |               | 2.979           |               | -              |               | 2.979                                           | -                   | -             | -                              |
| Management Services (\$ in Millions)                   |                              |                                           |                | FY 2014 |               | FY 2015                                                                               |               | FY 2016<br>Base |               | FY 2016<br>OCO |               | FY 2016<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 |
| APS PM support for<br>development and test<br>mgmt     | C/FFP                        | MCSC : Quantico,<br>VA                    | 0.187          | -       |               | 0.035                                                                                 | Mar 2015      | -               |               | -              |               | -                                               | -                   | 0.222         | -                              |
| Subtotal                                               |                              |                                           | 0.187          | -       |               | 0.035                                                                                 |               | -               |               | -              |               | -                                               | -                   | 0.222         | -                              |

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|                                                        |  |  |                |         |                                                                                       |         |  |                 |  |                                                 |                     |                  |                     |               |                                |
|--------------------------------------------------------|--|--|----------------|---------|---------------------------------------------------------------------------------------|---------|--|-----------------|--|-------------------------------------------------|---------------------|------------------|---------------------|---------------|--------------------------------|
| Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Navy |  |  |                |         |                                                                                       |         |  |                 |  |                                                 | Date: February 2015 |                  |                     |               |                                |
| Appropriation/Budget Activity<br>1319 / 7              |  |  |                |         | R-1 Program Element (Number/Name)<br>PE 0206624M / Marine Corps Cmbt<br>Services Supt |         |  |                 |  | Project (Number/Name)<br>2510 / MAGTF CSSE & SE |                     |                  |                     |               |                                |
|                                                        |  |  | Prior<br>Years | FY 2014 |                                                                                       | FY 2015 |  | FY 2016<br>Base |  | FY 2016<br>OCO                                  |                     | FY 2016<br>Total | Cost To<br>Complete | Total<br>Cost | Target<br>Value of<br>Contract |
| Project Cost Totals                                    |  |  | 12.648         | 4.179   |                                                                                       | 4.930   |  | 9.167           |  | -                                               |                     | 9.167            | -                   | -             | -                              |

**Remarks**

Environmental Control Equipment, Mobile Power Equipment and Advanced Power are part of Expeditionary Energy Initiatives.

**UNCLASSIFIED**

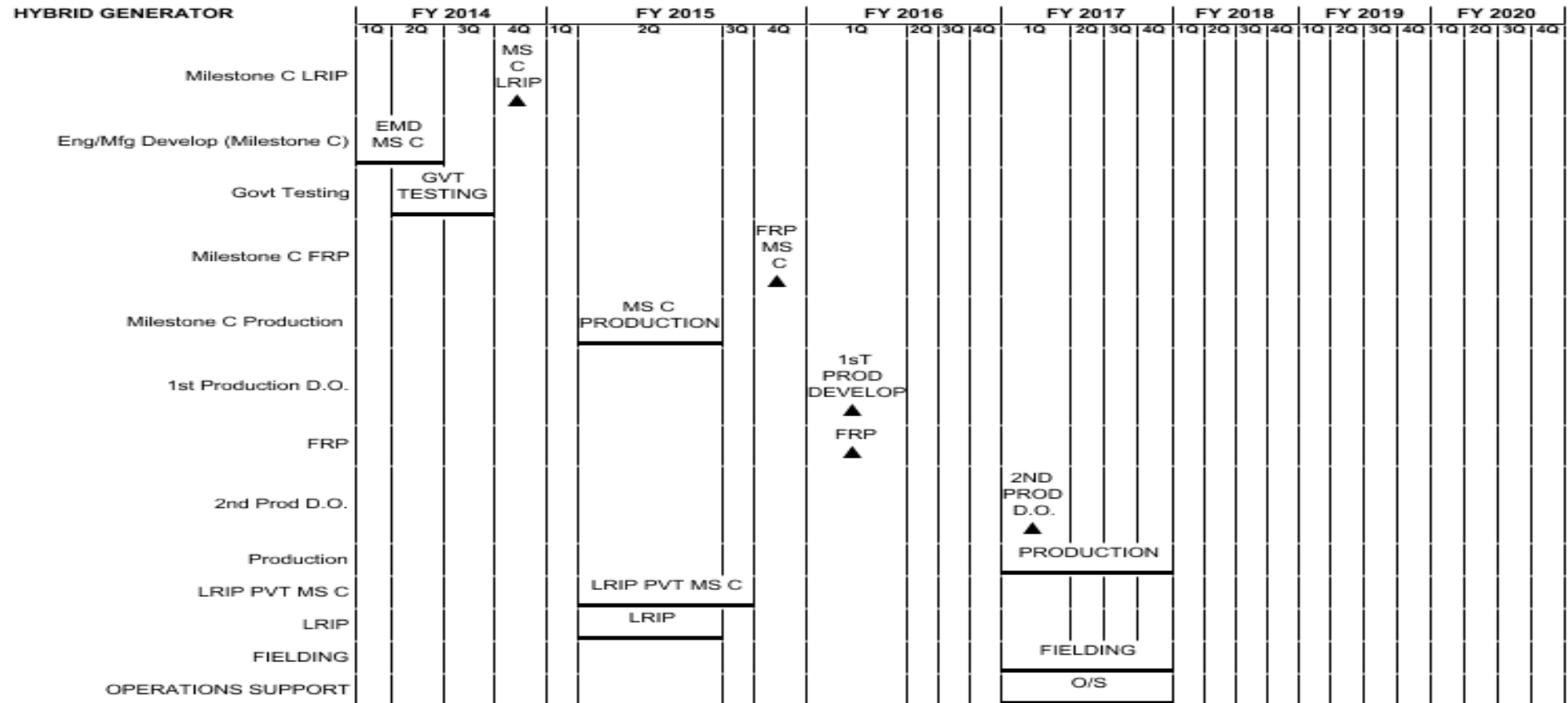
**Exhibit R-4, RDT&E Schedule Profile: PB 2016 Navy**

**Date:** February 2015

**Appropriation/Budget Activity**  
1319 / 7

**R-1 Program Element (Number/Name)**  
PE 0206624M / Marine Corps Cmbt  
Services Supt

**Project (Number/Name)**  
2510 / MAGTF CSSE & SE



2016PB - 0206624M - 2510

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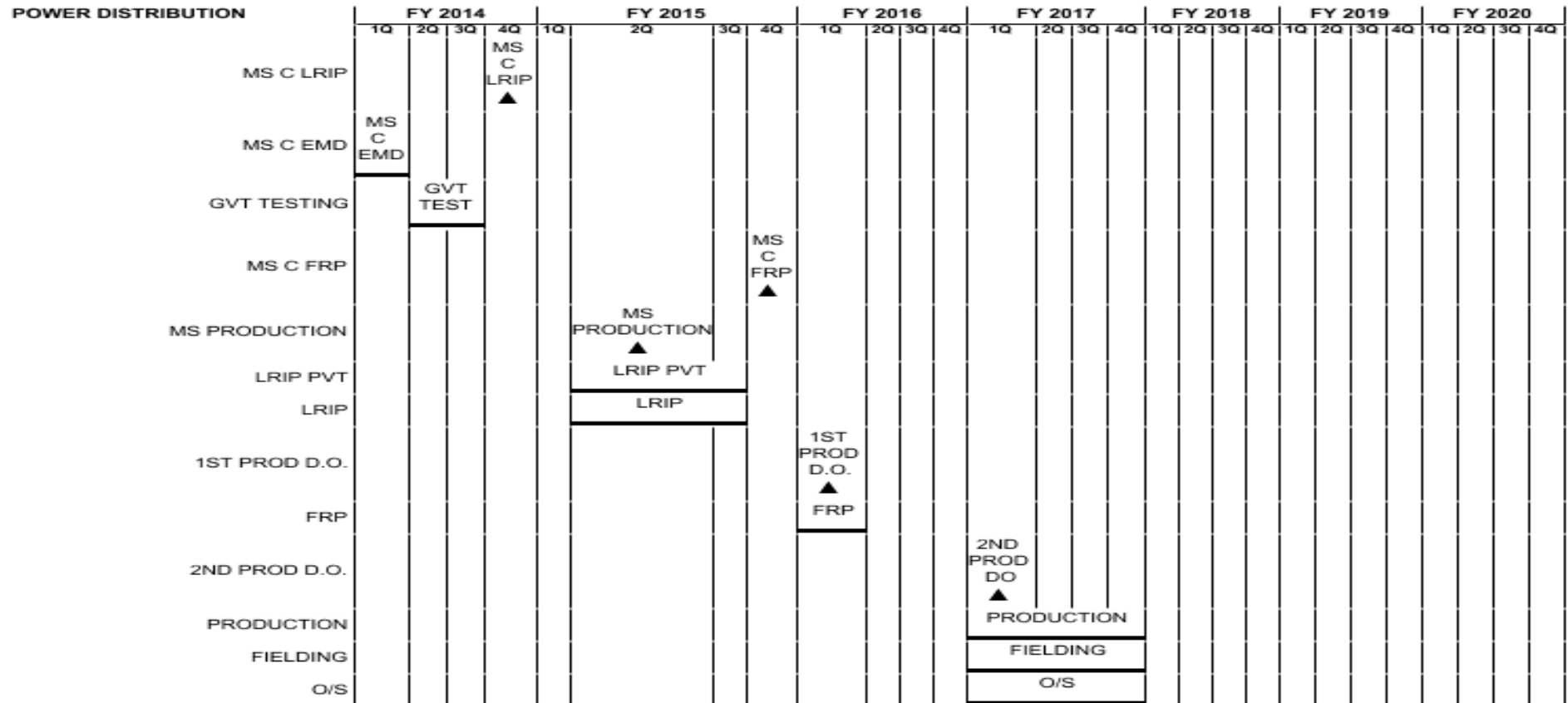
**Exhibit R-4, RDT&E Schedule Profile: PB 2016 Navy**

**Date:** February 2015

**Appropriation/Budget Activity**  
1319 / 7

**R-1 Program Element (Number/Name)**  
PE 0206624M / Marine Corps Cmbt  
Services Supt

**Project (Number/Name)**  
2510 / MAGTF CSSE & SE



2016PB - 0206624M - 2510

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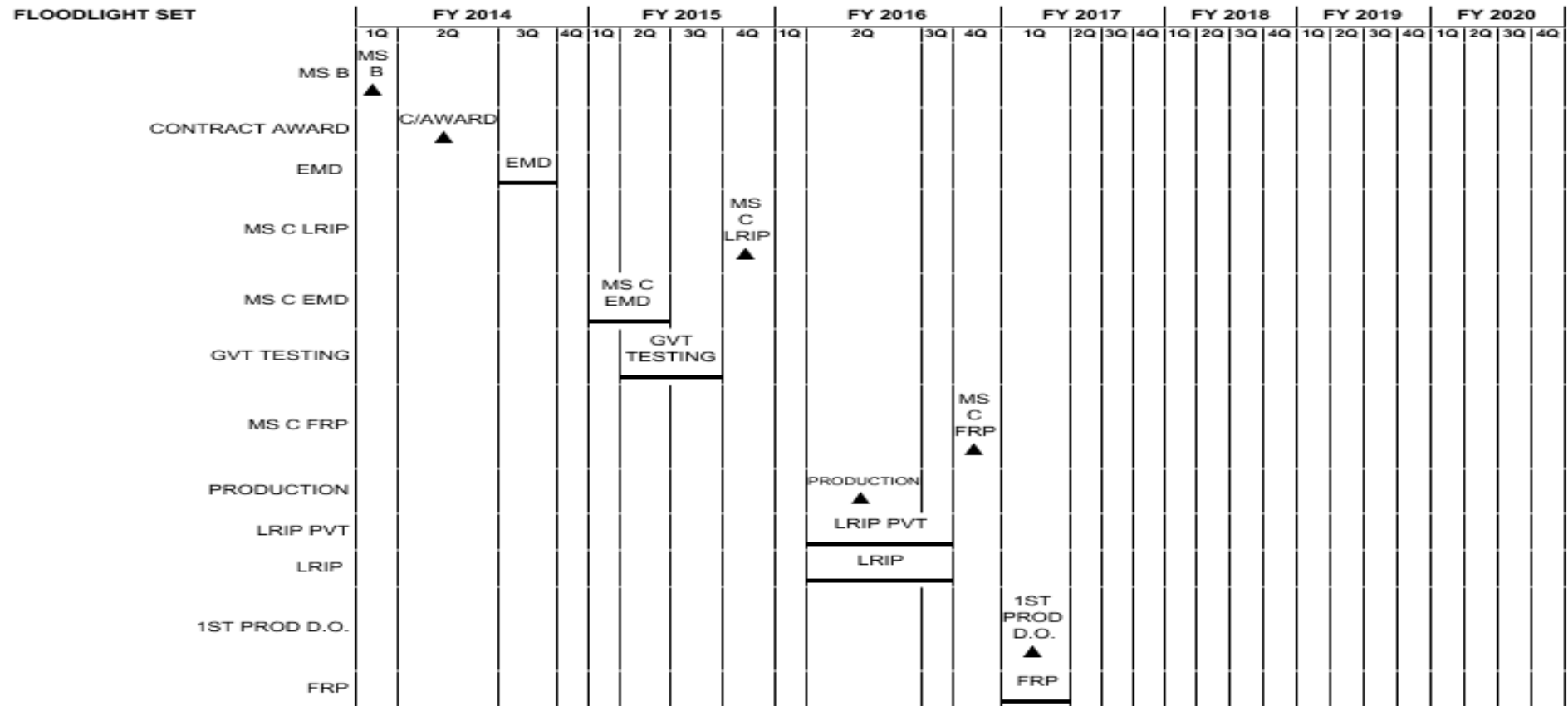
Exhibit R-4, RDT&E Schedule Profile: PB 2016 Navy

Date: February 2015

Appropriation/Budget Activity  
1319 / 7

R-1 Program Element (Number/Name)  
PE 0206624M / Marine Corps Cmbt  
Services Supt

Project (Number/Name)  
2510 / MAGTF CSSE & SE



2016PB - 0206624M - 2510

**UNCLASSIFIED**

PE 0206624M: *Marine Corps Cmbt Services Supt*  
Navy

R-1 Line #199

**R-1 Program Element (Number/Name)**  
PE 0206624M / Marine Corps Cmbt  
Services Supt

|                                                        |
|--------------------------------------------------------|
| <b>Project (Number/Name)</b><br>2510 / MAGTF CSSE & SE |
|--------------------------------------------------------|

| 1KW INTEGRATION |    |    |    | FY 2014 |    |             |    | FY 2015 |    |             |    | FY 2016 |     |    |    | FY 2017 |    |    |    | FY 2018 |    |    |    | FY 2019 |    |    |    | FY 2020 |  |  |  |
|-----------------|----|----|----|---------|----|-------------|----|---------|----|-------------|----|---------|-----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|--|--|--|
|                 | 1Q | 2Q | 3Q | 4Q      | 1Q | 2Q          | 3Q | 4Q      | 1Q | 2Q          | 3Q | 4Q      | 1Q  | 2Q | 3Q | 4Q      | 1Q | 2Q | 3Q | 4Q      | 1Q | 2Q | 3Q | 4Q      | 1Q | 2Q | 3Q | 4Q      |  |  |  |
| INTEGRATION     |    |    |    |         |    | INTEGRATION |    |         |    |             |    |         |     |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |  |  |  |
| GVT TESTING     |    |    |    |         |    |             |    |         |    | GVT TESTING |    |         |     |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |  |  |  |
| O/S             |    |    |    |         |    |             |    |         |    |             |    |         | O/S |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |  |  |  |
|                 |    |    |    |         |    |             |    |         |    |             |    |         |     |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |  |  |  |
|                 |    |    |    |         |    |             |    |         |    |             |    |         |     |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |  |  |  |
|                 |    |    |    |         |    |             |    |         |    |             |    |         |     |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |  |  |  |
|                 |    |    |    |         |    |             |    |         |    |             |    |         |     |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |  |  |  |
|                 |    |    |    |         |    |             |    |         |    |             |    |         |     |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |  |  |  |
|                 |    |    |    |         |    |             |    |         |    |             |    |         |     |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |  |  |  |
|                 |    |    |    |         |    |             |    |         |    |             |    |         |     |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |  |  |  |
|                 |    |    |    |         |    |             |    |         |    |             |    |         |     |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |  |  |  |
|                 |    |    |    |         |    |             |    |         |    |             |    |         |     |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |  |  |  |
|                 |    |    |    |         |    |             |    |         |    |             |    |         |     |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |  |  |  |
|                 |    |    |    |         |    |             |    |         |    |             |    |         |     |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |  |  |  |
|                 |    |    |    |         |    |             |    |         |    |             |    |         |     |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |  |  |  |
|                 |    |    |    |         |    |             |    |         |    |             |    |         |     |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |  |  |  |
|                 |    |    |    |         |    |             |    |         |    |             |    |         |     |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |  |  |  |
|                 |    |    |    |         |    |             |    |         |    |             |    |         |     |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |  |  |  |
|                 |    |    |    |         |    |             |    |         |    |             |    |         |     |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |  |  |  |
|                 |    |    |    |         |    |             |    |         |    |             |    |         |     |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |  |  |  |
|                 |    |    |    |         |    |             |    |         |    |             |    |         |     |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |  |  |  |
|                 |    |    |    |         |    |             |    |         |    |             |    |         |     |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |  |  |  |
|                 |    |    |    |         |    |             |    |         |    |             |    |         |     |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |  |  |  |
|                 |    |    |    |         |    |             |    |         |    |             |    |         |     |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |  |  |  |
|                 |    |    |    |         |    |             |    |         |    |             |    |         |     |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |  |  |  |
|                 |    |    |    |         |    |             |    |         |    |             |    |         |     |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |  |  |  |
|                 |    |    |    |         |    |             |    |         |    |             |    |         |     |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |  |  |  |
|                 |    |    |    |         |    |             |    |         |    |             |    |         |     |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |  |  |  |
|                 |    |    |    |         |    |             |    |         |    |             |    |         |     |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |  |  |  |
|                 |    |    |    |         |    |             |    |         |    |             |    |         |     |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |  |  |  |
|                 |    |    |    |         |    |             |    |         |    |             |    |         |     |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |  |  |  |
|                 |    |    |    |         |    |             |    |         |    |             |    |         |     |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |  |  |  |
|                 |    |    |    |         |    |             |    |         |    |             |    |         |     |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |  |  |  |
|                 |    |    |    |         |    |             |    |         |    |             |    |         |     |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |  |  |  |
|                 |    |    |    |         |    |             |    |         |    |             |    |         |     |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |  |  |  |
|                 |    |    |    |         |    |             |    |         |    |             |    |         |     |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |  |  |  |
|                 |    |    |    |         |    |             |    |         |    |             |    |         |     |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |  |  |  |
|                 |    |    |    |         |    |             |    |         |    |             |    |         |     |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |  |  |  |
|                 |    |    |    |         |    |             |    |         |    |             |    |         |     |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |  |  |  |
|                 |    |    |    |         |    |             |    |         |    |             |    |         |     |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |  |  |  |
|                 |    |    |    |         |    |             |    |         |    |             |    |         |     |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |  |  |  |
|                 |    |    |    |         |    |             |    |         |    |             |    |         |     |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |  |  |  |
|                 |    |    |    |         |    |             |    |         |    |             |    |         |     |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |  |  |  |
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|                 |    |    |    |         |    |             |    |         |    |             |    |         |     |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |  |  |  |
|                 |    |    |    |         |    |             |    |         |    |             |    |         |     |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |  |  |  |
|                 |    |    |    |         |    |             |    |         |    |             |    |         |     |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |  |  |  |
|                 |    |    |    |         |    |             |    |         |    |             |    |         |     |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |  |  |  |
|                 |    |    |    |         |    |             |    |         |    |             |    |         |     |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |  |  |  |
|                 |    |    |    |         |    |             |    |         |    |             |    |         |     |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |  |  |  |
|                 |    |    |    |         |    |             |    |         |    |             |    |         |     |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |  |  |  |
|                 |    |    |    |         |    |             |    |         |    |             |    |         |     |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |  |  |  |
|                 |    |    |    |         |    |             |    |         |    |             |    |         |     |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |  |  |  |
|                 |    |    |    |         |    |             |    |         |    |             |    |         |     |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |  |  |  |
|                 |    |    |    |         |    |             |    |         |    |             |    |         |     |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |  |  |  |
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|                 |    |    |    |         |    |             |    |         |    |             |    |         |     |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |  |  |  |
|                 |    |    |    |         |    |             |    |         |    |             |    |         |     |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |  |  |  |
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|                 |    |    |    |         |    |             |    |         |    |             |    |         |     |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |  |  |  |
|                 |    |    |    |         |    |             |    |         |    |             |    |         |     |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |  |  |  |
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|                 |    |    |    |         |    |             |    |         |    |             |    |         |     |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |  |  |  |
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|                 |    |    |    |         |    |             |    |         |    |             |    |         |     |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |  |  |  |
|                 |    |    |    |         |    |             |    |         |    |             |    |         |     |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |  |  |  |
|                 |    |    |    |         |    |             |    |         |    |             |    |         |     |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |  |  |  |
|                 |    |    |    |         |    |             |    |         |    |             |    |         |     |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |  |  |  |
|                 |    |    |    |         |    |             |    |         |    |             |    |         |     |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |  |  |  |
|                 |    |    |    |         |    |             |    |         |    |             |    |         |     |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |  |  |  |
|                 |    |    |    |         |    |             |    |         |    |             |    |         |     |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |  |  |  |
|                 |    |    |    |         |    |             |    |         |    |             |    |         |     |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |  |  |  |
|                 |    |    |    |         |    |             |    |         |    |             |    |         |     |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |  |  |  |
|                 |    |    |    |         |    |             |    |         |    |             |    |         |     |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |  |  |  |
|                 |    |    |    |         |    |             |    |         |    |             |    |         |     |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |  |  |  |
|                 |    |    |    |         |    |             |    |         |    |             |    |         |     |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |  |  |  |
|                 |    |    |    |         |    |             |    |         |    |             |    |         |     |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |  |  |  |
|                 |    |    |    |         |    |             |    |         |    |             |    |         |     |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |  |  |  |
|                 |    |    |    |         |    |             |    |         |    |             |    |         |     |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |  |  |  |
|                 |    |    |    |         |    |             |    |         |    |             |    |         |     |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |  |  |  |
|                 |    |    |    |         |    |             |    |         |    |             |    |         |     |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |  |  |  |
|                 |    |    |    |         |    |             |    |         |    |             |    |         |     |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |  |  |  |
|                 |    |    |    |         |    |             |    |         |    |             |    |         |     |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |  |  |  |
|                 |    |    |    |         |    |             |    |         |    |             |    |         |     |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |  |  |  |
|                 |    |    |    |         |    |             |    |         |    |             |    |         |     |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |  |  |  |
|                 |    |    |    |         |    |             |    |         |    |             |    |         |     |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |  |  |  |
|                 |    |    |    |         |    |             |    |         |    |             |    |         |     |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |  |  |  |
|                 |    |    |    |         |    |             |    |         |    |             |    |         |     |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |  |  |  |
|                 |    |    |    |         |    |             |    |         |    |             |    |         |     |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |  |  |  |
|                 |    |    |    |         |    |             |    |         |    |             |    |         |     |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |  |  |  |
|                 |    |    |    |         |    |             |    |         |    |             |    |         |     |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |  |  |  |
|                 |    |    |    |         |    |             |    |         |    |             |    |         |     |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |  |  |  |
|                 |    |    |    |         |    |             |    |         |    |             |    |         |     |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |  |  |  |
|                 |    |    |    |         |    |             |    |         |    |             |    |         |     |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |  |  |  |
|                 |    |    |    |         |    |             |    |         |    |             |    |         |     |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |  |  |  |
|                 |    |    |    |         |    |             |    |         |    |             |    |         |     |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |  |  |  |
|                 |    |    |    |         |    |             |    |         |    |             |    |         |     |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |  |  |  |

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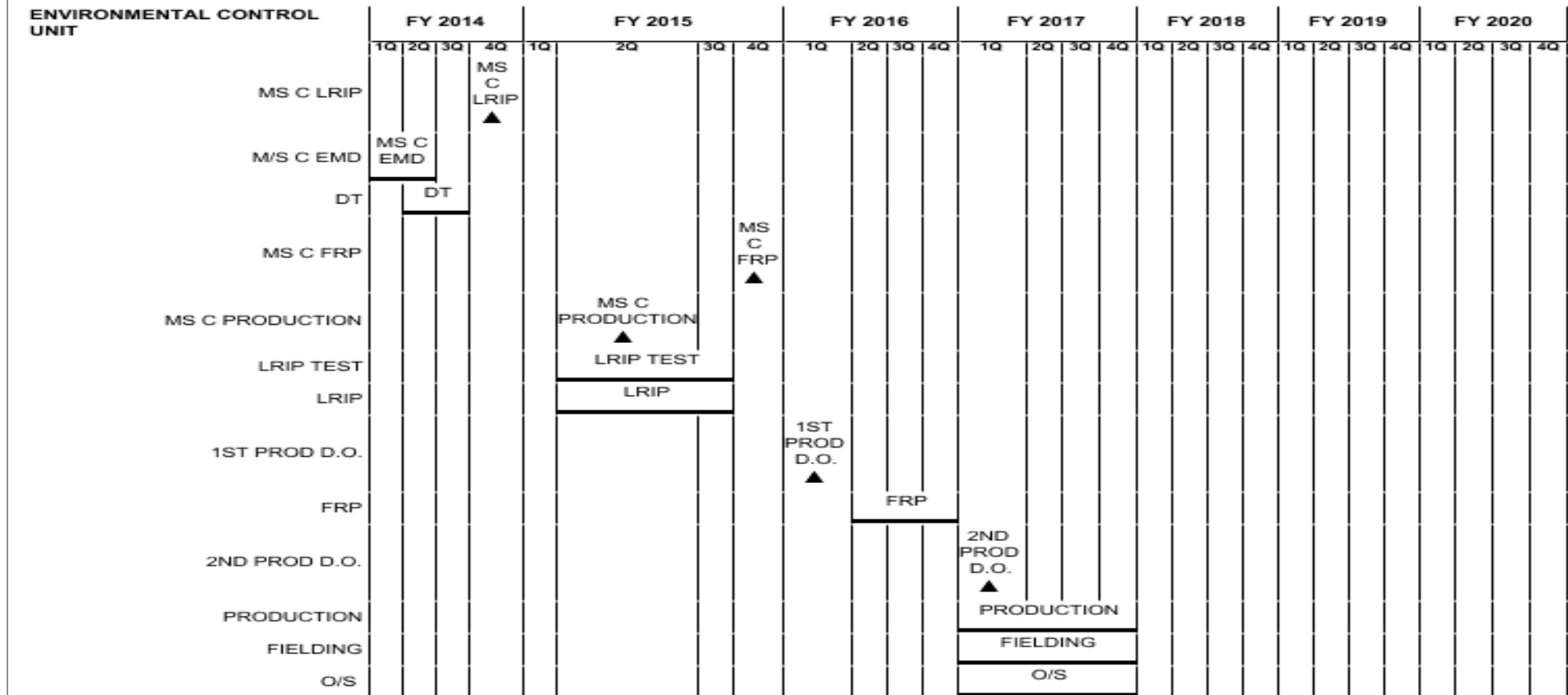
**Exhibit R-4, RDT&E Schedule Profile: PB 2016 Navy**

**Date:** February 2015

**Appropriation/Budget Activity**  
1319 / 7

**R-1 Program Element (Number/Name)**  
PE 0206624M / Marine Corps Cmbt  
Services Supt

**Project (Number/Name)**  
2510 / MAGTF CSSE & SE



2016PB - 0206624M - 2510

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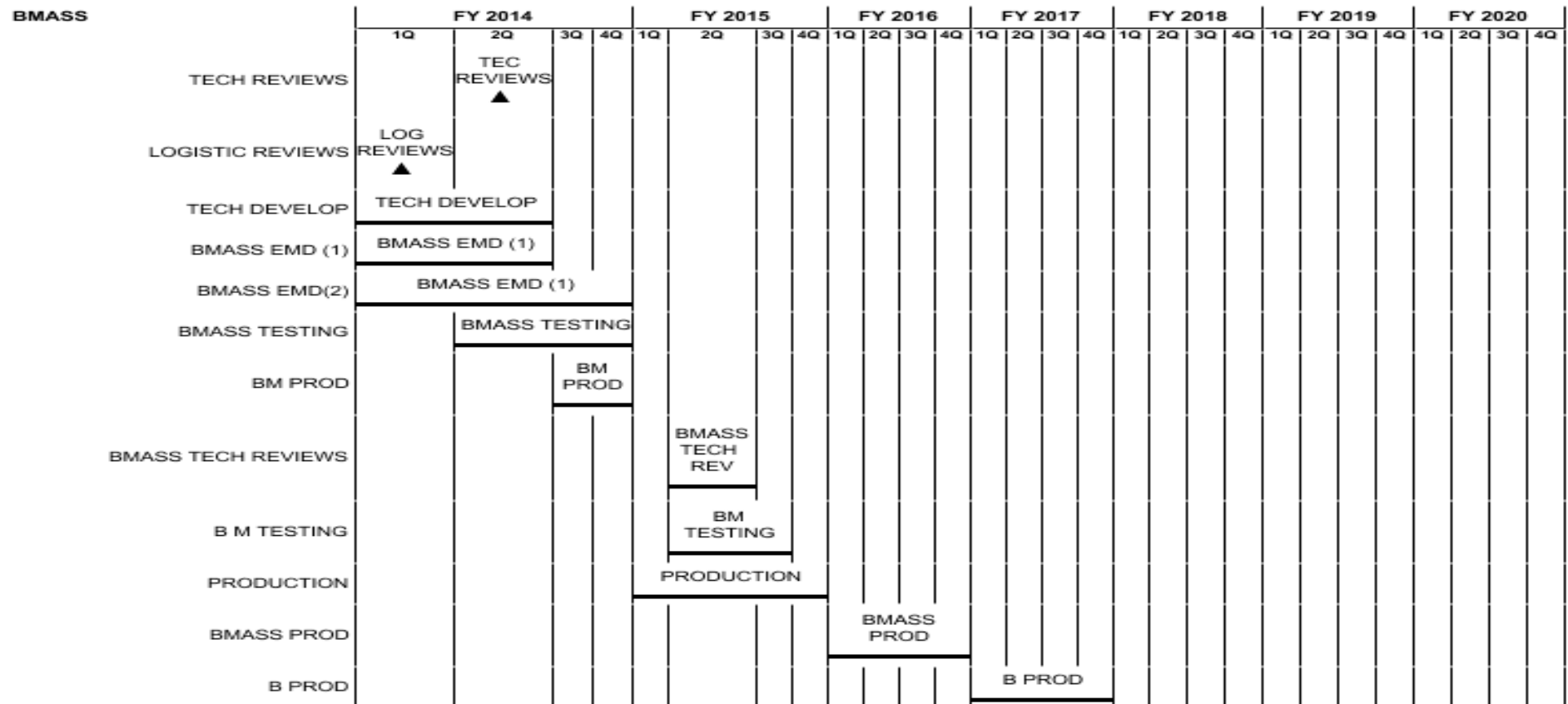
**Exhibit R-4, RDT&E Schedule Profile: PB 2016 Navy**

**Date:** February 2015

**Appropriation/Budget Activity**  
1319 / 7

**R-1 Program Element (Number/Name)**  
PE 0206624M / *Marine Corps Cmbt Services Supt*

**Project (Number/Name)**  
2510 / *MAGTF CSSE & SE*



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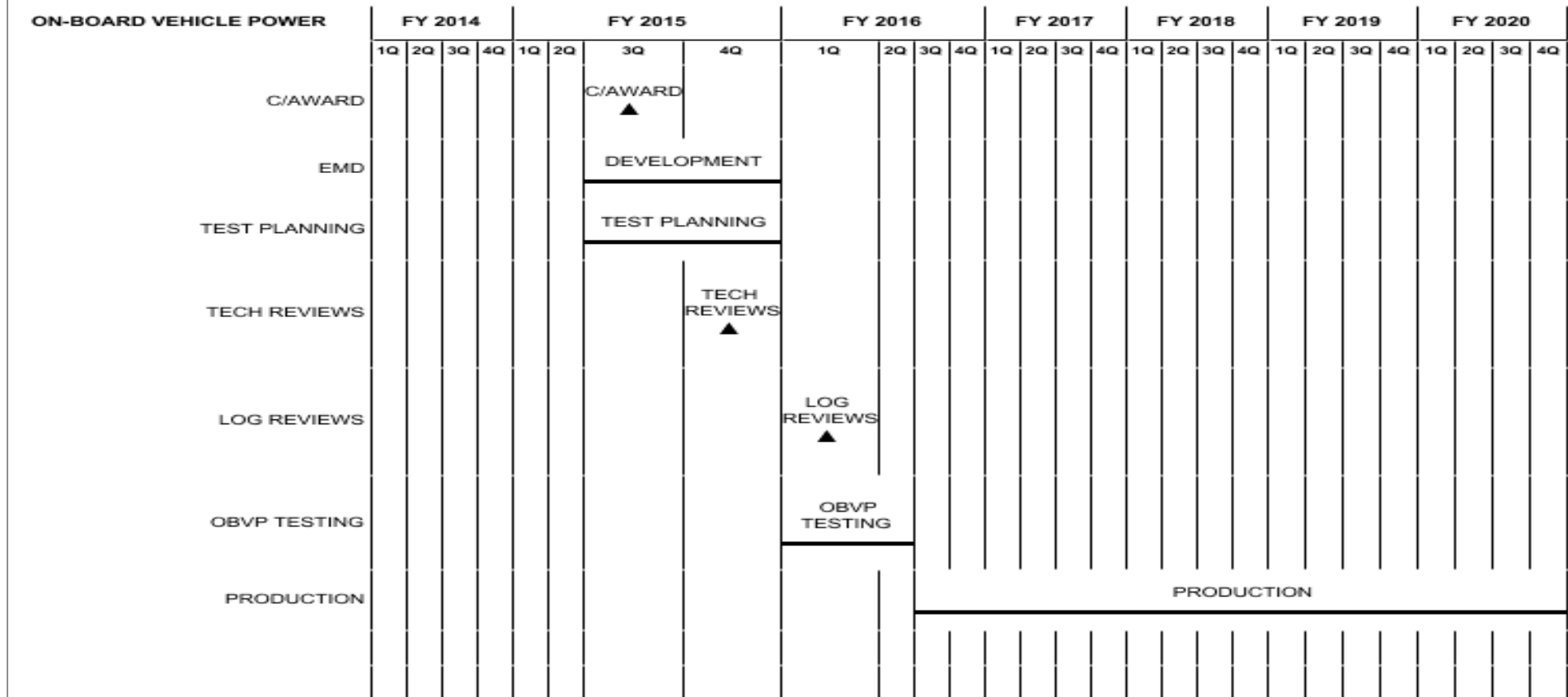
**Exhibit R-4, RDT&E Schedule Profile: PB 2016 Navy**

**Date:** February 2015

**Appropriation/Budget Activity**  
1319 / 7

**R-1 Program Element (Number/Name)**  
PE 0206624M / Marine Corps Cmbt  
Services Supt

**Project (Number/Name)**  
2510 / MAGTF CSSE & SE



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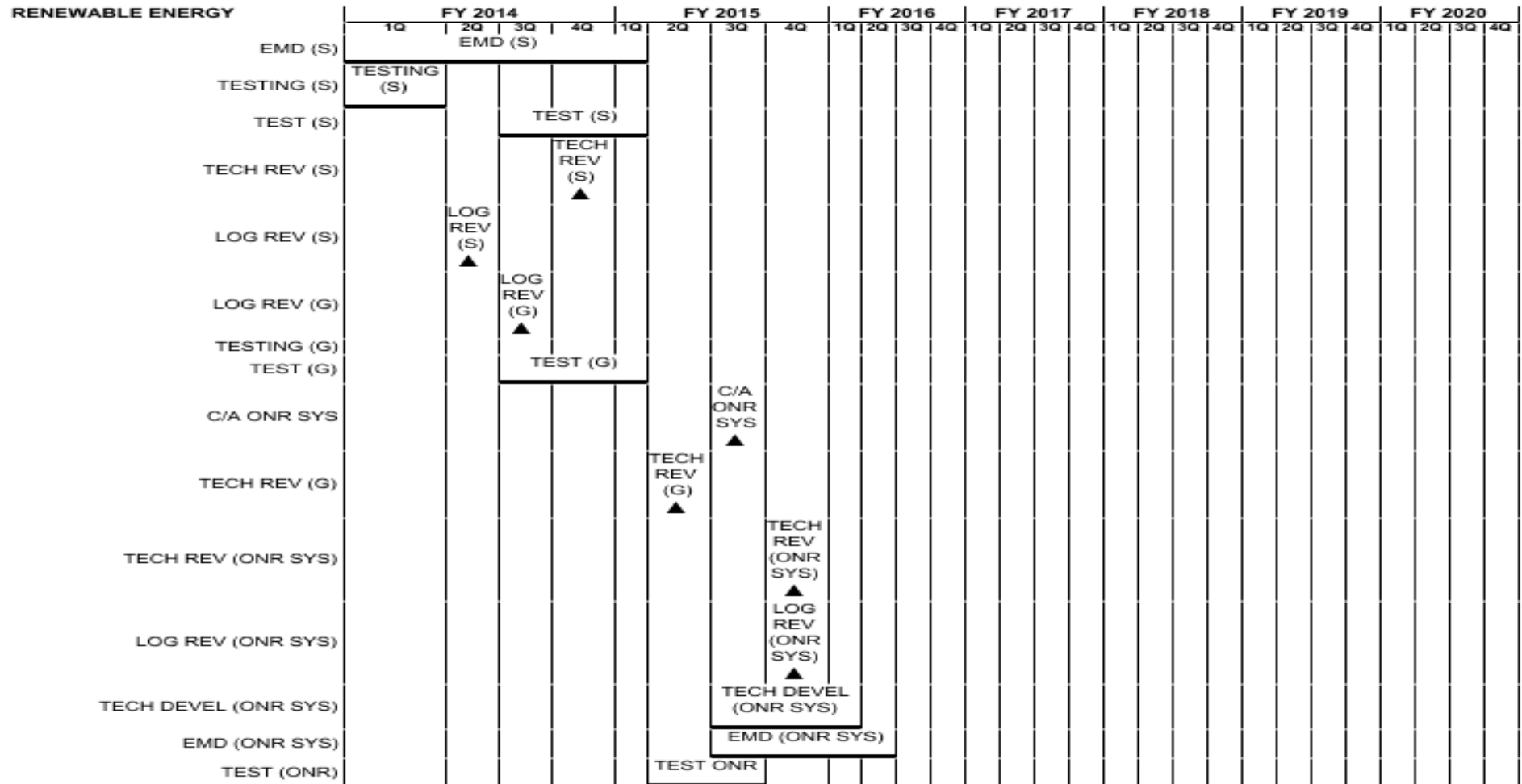
**Exhibit R-4, RDT&E Schedule Profile: PB 2016 Navy**

**Date:** February 2015

**Appropriation/Budget Activity**  
1319 / 7

**R-1 Program Element (Number/Name)**  
PE 0206624M / *Marine Corps Cmbt Services Supt*

**Project (Number/Name)**  
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PE 0206624M: *Marine Corps Cmbt Services Supt*  
Navy

R-1 Line #199

| Project (Number/Name) | Start Date | End Date   | Duration (Days) | Team Lead    | Status      | Notes                                       |
|-----------------------|------------|------------|-----------------|--------------|-------------|---------------------------------------------|
| 101/Alpha             | 2023-01-15 | 2023-03-10 | 55              | John Doe     | Completed   | Project completed ahead of schedule.        |
| 102/Beta              | 2023-02-01 | 2023-04-15 | 75              | Jane Smith   | In Progress | Minor delays due to resource allocation.    |
| 103/Gamma             | 2023-03-01 | 2023-05-20 | 80              | Mike Johnson | On Hold     | Project paused pending budget review.       |
| 104/Delta             | 2023-04-01 | 2023-06-10 | 70              | Sarah Lee    | Planned     | Initial planning and scope definition.      |
| 105/Epsilon           | 2023-05-01 | 2023-07-15 | 75              | David Kim    | On Hold     | Project paused due to technical challenges. |
| 106/Zeta              | 2023-06-01 | 2023-08-10 | 70              | Emily White  | Planned     | Initial planning and scope definition.      |
| 107/Eta               | 2023-07-01 | 2023-09-15 | 75              | Chris Brown  | On Hold     | Project paused pending client requirements. |
| 108/Theta             | 2023-08-01 | 2023-10-10 | 70              | Alex Green   | Planned     | Initial planning and scope definition.      |
| 109/Iota              | 2023-09-01 | 2023-11-15 | 75              | Nina Black   | On Hold     | Project paused due to budget constraints.   |
| 110/Kappa             | 2023-10-01 | 2023-12-10 | 70              | Leo Gray     | Planned     | Initial planning and scope definition.      |

PE 0206624M / Marine Corps Cmbt  
Services Supt

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TEST ONR SYS

PRODUCTION (S)

PRODUCTION (G)

PRODUCTION (ONR  
SYS)

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**Exhibit R-4, RDT&E Schedule Profile:** PB 2016 Navy

**Date:** February 2015

**Appropriation/Budget Activity**  
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**R-1 Program Element (Number/Name)**  
PE 0206624M / *Marine Corps Cmbt Services Supt*

**Project (Number/Name)**  
2510 / *MAGTF CSSE & SE*

| CONFORMAL/CFX BATTERY | FY 2014 |    |    |    | FY 2015 |              |    |    | FY 2016 |    |    |    | FY 2017 |    |    |    | FY 2018 |    |    |    | FY 2019 |    |    |    | FY 2020 |    |    |    |
|-----------------------|---------|----|----|----|---------|--------------|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|
|                       | 1Q      | 2Q | 3Q | 4Q | 1Q      | 2Q           | 3Q | 4Q | 1Q      | 2Q | 3Q | 4Q | 1Q      | 2Q | 3Q | 4Q | 1Q      | 2Q | 3Q | 4Q | 1Q      | 2Q | 3Q | 4Q | 1Q      | 2Q | 3Q | 4Q |
| C/AWARD               |         |    |    |    |         | C/AWARD<br>▲ |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |
| TECH REVIEWS          |         |    |    |    |         |              |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |
| TESTING               |         |    |    |    |         |              |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |
| PRODUCTION            |         |    |    |    |         |              |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |

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**Exhibit R-4, RDT&E Schedule Profile: PB 2016 Navy**

**Date:** February 2015

**Appropriation/Budget Activity**  
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**R-1 Program Element (Number/Name)**  
PE 0206624M / *Marine Corps Cmbt Services Supt*

**Project (Number/Name)**  
2510 / *MAGTF CSSE & SE*

| MOBILE ELECTRIC HYBRID<br>POWER SOURCES | FY 2014 |    |    |    | FY 2015 |    |    |    | FY 2016      |    |    |    | FY 2017 |    |    |    | FY 2018 |    |    |    | FY 2019 |    |    |    | FY 2020 |    |    |    |
|-----------------------------------------|---------|----|----|----|---------|----|----|----|--------------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|
|                                         | 1Q      | 2Q | 3Q | 4Q | 1Q      | 2Q | 3Q | 4Q | 1Q           | 2Q | 3Q | 4Q | 1Q      | 2Q | 3Q | 4Q | 1Q      | 2Q | 3Q | 4Q | 1Q      | 2Q | 3Q | 4Q | 1Q      | 2Q | 3Q | 4Q |
| C/AWARD                                 |         |    |    |    |         |    |    |    | C/AWARD<br>▲ |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |
| TECH REVIEWS                            |         |    |    |    |         |    |    |    |              |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |
| TESTING                                 |         |    |    |    |         |    |    |    |              |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |
| MS C/FRP                                |         |    |    |    |         |    |    |    |              |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |
| PRODUCTION                              |         |    |    |    |         |    |    |    |              |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |

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|                                                               |                                                                                                  |                                                                   |                            |
|---------------------------------------------------------------|--------------------------------------------------------------------------------------------------|-------------------------------------------------------------------|----------------------------|
| <b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2016 Navy |                                                                                                  |                                                                   | <b>Date:</b> February 2015 |
| <b>Appropriation/Budget Activity</b><br>1319 / 7              | <b>R-1 Program Element (Number/Name)</b><br>PE 0206624M / <i>Marine Corps Cmbt Services Supt</i> | <b>Project (Number/Name)</b><br>2510 / <i>MAGTF CSSE &amp; SE</i> |                            |

**Schedule Details**

| Events by Sub Project          | Start   |      | End     |      |
|--------------------------------|---------|------|---------|------|
|                                | Quarter | Year | Quarter | Year |
| <b>HYBRID GENERATOR</b>        |         |      |         |      |
| Milestone C LRIP:              | 4       | 2014 | 4       | 2014 |
| Eng/Mfg Develop (Milestone C): | 1       | 2014 | 2       | 2014 |
| Govt Testing:                  | 2       | 2014 | 3       | 2014 |
| Milestone C FRP:               | 4       | 2015 | 4       | 2015 |
| Milestone C Production:        | 2       | 2015 | 2       | 2015 |
| 1st Production D.O.:           | 1       | 2016 | 1       | 2016 |
| FRP:                           | 1       | 2016 | 1       | 2016 |
| 2nd Prod D.O.:                 | 1       | 2017 | 1       | 2017 |
| Production:                    | 1       | 2017 | 4       | 2017 |
| LRIP PVT MS C:                 | 2       | 2015 | 3       | 2015 |
| LRIP:                          | 2       | 2015 | 2       | 2015 |
| FIELDING:                      | 1       | 2017 | 4       | 2017 |
| OPERATIONS SUPPORT:            | 1       | 2017 | 4       | 2017 |
| <b>POWER DISTRIBUTION</b>      |         |      |         |      |
| MS C LRIP:                     | 4       | 2014 | 4       | 2014 |
| MS C EMD:                      | 1       | 2014 | 1       | 2014 |
| GVT TESTING:                   | 2       | 2014 | 3       | 2014 |
| MS C FRP:                      | 4       | 2015 | 4       | 2015 |
| MS PRODUCTION:                 | 2       | 2015 | 2       | 2015 |
| LRIP PVT:                      | 2       | 2015 | 3       | 2015 |
| LRIP:                          | 2       | 2015 | 3       | 2015 |

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|----------------------------------------------------|--|---------------------------------------------------------------------------------------|---------------------|-------------------------------------------------|------|
| Exhibit R-4A, RDT&E Schedule Details: PB 2016 Navy |  |                                                                                       | Date: February 2015 |                                                 |      |
| Appropriation/Budget Activity<br>1319 / 7          |  | R-1 Program Element (Number/Name)<br>PE 0206624M / Marine Corps Cmbt<br>Services Supt |                     | Project (Number/Name)<br>2510 / MAGTF CSSE & SE |      |
|                                                    |  | Start                                                                                 |                     | End                                             |      |
| Events by Sub Project                              |  | Quarter                                                                               | Year                | Quarter                                         | Year |
| 1ST PROD D.O.:                                     |  | 1                                                                                     | 2016                | 1                                               | 2016 |
| FRP:                                               |  | 1                                                                                     | 2016                | 1                                               | 2016 |
| 2ND PROD D.O.:                                     |  | 1                                                                                     | 2017                | 1                                               | 2017 |
| PRODUCTION:                                        |  | 1                                                                                     | 2017                | 4                                               | 2017 |
| FIELDING:                                          |  | 1                                                                                     | 2017                | 4                                               | 2017 |
| O/S:                                               |  | 1                                                                                     | 2017                | 4                                               | 2017 |
| FLOODLIGHT SET                                     |  |                                                                                       |                     |                                                 |      |
| MS B:                                              |  | 1                                                                                     | 2014                | 1                                               | 2014 |
| CONTRACT AWARD:                                    |  | 2                                                                                     | 2014                | 2                                               | 2014 |
| EMD:                                               |  | 3                                                                                     | 2014                | 3                                               | 2014 |
| MS C LRIP:                                         |  | 4                                                                                     | 2015                | 4                                               | 2015 |
| MS C EMD:                                          |  | 1                                                                                     | 2015                | 2                                               | 2015 |
| GVT TESTING:                                       |  | 2                                                                                     | 2015                | 3                                               | 2015 |
| MS C FRP:                                          |  | 4                                                                                     | 2016                | 4                                               | 2016 |
| PRODUCTION:                                        |  | 2                                                                                     | 2016                | 2                                               | 2016 |
| LRIP PVT:                                          |  | 2                                                                                     | 2016                | 3                                               | 2016 |
| LRIP:                                              |  | 2                                                                                     | 2016                | 3                                               | 2016 |
| 1ST PROD D.O.:                                     |  | 1                                                                                     | 2017                | 1                                               | 2017 |
| FRP:                                               |  | 1                                                                                     | 2017                | 1                                               | 2017 |
| 1KW INTEGRATION                                    |  |                                                                                       |                     |                                                 |      |
| INTEGRATION:                                       |  | 2                                                                                     | 2015                | 2                                               | 2015 |
| GVT TESTING:                                       |  | 2                                                                                     | 2016                | 3                                               | 2016 |
| O/S:                                               |  | 1                                                                                     | 2017                | 4                                               | 2017 |
| ENVIRONMENTAL CONTROL UNIT                         |  |                                                                                       |                     |                                                 |      |
| MS C LRIP:                                         |  | 4                                                                                     | 2014                | 4                                               | 2014 |

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|                                                    |                                                                                       |      |                                                 |      |
|----------------------------------------------------|---------------------------------------------------------------------------------------|------|-------------------------------------------------|------|
| Exhibit R-4A, RDT&E Schedule Details: PB 2016 Navy |                                                                                       |      | Date: February 2015                             |      |
| Appropriation/Budget Activity<br>1319 / 7          | R-1 Program Element (Number/Name)<br>PE 0206624M / Marine Corps Cmbt<br>Services Supt |      | Project (Number/Name)<br>2510 / MAGTF CSSE & SE |      |
|                                                    | Start                                                                                 |      | End                                             |      |
| Events by Sub Project                              | Quarter                                                                               | Year | Quarter                                         | Year |
| M/S C EMD:                                         | 1                                                                                     | 2014 | 2                                               | 2014 |
| DT:                                                | 2                                                                                     | 2014 | 3                                               | 2014 |
| MS C FRP:                                          | 4                                                                                     | 2015 | 4                                               | 2015 |
| MS C PRODUCTION:                                   | 2                                                                                     | 2015 | 2                                               | 2015 |
| LRIP TEST:                                         | 2                                                                                     | 2015 | 3                                               | 2015 |
| LRIP:                                              | 2                                                                                     | 2015 | 3                                               | 2015 |
| 1ST PROD D.O.:                                     | 1                                                                                     | 2016 | 1                                               | 2016 |
| FRP:                                               | 2                                                                                     | 2016 | 4                                               | 2016 |
| 2ND PROD D.O.:                                     | 1                                                                                     | 2017 | 1                                               | 2017 |
| PRODUCTION:                                        | 1                                                                                     | 2017 | 4                                               | 2017 |
| FIELDING:                                          | 1                                                                                     | 2017 | 4                                               | 2017 |
| O/S:                                               | 1                                                                                     | 2017 | 4                                               | 2017 |
| BMASS                                              |                                                                                       |      |                                                 |      |
| TECH REVIEWS:                                      | 2                                                                                     | 2014 | 2                                               | 2014 |
| LOGISTIC REVIEWS:                                  | 1                                                                                     | 2014 | 1                                               | 2014 |
| TECH DEVELOP:                                      | 1                                                                                     | 2014 | 2                                               | 2014 |
| BMASS EMD (1):                                     | 1                                                                                     | 2014 | 2                                               | 2014 |
| BMASS EMD(2):                                      | 1                                                                                     | 2014 | 4                                               | 2014 |
| BMASS TESTING:                                     | 2                                                                                     | 2014 | 4                                               | 2014 |
| BM PROD:                                           | 3                                                                                     | 2014 | 4                                               | 2014 |
| BMASS TECH REVIEWS:                                | 2                                                                                     | 2015 | 2                                               | 2015 |
| B M TESTING:                                       | 2                                                                                     | 2015 | 3                                               | 2015 |
| PRODUCTION:                                        | 1                                                                                     | 2015 | 4                                               | 2015 |
| BMASS PROD:                                        | 1                                                                                     | 2016 | 4                                               | 2016 |
| B PROD:                                            | 1                                                                                     | 2017 | 4                                               | 2017 |

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Exhibit R-4A, RDT&amp;E Schedule Details: PB 2016 Navy

Date: February 2015

Appropriation/Budget Activity

1319 / 7

R-1 Program Element (Number/Name)

PE 0206624M / Marine Corps Cmbt  
Services Supt

Project (Number/Name)

2510 / MAGTF CSSE &amp; SE

| Events by Sub Project         | Start   |      | End     |      |
|-------------------------------|---------|------|---------|------|
|                               | Quarter | Year | Quarter | Year |
| <b>ON-BOARD VEHICLE POWER</b> |         |      |         |      |
| C/AWARD:                      | 3       | 2015 | 3       | 2015 |
| EMD:                          | 3       | 2015 | 4       | 2015 |
| TEST PLANNING:                | 3       | 2015 | 4       | 2015 |
| TECH REVIEWS:                 | 4       | 2015 | 4       | 2015 |
| LOG REVIEWS:                  | 1       | 2016 | 1       | 2016 |
| OBVP TESTING:                 | 1       | 2016 | 2       | 2016 |
| PRODUCTION:                   | 3       | 2016 | 4       | 2020 |
| <b>RENEWABLE ENERGY</b>       |         |      |         |      |
| EMD (S):                      | 1       | 2014 | 1       | 2015 |
| TESTING (S):                  | 1       | 2014 | 1       | 2014 |
| TEST (S):                     | 3       | 2014 | 1       | 2015 |
| TECH REV (S):                 | 4       | 2014 | 4       | 2014 |
| LOG REV (S):                  | 2       | 2014 | 2       | 2014 |
| LOG REV (G):                  | 3       | 2014 | 3       | 2014 |
| TEST (G):                     | 3       | 2014 | 1       | 2015 |
| C/A ONR SYS:                  | 3       | 2015 | 3       | 2015 |
| TECH REV (G):                 | 2       | 2015 | 2       | 2015 |
| TECH REV (ONR SYS):           | 4       | 2015 | 4       | 2015 |
| LOG REV (ONR SYS):            | 4       | 2015 | 4       | 2015 |
| TECH DEVEL (ONR SYS):         | 3       | 2015 | 1       | 2016 |
| EMD (ONR SYS):                | 3       | 2015 | 2       | 2016 |
| TEST (ONR):                   | 2       | 2015 | 3       | 2015 |
| TEST (ONR SYS):               | 3       | 2015 | 2       | 2016 |
| PRODUCTION (S):               | 2       | 2015 | 4       | 2017 |

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|                                                    |  |                                                                                       |                     |                                                 |      |
|----------------------------------------------------|--|---------------------------------------------------------------------------------------|---------------------|-------------------------------------------------|------|
| Exhibit R-4A, RDT&E Schedule Details: PB 2016 Navy |  |                                                                                       | Date: February 2015 |                                                 |      |
| Appropriation/Budget Activity<br>1319 / 7          |  | R-1 Program Element (Number/Name)<br>PE 0206624M / Marine Corps Cmbt<br>Services Supt |                     | Project (Number/Name)<br>2510 / MAGTF CSSE & SE |      |
|                                                    |  | Start                                                                                 |                     | End                                             |      |
| Events by Sub Project                              |  | Quarter                                                                               | Year                | Quarter                                         | Year |
| PRODUCTION (G):                                    |  | 1                                                                                     | 2015                | 4                                               | 2017 |
| PRODUCTION (ONR SYS):                              |  | 2                                                                                     | 2016                | 4                                               | 2017 |
| CONFORMAL/CFX BATTERY                              |  |                                                                                       |                     |                                                 |      |
| C/AWARD:                                           |  | 2                                                                                     | 2015                | 2                                               | 2015 |
| TECH REVIEWS:                                      |  | 3                                                                                     | 2015                | 1                                               | 2016 |
| TESTING:                                           |  | 3                                                                                     | 2015                | 1                                               | 2016 |
| PRODUCTION:                                        |  | 1                                                                                     | 2016                | 1                                               | 2017 |
| MOBILE ELECTRIC HYBRID POWER SOURCES               |  |                                                                                       |                     |                                                 |      |
| C/AWARD:                                           |  | 1                                                                                     | 2016                | 1                                               | 2016 |
| TECH REVIEWS:                                      |  | 4                                                                                     | 2016                | 4                                               | 2016 |
| TESTING:                                           |  | 1                                                                                     | 2017                | 2                                               | 2018 |
| MS C/FRP:                                          |  | 2                                                                                     | 2018                | 2                                               | 2018 |
| PRODUCTION:                                        |  | 3                                                                                     | 2018                | 4                                               | 2020 |

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|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |             |         |              |              |                                                                                    |               |         |         |                                                                   |                     |                  |               |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------|--------------|--------------|------------------------------------------------------------------------------------|---------------|---------|---------|-------------------------------------------------------------------|---------------------|------------------|---------------|
| Exhibit R-2A, RDT&E Project Justification: PB 2016 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |             |         |              |              |                                                                                    |               |         |         |                                                                   | Date: February 2015 |                  |               |
| Appropriation/Budget Activity<br>1319 / 7                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |             |         |              |              | R-1 Program Element (Number/Name)<br>PE 0206624M / Marine Corps Cmbt Services Supt |               |         |         | Project (Number/Name)<br>2929 / Testing Measuring Diag Equip & SE |                     |                  |               |
| COST (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Prior Years | FY 2014 | FY 2015      | FY 2016 Base | FY 2016 OCO                                                                        | FY 2016 Total | FY 2017 | FY 2018 | FY 2019                                                           | FY 2020             | Cost To Complete | Total Cost    |
| 2929: Testing Measuring Diag Equip & SE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 6.120       | 1.897   | 0.248        | 0.516        | -                                                                                  | 0.516         | 0.544   | 0.580   | 0.622                                                             | 0.636               | Continuing       | Continuing    |
| Quantity of RDT&E Articles                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |             | -       | -            | -            | -                                                                                  | -             | -       | -       | -                                                                 | -                   |                  |               |
| A. Mission Description and Budget Item Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |             |         |              |              |                                                                                    |               |         |         |                                                                   |                     |                  |               |
| The Marine Corps Family of Automatic Test Systems (ATS), formerly called Third Echelon Test Sets (TETS), provides automatic test program capability for use by technicians both in garrison and the forward edge of the battlefield; specifically in the areas of interactive electronic technical manuals, condition/predictive based maintenance, and embedded sensors and prognostics.                                                                                                                                                                                                                                                                                                                                                    |             |         |              |              |                                                                                    |               |         |         |                                                                   |                     |                  |               |
| B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |             |         |              |              |                                                                                    |               |         | FY 2014 | FY 2015                                                           | FY 2016 Base        | FY 2016 OCO      | FY 2016 Total |
| Title: Automatic Test Systems (ATS)<br><br>Articles:<br><br>FY 2014 Accomplishments:<br>-Researched new testing techniques to prevent obsolescence of legacy systems.<br>-Developed integration techniques to address new testing solutions into fielded automatic test systems.<br><br>FY 2015 Plans:<br>-Continue to develop advanced technology concepts for automatic test and integrate the subsystems and components into fielded automatic test solutions to support weapon systems.<br><br>FY 2016 Base Plans:<br>-Continue to develop advanced technology concepts for automatic test and integrate the subsystems and components into fielded automatic test solutions to support weapon systems.<br><br>FY 2016 OCO Plans:<br>N/A |             |         |              |              |                                                                                    |               |         | 1.897   | 0.248                                                             | 0.516               | -                | 0.516         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |             |         |              |              |                                                                                    |               |         | -       | -                                                                 | -                   | -                | -             |
| Accomplishments/Planned Programs Subtotals                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |             |         |              |              |                                                                                    |               |         | 1.897   | 0.248                                                             | 0.516               | -                | 0.516         |
| C. Other Program Funding Summary (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |             |         |              |              |                                                                                    |               |         |         |                                                                   |                     |                  |               |
| Line Item                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | FY 2014     | FY 2015 | FY 2016 Base | FY 2016 OCO  | FY 2016 Total                                                                      | FY 2017       | FY 2018 | FY 2019 | FY 2020                                                           | Cost To Complete    | Total Cost       |               |
| • PMC/4181-01: TETS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 2.724       | -       | -            | -            | -                                                                                  | -             | -       | -       | -                                                                 | -                   | 128.904          |               |

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|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|----------------|----------------|--------------------------------------------------------------------------------------------------|----------------|----------------|----------------|-------------------------------------------------------------------------------------|----------------|----------------------------|-------------------|
| <b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Navy                                                                                                                                                                        |                |                |                |                                                                                                  |                |                |                |                                                                                     |                | <b>Date:</b> February 2015 |                   |
| <b>Appropriation/Budget Activity</b><br>1319 / 7                                                                                                                                                                                          |                |                |                | <b>R-1 Program Element (Number/Name)</b><br>PE 0206624M / <i>Marine Corps Cmbt Services Supt</i> |                |                |                | <b>Project (Number/Name)</b><br>2929 / <i>Testing Measuring Diag Equip &amp; SE</i> |                |                            |                   |
| <b>C. Other Program Funding Summary (\$ in Millions)</b>                                                                                                                                                                                  |                |                |                |                                                                                                  |                |                |                |                                                                                     |                |                            |                   |
|                                                                                                                                                                                                                                           |                |                | <u>FY 2016</u> | <u>FY 2016</u>                                                                                   | <u>FY 2016</u> |                |                |                                                                                     |                | <u>Cost To</u>             |                   |
| <u>Line Item</u>                                                                                                                                                                                                                          | <u>FY 2014</u> | <u>FY 2015</u> | <u>Base</u>    | <u>OCO</u>                                                                                       | <u>Total</u>   | <u>FY 2017</u> | <u>FY 2018</u> | <u>FY 2019</u>                                                                      | <u>FY 2020</u> | <u>Complete</u>            | <u>Total Cost</u> |
| • PMC/4181-02: <i>Automatic Test Systems (ATS)</i>                                                                                                                                                                                        | 17.276         | 14.786         | 13.238         | -                                                                                                | 13.238         | 13.389         | 4.007          | 6.538                                                                               | 5.032          | Continuing                 | Continuing        |
| <b>Remarks</b>                                                                                                                                                                                                                            |                |                |                |                                                                                                  |                |                |                |                                                                                     |                |                            |                   |
| <b>D. Acquisition Strategy</b>                                                                                                                                                                                                            |                |                |                |                                                                                                  |                |                |                |                                                                                     |                |                            |                   |
| Automatic Test Systems (ATS) acquisition is being done through Marine Corps Systems Command (MCSC) contracts and in-house at Marine Corps Logistics Command (MCLC), Albany, GA, and Naval Supply Systems Command (NAVSUP), San Diego, CA. |                |                |                |                                                                                                  |                |                |                |                                                                                     |                |                            |                   |
| <b>E. Performance Metrics</b>                                                                                                                                                                                                             |                |                |                |                                                                                                  |                |                |                |                                                                                     |                |                            |                   |
| N/A                                                                                                                                                                                                                                       |                |                |                |                                                                                                  |                |                |                |                                                                                     |                |                            |                   |

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|-------------------------------------------------------------------|-----------------------------------|-------------------------------------------|--------------------|----------------|-------------------|-------------------------------------------------------------------------------------------|-------------------|---------------------|-------------------|--------------------------------------------------------------------------|-------------------|----------------------|----------------------------|-------------------|---------------------------------|
| <b>Exhibit R-3, RDT&amp;E Project Cost Analysis: PB 2016 Navy</b> |                                   |                                           |                    |                |                   |                                                                                           |                   |                     |                   |                                                                          |                   |                      | <b>Date:</b> February 2015 |                   |                                 |
| <b>Appropriation/Budget Activity</b><br>1319 / 7                  |                                   |                                           |                    |                |                   | <b>R-1 Program Element (Number/Name)</b><br>PE 0206624M / Marine Corps Cmbt Services Supt |                   |                     |                   | <b>Project (Number/Name)</b><br>2929 / Testing Measuring Diag Equip & SE |                   |                      |                            |                   |                                 |
| <b>Product Development (\$ in Millions)</b>                       |                                   |                                           |                    | <b>FY 2014</b> |                   | <b>FY 2015</b>                                                                            |                   | <b>FY 2016 Base</b> |                   | <b>FY 2016 OCO</b>                                                       |                   | <b>FY 2016 Total</b> |                            |                   |                                 |
| <b>Cost Category Item</b>                                         | <b>Contract Method &amp; Type</b> | <b>Performing Activity &amp; Location</b> | <b>Prior Years</b> | <b>Cost</b>    | <b>Award Date</b> | <b>Cost</b>                                                                               | <b>Award Date</b> | <b>Cost</b>         | <b>Award Date</b> | <b>Cost</b>                                                              | <b>Award Date</b> | <b>Cost</b>          | <b>Cost To Complete</b>    | <b>Total Cost</b> | <b>Target Value of Contract</b> |
| ATS Study & Hardware 5                                            | C/FFP                             | NAVSUP : San Diego, CA                    | 0.000              | 0.911          | Sep 2014          | -                                                                                         |                   | -                   |                   | -                                                                        |                   | -                    | -                          | 0.911             | -                               |
| ATS Study & Hardware 4                                            | C/FFP                             | OSD : Washington, D.C.                    | 0.000              | 0.500          | Sep 2014          | -                                                                                         |                   | -                   |                   | -                                                                        |                   | -                    | -                          | 0.500             | -                               |
| Prior Years Cumulative Funding                                    | Various                           | N/A : N/A                                 | 2.716              | -              |                   | -                                                                                         |                   | -                   |                   | -                                                                        |                   | -                    | -                          | 2.716             | -                               |
| ATS Technology Evaluation & Hardware                              | C/FFP                             | MCSC : Quantico, VA                       | 0.000              | 0.185          | Jan 2015          | 0.248                                                                                     | Mar 2015          | 0.318               | Apr 2016          | -                                                                        |                   | 0.318                | -                          | 0.751             | -                               |
| <b>Subtotal</b>                                                   |                                   |                                           | 2.716              | 1.596          |                   | 0.248                                                                                     |                   | 0.318               |                   | -                                                                        |                   | 0.318                | -                          | 4.878             | -                               |
| <b>Support (\$ in Millions)</b>                                   |                                   |                                           |                    | <b>FY 2014</b> |                   | <b>FY 2015</b>                                                                            |                   | <b>FY 2016 Base</b> |                   | <b>FY 2016 OCO</b>                                                       |                   | <b>FY 2016 Total</b> |                            |                   |                                 |
| <b>Cost Category Item</b>                                         | <b>Contract Method &amp; Type</b> | <b>Performing Activity &amp; Location</b> | <b>Prior Years</b> | <b>Cost</b>    | <b>Award Date</b> | <b>Cost</b>                                                                               | <b>Award Date</b> | <b>Cost</b>         | <b>Award Date</b> | <b>Cost</b>                                                              | <b>Award Date</b> | <b>Cost</b>          | <b>Cost To Complete</b>    | <b>Total Cost</b> | <b>Target Value of Contract</b> |
| Engineering Support (ATS)                                         | WR                                | MCLB : Albany, GA                         | 3.404              | 0.301          | Nov 2013          | -                                                                                         |                   | 0.198               | Nov 2015          | -                                                                        |                   | 0.198                | Continuing                 | Continuing        | Continuing                      |
| <b>Subtotal</b>                                                   |                                   |                                           | 3.404              | 0.301          |                   | -                                                                                         |                   | 0.198               |                   | -                                                                        |                   | 0.198                | -                          | -                 | -                               |
| <b>Project Cost Totals</b>                                        |                                   |                                           | 6.120              | 1.897          |                   | 0.248                                                                                     |                   | 0.516               |                   | -                                                                        |                   | 0.516                | -                          | -                 | -                               |
| <b>Remarks</b>                                                    |                                   |                                           |                    |                |                   |                                                                                           |                   |                     |                   |                                                                          |                   |                      |                            |                   |                                 |

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PE 0206624M: *Marine Corps Cmbt Services Supt*  
Navy

R-1 Line #199

**R-1 Program Element (Number/Name)**  
PE 0206624M / Marine Corps Cmbt  
Services Supt

2016PB - 0206624M - 2929

[illegible]

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|---------------------------------------------------------------|--|--------------------------------------------------------------------------------------------------|----------------------------|-------------------------------------------------------------------------------------|
| <b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2016 Navy |  |                                                                                                  | <b>Date:</b> February 2015 |                                                                                     |
| <b>Appropriation/Budget Activity</b><br>1319 / 7              |  | <b>R-1 Program Element (Number/Name)</b><br>PE 0206624M / <i>Marine Corps Cmbt Services Supt</i> |                            | <b>Project (Number/Name)</b><br>2929 / <i>Testing Measuring Diag Equip &amp; SE</i> |

Schedule Details

| Events by Sub Project                | Start   |      | End     |      |
|--------------------------------------|---------|------|---------|------|
|                                      | Quarter | Year | Quarter | Year |
| <b><i>Proj 2929</i></b>              |         |      |         |      |
| Milestone B                          | 2       | 2016 | 2       | 2016 |
| Milestone C                          | 1       | 2018 | 1       | 2018 |
| Full Rate Production Decision        | 2       | 2018 | 2       | 2018 |
| Initial Operational Capability (IOC) | 4       | 2018 | 4       | 2018 |
| Full Operational Capability (FOC)    | 3       | 2019 | 3       | 2019 |
| Developmental Testing                | 1       | 2017 | 4       | 2017 |

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|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                |         |         |                 |                                                                                       |                  |         |         |                                          |                     |                     |                  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|---------|---------|-----------------|---------------------------------------------------------------------------------------|------------------|---------|---------|------------------------------------------|---------------------|---------------------|------------------|
| Exhibit R-2A, RDT&E Project Justification: PB 2016 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                |         |         |                 |                                                                                       |                  |         |         |                                          | Date: February 2015 |                     |                  |
| Appropriation/Budget Activity<br>1319 / 7                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                |         |         |                 | R-1 Program Element (Number/Name)<br>PE 0206624M / Marine Corps Cmbt<br>Services Supt |                  |         |         | Project (Number/Name)<br>9C90 / MTVR Mod |                     |                     |                  |
| COST (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Prior<br>Years | FY 2014 | FY 2015 | FY 2016<br>Base | FY 2016<br>OCO                                                                        | FY 2016<br>Total | FY 2017 | FY 2018 | FY 2019                                  | FY 2020             | Cost To<br>Complete | Total<br>Cost    |
| 9C90: MTVR Mod                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 40.863         | 2.602   | 1.187   | 4.066           | -                                                                                     | 4.066            | 1.251   | 0.775   | 1.118                                    | 0.145               | Continuing          | Continuing       |
| Quantity of RDT&E Articles                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                | -       | -       | -               | -                                                                                     | -                | -       | -       | -                                        | -                   |                     |                  |
| A. Mission Description and Budget Item Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                |         |         |                 |                                                                                       |                  |         |         |                                          |                     |                     |                  |
| The MTVR Modification program line funds numerous modifications and initiatives that are required to address operational priorities, engineering change proposals, safety concerns, support equipment inefficiencies, tool malfunctions, product quality deficiencies, and other issues that affect vehicle reliability, availability, maintainability, readiness, as well as energy efficiency. A proactive and focused approach ensures proper vehicle sustainment and life-cycle management, and it allows the program office the flexibility to develop and implement improvements as needed to respond to the evolving needs of the Marine Corps.                                                                                                                                                           |                |         |         |                 |                                                                                       |                  |         |         |                                          |                     |                     |                  |
| The increase (\$2.879M) from FY15 to FY16 is due to the transition of the Office of Naval Research's Future Naval Capability to the Program Office.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                |         |         |                 |                                                                                       |                  |         |         |                                          |                     |                     |                  |
| B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                |         |         |                 |                                                                                       |                  |         | FY 2014 | FY 2015                                  | FY 2016<br>Base     | FY 2016<br>OCO      | FY 2016<br>Total |
| Title: Product Development<br><br>Articles:<br><br>FY 2014 Accomplishments:<br>Initiated PMO participation in the development of an Auxillary Power Unit (APU) which supports the Commandant of the Marine Corps (CMC) priorities for reducing energy costs, logistics footprint, and an improved environment.<br><br>FY 2015 Plans:<br>N/A<br><br>FY 2016 Base Plans:<br>Initiate product development in support of the Office of Naval Research (ONR) Future Naval Capability (FNC) initiative for fuel economy components on different variants of the MTVR vehicles in preparation of its transition to the program office. Also supports the development of various ECPs due to continual changes in the threat environment which requires on-going vehicle modifications.<br><br>FY 2016 OCO Plans:<br>N/A |                |         |         |                 |                                                                                       |                  |         | 1.298   | -                                        | 1.969               | -                   | 1.969            |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                |         |         |                 |                                                                                       |                  |         | -       | -                                        | -                   | -                   | -                |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                |         |         |                 |                                                                                       |                  |         |         |                                          |                     |                     |                  |
| Title: Support<br><br>Articles:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                |         |         |                 |                                                                                       |                  |         | 0.186   | 1.137                                    | 1.592               | -                   | 1.592            |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                |         |         |                 |                                                                                       |                  |         | -       | -                                        | -                   | -                   | -                |

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| Exhibit R-2A, RDT&E Project Justification: PB 2016 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  |                                                                                       | Date: February 2015 |                                          |                |                  |
| Appropriation/Budget Activity<br>1319 / 7                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |  | R-1 Program Element (Number/Name)<br>PE 0206624M / Marine Corps Cmbt<br>Services Supt |                     | Project (Number/Name)<br>9C90 / MTVR Mod |                |                  |
| B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  | FY 2014                                                                               | FY 2015             | FY 2016<br>Base                          | FY 2016<br>OCO | FY 2016<br>Total |
| FY 2014 Accomplishments:<br>Continued activities in support of the MTVR vehicle to include (but not limited to) ECPs, safety, & survivability upgrades in response to continual changes in the threat environment to protect the warfighter and vehicle from possible catastrophic events, and in order to meet the current and future operations of Expeditionary Force 21.                                                                                                                                                                                    |  |                                                                                       |                     |                                          |                |                  |
| FY 2015 Plans:<br>-Continue activities in support of the MTVR vehicle to include (but not limited to) ECPs, safety, & survivability upgrades in response to continual changes in the threat environment to protect the warfighter and vehicle from possible catastrophic events, and in order to meet the current and future operations of Expeditionary Force 21.<br>-Resume support of energy initiatives aligning with the Commandant of the Marine Corps (CMC) priority for reducing energy costs, logistics footprint, and an improved environment.        |  |                                                                                       |                     |                                          |                |                  |
| FY 2016 Base Plans:<br>-Continue activities in support of the MTVR vehicle to include (but not limited to) ECPs, safety, & survivability upgrades in response to continual changes in the threat environment to protect the warfighter and vehicle from possible catastrophic events, and in order to meet the current and future operations of Expeditionary Force 21.<br>-Continue support of energy initiatives aligning with the Commandant of the Marine Corps (CMC) priority for reducing energy costs, logistics footprint, and an improved environment. |  |                                                                                       |                     |                                          |                |                  |
| FY 2016 OCO Plans:<br>N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |  |                                                                                       |                     |                                          |                |                  |
| Title: Test and Evaluation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |  | 1.118                                                                                 | 0.050               | 0.505                                    | -              | 0.505            |
| Articles:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |  | -                                                                                     | -                   | -                                        | -              | -                |
| FY 2014 Accomplishments:<br>-Continued Test & Evaluation efforts supporting ECP/safety mods of the MTVR.<br>-Initiated Energy Initiative Test & Evaluation efforts of an Auxillary Power Unit (APU) and a D-Cycle engine which supports the CMC's priority for reducing energy costs, logistics footprint, and an improved environment.<br>-Initiated Modeling & Simulation testing to support the MTVR.                                                                                                                                                        |  |                                                                                       |                     |                                          |                |                  |
| FY 2015 Plans:<br>Continue Modeling & Simulation testing to support the MTVR.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |  |                                                                                       |                     |                                          |                |                  |
| FY 2016 Base Plans:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |                                                                                       |                     |                                          |                |                  |

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| <b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Navy |  |                                                                                                  |  | <b>Date:</b> February 2015                             |  |
| <b>Appropriation/Budget Activity</b><br>1319 / 7                   |  | <b>R-1 Program Element (Number/Name)</b><br>PE 0206624M / <i>Marine Corps Cmbt Services Supt</i> |  | <b>Project (Number/Name)</b><br>9C90 / <i>MTVR Mod</i> |  |

|                                                                                                                                                                                                                                                                                                                                                              |                |                |                     |                    |                      |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|----------------|---------------------|--------------------|----------------------|
| <b>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</b>                                                                                                                                                                                                                                                                      | <b>FY 2014</b> | <b>FY 2015</b> | <b>FY 2016 Base</b> | <b>FY 2016 OCO</b> | <b>FY 2016 Total</b> |
|                                                                                                                                                                                                                                                                                                                                                              |                |                |                     |                    |                      |
| -Initiate Test & Evaluation efforts supporting ECP/safety mods of the MTVR. Also restarts Energy Initiative Test & Evaluation efforts which supports the CMC's priority for reducing energy costs, logistics footprint, and an improved environment.<br>-Continue Modeling & Simulation testing to support the MTVR.<br><br><b>FY 2016 OCO Plans:</b><br>N/A |                |                |                     |                    |                      |
| <b>Accomplishments/Planned Programs Subtotals</b>                                                                                                                                                                                                                                                                                                            | 2.602          | 1.187          | 4.066               | -                  | 4.066                |

|                                                          |                |                |                     |                    |                      |                |                |                |                |                         |                   |
|----------------------------------------------------------|----------------|----------------|---------------------|--------------------|----------------------|----------------|----------------|----------------|----------------|-------------------------|-------------------|
| <b>C. Other Program Funding Summary (\$ in Millions)</b> |                |                |                     |                    |                      |                |                |                |                |                         |                   |
| <b>Line Item</b>                                         | <b>FY 2014</b> | <b>FY 2015</b> | <b>FY 2016 Base</b> | <b>FY 2016 OCO</b> | <b>FY 2016 Total</b> | <b>FY 2017</b> | <b>FY 2018</b> | <b>FY 2019</b> | <b>FY 2020</b> | <b>Cost To Complete</b> | <b>Total Cost</b> |
| • PMC/5050: <i>MTVR Motor Transport Mods</i>             | 1.527          | 0.469          | 5.433               | -                  | 5.433                | 7.594          | 6.597          | 8.287          | 8.457          | Continuing              | Continuing        |
| • PMC/5088: <i>MTVR</i>                                  | -              | 0.584          | -                   | -                  | -                    | -              | -              | -              | -              | -                       | 476.977           |

**Remarks**

**D. Acquisition Strategy**  
 The strategy for the MTVR Modification initiative is to aid in the prevention of parts obsolescence, address safety concerns, and respond to emergent threats. A proactive and focused approach ensures proper vehicle sustainment and life-cycle management, and it allows the program office the flexibility to develop and implement improvements as required to respond to evolving needs.

**E. Performance Metrics**  
 N/A

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| Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Navy |                        |                                        |             |         |            |                                                                                       |            |                 |            |                                          |            | Date: February 2015 |                  |            |                          |
|--------------------------------------------------------|------------------------|----------------------------------------|-------------|---------|------------|---------------------------------------------------------------------------------------|------------|-----------------|------------|------------------------------------------|------------|---------------------|------------------|------------|--------------------------|
| Appropriation/Budget Activity<br>1319 / 7              |                        |                                        |             |         |            | R-1 Program Element (Number/Name)<br>PE 0206624M / Marine Corps Cmbt<br>Services Supt |            |                 |            | Project (Number/Name)<br>9C90 / MTVR Mod |            |                     |                  |            |                          |
| Product Development (\$ in Millions)                   |                        |                                        |             | FY 2014 |            | FY 2015                                                                               |            | FY 2016<br>Base |            | FY 2016<br>OCO                           |            | FY 2016<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 |
| Energy Efficiency (APU Spares)                         | SS/CPFF                | Marving Land Systems : Los Angeles, CA | 0.000       | 0.186   | Feb 2014   | -                                                                                     |            | -               |            | -                                        |            | -                   | -                | 0.186      | -                        |
| Energy Efficiency (FNC) Development                    | TBD                    | TBD : TBD                              | 0.000       | -       |            | -                                                                                     |            | 1.722           | Jun 2016   | -                                        |            | 1.722               | Continuing       | Continuing | Continuing               |
| ECP Development                                        | WR                     | TBD : TBD                              | 0.000       | -       |            | -                                                                                     |            | 0.247           | May 2016   | -                                        |            | 0.247               | Continuing       | Continuing | Continuing               |
| Energy Efficiency Efforts                              | MIPR                   | NAMC : Warren, MI                      | 0.000       | 1.112   | Jan 2015   | -                                                                                     |            | -               |            | -                                        |            | -                   | -                | 1.112      | -                        |
| Prior Years Cumulative Funding                         | Various                | Various : Various                      | 18.500      | -       |            | -                                                                                     |            | -               |            | -                                        |            | -                   | -                | 18.500     | -                        |
| Subtotal                                               |                        |                                        | 18.500      | 1.298   |            | -                                                                                     |            | 1.969           |            | -                                        |            | 1.969               | -                | -          | -                        |
| Support (\$ in Millions)                               |                        |                                        |             | FY 2014 |            | FY 2015                                                                               |            | FY 2016<br>Base |            | FY 2016<br>OCO                           |            | FY 2016<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 |
| Energy Initiative                                      | Various                | Various : Various                      | 0.300       | -       |            | 0.600                                                                                 | May 2015   | 0.892           | Jun 2016   | -                                        |            | 0.892               | Continuing       | Continuing | Continuing               |
| ECP Support                                            | SS/CPFF                | Oshkosh : Oshkosh, WI                  | 4.554       | -       |            | 0.262                                                                                 | Mar 2015   | 0.300           | Mar 2016   | -                                        |            | 0.300               | Continuing       | Continuing | Continuing               |
| Safety Initiatives                                     | SS/CPFF                | Oshkosh : Oshkosh, WI                  | 3.860       | -       |            | 0.275                                                                                 | Jul 2015   | 0.200           | Apr 2016   | -                                        |            | 0.200               | Continuing       | Continuing | Continuing               |
| Safety Initiatives                                     | MIPR                   | TARDEC : Warren, MI                    | 0.000       | -       |            | -                                                                                     |            | 0.200           | Jun 2016   | -                                        |            | 0.200               | -                | 0.200      | -                        |
| Survivability Support (ECP)                            | MIPR                   | DTIC : Ft. Belvior, VA                 | 0.000       | 0.186   | Sep 2014   | -                                                                                     |            | -               |            | -                                        |            | -                   | -                | 0.186      | -                        |
| ECP Integration                                        | SS/CPFF                | Oshkosh : Oshkosh, WI                  | 2.162       | -       |            | -                                                                                     |            | -               |            | -                                        |            | -                   | -                | 2.162      | -                        |
| Subtotal                                               |                        |                                        | 10.876      | 0.186   |            | 1.137                                                                                 |            | 1.592           |            | -                                        |            | 1.592               | -                | -          | -                        |
|                                                        |                        |                                        |             |         |            |                                                                                       |            |                 |            |                                          |            |                     |                  |            |                          |

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|--------------------------------------------------------|------------------------------|-----------------------------------|----------------|---------|---------------|---------------------------------------------------------------------------------------|---------------|-----------------|---------------|------------------------------------------|---------------|---------------------|---------------------|---------------|--------------------------------|
| Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Navy |                              |                                   |                |         |               |                                                                                       |               |                 |               |                                          |               | Date: February 2015 |                     |               |                                |
| Appropriation/Budget Activity<br>1319 / 7              |                              |                                   |                |         |               | R-1 Program Element (Number/Name)<br>PE 0206624M / Marine Corps Cmbt<br>Services Supt |               |                 |               | Project (Number/Name)<br>9C90 / MTRV Mod |               |                     |                     |               |                                |
| Test and Evaluation (\$ in Millions)                   |                              |                                   |                | FY 2014 |               | FY 2015                                                                               |               | FY 2016<br>Base |               | FY 2016<br>OCO                           |               | FY 2016<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 |
| ECP/Integration/Safety<br>Mod Testing                  | MIPR                         | ATC : Aberdeen, MD                | 1.600          | 0.030   | Jul 2014      | -                                                                                     |               | -               |               | -                                        |               | -                   | -                   | 1.630         | -                              |
| Energy Initiative Testing                              | MIPR                         | ATC : Aberdeen, MD                | 0.000          | 0.308   | Feb 2014      | -                                                                                     |               | 0.278           | Jul 2016      | -                                        |               | 0.278               | Continuing          | Continuing    | Continuing                     |
| Energy Initiative (APU)                                | WR                           | NSWC : Dalghren,<br>VA            | 0.000          | 0.231   | Mar 2014      | -                                                                                     |               | -               |               | -                                        |               | -                   | -                   | 0.231         | -                              |
| Modeling and Simulation<br>(SIL)                       | Reqn                         | NSWC : Indian<br>Head, MD         | 0.000          | 0.032   | Jun 2014      | -                                                                                     |               | -               |               | -                                        |               | -                   | -                   | 0.032         | -                              |
| Modeling and Simulation<br>(SIL)                       | MIPR                         | TARDEC : Warren,<br>MI            | 0.810          | -       |               | 0.050                                                                                 | Apr 2015      | 0.050           | Jun 2016      | -                                        |               | 0.050               | 0.300               | 1.210         | -                              |
| Safety Testing                                         | WR                           | NRL : Washington,<br>DC           | 0.000          | 0.233   | Sep 2014      | -                                                                                     |               | 0.177           | Feb 2016      | -                                        |               | 0.177               | -                   | 0.410         | -                              |
| Energy Efficient Efforts                               | MIPR                         | NAMC : Warren, MI                 | 0.000          | 0.284   | Jan 2015      | -                                                                                     |               | -               |               | -                                        |               | -                   | -                   | 0.284         | -                              |
| Prior Years Cumulative<br>Funding                      | Various                      | Various : Various                 | 9.077          | -       |               | -                                                                                     |               | -               |               | -                                        |               | -                   | -                   | 9.077         | -                              |
| Subtotal                                               |                              |                                   | 11.487         | 1.118   |               | 0.050                                                                                 |               | 0.505           |               | -                                        |               | 0.505               | -                   | -             | -                              |
|                                                        |                              |                                   | Prior<br>Years | FY 2014 |               | FY 2015                                                                               |               | FY 2016<br>Base |               | FY 2016<br>OCO                           |               | FY 2016<br>Total    | Cost To<br>Complete | Total<br>Cost | Target<br>Value of<br>Contract |
| Project Cost Totals                                    |                              |                                   | 40.863         | 2.602   |               | 1.187                                                                                 |               | 4.066           |               | -                                        |               | 4.066               | -                   | -             | -                              |
| Remarks                                                |                              |                                   |                |         |               |                                                                                       |               |                 |               |                                          |               |                     |                     |               |                                |

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| <b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2016 Navy |  |                                                                                                  | <b>Date:</b> February 2015 |  |                                                        |
| <b>Appropriation/Budget Activity</b><br>1319 / 7             |  | <b>R-1 Program Element (Number/Name)</b><br>PE 0206624M / <i>Marine Corps Cmbt Services Supt</i> |                            |  | <b>Project (Number/Name)</b><br>9C90 / <i>MTVR Mod</i> |

|                              | FY 2014 |   |   |   | FY 2015 |   |   |   | FY 2016 |   |   |   | FY 2017 |   |   |   | FY 2018 |   |   |   | FY 2019 |   |   |   | FY 2020 |   |   |   |
|------------------------------|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|
|                              | 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 |
| <b>Proj 9C90</b>             |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |
| Live Fire Test & Eval        |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |
| Fuel Efficient Modifications |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |
| Safety Mod Development       |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |
| ECP Development              |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |

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| <b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2016 Navy |                                                                                                  | <b>Date:</b> February 2015                             |
| <b>Appropriation/Budget Activity</b><br>1319 / 7              | <b>R-1 Program Element (Number/Name)</b><br>PE 0206624M / <i>Marine Corps Cmbt Services Supt</i> | <b>Project (Number/Name)</b><br>9C90 / <i>MTVR Mod</i> |

Schedule Details

| Events by Sub Project        | Start   |      | End     |      |
|------------------------------|---------|------|---------|------|
|                              | Quarter | Year | Quarter | Year |
| <b><i>Proj 9C90</i></b>      |         |      |         |      |
| Live Fire Test & Eval        | 1       | 2014 | 4       | 2014 |
| Fuel Efficient Modifications | 1       | 2014 | 4       | 2020 |
| Safety Mod Development       | 1       | 2014 | 4       | 2020 |
| ECP Development              | 1       | 2014 | 4       | 2020 |