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| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                 |         |                      |              |                                                                        |               |         |         |         | DATE: April 2013 |                  |            |
| APPROPRIATION/BUDGET ACTIVITY<br>1319: Research, Development, Test & Evaluation, Navy<br>BA 4: Advanced Component Development & Prototypes (ACD&P)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                 |         |                      |              | R-1 ITEM NOMENCLATURE<br>PE 0603851M: Joint Non-Lethal Weapons Testing |               |         |         |         |                  |                  |            |
| COST (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | All Prior Years | FY 2012 | FY 2013 <sup>#</sup> | FY 2014 Base | FY 2014 OCO <sup>##</sup>                                              | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018          | Cost To Complete | Total Cost |
| Total Program Element                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 415.453         | 40.189  | 44.994               | 51.178       | -                                                                      | 51.178        | 61.781  | 56.226  | 55.784  | 56.738           | Continuing       | Continuing |
| 2319: Non-Lethal Weapons                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 415.453         | 40.189  | 44.994               | 51.178       | -                                                                      | 51.178        | 61.781  | 56.226  | 55.784  | 56.738           | Continuing       | Continuing |
| # FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                 |         |                      |              |                                                                        |               |         |         |         |                  |                  |            |
| ## The FY 2014 OCO Request will be submitted at a later date                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                 |         |                      |              |                                                                        |               |         |         |         |                  |                  |            |
| A. Mission Description and Budget Item Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                 |         |                      |              |                                                                        |               |         |         |         |                  |                  |            |
| The DoD's Joint Non-Lethal Weapons Program (JNLWP) was established by the Secretary of Defense, who assigned centralized responsibility for DoD joint research and development of non-lethal weapons and technology to the Commandant of the Marine Corps as the Executive Agent. The Under Secretary of Defense for Acquisition, Technology and Logistics (USD AT&L) provides principle oversight of the JNLWP.                                                                                                                                                                                                                                                                                                              |                 |         |                      |              |                                                                        |               |         |         |         |                  |                  |            |
| The efforts in this Program Element (PE) reflect Joint Service research and development (R&D) investment decisions provided by the Joint Non Lethal Weapons Integrated Product Team, a multi-service flag level corporate board that executes the JNLWP for the Executive Agent. Research conducted is based on the needs and capabilities of the Services, the Special Operations Command and the Coast Guard, as identified in the DoD's Non-Lethal Weapons Joint Capabilities Document. This coordinated joint R&D development approach addresses mutual capability gaps and assures the best non-lethal technologies and equipment are provided to the operating forces while eliminating duplicative Service investment. |                 |         |                      |              |                                                                        |               |         |         |         |                  |                  |            |
| This PE funds Joint Service research, development, test, and evaluation of non-lethal weapon (NLW) systems and technologies that provide a non-lethal capability to minimize fatal or permanent injuries as well as undesired damage to property and the environment. NLW are designed to incapacitate or hinder movement of individuals, crowds, or equipment. The availability of NLW allows commanders less than lethal options, across the spectrum of military operational warfare, i.e., peacekeeping, humanitarian assistance and disaster relief, as well as special operations.                                                                                                                                      |                 |         |                      |              |                                                                        |               |         |         |         |                  |                  |            |
| The Joint Non-Lethal Weapons Directorate was established by the Executive Agent to manage the day to day research and development activities of the DoD Joint Non-Lethal Weapons Program. The JNLWP funding is distributed amongst the USA, USAF, USN, USMC, SOCOM, and USCG in support of NLW research and development efforts. Each Service is responsible for their procurement and operating support costs.                                                                                                                                                                                                                                                                                                               |                 |         |                      |              |                                                                        |               |         |         |         |                  |                  |            |

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| <b>Exhibit R-2, RDT&amp;E Budget Item Justification: PB 2014 Navy</b> | <b>DATE:</b> April 2013 |
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| <b>APPROPRIATION/BUDGET ACTIVITY</b><br>1319: <i>Research, Development, Test &amp; Evaluation, Navy</i><br>BA 4: <i>Advanced Component Development &amp; Prototypes (ACD&amp;P)</i> | <b>R-1 ITEM NOMENCLATURE</b><br>PE 0603851M: <i>Joint Non-Lethal Weapons Testing</i> |
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| <b>B. Program Change Summary (\$ in Millions)</b> | <b>FY 2012</b> | <b>FY 2013</b> | <b>FY 2014 Base</b> | <b>FY 2014 OCO</b> | <b>FY 2014 Total</b> |
|---------------------------------------------------|----------------|----------------|---------------------|--------------------|----------------------|
| Previous President's Budget                       | 40.992         | 44.994         | 60.907              | -                  | 60.907               |
| Current President's Budget                        | 40.189         | 44.994         | 51.178              | -                  | 51.178               |
| Total Adjustments                                 | -0.803         | 0.000          | -9.729              | -                  | -9.729               |
| • Congressional General Reductions                | -              | -              |                     |                    |                      |
| • Congressional Directed Reductions               | -              | -              |                     |                    |                      |
| • Congressional Rescissions                       | -              | -              |                     |                    |                      |
| • Congressional Adds                              | -              | -              |                     |                    |                      |
| • Congressional Directed Transfers                | -              | -              |                     |                    |                      |
| • Reprogrammings                                  | -              | -              |                     |                    |                      |
| • SBIR/STTR Transfer                              | -0.803         | 0.000          |                     |                    |                      |
| • Program Adjustments                             | 0.000          | 0.000          | -5.791              | -                  | -5.791               |
| • Rate/Misc Adjustments                           | 0.000          | 0.000          | -3.938              | -                  | -3.938               |

**Change Summary Explanation**

The increase of \$6.184M from FY13 to FY14 provides additional model and simulation efforts of non-lethal weapons (NLWs), evaluation of NLWs, active denial technology transition, as well as increased system development and design of technology development. The FY14 funding increase reflects an increased FYDP funding profile that will meet DoD requirements throughout the FYDP.

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| Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                 |         |                      |              |                                                                        |               |         |         | DATE: April 2013                    |         |                  |            |
| APPROPRIATION/BUDGET ACTIVITY<br>1319: Research, Development, Test & Evaluation, Navy<br>BA 4: Advanced Component Development & Prototypes (ACD&P)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                 |         |                      |              | R-1 ITEM NOMENCLATURE<br>PE 0603851M: Joint Non-Lethal Weapons Testing |               |         |         | PROJECT<br>2319: Non-Lethal Weapons |         |                  |            |
| COST (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | All Prior Years | FY 2012 | FY 2013 <sup>#</sup> | FY 2014 Base | FY 2014 OCO <sup>##</sup>                                              | FY 2014 Total | FY 2015 | FY 2016 | FY 2017                             | FY 2018 | Cost To Complete | Total Cost |
| 2319: Non-Lethal Weapons                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 415.453         | 40.189  | 44.994               | 51.178       | -                                                                      | 51.178        | 61.781  | 56.226  | 55.784                              | 56.738  | Continuing       | Continuing |
| Quantity of RDT&E Articles                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 0               | 0       | 0                    | 0            |                                                                        | 0             | 0       | 0       | 0                                   | 0       |                  |            |
| # FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                 |         |                      |              |                                                                        |               |         |         |                                     |         |                  |            |
| ## The FY 2014 OCO Request will be submitted at a later date                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                 |         |                      |              |                                                                        |               |         |         |                                     |         |                  |            |
| A. Mission Description and Budget Item Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                 |         |                      |              |                                                                        |               |         |         |                                     |         |                  |            |
| This project develops non-lethal weapon (NLW) systems that provide a new non-lethal capability to minimize fatal or permanent injuries and undesired damage to property and the environment. These systems are designed to stun, incapacitate, or hinder movement of individuals, crowds or equipment. The availability of NLW allows commanders less than lethal options, particularly in urban warfare and military operations other than war, i.e., peacekeeping, humanitarian assistance and disaster relief, as well as special operations.                                                                                                                                                                                                                  |                 |         |                      |              |                                                                        |               |         |         |                                     |         |                  |            |
| B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                 |         |                      |              |                                                                        |               |         |         | FY 2012                             | FY 2013 | FY 2014          |            |
| Title: *Modeling and Simulation (M&S) of NLWs.<br><br>Articles:<br><br>FY 2012 Accomplishments:<br>Continued modeling and simulation (M&S) of NLWs in warfighter training/war gaming models and performance effects data collection/population to demonstrate/analyze NL effects and optimize training.<br><br>FY 2013 Plans:<br>Continue modeling and simulation (M&S) of NLWs in warfighter training/war gaming models and performance effects data collection/population to demonstrate/analyze NL effects and optimize training.<br><br>FY 2014 Plans:<br>Continue modeling and simulation (M&S) of NLWs in warfighter training/war gaming models and performance effects data collection/population to demonstrate/analyze NL effects and optimize training. |                 |         |                      |              |                                                                        |               |         |         | 1.102                               | 1.256   | 2.176            |            |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                 |         |                      |              |                                                                        |               |         |         | 0                                   | 0       | 0                |            |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                 |         |                      |              |                                                                        |               |         |         |                                     |         |                  |            |
| Title: *Evaluations of NLWs.<br><br>Articles:<br><br>FY 2012 Accomplishments:<br>Continued evaluation of NLWs by Service warfighting laboratories and Joint Staff, J7, Joint and Coalition Warfighting for direct user feedback of various non-lethal (NL) technologies and munitions to include policy and strategy and strategic communication.<br><br>FY 2013 Plans:                                                                                                                                                                                                                                                                                                                                                                                           |                 |         |                      |              |                                                                        |               |         |         | 1.531                               | 2.250   | 3.414            |            |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                 |         |                      |              |                                                                        |               |         |         | 0                                   | 0       | 0                |            |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                 |         |                      |              |                                                                        |               |         |         |                                     |         |                  |            |

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| Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy                                                                                                                                                                                                                           |  | DATE: April 2013                                                       |         |                                     |
| APPROPRIATION/BUDGET ACTIVITY<br>1319: Research, Development, Test & Evaluation, Navy<br>BA 4: Advanced Component Development & Prototypes (ACD&P)                                                                                                                                |  | R-1 ITEM NOMENCLATURE<br>PE 0603851M: Joint Non-Lethal Weapons Testing |         | PROJECT<br>2319: Non-Lethal Weapons |
| B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)                                                                                                                                                                                                  |  | FY 2012                                                                | FY 2013 | FY 2014                             |
| Continue evaluation of NLWs by Service warfighting laboratories and Joint Staff, J7, Joint and Coalition Warfighting for direct user feedback of various non-lethal (NL) technologies and munitions to include policy and strategy and strategic communication.                   |  |                                                                        |         |                                     |
| FY 2014 Plans:<br>Continue evaluation of NLWs by Service warfighting laboratories and Joint Staff, J7, Joint and Coalition Warfighting for direct user feedback of various non-lethal (NL) technologies and munitions to include policy and strategy and strategic communication. |  |                                                                        |         |                                     |
| Title: *JNLW Program's execution oversight and technologies database support.                                                                                                                                                                                                     |  | 3.790                                                                  | 6.998   | 6.050                               |
| Articles:                                                                                                                                                                                                                                                                         |  | 0                                                                      | 0       | 0                                   |
| FY 2012 Accomplishments:<br>Continued execution oversight, administration and support of the Joint NLW Program and technologies database.                                                                                                                                         |  |                                                                        |         |                                     |
| FY 2013 Plans:<br>Continue execution oversight, administration and support of the Joint NLW Program and technologies database. The increase in this line item for FY2013 and out reflects funding for the operation of the JNLWD, previously funded in the O&M,MC appropriation.  |  |                                                                        |         |                                     |
| FY 2014 Plans:<br>Continue execution oversight, administration and support of the Joint NLW Program and technologies database.                                                                                                                                                    |  |                                                                        |         |                                     |
| Title: *Program Support of the Joint NLW Program.                                                                                                                                                                                                                                 |  | 2.221                                                                  | 2.425   | 4.649                               |
| Articles:                                                                                                                                                                                                                                                                         |  | 0                                                                      | 0       | 0                                   |
| FY 2012 Accomplishments:<br>Continued program support efforts for each Service's coordination and participation in the Joint NLW Program. This includes SOCOM and USCG.                                                                                                           |  |                                                                        |         |                                     |
| FY 2013 Plans:<br>Continue program support efforts for each Service's coordination and participation in the Joint NLW Program. This includes SOCOM and USCG.                                                                                                                      |  |                                                                        |         |                                     |
| FY 2014 Plans:<br>Continue program support efforts for each Service's coordination and participation in the Joint NLW Program. This includes SOCOM and USCG. Increases to this line item supports Service pre-milestone A combat development requirements documentation.          |  |                                                                        |         |                                     |
| Title: *Active Denial Technology (ADT) Transition.                                                                                                                                                                                                                                |  | 1.000                                                                  | 1.045   | 1.975                               |
| Articles:                                                                                                                                                                                                                                                                         |  | 0                                                                      | 0       | 0                                   |
| FY 2012 Accomplishments:                                                                                                                                                                                                                                                          |  |                                                                        |         |                                     |

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| Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                        | DATE: April 2013                    |             |             |
| APPROPRIATION/BUDGET ACTIVITY<br>1319: Research, Development, Test & Evaluation, Navy<br>BA 4: Advanced Component Development & Prototypes (ACD&P)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | R-1 ITEM NOMENCLATURE<br>PE 0603851M: Joint Non-Lethal Weapons Testing | PROJECT<br>2319: Non-Lethal Weapons |             |             |
| B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                        | FY 2012                             | FY 2013     | FY 2014     |
| Continued maturation of active denial technologies to increase system efficiencies and reduce system size, weight and cost in preparation for transition to joint acquisition programs of record.<br><br>FY 2013 Plans:<br>Continue maturation of active denial technologies to increase system efficiencies and reduce system size, weight and cost in preparation for transition to joint acquisition programs of record.<br><br>FY 2014 Plans:<br>Continue maturation of active denial technologies to increase system efficiencies and reduce system size, weight and cost in preparation for transition to joint acquisition programs of record.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                        |                                     |             |             |
| Title: *JNLW Emerging Technologies<br><br>Articles:<br><br>FY 2012 Accomplishments:<br>Continued the advanced development of a wide range of Counter-Personnel and Counter-Materiel emerging technologies in directed energy and kinetic weapons and munitions to support Combatant Commands and Service capability gaps and priorities. This line item funds maturing technology transitions from advanced technology development efforts. Accomplishments included demonstrations for vehicle stopping technologies such as Distributed Sound and Light Array and Multi-Frequency Radio Frequency (RF) Vehicle Stopper, vessel stopping technologies such as Non-Lethal UAV High Powered Microwave Payload, and counter-personnel options designed to hail, warn, suppress and/or disable such as Harbinger and Kibosh.<br><br>FY 2013 Plans:<br>Continue the advanced development of a wide range of Counter-Personnel and Counter-Materiel emerging technologies in directed energy and kinetic weapons and munitions to support Combatant Commands and Service capability gaps and priorities. This line item funds maturing technology transitions from advanced technology development efforts.<br><br>FY 2014 Plans:<br>Continue the advanced development of a wide range of Counter-Personnel and Counter-Materiel emerging technologies in directed energy and kinetic weapons and munitions to support Combatant Commands and Service capability gaps and priorities. This line item funds maturing technology transitions from advanced technology development efforts. |                                                                        | 15.447<br>0                         | 16.120<br>0 | 16.440<br>0 |
| Title: *System development and Design of technology development.<br><br>Articles:<br><br>FY 2012 Accomplishments:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                        | 3.664<br>0                          | 4.508<br>0  | 5.039<br>0  |

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| Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  | DATE: April 2013                                                       |                                     |            |  |
| APPROPRIATION/BUDGET ACTIVITY<br>1319: Research, Development, Test & Evaluation, Navy<br>BA 4: Advanced Component Development & Prototypes (ACD&P)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  | R-1 ITEM NOMENCLATURE<br>PE 0603851M: Joint Non-Lethal Weapons Testing | PROJECT<br>2319: Non-Lethal Weapons |            |  |
| B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  | FY 2012                                                                | FY 2013                             | FY 2014    |  |
| Continued system development and design of technology development downselected items to proceed into the acquisition cycle to provide NL technology solutions to critical joint mission tasks.<br><br>FY 2013 Plans:<br>Continue system development and design of technology development downselected items to proceed into the acquisition cycle to provide NL technology solutions to critical joint mission tasks.<br><br>FY 2014 Plans:<br>Continue system development and design of technology development downselected items to proceed into the acquisition cycle to provide NL technology solutions to critical joint mission tasks.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |  |                                                                        |                                     |            |  |
| Title: *Develop/expand the NATO Measures of Effectives (MOE) efforts.<br><br>Articles:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  | 1.981<br>0                                                             | 2.070<br>0                          | 2.200<br>0 |  |
| FY 2012 Accomplishments:<br>Continued to develop/expand the NATO Measures of Effectives (MOE) efforts, chaired by the U.S. to provide input for Defense Capabilities Initiative (DCI) and NATO assessment of NLW in the Defense planning process. Expanded interaction with combatant commander (COCOM) staffs to identify emerging NLW capabilities and their utility in theater operations and Homeland Security missions.<br><br>FY 2013 Plans:<br>Continue to develop/expand the NATO Measures of Effectives (MOE) efforts, chaired by the U.S. to provide input for Defense Capabilities Initiative (DCI) and NATO assessment of NLW in the Defense planning process. Expanded interaction with combatant commander (COCOM) staffs to identify emerging NLW capabilities and their utility in theater operations and Homeland Security missions.<br><br>FY 2014 Plans:<br>Continue to develop/expand the NATO Measures of Effectives (MOE) efforts, chaired by the U.S. to provide input for Defense Capabilities Initiative (DCI) and NATO assessment of NLW in the Defense planning process. Expanded interaction with combatant commander (COCOM) staffs to identify emerging NLW capabilities and their utility in theater operations and Homeland Security missions. |  |                                                                        |                                     |            |  |
| Title: *Mission Payload Module Non Lethal Weapon System<br><br>Articles:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |  | 4.664<br>0                                                             | 2.134<br>0                          | 2.624<br>0 |  |
| FY 2012 Accomplishments:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |  |                                                                        |                                     |            |  |

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| Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                        | DATE: April 2013                    |            |            |
| APPROPRIATION/BUDGET ACTIVITY<br>1319: Research, Development, Test & Evaluation, Navy<br>BA 4: Advanced Component Development & Prototypes (ACD&P)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | R-1 ITEM NOMENCLATURE<br>PE 0603851M: Joint Non-Lethal Weapons Testing | PROJECT<br>2319: Non-Lethal Weapons |            |            |
| B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                        | FY 2012                             | FY 2013    | FY 2014    |
| Continued development of a tube launched NL munition for integration on HMMWVs, tactical vehicles, boats and ships, with a range of 25-150 meters Threshold (T) and 25 - 500 meters Objective (O). Accomplishments included release of the request for proposal for the EMD phase, system requirement review, and a technology readiness review.<br><br><b>FY 2013 Plans:</b><br>Continue development of a tube launched NL munition for integration on HMMWVs, tactical vehicles, boats and ships, with a range of 25-150 meters (T) and 25 - 500 meters (O). Finalize system design and conduct pre-developmental test activities to determine system readiness for developmental testing.<br><br><b>FY 2014 Plans:</b><br>Continue development of a tube launched NL munition for integration on HMMWVs, tactical vehicles, boats and ships, with a range of 25-150 meters (T) and 25 - 500 meters (O). Conduct developmental testing activities, conduct Functional Configuration Audit (FCA) and System Verification Review, and Operational Assessment (OA) to prepare for the Initial Operational Testing and Evaluation following a favorable Milestone C. |                                                                        |                                     |            |            |
| <b>Title:</b> *Joint Integration Program (JIP).<br><br><b>Articles:</b><br><br><b>FY 2012 Accomplishments:</b><br>Continued to select and test newly developed commercial products that may meet the Joint Service requirements for specific NL capability set common items. Evaluations included the following COTS items; Soft Stop Barriers, Non-Lethal Range Requirements for human exposure, and Crew Served Bright White Lights.<br><br><b>FY 2013 Plans:</b><br>Continue to select and test newly developed commercial products that may meet the Joint Service requirements for specific NL capability set common items.<br><br><b>FY 2014 Plans:</b><br>Continue to select and test newly developed commercial products that may meet the Joint Service requirements for specific NL capability set common items.                                                                                                                                                                                                                                                                                                                                         |                                                                        | 0.600<br>0                          | 0.600<br>0 | 0.600<br>0 |
| <b>Title:</b> *Studies and Analysis<br><br><b>Articles:</b><br><br><b>FY 2012 Accomplishments:</b><br>Continued medical and NL casualty data research and collection; human effects assessments; acceptability analysis; and technical studies/ analysis of emerging technologies for possible NL application. Human Effects Studies and Assessments                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                        | 4.189<br>0                          | 5.588<br>0 | 6.011<br>0 |

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| <b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2014 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |  | <b>DATE:</b> April 2013                                                              |                                                   |
| <b>APPROPRIATION/BUDGET ACTIVITY</b><br>1319: <i>Research, Development, Test &amp; Evaluation, Navy</i><br>BA 4: <i>Advanced Component Development &amp; Prototypes (ACD&amp;P)</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |  | <b>R-1 ITEM NOMENCLATURE</b><br>PE 0603851M: <i>Joint Non-Lethal Weapons Testing</i> | <b>PROJECT</b><br>2319: <i>Non-Lethal Weapons</i> |
| <b>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  | <b>FY 2012</b>                                                                       | <b>FY 2013</b>                                    |
| included continued analysis on Kibosh, Harbinger, and Active Denial Technologies (ADT) Beam Characterization, as well as assessment of methodology used in the determination of Non-Lethal Risk of Significant Injury for multiple munitions and systems.<br><br><b>FY 2013 Plans:</b><br>Continue medical and NL casualty data research and collection; human effects assessments; acceptability analysis; and technical studies/ analysis of emerging technologies for possible NL application.<br><br><b>FY 2014 Plans:</b><br>Continue medical and NL casualty data research and collection; human effects assessments; acceptability analysis; and technical studies/ analysis of emerging technologies for possible NL application.                                             |  |                                                                                      |                                                   |
| <b>Accomplishments/Planned Programs Subtotals</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |  | 40.189                                                                               | 51.178                                            |
| <b>C. Other Program Funding Summary (\$ in Millions)</b><br>N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |  |                                                                                      |                                                   |
| <b>Remarks</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  |                                                                                      |                                                   |
| <b>D. Acquisition Strategy</b><br>The JNLW Program strategy is to continue to pursue the fielding of NLW systems through modifying Commercial-Off-The-Shelf (COTS) products for near term capabilities and the development of new technology NLW systems in various stages of acquisition. These are balanced with efforts in modeling and simulation, experimentation, and state-of-the-art technology investment. The acquisition strategy for each weapon system is largely Lead Service dependent. The JNLWP provides RDT&E funding while the Services are responsible for procurement and operations and maintenance funding. For complex development programs, such as directed energy research, JNLWP RDT&E funds will support each Service's RDT&E joint application efforts. |  |                                                                                      |                                                   |
| <b>E. Performance Metrics</b><br>N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |  |                                                                                      |                                                   |

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| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                        |                                |                 |         |            |                                                                        |            |              |            |                                     |            | DATE: April 2013 |                  |            |                          |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|--------------------------------|-----------------|---------|------------|------------------------------------------------------------------------|------------|--------------|------------|-------------------------------------|------------|------------------|------------------|------------|--------------------------|
| APPROPRIATION/BUDGET ACTIVITY<br>1319: Research, Development, Test & Evaluation, Navy<br>BA 4: Advanced Component Development & Prototypes (ACD&P)                                                                                                                                                                                                                                                                                                                                                                                            |                        |                                |                 |         |            | R-1 ITEM NOMENCLATURE<br>PE 0603851M: Joint Non-Lethal Weapons Testing |            |              |            | PROJECT<br>2319: Non-Lethal Weapons |            |                  |                  |            |                          |
| Product Development (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                        |                                |                 | FY 2012 |            | FY 2013                                                                |            | FY 2014 Base |            | FY 2014 OCO                         |            | FY 2014 Total    |                  |            |                          |
| Cost Category Item                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Contract Method & Type | Performing Activity & Location | All Prior Years | Cost    | Award Date | Cost                                                                   | Award Date | Cost         | Award Date | Cost                                | Award Date | Cost             | Cost To Complete | Total Cost | Target Value of Contract |
| NLW Product Development                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | MIPR                   | ARDEC:Picatinny, NJ            | 41.188          | 5.311   | Oct 2011   | 2.500                                                                  | Oct 2012   | 3.500        | Oct 2013   | -                                   |            | 3.500            | 0.000            | 52.499     |                          |
| NLW Product Development                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | MIPR                   | SOCOM:McDill AFB, FL           | 14.177          | 3.697   | Oct 2011   | 3.500                                                                  | Oct 2012   | 4.200        | Oct 2013   | -                                   |            | 4.200            | 0.000            | 25.574     |                          |
| NLW Product Development                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Various                | NSWC:Various                   | 19.155          | 2.941   | Oct 2011   | 4.460                                                                  | Oct 2012   | 6.750        | Oct 2013   | -                                   |            | 6.750            | 0.000            | 33.306     |                          |
| NLW Product Development                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | MIPR                   | USAF:Eglin AFB, FL             | 16.964          | 0.000   |            | 0.000                                                                  |            | 0.000        |            | -                                   |            | 0.000            | 0.000            | 16.964     |                          |
| NLW Product Development                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | MIPR                   | USAF:Kirtland AFB, NM          | 22.061          | 4.035   | Oct 2011   | 1.500                                                                  | Oct 2012   | 2.975        | Oct 2013   | -                                   |            | 2.975            | 0.000            | 30.571     |                          |
| NLW Product Development                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | MIPR                   | USAF:Ft. Sam Houston AFB, TX   | 49.623          | 0.000   |            | 3.500                                                                  | Oct 2012   | 4.500        | Oct 2013   | -                                   |            | 4.500            | 0.000            | 57.623     |                          |
| NLW Product Development                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | MIPR                   | JWCF:Fort Monroe, VA           | 12.157          | 0.000   |            | 0.000                                                                  |            | 0.000        |            | -                                   |            | 0.000            | 0.000            | 12.157     |                          |
| NLW Product Development                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Various                | MCSC:Quantico, VA              | 16.487          | 4.664   | Oct 2011   | 5.000                                                                  | Oct 2012   | 5.483        | Oct 2013   | -                                   |            | 5.483            | Continuing       | Continuing | Continuing               |
| NLW Product Development                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | MIPR                   | NSMA:Arlington, VA             | 24.277          | 0.000   |            | 0.000                                                                  |            | 0.000        |            | -                                   |            | 0.000            | 0.000            | 24.277     |                          |
| NLW Product Development                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | C/CPFF                 | MCLB:Albany, GA                | 8.316           | 0.000   |            | 0.000                                                                  |            | 0.000        |            | -                                   |            | 0.000            | 0.000            | 8.316      |                          |
| NLW Product Development                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | MIPR                   | M&S:Various                    | 16.910          | 1.208   | Oct 2011   | 1.500                                                                  | Oct 2012   | 1.500        | Oct 2013   | -                                   |            | 1.500            | 0.000            | 21.118     |                          |
| NLW Product Development                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Various                | JIP:Various                    | 12.512          | 0.600   | Oct 2011   | 0.600                                                                  | Oct 2012   | 0.600        | Oct 2013   | -                                   |            | 0.600            | 0.000            | 14.312     |                          |
| NLW Product Development                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Various                | Uniformed Services:Various     | 103.778         | 15.633  | Oct 2011   | 17.023                                                                 | Oct 2012   | 15.670       | Oct 2013   | -                                   |            | 15.670           | 0.000            | 152.104    |                          |
| Subtotal                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                        |                                | 357.605         | 38.089  |            | 39.583                                                                 |            | 45.178       |            | 0.000                               |            | 45.178           |                  |            |                          |
| Remarks<br>Joint Program funds are distributed amongst the USA, USAF, USN, USMC, SOCOM, and USCG in support of NLW research and development efforts. Each Cost Category Item does not correlate to an individual project/effort. They fund multiple non-lethal projects/efforts that are incrementally funded throughout the fiscal year as each service identifies the project/effort requiring funding. October award dates reflect the start of incremental funding and does not indicate that the full amount will be awarded in October. |                        |                                |                 |         |            |                                                                        |            |              |            |                                     |            |                  |                  |            |                          |

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|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|-------------------------------------------|------------------------|----------------|-------------------|--------------------------------------------------------------------------------------|-------------------|---------------------|-------------------|--------------------|-------------------|---------------------------------------------------|-------------------------|-------------------|---------------------------------|
| <b>Exhibit R-3, RDT&amp;E Project Cost Analysis: PB 2014 Navy</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                   |                                           |                        |                |                   |                                                                                      |                   |                     |                   |                    |                   | <b>DATE:</b> April 2013                           |                         |                   |                                 |
| <b>APPROPRIATION/BUDGET ACTIVITY</b><br>1319: <i>Research, Development, Test &amp; Evaluation, Navy</i><br>BA 4: <i>Advanced Component Development &amp; Prototypes (ACD&amp;P)</i>                                                                                                                                                                                                                                                                                                                                                                  |                                   |                                           |                        |                |                   | <b>R-1 ITEM NOMENCLATURE</b><br>PE 0603851M: <i>Joint Non-Lethal Weapons Testing</i> |                   |                     |                   |                    |                   | <b>PROJECT</b><br>2319: <i>Non-Lethal Weapons</i> |                         |                   |                                 |
| <b>Support (\$ in Millions)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                   |                                           |                        | <b>FY 2012</b> |                   | <b>FY 2013</b>                                                                       |                   | <b>FY 2014 Base</b> |                   | <b>FY 2014 OCO</b> |                   | <b>FY 2014 Total</b>                              |                         |                   |                                 |
| <b>Cost Category Item</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | <b>Contract Method &amp; Type</b> | <b>Performing Activity &amp; Location</b> | <b>All 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> |
| NLW Support Cost                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | WR                                | MCSC:Quantico, VA                         | 10.871                 | 0.000          |                   | 0.000                                                                                |                   | 0.000               |                   | -                  |                   | 0.000                                             | 0.000                   | 10.871            |                                 |
| NLW Support Cost                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | WR                                | NSWC:Dahlgren, VA                         | 12.998                 | 1.400          | Oct 2011          | 0.600                                                                                | Oct 2012          | 0.600               | Oct 2013          | -                  |                   | 0.600                                             | 0.000                   | 15.598            |                                 |
| NLW Support Cost                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Various                           | Various:Various                           | 30.426                 | 0.700          | Oct 2011          | 4.811                                                                                | Feb 2013          | 5.400               | Feb 2014          | -                  |                   | 5.400                                             | 15.900                  | 57.237            |                                 |
| <b>Subtotal</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                   |                                           | 54.295                 | 2.100          |                   | 5.411                                                                                |                   | 6.000               |                   | 0.000              |                   | 6.000                                             | 15.900                  | 83.706            |                                 |
| <b>Test and Evaluation (\$ in Millions)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                   |                                           |                        | <b>FY 2012</b> |                   | <b>FY 2013</b>                                                                       |                   | <b>FY 2014 Base</b> |                   | <b>FY 2014 OCO</b> |                   | <b>FY 2014 Total</b>                              |                         |                   |                                 |
| <b>Cost Category Item</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | <b>Contract Method &amp; Type</b> | <b>Performing Activity &amp; Location</b> | <b>All 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> |
| MPM T&E Cost                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Various                           | Various:Various                           | 3.553                  | 0.000          |                   | 0.000                                                                                |                   | 0.000               |                   | -                  |                   | 0.000                                             | 0.000                   | 3.553             |                                 |
| <b>Subtotal</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                   |                                           | 3.553                  | 0.000          |                   | 0.000                                                                                |                   | 0.000               |                   | 0.000              |                   | 0.000                                             | 0.000                   | 3.553             |                                 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                   |                                           | <b>All Prior Years</b> | <b>FY 2012</b> |                   | <b>FY 2013</b>                                                                       |                   | <b>FY 2014 Base</b> |                   | <b>FY 2014 OCO</b> |                   | <b>FY 2014 Total</b>                              | <b>Cost To Complete</b> | <b>Total Cost</b> | <b>Target Value of Contract</b> |
| <b>Project Cost Totals</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                   |                                           | 415.453                | 40.189         |                   | 44.994                                                                               |                   | 51.178              |                   | 0.000              |                   | 51.178                                            |                         |                   |                                 |
| <b>Remarks</b><br>Joint Program funds are distributed amongst the USA, USAF, USN, USMC, SOCOM, and USCG in support of NLW research and development efforts. Each Cost Category Item does not correlate to an individual project/effort. They fund multiple non-lethal projects/efforts that are incrementally funded throughout the fiscal year as each service identifies the project/effort requiring funding. October award dates reflect the start of incremental funding and does not indicate that the full amount will be awarded in October. |                                   |                                           |                        |                |                   |                                                                                      |                   |                     |                   |                    |                   |                                                   |                         |                   |                                 |

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PE 0603851M: *Joint Non-Lethal Weapons Testing*  
Navy

R-1 Line #69

## R-1 ITEM NOMENCLATURE

PE 0603851M: *Joint Non-Lethal Weapons Testing*

2319: *Non-Lethal Weapons*

2014PB - 0603851M - 2319

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| <b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2014 Navy                                                                                                                       |                                                                                      |                                                   | <b>DATE:</b> April 2013 |
| <b>APPROPRIATION/BUDGET ACTIVITY</b><br>1319: <i>Research, Development, Test &amp; Evaluation, Navy</i><br>BA 4: <i>Advanced Component Development &amp; Prototypes (ACD&amp;P)</i> | <b>R-1 ITEM NOMENCLATURE</b><br>PE 0603851M: <i>Joint Non-Lethal Weapons Testing</i> | <b>PROJECT</b><br>2319: <i>Non-Lethal Weapons</i> |                         |

Schedule Details

| Events by Sub Project                                             | Start   |      | End     |      |
|-------------------------------------------------------------------|---------|------|---------|------|
|                                                                   | Quarter | Year | Quarter | Year |
| <b><i>Proj 2319</i></b>                                           |         |      |         |      |
| MISSION PAYLOAD MODULE (MPM): MS B                                | 3       | 2012 | 3       | 2012 |
| MISSION PAYLOAD MODULE (MPM): ENGINEERING AND MANUFACTURING PHASE | 1       | 2012 | 4       | 2014 |
| MISSION PAYLOAD MODULE (MPM): MS C                                | 2       | 2014 | 2       | 2014 |
| MISSION PAYLOAD MODULE (MPM): PRODUCTION AND DEPLOYMENT PHASE     | 1       | 2016 | 1       | 2018 |