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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 0603382N: Advanced Combat Systems Tech |               |         |         |         |                  |                  |            |
| 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  | 60.121          | 1.107   | 1.506                | 1.570        | -  | 1.570         | 1.733   | 1.762   | 1.793   | 1.826            | Continuing       | Continuing |
| 0324: Adv Combat System Technology   | 60.121          | 1.107   | 1.506                | 1.570        | -  | 1.570         | 1.733   | 1.762   | 1.793   | 1.826            | Continuing       | Continuing |
| MDAP/MAIS Code(s): 180   |                 |         |                      |              |  |               |         |         |         |                  |                  |            |
| <sup>#</sup> FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012   |                 |         |                      |              |  |               |         |         |         |                  |                  |            |
| <sup>##</sup> The FY 2014 OCO Request will be submitted at a later date  |                 |         |                      |              |  |               |         |         |         |                  |                  |            |
| A. Mission Description and Budget Item Justification   |                 |         |                      |              |  |               |         |         |         |                  |                  |            |
| The Advanced Combat System Technology line is to evolve the technical and business practices for programs to change to an open architecture construct. The program was constructed to mature both technical and business model integration for C5I systems programs of record in an open architecture environment. The priority was incorporating the principles of modular design and design disclosure, reusable application software, interoperability and secure information exchange, lifecycle affordability and encouraging competition and collaboration.  |                 |         |                      |              |  |               |         |         |         |                  |                  |            |
| Project Unit 0324: Funding is to maintain and update a information exchange environment to improve transparency of design disclosure and information exchange on past and current investments to support the principle of cross-program reuse, and to provide the tools and leadership for assisting programs through the transition to Naval Open Architecture (OA). The other elements of the OA transformation effort are being realized as management efficiencies within programs. Those elements include ensuring that all naval systems, families of systems, and programs move to modular OA in accordance with Department of Defense (DoD) Instruction 5000.1 dated 12 May 2003 which mandates that all DoD programs utilize open systems architectures to rapidly field affordable and interoperable systems. By direction of the Navy Service Acquisition Executive (SAE), PEO IWS was assigned overall responsibility and authority to direct the Navy's OA effort until that duty transferred to DASN (RDTE) in 2011. The Core OA funding line has remained with PEO IWS. That policy established a need to coordinate acquisition strategies, develop guidance and tools, and develop analysis of alternatives to determine OA software reuse practices within and across the Navy Communities of Interest (COI - Surface, Subsurface, Air, Space, C4I, USMC, and ONR). This project facilitates a strategic shift in the acquisition business process to facilitate cooperative competition in cross-domain/COI business relationships. This improves innovation and economies of scale throughout the Navy and Marine Corps. This leadership effort has identified the business case and potential return on investment for moving the Navy towards an open systems approach, supported the development of open systems technologies, and integrated best business and technical practices for open systems development within Naval acquisition. Naval OA ensures Navy-wide system architectures become extensible and scalable in function, capacity, and workload to meet Joint warfighting requirements. This also includes the identification and development of common software components, functions, reuse methodologies, and extensible product lines. In summary, this funding supports the management of a reuse repository and reuse information exchange portal, and the evolving business, systems engineering, and cultural changes required across all Naval programs as they migrate to function in a Joint, net-centric warfare environment. |                 |         |                      |              |  |               |         |         |         |                  |                  |            |

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| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Navy |         |   |              | DATE: April 2013 |               |
| APPROPRIATION/BUDGET ACTIVITY                              |         | R-1 ITEM NOMENCLATURE                     |              |                  |               |
| 1319: Research, Development, Test & Evaluation, Navy       |         | PE 0603382N: Advanced Combat Systems Tech |              |                  |               |
| BA 4: Advanced Component Development & Prototypes (ACD&P)  |         |   |              |                  |               |
| B. Program Change Summary (\$ in Millions)                 | FY 2012 | FY 2013                                   | FY 2014 Base | FY 2014 OCO      | FY 2014 Total |
| Previous President's Budget                                | 1.418   | 1.506                                     | 1.571        | -                | 1.571         |
| Current President's Budget                                 | 1.107   | 1.506                                     | 1.570        | -                | 1.570         |
| Total Adjustments  | -0.311  | 0.000                                     | -0.001       | -                | -0.001        |
| • Congressional General Reductions                         | -       | -   |              |                  |               |
| • Congressional Directed Reductions                        | -       | -   |              |                  |               |
| • Congressional Rescissions                                | -       | -   |              |                  |               |
| • Congressional Adds                                       | -       | -   |              |                  |               |
| • Congressional Directed Transfers                         | -       | -   |              |                  |               |
| • Reprogrammings   | -0.276  | 0.000                                     |              |                  |               |
| • SBIR/STTR Transfer                                       | -0.035  | 0.000                                     |              |                  |               |
| • Rate/Misc Adjustments                                    | 0.000   | 0.000                                     | -0.001       | -                | -0.001        |
| Change Summary Explanation                                 |         |   |              |                  |               |
| Technical: Not applicable.                                 |         |   |              |                  |               |
| Schedule: Not applicable.                                  |         |   |              |                  |               |

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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 0603382N: Advanced Combat Systems Tech |               |         |         | PROJECT<br>0324: Adv Combat System Technology |                  |                  |            |
| 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 |
| 0324: Adv Combat System Technology   | 60.121          | 1.107   | 1.506                | 1.570        | -  | 1.570         | 1.733   | 1.762   | 1.793   | 1.826            | Continuing       | Continuing |
| Quantity of RDT&E Articles   | 0               | 0       | 0                    | 0            |  | 0             | 0       | 0       | 0   | 0                |                  |            |

<sup>#</sup> FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

<sup>##</sup> The FY 2014 OCO Request will be submitted at a later date

## A. Mission Description and Budget Item Justification

Project Unit 0324: Funding is to maintain and update a information exchange environment to improve transparency of design disclosure and information exchange on past and current investments to support the principle of cross-program reuse, and to provide the tools and leadership for assisting programs through the transition to Naval Open Architecture (OA). The other elements of the OA transformation effort are being realized as management efficiencies within programs. Those elements include ensuring that all naval systems, families of systems, and programs move to modular OA in accordance with Department of Defense (DoD) Instruction 5000.1 dated 12 May 2003 which mandates that all DoD programs utilize open systems architectures to rapidly field affordable and interoperable systems. By direction of the Navy Service Acquisition Executive (SAE), PEO IWS was assigned overall responsibility and authority to direct the Navy's OA effort until the duty transferred to DASN (RDTE) in 2011 The Core OA funding line has remained with PEO IWS. That policy established a need to coordinate acquisition strategies, develop guidance and tools, and develop analysis of alternatives to determine OA software reuse practices within and across the Navy Communities of Interest (COI - Surface, Subsurface, Air, Space, C4I, USMC, and ONR). This project facilitates a strategic shift in the acquisition business process to facilitate cooperative competition in cross-domain/COI business relationships. This improves innovation and economies of scale throughout the Navy and Marine Corps. This leadership effort has identified the business case and potential return on investment for moving the Navy towards an open systems approach, supported the development of open systems technologies, and integrated best business and technical practices for open systems development within Naval acquisition. Naval OA ensures Navy-wide system architectures become extensible and scalable in function, capacity, and workload to meet Joint warfighting requirements. This also includes the identification and development of common software components, functions, reuse methodologies, and extensible product lines. In summary, this funding supports the management of a reuse repository and reuse information exchange portal, and the evolving business, systems engineering, and cultural changes required across all Naval programs as they migrate to function in a Joint, net-centric warfare environment.

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

|   | <b>FY 2012</b> | <b>FY 2013</b> | <b>FY 2014</b> |
|---|----------------|----------------|----------------|
| <b>Title:</b> Align the Naval Enterprise Across All Domains to Implement OA   | 0.100          | 0.150          | 0.160          |
| <b>Articles:</b>  | 0              | 0              | 0              |
| <b>FY 2012 Accomplishments:</b>   |                |                |                |
| OA Enterprise Alignment: This funding supports the maintenance and execution of the Naval OA Policy and Strategy, including quarterly OAET Lead Council meetings and reporting requirements. Specifically, this includes OAET reporting of action items to DASN, quarterly OA Report to Congress, as well as the annual OA budget submission and financial reporting for this project. Alignment across the Naval Enterprise also includes the development and management of all other activities as the Lead Council |                |                |                |

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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 0603382N: <i>Advanced Combat Systems Tech</i> | <b>PROJECT</b><br>0324: <i>Adv Combat System Technology</i> |                |
| <b>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</b>  |  | <b>FY 2012</b>  | <b>FY 2013</b> |
| <p>directs. Specific goals for FY 12 include development of OA product line pilot projects and publication of a Program Manager's OA Handbook.</p> <p><b>FY 2013 Plans:</b><br/>OA Enterprise Alignment: This funding supports the maintenance and execution of the Naval OA Policy and Strategy, including quarterly OAET Lead Council meetings and reporting requirements. Specifically, this includes OAET reporting of action items to DASN, quarterly OA Report to Congress, as well as the annual OA budget submission and financial reporting for this project. Alignment across the Naval Enterprise also includes the development and management of all other activities as the Lead Council directs.</p> <p><b>FY 2014 Plans:</b><br/>Support the maintenance and execution of the Naval OA Policy and Strategy, including OAET Lead Council meetings (as scheduled) and reporting requirements. Specifically, this includes OAET reporting of action items to DASN RDT&amp;E, quarterly OA Reports to Congress via ASN RDA, as well as the annual OA budget submission and financial reporting for this project. Alignment across the Naval Enterprise also includes the development and management of all other activities as the Lead Council, DASN RDT&amp;E, or ASN RDA directs.</p>  |  |   |                |
| <p><b>Title:</b> Change the Naval and Marine Corps Cultures to Institutionalize OA Principle</p> <p align="right"><b>Articles:</b></p> <p><b>FY 2012 Accomplishments:</b><br/>OA Enterprise Communications and Training: This funding supports the activities to enable the cultural adoption of OA principles and practices through stakeholder management, communications, and training. Key activities include reorganization and update to Defense Acquisition University online OA training modules, presentation of existing training courses, and participation in symposia and panels to discuss OA implementation, and use of other communication vehicles to promulgate OA standards and methodologies for inclusion into Naval systems acquisition.</p> <p><b>FY 2013 Plans:</b><br/>OA Enterprise Communications and Training: This funding supports the activities to enable the cultural adoption of OA principles and practices through stakeholder management, communications, and training. Key activities include maintenance of Defense Acquisition University online OA training modules, presentation of existing training courses, and participation in symposia and panels to discuss OA implementation, and use of other communication vehicles to promulgate OA standards and methodologies for inclusion into Naval systems acquisition.</p> <p><b>FY 2014 Plans:</b><br/>Enable the institutional adoption of OA principles and practices through stakeholder management, communications, mentoring, training, and curriculum adjustment. Key activities include maintenance of Defense Acquisition University (DAU) online OA training</p> |  | 0.239<br>0  | 0.311<br>0     |
|  |  | 0.330<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 0603382N: Advanced Combat Systems Tech |         | PROJECT<br>0324: Adv Combat System Technology |
| B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)   |  | FY 2012  | FY 2013 | FY 2014                                       |
| modules, working with DAU to incorporate OA principles into existing coursework materials, presentation of existing training courses, and participation in symposia and panels to discuss OA implementation, and use of other communication vehicles to promulgate OA standards and methodologies for inclusion into Naval systems acquisition.  |  |  |         |   |
| Title: OA Systems Engineering Leadership   |  | 0.275  | 0.350   | 0.375   |
| Articles:  |  | 0  | 0       | 0   |
| FY 2012 Accomplishments:<br>Systems Engineering: This funding supports systems engineering collaboration across the Naval Enterprise to facilitate the fielding of interoperable capabilities, including a) the further alignment of PEO architectures; b) providing guidance to Technical Warrant Holders who oversee OA implementation efforts to ensure standardized and disciplined processes, interfaces, and services are utilized; c) working with the Science and Technology (S&T) community to ensure OA is incorporated into emerging technologies; and d) working with the Test and Evaluation (T&E) community, academia, and industry partners to identify opportunities to reduce T&E expenses as a result of OA. The Core OA/OAET is working with, and across, the PEOs to adopt automated test and analysis tools.  |  |  |         |   |
| FY 2013 Plans:<br>Systems Engineering: This funding supports systems engineering collaboration across the Naval Enterprise to facilitate the fielding of interoperable capabilities, including a) the further alignment of PEO architectures; b) providing guidance to Technical Warrant Holders who oversee OA implementation efforts to ensure standardized and disciplined processes, interfaces, and services are utilized; c) working with the Science and Technology (S&T) community to ensure OA is incorporated into emerging technologies; and d) working with the Test and Evaluation (T&E) community, academia, and industry partners to identify opportunities to reduce T&E expenses as a result of OA. The Core OA/OAET will continue to work with, and across, the PEOs to adopt automated test and analysis tools. |  |  |         |   |
| FY 2014 Plans:<br>Support systems engineering collaboration across the Naval Enterprise to facilitate the fielding of interoperable capabilities, including a) the further alignment of PEO architectures; b) providing guidance for government-to-government coordination of OA implementation efforts to ensure standardized and disciplined processes, interfaces, and services are utilized; c) working with the Science and Technology (S&T) community to ensure OA is incorporated into emerging technologies; and d) working with the Test and Evaluation (T&E) community, academia, and industry partners to identify opportunities to reduce T&E expenses as a result of OA. The Core OA/OAET will continue to work with, and across, the PEOs to adopt automated test and analysis tools.                                |  |  |         |   |
| Title: Change Naval Processes and Business Practices   |  | 0.493  | 0.695   | 0.705   |
| 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 0603382N: Advanced Combat Systems Tech |                |                  |         | PROJECT<br>0324: Adv Combat System Technology |         |         |                     |            |  |
| B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)  |  |         |         |  |                |                  |         | FY 2012                                       |         | FY 2013 |                     | FY 2014    |  |
| <p>Naval Business Practices: This funding supports changing software reuse Naval Business Practices including a) the development and refinement of policies, guidance, and terminology required to establish a consistent approach for OA across the Enterprise; b) the development and maintenance of analytical toolsets to assist Milestone Decision Authorities, Program Managers, and Resource Sponsors in assessing program openness and making informed OA investment decisions; and c) the facilitation of design disclosure, information sharing, and cross-domain component reuse to reduce costs and enable more effective technology insertion, including the administration of the OA information exchange portal. The Core OA/OAET is working with, and across, the PEOs to adopt automated test and analysis tools.</p> <p><b>FY 2013 Plans:</b><br/>Naval Business Practices: This funding supports changing software reuse Naval Business Practices including a) the development and refinement of policies, guidance, and terminology required to establish a consistent approach for OA across the Enterprise; b) the development and maintenance of analytical toolsets to assist Milestone Decision Authorities, Program Managers, and Resource Sponsors in assessing program openness and making informed OA investment decisions; and c) the facilitation of design disclosure, information sharing, and cross-domain component reuse to reduce costs and enable more effective technology insertion, including the administration of the OA information exchange portal. The Core OA/OAET will continue to work with, and across, the PEOs to adopt automated test and analysis tools.</p> <p><b>FY 2014 Plans:</b><br/>Change reuse Naval Business Practices including a) the development and refinement of policies, guidance, and terminology required to establish a consistent approach for OA across the Enterprise; b) the development and maintenance of analytical toolsets to assist Milestone Decision Authorities, Program Managers, and Resource Sponsors in assessing program openness and making informed OA investment decisions; and c) the facilitation of design disclosure, information sharing, and cross-domain component reuse to reduce costs and enable more effective technology insertion, including the administration of the OA Information Exchange Portal hosted at Forge.mil. The Core OA/OAET will continue to work with, and across, the PEOs to adopt automated test and analysis tools.</p> |  |         |         |  |                |                  |         |   |         |         |                     |            |  |
|   |  |         |         |  |                |                  |         |   |         |         |                     |            |  |
|   |  |         |         |  |                |                  |         |   |         |         |                     |            |  |
| Accomplishments/Planned Programs Subtotals  |  |         |         |  |                |                  |         | 1.107   |         | 1.506   |                     | 1.570      |  |
| C. Other Program Funding Summary (\$ in Millions)   |  |         |         |  |                |                  |         |   |         |         |                     |            |  |
| Line Item   |  | FY 2012 | FY 2013 | FY 2014<br>Base  | FY 2014<br>OCO | FY 2014<br>Total | FY 2015 | FY 2016                                       | FY 2017 | FY 2018 | Cost To<br>Complete | Total Cost |  |
| • R&D/0604307N /1447: AEGIS<br>Surf Combatant Combat Sys Imp  |  | 211.968 | 260.616 | 237.642  |                | 237.642          | 196.584 | 312.518                                       | 217.788 | 243.443 | Continuing          | Continuing |  |
| • R&D/0604755N /2178: Ship Self<br>Defense System   |  | 68.161  | 81.106  | 117.668  |                | 117.668          | 110.893 | 117.429                                       | 75.697  | 65.350  | Continuing          | Continuing |  |

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| Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy   |                |                |                         |                        |   |                |                |  |                | DATE: April 2013            |                   |
| <b>APPROPRIATION/BUDGET ACTIVITY</b><br>1319: Research, Development, Test & Evaluation, Navy<br>BA 4: Advanced Component Development & Prototypes (ACD&P)   |                |                |                         |                        | <b>R-1 ITEM NOMENCLATURE</b><br>PE 0603382N: Advanced Combat Systems Tech |                |                | <b>PROJECT</b><br>0324: Adv Combat System Technology |                |                             |                   |
| <b>C. Other Program Funding Summary (\$ in Millions)</b>  |                |                |                         |                        |   |                |                |  |                |                             |                   |
| <b>Line Item</b>  | <b>FY 2012</b> | <b>FY 2013</b> | <b>FY 2014<br/>Base</b> | <b>FY 2014<br/>OCO</b> | <b>FY 2014<br/>Total</b>  | <b>FY 2015</b> | <b>FY 2016</b> | <b>FY 2017</b>                                       | <b>FY 2018</b> | <b>Cost To<br/>Complete</b> | <b>Total Cost</b> |
| • R&D/0603658N /2039:<br>Cooperative Engagement<br>Capability   | 54.422         | 56.512         | 68.496                  |                        | 68.496  | 66.050         | 87.815         | 77.254   | 78.582         | Continuing                  | Continuing        |
| <b>Remarks</b>  |                |                |                         |                        |   |                |                |  |                |                             |                   |
| <b>D. Acquisition Strategy</b>  |                |                |                         |                        |   |                |                |  |                |                             |                   |
| This risk reduction effort evolved and shifted from a PEO IWS 1.0 task to Naval Surface Warfare Center (NSWC)/Dahlgren to an Assistant Secretary of the Navy, Research, Development & Acquisition (ASN-RDA) directed task to fund the Navy's OA Enterprise effort from this core OA Budget line (policy statement dated 5 August 2004). The strategy was further refined in the Deputy Chief of Naval Operations (DCNO) requirement of 23 December 2005 (N6/7) with guidance for this effort to assist the Milestone Decision Authority (MDA), program managers, and resource sponsors in assessing enterprise program assets where appropriate. Office of the Chief of Naval Operations (OPNAV) has directed this program to provide objective, measurable, performance based assessments as Business Case Analysis (BCA) baselines for future system changes and spiral developments. |                |                |                         |                        |   |                |                |  |                |                             |                   |
| <b>E. Performance Metrics</b>   |                |                |                         |                        |   |                |                |  |                |                             |                   |
| Change Naval Processes and business practices to cost-effectively innovate and deploy improved warfighting capability based on fleet requirements. Provide OA Systems Engineering to field common, interoperable capabilities; Change Navy and Marine Corps Business processes to Institutionalize OA Principles.   |                |                |                         |                        |   |                |                |  |                |                             |                   |

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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 0603382N: Advanced Combat Systems Tech |            |              |            | PROJECT<br>0324: Adv Combat System Technology |            |                  |                  |            |                          |
| 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 |
| SE/OA Domain Support   | C/FP                   | APL/ IET Contract:VARIOUS                              | 0.725           | 0.185   | Mar 2012   | 0.750  | Nov 2012   | 0.690        | Nov 2013   | -   |            | 0.690            | 0.000            | 2.350      | Continuing               |
| Systems Engineering  | WR                     | NSWC / Dahlgren:Dahlgren, VA                           | 12.658          | 0.010   | Jan 2012   | 0.020  | Oct 2012   | 0.000        |            | -   |            | 0.000            | Continuing       | Continuing | Continuing               |
| Systems Engineering  | WR                     | NSWC/CRANE, Carderock, DISA:VARIOUS                    | 2.062           | 0.305   | Mar 2012   | 0.200  | Dec 2012   | 0.200        | Dec 2013   | -   |            | 0.200            | 0.000            | 2.767      | Continuing               |
| Systems Engineering  | C/CPAF                 | ASSETT; Lockheed Martin, NJ; Gartner, VA:Washington DC | 4.859           | 0.255   | Feb 2012   | 0.057  | Nov 2012   | 0.060        | Nov 2013   | -   |            | 0.060            | 0.000            | 5.231      | Continuing               |
| OA DOMAIN SUPPORT  | WR                     | NUWC/Newport, Spawar, Navair:VARIOUS                   | 11.931          | 0.000   |            | 0.000  |            | 0.000        |            | -   |            | 0.000            | 0.000            | 11.931     | Continuing               |
| SE/Signal Processor  | C/CPAF                 | Lockheed Martin:VARIOUS                                | 6.000           | 0.000   |            | 0.000  |            | 0.000        |            | -   |            | 0.000            | 0.000            | 6.000      | Continuing               |
| SE/Signal Processor  | C/CPAF                 | BAE:VARIOUS  | 0.300           | 0.000   |            | 0.000  |            | 0.000        |            | -   |            | 0.000            | 0.000            | 0.300      | Continuing               |
| SE/Signal Processor  | C/CPAF                 | Raytheon:VARIOUS                                       | 0.100           | 0.000   |            | 0.000  |            | 0.000        |            | -   |            | 0.000            | 0.000            | 0.100      | Continuing               |
| SE/Signal Processor  | WR                     | NSWC/DD, NRL, PHD:VARIOUS                              | 0.600           | 0.000   |            | 0.000  |            | 0.000        |            | -   |            | 0.000            | 0.000            | 0.600      | Continuing               |
| Subtotal   |                        |  | 39.235          | 0.755   |            | 1.027  |            | 0.950        |            | 0.000   |            | 0.950            |                  |            |                          |
| Support (\$ 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 |
| Industry Development   | C/FP                   | IBM, ANGLE, TBD (New IET Contract):VARIOUS             | 8.545           | 0.292   | Aug 2012   | 0.379  | Nov 2012   | 0.470        | Nov 2013   | -   |            | 0.470            | 0.000            | 9.686      | Continuing               |
| Technical Data-Academia  | WR                     | NPS-Monterey/ DAU:MONTEREY, CA                         | 1.876           | 0.060   | Feb 2012   | 0.100  | Nov 2012   | 0.150        | Nov 2013   | -   |            | 0.150            | 0.000            | 2.186      | Continuing               |



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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 0603382N: Advanced Combat Systems Tech |            |              |            |             | PROJECT<br>0324: Adv Combat System Technology |               |                  |            |                          |
| Support (\$ 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 |
| Software Development   | C/FP                   | TRIDENT, ASSET:VARIOUS         | 0.309           | 0.000   |            | 0.000  |            | 0.000        |            | -           |   | 0.000         | 0.000            | 0.309      | Continuing               |
| Subtotal   |                        |                                | 10.730          | 0.352   |            | 0.479  |            | 0.620        |            | 0.000       |   | 0.620         | 0.000            | 12.181     |                          |
| Test and Evaluation (\$ 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 |
| Operational Test & Evaluation  | WR                     | NSWC/DD:DAHLGREN, VA           | 2.216           | 0.000   |            | 0.000  |            | 0.000        |            | -           |   | 0.000         | 0.000            | 2.216      | Continuing               |
| OA Asset Repository (SBIR Account)   | WR                     | Miscellaneous:VARIOUS          | 0.150           | 0.000   |            | 0.000  |            | 0.000        |            | -           |   | 0.000         | 0.000            | 0.150      | Continuing               |
| Subtotal   |                        |                                | 2.366           | 0.000   |            | 0.000  |            | 0.000        |            | 0.000       |   | 0.000         | 0.000            | 2.366      |                          |
| Management Services (\$ 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 |
| Program Management Support   | C/CPAF                 | Miscellaneous:VARIOUS          | 3.021           | 0.000   |            | 0.000  |            | 0.000        |            | -           |   | 0.000         | Continuing       | Continuing | Continuing               |
| SBIR Assessment (Cong Add)   | WR                     | NSWC/DD:DAHLGREN, VA           | 4.748           | 0.000   |            | 0.000  |            | 0.000        |            | -           |   | 0.000         | 0.000            | 4.748      | Continuing               |
| DAWDF  | TBD                    | TBD:TBD                        | 0.021           | 0.000   |            | 0.000  |            | 0.000        |            | -           |   | 0.000         | 0.000            | 0.021      | Continuing               |
| Subtotal   |                        |                                | 7.790           | 0.000   |            | 0.000  |            | 0.000        |            | 0.000       |   | 0.000         |                  |            |                          |
|  |                        |                                | All Prior Years | FY 2012 |            | FY 2013  |            | FY 2014 Base |            | FY 2014 OCO |   | FY 2014 Total | Cost To Complete | Total Cost | Target Value of Contract |
| Project Cost Totals  |                        |                                | 60.121          | 1.107   |            | 1.506  |            | 1.570        |            | 0.000       |   | 1.570         |                  |            |                          |
| Remarks  |                        |                                |                 |         |            |  |            |              |            |             |   |               |                  |            |                          |

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**Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy** **DATE:** 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 0603382N: <i>Advanced Combat Systems Tech</i> | <b>PROJECT</b><br>0324: <i>Adv Combat System Technology</i> |
|---|--|---|

| Fiscal Year  | 2012 |   |   |   | 2013 |   |   |   | 2014 |   |   |   | 2015 |   |   |   | 2016 |   |   |   | 2017 |   |   |   | 2018 |   |   |   |
|--|------|---|---|---|------|---|---|---|------|---|---|---|------|---|---|---|------|---|---|---|------|---|---|---|------|---|---|---|
|  | 1    | 2 | 3 | 4 | 1    | 2 | 3 | 4 | 1    | 2 | 3 | 4 | 1    | 2 | 3 | 4 | 1    | 2 | 3 | 4 | 1    | 2 | 3 | 4 | 1    | 2 | 3 | 4 |
| <b>Acquisition Milestones</b>  |      |   |   |   |      |   |   |   |      |   |   |   |      |   |   |   |      |   |   |   |      |   |   |   |      |   |   |   |
| Incorporate OA Principles in Strategies, Contracts, Reviews, Requirements, & Other Documentation | △    |   | △ |   | △    |   | △ |   | △    |   | △ |   | △    |   | △ |   | △    |   | △ |   | △    |   | △ |   | △    |   | △ |   |
| Change Culture through OAEducation, Outreach, & Training   | △    | △ | △ | △ | △    | △ | △ | △ | △    | △ | △ | △ | △    | △ | △ | △ | △    | △ | △ | △ | △    | △ | △ | △ | △    | △ | △ | △ |
| Conduct Program Assessments  |      | △ |   |   |      | △ |   |   |      | △ |   |   |      | △ |   |   |      | △ |   |   |      | △ |   |   |      | △ |   |   |
| Adapt ONR Technologies   | △    |   | △ |   | △    |   | △ |   | △    |   | △ |   | △    |   | △ |   | △    |   | △ |   | △    |   | △ |   | △    |   | △ |   |
| Publish Contract Guidebook Update  |      |   | △ |   |      |   |   |   |      |   | △ |   |      |   |   |   |      | △ |   |   |      |   |   |   |      | △ |   |   |
| Host OA Symposium  |      |   |   | △ |      |   |   | △ |      |   |   | △ |      |   |   | △ |      |   |   | △ |      |   |   | △ |      |   |   | △ |
| Deliver Report to Congress   | △    | △ | △ | △ | △    | △ | △ | △ | △    | △ | △ | △ | △    | △ | △ | △ | △    | △ | △ | △ | △    | △ | △ | △ | △    | △ | △ | △ |
| Host OA Lead Council Meetings  | △    | △ | △ | △ | △    | △ | △ | △ | △    | △ | △ | △ | △    | △ | △ | △ | △    | △ | △ | △ | △    | △ | △ | △ | △    | △ | △ | △ |

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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 0603382N: <i>Advanced Combat Systems Tech</i> | <b>PROJECT</b><br>0324: <i>Adv Combat System Technology</i> |                         |

Schedule Details

| Events by Sub Project   | Start   |      | End     |      |
|---|---------|------|---------|------|
|   | Quarter | Year | Quarter | Year |
| <b><i>Proj 0324</i></b>   |         |      |         |      |
| Incorporate OA Principles in Acquisition Strategies and Contracts | 1       | 2012 | 3       | 2018 |
| Change Culture through OA Education, Outreach and Training        | 1       | 2012 | 4       | 2018 |
| Conduct Program Assessments                                       | 2       | 2012 | 2       | 2018 |
| Adapt ONR Technologies  | 1       | 2012 | 3       | 2018 |
| Publish Contract Guidebook Update                                 | 3       | 2012 | 3       | 2018 |
| Host Contracting/Industry Symposium                               | 4       | 2012 | 4       | 2018 |
| Deliver Report to Congress  | 1       | 2012 | 4       | 2018 |
| Host OA Lead Council Meeting                                      | 1       | 2012 | 4       | 2018 |