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| <b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> PB 2014 Navy | <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 7: <i>Operational Systems Development</i> | <b>R-1 ITEM NOMENCLATURE</b><br>PE 0204136N: <i>F/A-18 Squadrons</i> |
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| 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             | 4,410.310       | 148.313 | 188.299              | 131.118      | -                         | 131.118       | 116.542 | 105.135 | 73.568  | 86.854  | Continuing       | Continuing |
| 1662: <i>F/A-18 Improvement</i>   | 3,793.777       | 97.361  | 124.223              | 128.032      | -                         | 128.032       | 113.345 | 101.963 | 73.568  | 86.854  | Continuing       | Continuing |
| 2065: <i>F/A-18 Radar Upgrade</i> | 616.533         | 50.952  | 64.076               | 3.086        | -                         | 3.086         | 3.197   | 3.172   | 0.000   | 0.000   | 0.000            | 741.016    |

**MDAP/MAIS Code(s):** 549

<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 F/A-18 is required to perform multiple missions. Capabilities of the F/A-18 weapon system and ancillary equipment can be upgraded to accommodate and incorporate new or enhanced weapons as well as advances in technology to respond effectively to emerging future threats. Continued F/A-18 E/F and EA-18G "Flight Plan" spiral capability development is critical to the baseline of the Super Hornet next generation mission system capability and maintaining tactical relevance in support of Navy Aviation Plan 2030. Development continues for a platform solution to threat Advanced Electronic Attack and Counter-Electronic Attack (CEA). F/A-18 solutions to CEA include upgrades to existing sensors such as F/A-18 Radar Upgrade, Infrared Search and Track Block I, and development of a fused picture between these sensors, such as Multi-Sensor Integration Phase III. Additionally, continued advanced development engineering for improvements in reliability and maintainability are required to ensure maximum benefit is achieved through reduced cost of ownership and to provide enhanced availability.

JUSTIFICATION FOR BUDGET ACTIVITY: This program is funded under OPERATIONAL SYSTEMS DEVELOPMENT because it includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate funding in the current or subsequent fiscal year.

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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 7: Operational Systems Development                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |         | R-1 ITEM NOMENCLATURE<br>PE 0204136N: F/A-18 Squadrons |              |                  |               |
| B. Program Change Summary (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | FY 2012 | FY 2013                                                | FY 2014 Base | FY 2014 OCO      | FY 2014 Total |
| Previous President's Budget                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 147.091 | 188.299                                                | 148.861      | -                | 148.861       |
| Current President's Budget                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 148.313 | 188.299                                                | 131.118      | -                | 131.118       |
| Total Adjustments                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 1.222   | 0.000                                                  | -17.743      | -                | -17.743       |
| • Congressional General Reductions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | -       | -                                                      |              |                  |               |
| • Congressional Directed Reductions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | -       | -                                                      |              |                  |               |
| • Congressional Rescissions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | -       | -                                                      |              |                  |               |
| • Congressional Adds                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | -       | -                                                      |              |                  |               |
| • Congressional Directed Transfers                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | -       | -                                                      |              |                  |               |
| • Reprogrammings                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 4.529   | 0.000                                                  |              |                  |               |
| • SBIR/STTR Transfer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | -3.307  | 0.000                                                  |              |                  |               |
| • Program Adjustments                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 0.000   | 0.000                                                  | -11.239      | -                | -11.239       |
| • Rate/Misc Adjustments                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 0.000   | 0.000                                                  | -6.504       | -                | -6.504        |
| Change Summary Explanation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |         |                                                        |              |                  |               |
| Technical:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |         |                                                        |              |                  |               |
| 1662: Not Applicable                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |         |                                                        |              |                  |               |
| 2065: Not Applicable                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |         |                                                        |              |                  |               |
| Schedule:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |         |                                                        |              |                  |               |
| 1662: Distributed Targeting System Developmental Test extended one year from 1st quarter FY12 to 1st quarter FY13 for resolution of minor issues discovered in earlier testing. Operational Flight Test slid into 1st quarter FY13. As a result of extended flight test and delays with the Fleet Release of System Configuration Set H8, Initial Operational Capability was delayed from 4th quarter FY12 to 3rd quarter FY13. Low Rate Initial Production 2 was delayed from 2nd quarter FY12 to 1st quarter FY13 due to protracted contract negotiations, there was no impact to the production line or risk of a program breach and the results were a net savings of \$3 million. Full Rate Production contract award was delayed from 1st quarter FY13 to 3rd quarter FY13. Inclusion of FY18 in the FYDP brought in Full Rate Production Lots 6 and 7 and updated quantities.                                                   |         |                                                        |              |                  |               |
| Infra-Red Search and Track Integrated Baseline Review 1 and Engineering Development Model Fleet Readiness Review (EDM FRR) delayed two quarters as a result of contract settlement issues between the prime contractor and a major subcontractor, EDM FRR scheduled date is 1st quarter FY14, erroneously reported as 4th quarter FY12 in PB13. Four schedule items have been accelerated by two quarters since PB13; Physical Configuration Audit, Integrated Operational Test & Evaluation, the Operational Evaluation Report and the start of Full Rate Production 1. Five items have been added; Full Rate Production Decision Review in 2nd quarter FY16, start of Full Rate Production 2 in 1st quarter FY17, deliveries of Low Rate Initial Production 2 beginning 1st quarter FY17, deliveries of Full Rate Production 1 beginning in 3rd quarter FY17 and deliveries of Full Rate Production 2 beginning in 2nd quarter FY18. |         |                                                        |              |                  |               |

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| <b>Exhibit R-2, RDT&amp;E Budget Item 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 7: <i>Operational Systems Development</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |  | <b>R-1 ITEM NOMENCLATURE</b><br>PE 0204136N: <i>F/A-18 Squadrons</i> |
| <p>Multi-Sensor Integration Phase 1 Operational Testing Readiness Review, Operational Evaluation and Fleet Release have all been delayed two quarters as a result of discovered test issues requiring resolution.</p> <p>Multi-Sensor Integration Phase III System Design and Development start date has been accelerated two quarters into 1st quarter FY13 from 3rd quarter FY13. Integration testing previously reported only the planned integration period, extended to 1st quarter FY16 from 3rd quarter FY15 to account for the planned Integrated Test &amp; Evaluation phase.</p> <p>Sensor Integration - Single Ship Geolocation (SSG) and Specific Emitter Identification (SEI): SSG/SEI follow-on interoperability efforts require additional software development extending that effort from 2nd quarter FY11 to 4th quarter FY13, related testing will be accomplished in conjunction with Multi-Sensor Integration Phase II.</p> <p>Automatic Ground Collision Avoidance System /Automated Terrain Avoidance and Warning System: Added developmental test period for communications and identification efforts (Multi-functional Information Distribution System - Joint Tactical Radio System, Satellite Communication, Combined Interrogator Transponder MODE 5) from 4th quarter FY12 to 4th quarter FY16.</p> <p>Small Diameter Bomb II / Joint Miniature Munitions Bomb Rack Unit integration and testing is a new start effort beginning in FY14.</p> <p>Obsolescence redesign is a new start program beginning in FY14.</p> <p>2065: Counter Electronic Attack 1 hardware/software development efforts under this program element end in 4th quarter FY13. Obsolescence redesign program added beginning in FY14.</p> |  |                                                                      |

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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 7: Operational Systems Development                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                 |         |                      |              | R-1 ITEM NOMENCLATURE<br>PE 0204136N: F/A-18 Squadrons |               |         |         | PROJECT<br>1662: F/A-18 Improvement |         |                  |            |
| 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 |
| 1662: F/A-18 Improvement                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 3,793.777       | 97.361  | 124.223              | 128.032      | -                                                      | 128.032       | 113.345 | 101.963 | 73.568                              | 86.854  | 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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                 |         |                      |              |                                                        |               |         |         |                                     |         |                  |            |
| F/A-18 Improvement (1662): The F/A-18 is a multi-mission strike fighter aircraft that is used in Air-to-Air, strike, surveillance, reconnaissance and tanking roles through selected use of external equipment (fuel tanks, tactical and reconnaissance pods, and various ordnance launching racks). Additional capabilities are required for interoperability in a network-centric tactical environment. In order to respond effectively to emerging future threats, F/A-18 aircraft capabilities are being expanded and upgraded to incorporate new/enhanced weapons systems and avionics including Dual Mode Weapons, a Counter-Electronic Attack, Infra-red Search and Track integrated with the Active Electronically Scanned Array Radar to provide Narrow Band High Gain Electronic Attack, Distributed Targeting precision strike capability through a Distributed Targeting System, and Sensor Integration through Multi-Sensor Integration Phase I/II/III capability. Continued advanced development engineering and analysis of hardware/software is required to successfully optimize fleet F/A-18 weapon systems for interoperability in a network centric tactical environment (such as Naval Integrated Fire Control-Counter Air), to include: enhanced software capabilities, potential new hardware development, enhanced existing hardware, and enhanced network centric capabilities. Additionally, continued effort is needed to perform technical evaluations, modeling and simulations, investigative flight testing, enhanced software modifications based on reported fleet deficiencies and beginning in FY14 the development and testing of design modifications to address obsolescence issues with the F/A-18 weapon system and ancillary equipment. Funding has been added starting in FY 2012 for the Automatic Ground Collision Avoidance System/Automated Terrain Avoidance and Warning System which will integrate currently implemented manual methodologies to provide not only aural and visual cues/advisories but also automatic initiation of aircraft recovery and subsequent return of control to the pilot following recovery. This funding line continues F/A-18E/F "Flight Plan" spiral capability development, to include Multi-Sensor Integration Phase II and Phase III capability and further Flight Plan Engineering and System Configuration Set development and integration. This budget continues funding for F/A-18A-F Test Wing Maintenance support, funding development efforts needed for integration of air launched laser guided rockets on F/A-18 A+/C/D and beginning in FY14 the development and testing required for the integration of the Small Diameter Bomb II and Joint Miniature Munitions-Bomb Rack Unit on the F/A-18E/F Super Hornet. |                 |         |                      |              |                                                        |               |         |         |                                     |         |                  |            |
| B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                 |         |                      |              |                                                        |               |         |         | FY 2012                             | FY 2013 | FY 2014          |            |
| Title: Distributed Targeting System                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                 |         |                      |              |                                                        |               |         |         | 5.427                               | 1.916   | 0.000            |            |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                 |         |                      |              |                                                        |               |         |         | 0                                   | 0       |                  |            |
| Description: Funds are supporting development of a distributed targeting precision strike capability through a hardware and software solution. Hardware - Distributed Targeting Processor (DTP), Mass Storage Unit (MSU), and Mission Planning Transit Case. Software - DTP/MSU Operational Flight Program (OFP), Mission Computer OFP, and Mission Planning OFP.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                 |         |                      |              |                                                        |               |         |         |                                     |         |                  |            |
| 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 7: Operational Systems Development                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | R-1 ITEM NOMENCLATURE<br>PE 0204136N: F/A-18 Squadrons | PROJECT<br>1662: F/A-18 Improvement |             |             |
| B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                        | FY 2012                             | FY 2013     | FY 2014     |
| Continue Integrated Test and Evaluation and begin Initial Operational Test and Evaluation. Complete Operational Test, conduct Physical Configuration Audit and Full Rate Production review.<br><b>FY 2013 Plans:</b><br>Complete Initial Operational Test and Evaluation (IOT&E) and award Full Rate Production (FRP) contract.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                        |                                     |             |             |
| <b>Title:</b> Electro-Optical Infra-Red Search and Track (IRST) Phase I<br><b>Articles:</b><br><b>Description:</b> Technology development and engineering and manufacturing development of an IRST sensor for the F/A-18 E/F.<br><b>FY 2012 Accomplishments:</b><br>Continue Engineering and Development Phase and complete Critical Design Review and Design Readiness Review.<br><b>FY 2013 Plans:</b><br>Continue Engineering and Development Phase and start Integration Testing-B1 Flight Test.<br><b>FY 2014 Plans:</b><br>Continue Engineering and Development Phase and Integration Testing-C Flight Test. Complete Milestone C Review.                                                                                                                                                                                                                              |                                                        | 49.283<br>0                         | 84.262<br>0 | 59.744<br>0 |
| <b>Title:</b> Sensor Integration - Single Ship Geolocation (SSG) and Specific Emitter Identification (SEI), High Gain Electronic Attack/ High Gain Electronic Support Measures, Integrated Defensive Countermeasures<br><b>Articles:</b><br><b>Description:</b> In order to respond effectively to emerging future threats, F/A-18 aircraft capabilities are being upgraded to incorporate new/enhanced weapons systems and avionics. This funding line includes F/A-18E/F "Flight Plan" spiral capability development, SSG and SEI.<br><b>FY 2012 Accomplishments:</b><br>Continue software algorithm development to enhance target identification and location - SSG and SEI.<br><b>FY 2013 Plans:</b><br>Continue software algorithm development to enhance target identification and location (SSG/SEI) as relates to Wingman Compatibility interoperability resolution. |                                                        | 11.320<br>0                         | 2.629<br>0  | 0.000       |
| <b>Title:</b> Sensor Integration - Air to Air, Air to Ground and Maritime Multi-Sensor Integration Phase II<br><b>Articles:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                        | 15.733<br>0                         | 3.031<br>0  | 10.195<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 7: <i>Operational Systems Development</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |  | <b>R-1 ITEM NOMENCLATURE</b><br>PE 0204136N: <i>F/A-18 Squadrons</i> |                         | <b>PROJECT</b><br>1662: <i>F/A-18 Improvement</i> |                |
| <b>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |  |                                                                      | <b>FY 2012</b>          | <b>FY 2013</b>                                    | <b>FY 2014</b> |
| <p><b>Description:</b> Funding will be used to expand track and correlation support from emitting targets and tracks to improve lethality against stationary or moving targets. The H10E effort is currently in the requirements definition/allocation phase, with expected fleet introduction in FY 2014.</p> <p><b>FY 2012 Accomplishments:</b><br/>Requirements decomposition, functional allocation of subsystem requirements. System functional review and critical design review will be held.</p> <p><b>FY 2013 Plans:</b><br/>Integration and testing will be conducted.</p> <p><b>FY 2014 Plans:</b><br/>Complete Multi-Sensor Integration Phase II development with Fleet Release of System Configuration Set H10E. Effort includes software development and testing inclusive of Wingman Compatibility improvements such as Unique Identification, Enhanced Interference Blanking Unit and other software updates affecting the Integrated Defensive Counter Measures suite of electronic warfare hardware.</p>                                                                                                                                                                                                                                                                                                                                                 |  |                                                                      |                         |                                                   |                |
| <p><b>Title:</b> Sensor Integration - Counter Electronic Attack / Multi-Sensor Integration Phase III</p> <p style="text-align: right;"><b>Articles:</b></p> <p><b>Description:</b> Multi-Sensor Integration Phase III utilizes previous Multi-Sensor Integration upgrades and combines them in H12 System Configuration Set with display improvements to enhance Air to Air &amp; Counter Electronic Attack sensor integration. Multi-Sensor Integration Phase III capability focuses are: Display firmware upgrade (allows existing processors to be fully utilized) coupled with display symbology/Crew Vehicle Interface improvements, and Air to Air Mission Tactical Picture improvements. MSI Phase III capability is common to the F/A-18E/F and EA-18G.</p> <p><b>FY 2013 Plans:</b><br/>Requirements decomposition, functional allocation of subsystem requirements. System Functional Review/Critical Design Review to be held.</p> <p><b>FY 2014 Plans:</b><br/>Continue Multi-Sensor Integration system software design and development, main focus of funded effort is in the H12 System Configuration Set for display improvements and other updates affecting air to air and Counter Electronic Attack sensor integration; development and testing inclusive of Wingman Compatibility improvements such as Unique Identification, Enhanced Interference</p> |  |                                                                      | 0.000                   | 10.500<br>0                                       | 14.470<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 7: Operational Systems Development                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | R-1 ITEM NOMENCLATURE<br>PE 0204136N: F/A-18 Squadrons | PROJECT<br>1662: F/A-18 Improvement |             |            |
| B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                        | FY 2012                             | FY 2013     | FY 2014    |
| Blanking Unit and other software updates affecting the Integrated Defensive Counter Measures suite of electronic warfare hardware. Begin integration and testing efforts.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                        |                                     |             |            |
| Title: Flight Plan Engineering / System Configuration Set Development and Integration<br><br>Articles:<br><br>Description: Continued F/A-18 E/F and EA-18G "Flight Plan" spiral capability development is critical to the baseline of the Super Hornet next generation mission system capability. Funding will support the development, test and integration efforts required to maintain tactical relevance in support of Navy Aviation Plan 2030.<br><br>FY 2014 Plans:<br>Flight Plan Engineering efforts to include F/A-18E/F improvements necessary for Super Hornet relevance and tactical supremacy; Navy Integrated Fire Control-Counter Air system configuration set requirements to support Navy Integrated Air and Missile Defense capability requirements and enhance F/A-18 Cooperative Engagement Capability. Funding will also continue System Configuration Set H10/H12 test and development tasking. |                                                        | 0.000                               | 0.000       | 4.000<br>0 |
| Title: Test Wing Maintenance Conversion<br><br>Articles:<br><br>Description: Funding supports maintenance of aircraft at NAVAIR Test Wing used to support Program Office objectives.<br><br>FY 2012 Accomplishments:<br>Perform aircraft maintenance on Test Wing Aircraft.<br><br>FY 2013 Plans:<br>Perform aircraft maintenance on Test Wing Aircraft. Increase in planned flight testing over FY12 requirements.<br><br>FY 2014 Plans:<br>Perform aircraft maintenance on Test Wing Aircraft. Decrease in planned flight testing over FY13 as a result of reduced budget authority and planned efforts.                                                                                                                                                                                                                                                                                                            |                                                        | 9.042<br>0                          | 10.483<br>0 | 6.500<br>0 |
| Title: Automatic Ground Collision Avoidance System /Automated Terrain Avoidance and Warning System<br><br>Articles:<br><br>Description: Automatic Ground Collision Avoidance System /Automated Terrain Avoidance and Warning System will preserve force structure by reducing attrition of pilots and aircraft that result from Controlled Flight into Terrain (CFIT). CFIT occurs at greater rates on fighter attack aircraft and is a leading cause of loss of life and loss of combat capability within the DoD aviation community. At full implementation, Automatic Ground Collision Avoidance System /Automated Terrain Avoidance and Warning System will integrate currently implemented manual methodologies to provide not only aural and visual cues/advisories, but                                                                                                                                        |                                                        | 4.556<br>0                          | 11.402<br>0 | 5.223<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 7: <i>Operational Systems Development</i>                                                                                                                                                                                                                                                                                                                                                                                               |  | <b>R-1 ITEM NOMENCLATURE</b><br>PE 0204136N: <i>F/A-18 Squadrons</i> |                         | <b>PROJECT</b><br>1662: <i>F/A-18 Improvement</i> |                |
| <b>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |                                                                      | <b>FY 2012</b>          | <b>FY 2013</b>                                    | <b>FY 2014</b> |
| also automatic initiation of aircraft recovery and subsequent return of control to the pilot following recovery. Funding supports Automatic Ground Collision Avoidance System/Automated Terrain Avoidance and Warning System studies, analysis and functional requirements; communication, navigation and identification related development and integration efforts.                                                                                                                                                                                 |  |                                                                      |                         |                                                   |                |
| <b>FY 2012 Accomplishments:</b><br>Begin studies and analysis to develop functional requirements for Automatic Ground Collision Avoidance System/Automated Terrain Avoidance and Warning System. Conduct systems engineering (hardware/software) work required for common communications (Multi-functional Information Distribution System - Joint Tactical Radio System), advanced communications (Satellite Communication) and advanced identification (Combined Interrogator Transponder Mode 5), begin limited developmental test and evaluation. |  |                                                                      |                         |                                                   |                |
| <b>FY 2013 Plans:</b><br>Continue Automatic Ground Collision Avoidance System/Automated Terrain Avoidance and Warning System development, begin software development. Continue communications and identification development and integration, continue developmental test and evaluation.                                                                                                                                                                                                                                                             |  |                                                                      |                         |                                                   |                |
| <b>FY 2014 Plans:</b><br>Continue Automatic Ground Collision Avoidance System/Automated Terrain Avoidance and Warning System software development and design. Continue communications, navigation and identification equipment (hardware and software) development, integration, test and evaluation. Reduced budget authority causing suspension of planned flight test events.                                                                                                                                                                      |  |                                                                      |                         |                                                   |                |
| <b>Title:</b> Advanced Precision Kill Weapons System II                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |                                                                      | 2.000                   | 0.000                                             | 0.000          |
| <b>Articles:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |  |                                                                      | 0                       |                                                   |                |
| <b>Description:</b> Development efforts needed for integration of air launched laser guided rockets on F/A-18 A+/C/D at stations 2, 3, 7, and 8.                                                                                                                                                                                                                                                                                                                                                                                                      |  |                                                                      |                         |                                                   |                |
| <b>FY 2012 Accomplishments:</b><br>OCO:<br>Perform and complete developmental testing needed to integrate air launched laser guided rockets on F/A-18 A+/C/D.                                                                                                                                                                                                                                                                                                                                                                                         |  |                                                                      |                         |                                                   |                |
| <b>Title:</b> Small Diameter Bomb II Integration                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |  |                                                                      | 0.000                   | 0.000                                             | 27.800         |
| <b>Articles:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |  |                                                                      |                         |                                                   | 0              |
| <b>Description:</b> The F/A-18E/F Super Hornet is an objective platform for employment of the Small Diameter Bomb II (SDB II) and the Joint Miniature Munitions Bomb Rack Unit (JMM BRU). This program funds the hardware and software design, development, integration and testing required to successfully integrate SDB II/JMM BRU on the F/A-18E/F. SDB II is being developed by the                                                                                                                                                              |  |                                                                      |                         |                                                   |                |



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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 7: Operational Systems Development                                                                                                                                                                                                                                                                                                                                                                               |           |           |                 | R-1 ITEM NOMENCLATURE<br>PE 0204136N: F/A-18 Squadrons |                  |           |           | PROJECT<br>1662: F/A-18 Improvement |           |                     |            |         |
| B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)                                                                                                                                                                                                                                                                                                                                                                                                                             |           |           |                 |                                                        |                  |           |           |                                     |           | FY 2012             | FY 2013    | FY 2014 |
| USAF (Air Force is funding LRIPs 1, 2 and 3 with options for Navy procurements). Navy RDT&E funding will be applied to LRIP 4 for a quantity of 90 to support final testing events.                                                                                                                                                                                                                                                                                                                          |           |           |                 |                                                        |                  |           |           |                                     |           |                     |            |         |
| FY 2014 Plans:<br>System Specification and design efforts, Joint Miniature Munitions Bomb Rack Unit (JMM BRU) technical development and integration efforts. System Configuration Set software development and integration. Ground and Flight testing, procurement of JMM BRU prototypes and test assets. An option to procure Small Diameter Bomb II test assets as part of the USAF LRIP Lot 1 is included with FY14 funds.                                                                                |           |           |                 |                                                        |                  |           |           |                                     |           |                     |            |         |
| Title: F/A-18 Obsolescence Redesign                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |           |           |                 |                                                        |                  |           |           |                                     |           | 0.000               | 0.000      | 0.100   |
| Articles:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |           |           |                 |                                                        |                  |           |           |                                     |           |                     |            | 0       |
| Description: Develop and test modifications to address obsolescence issues.                                                                                                                                                                                                                                                                                                                                                                                                                                  |           |           |                 |                                                        |                  |           |           |                                     |           |                     |            |         |
| FY 2014 Plans:<br>Develop and test design modifications to hardware components and software systems in response to F/A-18 weapon system and ancillary equipment obsolescence issues.                                                                                                                                                                                                                                                                                                                         |           |           |                 |                                                        |                  |           |           |                                     |           |                     |            |         |
| Accomplishments/Planned Programs Subtotals                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |           |           |                 |                                                        |                  |           |           |                                     |           | 97.361              | 124.223    | 128.032 |
| 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 |         |
| • APN/0145: F/A-18E/F                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 2,237.500 | 2,035.131 | 206.551         |                                                        | 206.551          | 0.000     | 0.000     | 0.000                               | 0.000     | 0.000               | 41,638.932 |         |
| • APN/0145C: F/A-18EF AP                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 63.262    | 30.296    | 0.000           |                                                        | 0.000            | 0.000     | 0.000     | 0.000                               | 0.000     | 0.000               | 1,650.192  |         |
| • APN/0143: EA-18G                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 989.577   | 1,027.443 | 2,001.787       |                                                        | 2,001.787        | 45.583    | 0.000     | 0.000                               | 0.000     | 0.000               | 10,663.106 |         |
| • APN/0143C: EA-18G AP                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 28.119    | 0.000     | 0.000           |                                                        | 0.000            | 0.000     | 0.000     | 0.000                               | 0.000     | 0.000               | 263.668    |         |
| • APN/05250: F-18 SERIES MOD                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 454.900   | 688.549   | 875.371         |                                                        | 875.371          | 1,197.724 | 1,294.006 | 1,148.093                           | 1,608.553 | 5,343.084           | 17,543.235 |         |
| • RDTEN/3063: EA-18G                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 14.770    | 13.009    | 11.138          |                                                        | 11.138           | 19.563    | 16.438    | 16.383                              | 14.149    | Continuing          | Continuing |         |
| DEVELOPMENT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |           |           |                 |                                                        |                  |           |           |                                     |           |                     |            |         |
| Remarks                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |           |           |                 |                                                        |                  |           |           |                                     |           |                     |            |         |
| D. Acquisition Strategy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |           |           |                 |                                                        |                  |           |           |                                     |           |                     |            |         |
| The F/A-18 Improvement program consists of extensive spiral development efforts mapped out in the capability-based approach F/A-18 E/F "Flight Plan." These efforts are critical to the baseline of the Super Hornet next generation mission system capability and maintaining tactical relevance in support of Navy Aviation Plan 2030. The major programs within the F/A-18 Improvement project are based on six Weapon System Capabilities: Distributed Targeting Air to Ground and Maritime, Distributed |           |           |                 |                                                        |                  |           |           |                                     |           |                     |            |         |

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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 7: <i>Operational Systems Development</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | <b>R-1 ITEM NOMENCLATURE</b><br>PE 0204136N: <i>F/A-18 Squadrons</i> | <b>PROJECT</b><br>1662: <i>F/A-18 Improvement</i> |
| <p>Targeting Air to Air, Net Centric Operations/Battle Space Management, Sensor Integration, Air to Ground and Maritime Attack, and Air to Air Attack. The major efforts included in this project are: Dual Mode Weapons integration; an Infra-Red Search and Track; Distributed Targeting capability through a Distributed Targeting System; Multi-Sensor Integration Phase I, Phase II and Phase III capability; continued advanced development and F/A-18E/F Flight Plan engineering and analysis; continued enhanced software capabilities development; and engineering support to perform technical evaluations, modeling and simulations, and investigative flight testing.</p> <ul style="list-style-type: none"> <li>- Infra-Red Search and Track (IRST). The IRST Block I program is a Navy program in the Engineering Manufacturing and Development (EMD) phase. A Block I system will be developed by the Navy that will meet requirements for a Counter-Electronic Attack capability. This capability will reach Initial Operational Capability (IOC) in FY 2016.</li> <li>- Distributed Targeting System (DTS). DTS development is provided on a sole source cost plus incentive fee contract for EMD activities to Boeing. The program was a new start ACAT III FY 2009 effort, with a post MS B entry and an IOC in FY 2012. The program is leveraging previous Engineering Change Proposal efforts and is designated for all domestic Super Hornets. Updated acquisition plan is in accordance with Dr. Carter memorandum.</li> <li>- Sensor Integration. Sensor Integration development is provided on a sole source cost plus fixed fee contract on a Research and Development Basic Ordering Agreement to Raytheon and Boeing.</li> <li>- Integration of Auto Ground Collision Avoidance System/Automated Terrain Avoidance and Warning System is envisioned to only require changes to the software System Configuration Set. Studies and analyses are needed to identify the appropriate implementation method.</li> </ul> <p><b>E. Performance Metrics</b></p> <p>The DTS Program will achieve IOC in 2nd Quarter of FY2013. IRST Program achieved MS B on 17 June 2011, scheduled for MS C in 2nd Quarter of FY2014, and IOC in 4th Quarter of FY2016.</p> |                                                                      |                                                   |

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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 7: Operational Systems Development                                                           |                        |                                |                 |         |            | R-1 ITEM NOMENCLATURE<br>PE 0204136N: F/A-18 Squadrons |            |              |            | PROJECT<br>1662: F/A-18 Improvement |            |                  |                  |            |                          |
| 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 |
| EW Sensor - Primary Development                                                                                                                                                          | WR                     | NAWCWD:China Lake, CA          | 1.985           | 2.329   | Dec 2011   | 0.000                                                  |            | 0.000        |            | -                                   |            | 0.000            | Continuing       | Continuing | Continuing               |
| SI - Develop Sensor Integration SSG/SEI                                                                                                                                                  | Various                | Boeing:St. Louis, MO           | 4.530           | 0.000   |            | 1.944                                                  | Mar 2013   | 0.000        |            | -                                   |            | 0.000            | Continuing       | Continuing | Continuing               |
| SI - Develop Sensor Integration SSG/SEI                                                                                                                                                  | Various                | Various:Various                | 0.000           | 0.000   |            | 0.048                                                  | Dec 2012   | 0.000        |            | -                                   |            | 0.000            | Continuing       | Continuing | Continuing               |
| SI - Develop Sensor Integration SSG/SEI                                                                                                                                                  | WR                     | NAWCWD:China Lake, CA          | 0.523           | 1.038   | Mar 2012   | 0.637                                                  | Dec 2012   | 0.000        |            | -                                   |            | 0.000            | Continuing       | Continuing | Continuing               |
| IDECM/HGESM - S/W Development                                                                                                                                                            | WR                     | NAWCWD:China Lake, CA          | 1.912           | 1.983   | Mar 2012   | 0.000                                                  |            | 0.000        |            | -                                   |            | 0.000            | Continuing       | Continuing | Continuing               |
| IDECM/HGESM - S/W Development                                                                                                                                                            | Various                | Raytheon:Goleta, CA            | 2.542           | 0.300   | Aug 2012   | 0.000                                                  |            | 0.000        |            | -                                   |            | 0.000            | Continuing       | Continuing | Continuing               |
| AGCAS/ATAWS (Automatic Ground Collision Avoidance System/Automated Terrain Avoidance and Warning System) Systems Engineering                                                             | WR                     | NAWCAD:Pax River, MD           | 0.000           | 0.553   | Feb 2012   | 2.500                                                  | Dec 2012   | 2.200        | Dec 2013   | -                                   |            | 2.200            | Continuing       | Continuing | Continuing               |
| IRST - Primary Hardware Development Infra-Red Search and Track (IRST) 2                                                                                                                  | C/CPIF                 | Boeing:St. Louis, MO           | 30.172          | 36.446  | Nov 2011   | 64.594                                                 | Nov 2012   | 27.532       | Nov 2013   | -                                   |            | 27.532           | 26.536           | 185.280    | 185.280                  |
| SDB II Hardware / Test Assets                                                                                                                                                            | Various                | Various:Various                | 0.000           | 0.000   |            | 0.000                                                  |            | 1.000        | Feb 2014   | -                                   |            | 1.000            | Continuing       | Continuing | Continuing               |
| JMM BRU Hardware / Test Assets                                                                                                                                                           | Various                | Various:Various                | 0.000           | 0.000   |            | 0.000                                                  |            | 5.000        | Feb 2014   | -                                   |            | 5.000            | Continuing       | Continuing | Continuing               |
| Prior Year Prod Dev cost no longer funded in FYDP                                                                                                                                        | Various                | Various:Various                | 555.463         | 0.000   |            | 0.000                                                  |            | 0.000        |            | -                                   |            | 0.000            | 0.000            | 555.463    |                          |
| Subtotal                                                                                                                                                                                 |                        |                                | 597.127         | 42.649  |            | 69.723                                                 |            | 35.732       |            | 0.000                               |            | 35.732           |                  |            |                          |
| Remarks<br>While no funding is identified in FY14 the Sensor Integration (SSG/SEI) and IDECM/HGESM lines will remain active to support future, emergent requirements as may be required. |                        |                                |                 |         |            |                                                        |            |              |            |                                     |            |                  |                  |            |                          |

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| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy                                                                         |                        |                                |                 |         |            |                                                        |            |              |            |                                     |            | DATE: April 2013 |                  |            |                          |
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| APPROPRIATION/BUDGET ACTIVITY<br>1319: Research, Development, Test & Evaluation, Navy<br>BA 7: Operational Systems Development |                        |                                |                 |         |            | R-1 ITEM NOMENCLATURE<br>PE 0204136N: F/A-18 Squadrons |            |              |            | PROJECT<br>1662: F/A-18 Improvement |            |                  |                  |            |                          |
| 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 |
| IRST - Software (S/W) Development                                                                                              | WR                     | NAWCWD:China Lake, CA          | 0.000           | 0.416   | Dec 2011   | 4.170                                                  | Dec 2012   | 0.000        |            | -                                   |            | 0.000            | Continuing       | Continuing | Continuing               |
| IRST - Development Support                                                                                                     | WR                     | NAWCWD:China Lake, CA          | 5.222           | 0.375   | Dec 2011   | 0.421                                                  | Dec 2012   | 0.570        | Dec 2013   | -                                   |            | 0.570            | Continuing       | Continuing | Continuing               |
| IRST - Development Support                                                                                                     | WR                     | NAWCAD:Pax River, MD           | 6.037           | 2.278   | Dec 2011   | 3.472                                                  | Dec 2012   | 2.403        | Dec 2013   | -                                   |            | 2.403            | Continuing       | Continuing | Continuing               |
| IRST - Development Support                                                                                                     | WR                     | NAWCAD:Lakehurst, NJ           | 0.564           | 0.376   | Dec 2011   | 0.603                                                  | Dec 2012   | 0.000        |            | -                                   |            | 0.000            | Continuing       | Continuing | Continuing               |
| IRST - Development Support                                                                                                     | WR                     | FRC Southeast:Jacksonville, FL | 2.056           | 0.761   | Dec 2011   | 1.694                                                  | Dec 2012   | 0.950        | Dec 2013   | -                                   |            | 0.950            | Continuing       | Continuing | Continuing               |
| IRST - Development Support                                                                                                     | WR                     | FRC Southwest:North Island, CA | 0.157           | 0.058   | Dec 2011   | 0.430                                                  | Dec 2012   | 0.037        | Dec 2013   | -                                   |            | 0.037            | Continuing       | Continuing | Continuing               |
| IRST - Development Support                                                                                                     | WR                     | NSMA:Arlington, VA             | 0.000           | 8.728   | Apr 2012   | 0.000                                                  |            | 0.000        |            | -                                   |            | 0.000            | Continuing       | Continuing | Continuing               |
| DTS - S/W Development System Configuration Set (SCS) Distributed Targeting System (DTS)                                        | Various                | Boeing:St. Louis, MO           | 28.503          | 0.000   |            | 0.216                                                  | Mar 2013   | 0.000        |            | -                                   |            | 0.000            | Continuing       | Continuing | Continuing               |
| DTS - ILS                                                                                                                      | WR                     | Various:Various                | 0.000           | 0.154   | Dec 2011   | 0.000                                                  |            | 0.000        |            | -                                   |            | 0.000            | 0.000            | 0.154      |                          |
| MSI PH II Development Support                                                                                                  | Various                | NAWCWD:China Lake, CA          | 4.310           | 8.005   | Nov 2011   | 2.231                                                  | Dec 2012   | 5.111        | Dec 2013   | -                                   |            | 5.111            | Continuing       | Continuing | Continuing               |
| MSI PH II Development Support                                                                                                  | WR                     | PMA205:Pax River, MD           | 0.774           | 0.000   |            | 0.638                                                  | Jan 2013   | 0.000        |            | -                                   |            | 0.000            | Continuing       | Continuing | Continuing               |
| MSI PH II Development Support                                                                                                  | TBD                    | Boeing:St. Louis, MO           | 0.000           | 0.000   |            | 0.000                                                  |            | 0.918        | Dec 2013   | -                                   |            | 0.918            | Continuing       | Continuing | Continuing               |
| AGCAS/ATAWS Development Support                                                                                                | WR                     | NAWCWD:China Lake, CA          | 0.000           | 0.761   | Apr 2012   | 0.500                                                  | Dec 2012   | 3.120        | Dec 2013   | -                                   |            | 3.120            | Continuing       | Continuing | Continuing               |
| AGCAS/ATAWS Configuration Management                                                                                           | Various                | Various:Various                | 0.000           | 0.000   |            | 0.052                                                  | Dec 2012   | 0.000        |            | -                                   |            | 0.000            | Continuing       | Continuing | Continuing               |
| MSI PH III Development Support - Sensor                                                                                        | WR                     | NAWCWD:China Lake, CA          | 0.000           | 0.000   |            | 6.917                                                  | Dec 2012   | 6.534        | Dec 2013   | -                                   |            | 6.534            | Continuing       | Continuing | 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 7: Operational Systems Development |                        |                                |                 |         |            | R-1 ITEM NOMENCLATURE<br>PE 0204136N: F/A-18 Squadrons |            |              |            | PROJECT<br>1662: F/A-18 Improvement |            |                  |                  |            |                          |
| 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 |
| Integration Counter-Digital Radio Frequency Memory                                                                             |                        |                                |                 |         |            |                                                        |            |              |            |                                     |            |                  |                  |            |                          |
| MSI PH III Development Support - Sensor Integration Counter-Digital Radio Frequency Memory                                     | TBD                    | Boeing:St. Louis, MO           | 0.000           | 0.000   |            | 2.645                                                  | Dec 2012   | 7.192        | Dec 2013   | -                                   |            | 7.192            | Continuing       | Continuing | Continuing               |
| S/W Development IDECM/HGESM                                                                                                    | WR                     | NAWCWD:China Lake, CA          | 10.579          | 0.316   | Nov 2011   | 0.000                                                  |            | 0.000        |            | -                                   |            | 0.000            | Continuing       | Continuing | Continuing               |
| Development Support - Sensor Integration SSG/SEI                                                                               | WR                     | NAWCWD:China Lake, CA          | 1.638           | 0.589   | Nov 2011   | 0.000                                                  |            | 0.000        |            | -                                   |            | 0.000            | 0.000            | 2.227      |                          |
| SDB II - Development Support                                                                                                   | WR                     | NAWCAD:Pax River, MD           | 0.000           | 0.000   |            | 0.000                                                  |            | 4.000        | Dec 2013   | -                                   |            | 4.000            | Continuing       | Continuing | Continuing               |
| SDB II - Development Support                                                                                                   | WR                     | NAWCWD:China Lake, CA          | 0.000           | 0.000   |            | 0.000                                                  |            | 3.000        | Dec 2013   | -                                   |            | 3.000            | Continuing       | Continuing | Continuing               |
| SDB II - Software Development Support                                                                                          | WR                     | NAWCWD:China Lake, CA          | 0.000           | 0.000   |            | 0.000                                                  |            | 6.624        | Dec 2013   | -                                   |            | 6.624            | Continuing       | Continuing | Continuing               |
| Obsolescence Redesign                                                                                                          | TBD                    | TBD:TBD                        | 0.000           | 0.000   |            | 0.000                                                  |            | 0.100        | Jun 2014   | -                                   |            | 0.100            | Continuing       | Continuing | Continuing               |
| Prior Year Support costs no longer funded in FYDP                                                                              | Various                | Various:Various                | 2,919.391       | 0.000   |            | 0.000                                                  |            | 0.000        |            | -                                   |            | 0.000            | 0.000            | 2,919.391  |                          |
| Subtotal                                                                                                                       |                        |                                | 2,979.231       | 22.817  |            | 23.989                                                 |            | 40.559       |            | 0.000                               |            | 40.559           |                  |            |                          |
| 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 |
| IRST - Developmental Test & Evaluation (DT&E)                                                                                  | WR                     | NAWCAD:Pax River, MD           | 3.598           | 0.000   |            | 4.188                                                  | Dec 2012   | 7.200        | Dec 2013   | -                                   |            | 7.200            | Continuing       | Continuing | Continuing               |
| IRST - DT&E                                                                                                                    | WR                     | NAWCWD:China Lake, CA          | 0.959           | 0.000   |            | 1.344                                                  | Dec 2012   | 14.100       | Dec 2013   | -                                   |            | 14.100           | Continuing       | Continuing | Continuing               |
| IRST - Operational Test & Evaluation (OT&E)                                                                                    | WR                     | OPTEVFOR:VX-9                  | 0.018           | 0.105   | Dec 2011   | 0.560                                                  | Dec 2012   | 0.317        | Dec 2013   | -                                   |            | 0.317            | Continuing       | Continuing | Continuing               |

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| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy                                        |                        |                                |                 |         |            |                               |            |              |            |                          |            | DATE: April 2013 |                  |            |                          |
|-----------------------------------------------------------------------------------------------|------------------------|--------------------------------|-----------------|---------|------------|-------------------------------|------------|--------------|------------|--------------------------|------------|------------------|------------------|------------|--------------------------|
| APPROPRIATION/BUDGET ACTIVITY                                                                 |                        |                                |                 |         |            | R-1 ITEM NOMENCLATURE         |            |              |            | PROJECT                  |            |                  |                  |            |                          |
| 1319: Research, Development, Test & Evaluation, Navy<br>BA 7: Operational Systems Development |                        |                                |                 |         |            | PE 0204136N: F/A-18 Squadrons |            |              |            | 1662: F/A-18 Improvement |            |                  |                  |            |                          |
| 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 |
| DTS 2 - DT&E                                                                                  | WR                     | NAWCWD:China Lake, CA          | 7.053           | 1.876   | Dec 2011   | 0.300                         | Dec 2012   | 0.000        |            | -                        |            | 0.000            | 0.000            | 9.229      |                          |
| DTS 2 - DT&E                                                                                  | WR                     | NAWCAD:Pax River, MD           | 0.900           | 1.741   | Nov 2011   | 0.300                         | Dec 2012   | 0.000        |            | -                        |            | 0.000            | 0.000            | 2.941      |                          |
| DTS - OT&E                                                                                    | WR                     | OPTEVFOR:Norfolk, VA           | 0.747           | 0.800   | Dec 2011   | 0.200                         | Dec 2012   | 0.000        |            | -                        |            | 0.000            | 0.000            | 1.747      |                          |
| SI - OT&E - SSG/SEI                                                                           | WR                     | Various:Various                | 1.057           | 0.300   | Apr 2012   | 0.000                         |            | 0.000        |            | -                        |            | 0.000            | 0.000            | 1.357      |                          |
| MSI PH II - DT&E (MSI Phase II-3)                                                             | WR                     | Various:Various                | 4.567           | 4.650   | Mar 2012   | 0.000                         |            | 0.000        |            | -                        |            | 0.000            | Continuing       | Continuing | Continuing               |
| MSI PH II - DT&E (MSI Phase II-4)                                                             | WR                     | Various:Various                | 0.000           | 0.339   | Feb 2012   | 0.000                         |            | 0.000        |            | -                        |            | 0.000            | Continuing       | Continuing | Continuing               |
| MSI PH II OT&E                                                                                | WR                     | OPTEVFOR:VX-9                  | 0.000           | 0.204   | Jul 2012   | 0.000                         |            | 4.151        | Dec 2013   | -                        |            | 4.151            | Continuing       | Continuing | Continuing               |
| AGCAS/ATAWS DT&E                                                                              | TBD                    | Various:Various                | 0.000           | 1.500   | Apr 2012   | 1.700                         | Dec 2012   | 0.000        |            | -                        |            | 0.000            | Continuing       | Continuing | Continuing               |
| Advanced Precision Kill Weapon System II - Integration                                        | WR                     | NAWCAD:Pax River, MD           | 0.000           | 2.000   | Mar 2012   | 0.000                         |            | 0.000        |            | -                        |            | 0.000            | 0.000            | 2.000      |                          |
| SDB II - DT&E                                                                                 | WR                     | NAWCAD:Pax River, MD           | 0.000           | 0.000   |            | 0.000                         |            | 4.000        | Dec 2013   | -                        |            | 4.000            | Continuing       | Continuing | Continuing               |
| SDB II - DT&E                                                                                 | WR                     | NAWCWD:China Lake, CA          | 0.000           | 0.000   |            | 0.000                         |            | 3.000        | Dec 2013   | -                        |            | 3.000            | Continuing       | Continuing | Continuing               |
| Prior Year T&E costs no longer funded in FYDP                                                 | Various                | Various:Various                | 96.763          | 0.000   |            | 0.000                         |            | 0.000        |            | -                        |            | 0.000            | 0.000            | 96.763     |                          |
| Subtotal                                                                                      |                        |                                | 115.662         | 13.515  |            | 8.592                         |            | 32.768       |            | 0.000                    |            | 32.768           |                  |            |                          |
| 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 Mgmt Support - MISC                                                                   | Various                | NAWCAD:Pax River, MD           | 5.532           | 1.893   | Dec 2011   | 2.468                         | Dec 2012   | 2.250        | Dec 2013   | -                        |            | 2.250            | Continuing       | Continuing | 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 7: Operational Systems Development                                                           |                        |                                |                 |         |            | R-1 ITEM NOMENCLATURE<br>PE 0204136N: F/A-18 Squadrons |            |              |            | PROJECT<br>1662: F/A-18 Improvement |            |                  |                  |            |                          |
| 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 |
| Seaport CSS - Program Management Support                                                                                                                                                 | C/CPFF                 | Wyle Lab:Pax River, MD         | 9.354           | 2.626   | Dec 2011   | 3.620                                                  | Nov 2012   | 3.696        | Nov 2013   | -                                   |            | 3.696            | 5.019            | 24.315     | 24.315                   |
| Travel                                                                                                                                                                                   | Various                | NAVAIR:Pax River, MD           | 3.550           | 0.539   | Oct 2011   | 0.424                                                  | Dec 2012   | 0.312        | Nov 2013   | -                                   |            | 0.312            | Continuing       | Continuing | Continuing               |
| Flight Plan Engineering                                                                                                                                                                  | Various                | NAWCAD:Pax River, MD           | 4.160           | 0.800   | Dec 2011   | 2.000                                                  | Dec 2012   | 0.000        |            | -                                   |            | 0.000            | Continuing       | Continuing | Continuing               |
| Flight Plan Engineering                                                                                                                                                                  | Various                | NAWCWD:China Lake, CA          | 9.340           | 2.150   | Jan 2012   | 2.150                                                  | Jan 2013   | 0.000        |            | -                                   |            | 0.000            | Continuing       | Continuing | Continuing               |
| Government Engineering Support                                                                                                                                                           | Various                | Various:Various                | 0.886           | 2.522   | Dec 2011   | 0.522                                                  | Nov 2012   | 2.472        | Dec 2013   | -                                   |            | 2.472            | Continuing       | Continuing | Continuing               |
| Test Wing Maintenance Conversion                                                                                                                                                         | WR                     | NAWCAD:Pax River, MD           | 16.662          | 3.925   | Jan 2012   | 5.367                                                  | Jan 2013   | 3.108        | Dec 2013   | -                                   |            | 3.108            | Continuing       | Continuing | Continuing               |
| Test Wing Maintenance Conversion                                                                                                                                                         | WR                     | NAWCWD:China Lake, CA          | 16.662          | 3.925   | Jan 2012   | 5.368                                                  | Jan 2013   | 3.035        | Dec 2013   | -                                   |            | 3.035            | Continuing       | Continuing | Continuing               |
| Flight Plan / System Configuration Set Development & Integration                                                                                                                         | WR                     | NAWCAD:Pax River, MD           | 0.000           | 0.000   |            | 0.000                                                  |            | 2.000        | Dec 2013   | -                                   |            | 2.000            | Continuing       | Continuing | Continuing               |
| Flight Plan / System Configuration Set Development & Integration                                                                                                                         | WR                     | NAWCWD:China Lake, CA          | 0.000           | 0.000   |            | 0.000                                                  |            | 2.100        | Dec 2013   | -                                   |            | 2.100            | Continuing       | Continuing | Continuing               |
| Prior Year Mgmt costs no longer funded in FYDP                                                                                                                                           | Various                | Various:Various                | 35.611          | 0.000   |            | 0.000                                                  |            | 0.000        |            | -                                   |            | 0.000            | 0.000            | 35.611     |                          |
| Subtotal                                                                                                                                                                                 |                        |                                | 101.757         | 18.380  |            | 21.919                                                 |            | 18.973       |            | 0.000                               |            | 18.973           |                  |            |                          |
| Remarks<br>Beginning in FY14 the Flight Plan Engineering efforts at Pax River and China Lake roll up under the Flight Plan / System Configuration Set Development & Integration program. |                        |                                |                 |         |            |                                                        |            |              |            |                                     |            |                  |                  |            |                          |
|                                                                                                                                                                                          |                        |                                | 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                                                                                                                                                                      |                        |                                | 3,793.777       | 97.361  |            | 124.223                                                |            | 128.032      |            | 0.000                               |            | 128.032          |                  |            |                          |
| Remarks                                                                                                                                                                                  |                        |                                |                 |         |            |                                                        |            |              |            |                                     |            |                  |                  |            |                          |

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PE 0204136N: *F/A-18 Squadrons*  
Navy

R-1 Line #170

### R-1 ITEM NOMENCLATURE

PE 0204136N: F/A-18 Squadrons

1662: *F/A-18 Improvement*

| Distributed Targeting System |                       | FY 2012           |    |    |    | FY 2013                 |    |          |    | FY 2014                 |    |    |    | FY 2015                |    |                        |    | FY 2016                |    |                        |    | FY 2017                |    |    |    | FY 2018 |    |    |    |
|------------------------------|-----------------------|-------------------|----|----|----|-------------------------|----|----------|----|-------------------------|----|----|----|------------------------|----|------------------------|----|------------------------|----|------------------------|----|------------------------|----|----|----|---------|----|----|----|
|                              |                       | 1Q                | 2Q | 3Q | 4Q | 1Q                      | 2Q | 3Q       | 4Q | 1Q                      | 2Q | 3Q | 4Q | 1Q                     | 2Q | 3Q                     | 4Q | 1Q                     | 2Q | 3Q                     | 4Q | 1Q                     | 2Q | 3Q | 4Q | 1Q      | 2Q | 3Q | 4Q |
| Acquisition Milestones       |                       |                   |    |    |    |                         |    |          |    |                         |    |    |    |                        |    |                        |    |                        |    |                        |    |                        |    |    |    |         |    |    |    |
|                              | Milestones            |                   |    |    |    |                         |    | IOC<br>▲ |    |                         |    |    |    |                        |    |                        |    |                        |    |                        |    |                        |    |    |    |         |    |    |    |
| System Development           |                       |                   |    |    |    |                         |    |          |    |                         |    |    |    |                        |    |                        |    |                        |    |                        |    |                        |    |    |    |         |    |    |    |
|                              | Hardware Development  |                   |    |    |    |                         |    |          |    |                         |    |    |    |                        |    |                        |    |                        |    |                        |    |                        |    |    |    |         |    |    |    |
|                              | Software Development  |                   |    |    |    | SW Development          |    |          |    |                         |    |    |    |                        |    |                        |    |                        |    |                        |    |                        |    |    |    |         |    |    |    |
|                              | Reviews               |                   |    |    |    |                         |    |          |    |                         |    |    |    |                        |    |                        |    |                        |    |                        |    |                        |    |    |    |         |    |    |    |
| Test and Evaluation          |                       |                   |    |    |    |                         |    |          |    |                         |    |    |    |                        |    |                        |    |                        |    |                        |    |                        |    |    |    |         |    |    |    |
|                              | Developmental Testing | DT Flight Testing |    |    |    |                         |    |          |    |                         |    |    |    |                        |    |                        |    |                        |    |                        |    |                        |    |    |    |         |    |    |    |
|                              | Operational Testing   | OT Flight Testing |    |    |    |                         |    |          |    |                         |    |    |    |                        |    |                        |    |                        |    |                        |    |                        |    |    |    |         |    |    |    |
| Production Milestone         |                       |                   |    |    |    |                         |    |          |    |                         |    |    |    |                        |    |                        |    |                        |    |                        |    |                        |    |    |    |         |    |    |    |
|                              | Contract Awards       |                   |    |    |    | LRIP-2<br>●             |    | FRP<br>● |    |                         |    |    |    |                        |    |                        |    |                        |    |                        |    |                        |    |    |    |         |    |    |    |
|                              | Deliveries            |                   |    |    |    | LRIP-1 (Lot 1 - Qty 30) |    |          |    | LRIP-2 (Lot 2 - Qty 64) |    |    |    |                        |    |                        |    |                        |    |                        |    |                        |    |    |    |         |    |    |    |
|                              |                       |                   |    |    |    |                         |    |          |    |                         |    |    |    | FRP-1 (Lot 3 - Qty 63) |    | FRP-2 (Lot 4 - Qty 69) |    | FRP-3 (Lot 5 - Qty 80) |    | FRP-4 (Lot 6 - Qty 31) |    | FRP-5 (Lot 7 - Qty 40) |    |    |    |         |    |    |    |

2014PB - 0204136N - 1662



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PE 0204136N: *F/A-18 Squadrons*  
Navy

R-1 Line #170

**APPROPRIATION/BUDGET ACTIVITY**  
1319: Research, Development, Test & Evaluation, Navy  
BA 7: Operational Systems Development

## PE 0204136N: F/A-18 Squadrons

1662: *F/A-18 Improvement*

PE 0204136N: *F/A-18 Squadrons* **UNCLASSIFIED** Page 17 of 37 R-1 Line #170  
Navy

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|------------------------------------------------------|--|--|--|--|--|--|--|--|--|-------------------------------|--|--|--|--|--------------------------|--|--|--|--|
| Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy    |  |  |  |  |  |  |  |  |  |                               |  |  |  |  | DATE: April 2013         |  |  |  |  |
| APPROPRIATION/BUDGET ACTIVITY                        |  |  |  |  |  |  |  |  |  | R-1 ITEM NOMENCLATURE         |  |  |  |  | PROJECT                  |  |  |  |  |
| 1319: Research, Development, Test & Evaluation, Navy |  |  |  |  |  |  |  |  |  | PE 0204136N: F/A-18 Squadrons |  |  |  |  | 1662: F/A-18 Improvement |  |  |  |  |
| BA 7: Operational Systems Development                |  |  |  |  |  |  |  |  |  |                               |  |  |  |  |                          |  |  |  |  |
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|                                                      |  |  |  |  |  |  |  |  |  |                               |  |  |  |  |                          |  |  |  |  |
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**UNCLASSIFIED**

PE 0204136N: *F/A-18 Squadrons*  
Navy

R-1 Line #170

## R-1 ITEM NOMENCLATURE

PE 0204136N: F/A-18 Squadrons

1662: *F/A-18 Improvement*[illegible]

2014PB - 0204136N - 1662

**UNCLASSIFIED**

PE 0204136N: *F/A-18 Squadrons*  
Navy

R-1 Line #170

## R-1 ITEM NOMENCLATURE

PE 0204136N: F/A-18 Squadrons

1662: *F/A-18 Improvement*

[illegible]

2014PB - 0204136N - 1662

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PE 0204136N: *F/A-18 Squadrons*  
Navy

R-1 Line #170

**APPROPRIATION/BUDGET ACTIVITY**  
 1319: *Research, Development, Test & Evaluation, Navy*  
 BA 7: *Operational Systems Development*

PE 0204136N: *F/A-18 Squadrons*

1662: *F/A-18 Improvement*

[illegible]

2014PB - 0204136N - 1662

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PE 0204136N: *F/A-18 Squadrons*  
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R-1 Line #170

## R-1 ITEM NOMENCLATURE

PE 0204136N: F/A-18 Squadrons

1662: *F/A-18 Improvement*2014PB - 0204136N - 1662

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PE 0204136N: *F/A-18 Squadrons*  
Navy

R-1 Line #170

**APPROPRIATION/BUDGET ACTIVITY**

1319: Research, Development, Test & Evaluation, Navy  
BA 7: Operational Systems Development

### R-1 ITEM NOMENCLATURE

PE 0204136N: F/A-18 Squadrons

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|  | <b>PROJECT</b> |
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1662: *F/A-18 Improvement*[illegible]

2014PB - 0204136N - 1662

**UNCLASSIFIED**

|                                                                                                                                |         |    |    |    |         |    |    |    |         |                                                        |    |    |         |                     |    |                  |         |    |    |                                     |                 |    |    |    |         |                  |    |    |  |
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| Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy                                                                              |         |    |    |    |         |    |    |    |         |                                                        |    |    |         |                     |    | DATE: April 2013 |         |    |    |                                     |                 |    |    |    |         |                  |    |    |  |
| APPROPRIATION/BUDGET ACTIVITY<br>1319: Research, Development, Test & Evaluation, Navy<br>BA 7: Operational Systems Development |         |    |    |    |         |    |    |    |         | R-1 ITEM NOMENCLATURE<br>PE 0204136N: F/A-18 Squadrons |    |    |         |                     |    |                  |         |    |    | PROJECT<br>1662: F/A-18 Improvement |                 |    |    |    |         |                  |    |    |  |
| Small Diameter Bomb II / Joint<br>Miniature Munitions Bomb Rack<br>Unit                                                        | FY 2012 |    |    |    | FY 2013 |    |    |    | FY 2014 |                                                        |    |    | FY 2015 |                     |    |                  | FY 2016 |    |    |                                     | FY 2017         |    |    |    | FY 2018 |                  |    |    |  |
|                                                                                                                                | 1Q      | 2Q | 3Q | 4Q | 1Q      | 2Q | 3Q | 4Q | 1Q      | 2Q                                                     | 3Q | 4Q | 1Q      | 2Q                  | 3Q | 4Q               | 1Q      | 2Q | 3Q | 4Q                                  | 1Q              | 2Q | 3Q | 4Q | 1Q      | 2Q               | 3Q | 4Q |  |
| Acquisition Milestones                                                                                                         |         |    |    |    |         |    |    |    |         | SDB II MS C ▲                                          |    |    |         |                     |    |                  |         |    |    |                                     |                 |    |    |    |         |                  |    |    |  |
| System Development                                                                                                             |         |    |    |    |         |    |    |    |         | SDB II TD                                              |    |    |         | SDB II System Spec  |    |                  |         |    |    |                                     |                 |    |    |    |         |                  |    |    |  |
|                                                                                                                                |         |    |    |    |         |    |    |    |         | JMM BRU TD                                             |    |    |         | JMM BRU System Spec |    |                  |         |    |    |                                     |                 |    |    |    |         |                  |    |    |  |
|                                                                                                                                |         |    |    |    |         |    |    |    |         | SDB II / JMM BRU Software Development                  |    |    |         |                     |    |                  |         |    |    |                                     |                 |    |    |    |         |                  |    |    |  |
|                                                                                                                                |         |    |    |    |         |    |    |    |         |                                                        |    |    |         |                     |    |                  |         |    |    |                                     |                 |    |    |    |         |                  |    |    |  |
| Test and Evaluation                                                                                                            |         |    |    |    |         |    |    |    |         |                                                        |    |    |         |                     |    |                  |         |    |    |                                     |                 |    |    |    |         |                  |    |    |  |
|                                                                                                                                |         |    |    |    |         |    |    |    |         | SDB II DT&E                                            |    |    |         |                     |    |                  |         |    |    |                                     |                 |    |    |    |         |                  |    |    |  |
|                                                                                                                                |         |    |    |    |         |    |    |    |         | JMM BRU DT&E                                           |    |    |         |                     |    |                  |         |    |    |                                     |                 |    |    |    |         |                  |    |    |  |
| Production Milestones                                                                                                          |         |    |    |    |         |    |    |    |         |                                                        |    |    |         |                     |    |                  |         |    |    |                                     |                 |    |    |    |         |                  |    |    |  |
|                                                                                                                                |         |    |    |    |         |    |    |    |         |                                                        |    |    |         |                     |    |                  |         |    |    |                                     | SDB II LRIP 4 ♦ |    |    |    |         | JMM BRU LRIP 1 ♦ |    |    |  |
| Deliveries                                                                                                                     |         |    |    |    |         |    |    |    |         |                                                        |    |    |         |                     |    |                  |         |    |    |                                     |                 |    |    |    |         |                  |    |    |  |
| 2014PB - 0204136N - 1662                                                                                                       |         |    |    |    |         |    |    |    |         |                                                        |    |    |         |                     |    |                  |         |    |    |                                     |                 |    |    |    |         |                  |    |    |  |



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PE 0204136N: *F/A-18 Squadrons*  
Navy

R-1 Line #170

## R-1 ITEM NOMENCLATURE

PE 0204136N: F/A-18 Squadrons

1662: *F/A-18 Improvement*

[illegible]

2014PB - 0204136N - 1662

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Exhibit R-4A, RDT&amp;E Schedule Details: PB 2014 Navy

DATE: April 2013

## APPROPRIATION/BUDGET ACTIVITY

1319: Research, Development, Test & Evaluation, Navy  
BA 7: Operational Systems Development

## R-1 ITEM NOMENCLATURE

PE 0204136N: F/A-18 Squadrons

## PROJECT

1662: F/A-18 Improvement

## Schedule Details

| Events by Sub Project                                                                                                | Start   |      | End     |      |
|----------------------------------------------------------------------------------------------------------------------|---------|------|---------|------|
|                                                                                                                      | Quarter | Year | Quarter | Year |
| <b><i>Distributed Targeting System</i></b>                                                                           |         |      |         |      |
| Acquisition Milestones: Milestones: Initial Operational Capability                                                   | 3       | 2013 | 3       | 2013 |
| System Development: Software Development: DT/OT Software Error Correction Development                                | 1       | 2013 | 4       | 2013 |
| Test and Evaluation: Developmental Testing: DT Flight Testing                                                        | 1       | 2012 | 1       | 2013 |
| Test and Evaluation: Operational Testing: OT Flight Testing                                                          | 2       | 2012 | 1       | 2013 |
| Production Milestone: Contract Awards: LRIP 2 RDTEN                                                                  | 1       | 2013 | 1       | 2013 |
| Production Milestone: Contract Awards: Full Rate Production (FRP)                                                    | 3       | 2013 | 3       | 2013 |
| Production Milestone: Deliveries: LRIP 1 RDTEN (Lot 1 - Qty 30)                                                      | 1       | 2013 | 4       | 2013 |
| Production Milestone: Deliveries: LRIP 2 RDTEN (Lot 2 - Qty 64)                                                      | 1       | 2014 | 4       | 2014 |
| Production Milestone: Deliveries: FRP-1 (Lot 3 - Qty 63)                                                             | 3       | 2014 | 2       | 2015 |
| Production Milestone: Deliveries: FRP-2 (Lot 4 - Qty 69)                                                             | 3       | 2015 | 2       | 2016 |
| Production Milestone: Deliveries: FRP-3 (Lot 5 - Qty 80)                                                             | 3       | 2016 | 2       | 2017 |
| Production Milestone: Deliveries: FRP-4 (Lot 6 - Qty 31)                                                             | 3       | 2017 | 2       | 2018 |
| Production Milestone: Deliveries: FRP-5 (Lot 7 - Qty 40)                                                             | 3       | 2018 | 4       | 2018 |
| <b><i>Infra-Red Search and Track</i></b>                                                                             |         |      |         |      |
| Acquisition Milestones: Milestones: Full Rate Production Decision Review (FRP DR)                                    | 2       | 2016 | 2       | 2016 |
| Acquisition Milestones: Milestones: Milestone C (MS C)                                                               | 2       | 2014 | 2       | 2014 |
| Acquisition Milestones: Milestones: Initial Operational Capability (IOC)                                             | 4       | 2016 | 4       | 2016 |
| System Development: Engineering and Manufacturing Development: Engineering and Manufacturing Development             | 1       | 2012 | 4       | 2015 |
| System Development: Engineering and Manufacturing Development: Eng Dev Model (EDM) IRST Delivery - Lab/IT&E (Unit 1) | 1       | 2014 | 1       | 2014 |

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|----------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------|------|-------------------------------------|------|
| Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy                                                                                     |                                                        |      | DATE: April 2013                    |      |
| APPROPRIATION/BUDGET ACTIVITY<br>1319: Research, Development, Test & Evaluation, Navy<br>BA 7: Operational Systems Development         | R-1 ITEM NOMENCLATURE<br>PE 0204136N: F/A-18 Squadrons |      | PROJECT<br>1662: F/A-18 Improvement |      |
|                                                                                                                                        | Start                                                  |      | End                                 |      |
| Events by Sub Project                                                                                                                  | Quarter                                                | Year | Quarter                             | Year |
| System Development: Engineering and Manufacturing Development: Eng Dev Model (EDM) IRST Delivery - Lab/IT&E (Unit 2)                   | 2                                                      | 2014 | 2                                   | 2014 |
| System Development: Engineering and Manufacturing Development: Eng Dev Model (EDM) IRST Delivery - (Environmental Evaluation Unit-EEU) | 1                                                      | 2014 | 1                                   | 2014 |
| System Development: Engineering and Manufacturing Development: EDM Conversion                                                          | 4                                                      | 2014 | 2                                   | 2015 |
| System Development: Software Development: H10 Fleet Release                                                                            | 4                                                      | 2014 | 4                                   | 2014 |
| System Development: Software Development: H12 Fleet Release                                                                            | 4                                                      | 2016 | 4                                   | 2016 |
| System Development: Software Development: IRST Software Build                                                                          | 1                                                      | 2012 | 2                                   | 2015 |
| System Development: Reviews: Integrated Baseline Review (IBR) 1                                                                        | 3                                                      | 2012 | 3                                   | 2012 |
| System Development: Reviews: Critical Design Review (CDR)                                                                              | 4                                                      | 2012 | 4                                   | 2012 |
| System Development: Reviews: Fleet Readiness Review Engineering Development Model (EDM FRR)                                            | 1                                                      | 2014 | 1                                   | 2014 |
| System Development: Reviews: Test Readiness Review (TRR) 1                                                                             | 1                                                      | 2013 | 1                                   | 2013 |
| System Development: Reviews: Test Readiness Review (TRR) 2                                                                             | 2                                                      | 2014 | 2                                   | 2014 |
| System Development: Reviews: Preproduction Readiness Review (PRR)                                                                      | 1                                                      | 2014 | 1                                   | 2014 |
| System Development: Reviews: Functional Configuration Audit (FCA)                                                                      | 1                                                      | 2014 | 1                                   | 2014 |
| System Development: Reviews: Integrated Baseline Review (IBR) 2                                                                        | 1                                                      | 2015 | 1                                   | 2015 |
| System Development: Reviews: Operational Testing Readiness Review (OTRR)                                                               | 3                                                      | 2015 | 3                                   | 2015 |
| System Development: Reviews: Physical Configuration Audit (PCA)                                                                        | 1                                                      | 2016 | 1                                   | 2016 |
| Test and Evaluation: Integration Testing: Integration Testing (IT-B1)                                                                  | 1                                                      | 2013 | 2                                   | 2014 |
| Test and Evaluation: Integration Testing: Integration Testing (IT-C1)                                                                  | 2                                                      | 2014 | 3                                   | 2015 |
| Test and Evaluation: Operational Testing: Operational Assessment (OA)                                                                  | 4                                                      | 2013 | 1                                   | 2014 |
| Test and Evaluation: Operational Testing: Integrated Operational Test & Evaluation (IOT&E)                                             | 3                                                      | 2015 | 4                                   | 2015 |
| Test and Evaluation: Operational Testing: OPEVAL Report                                                                                | 1                                                      | 2016 | 1                                   | 2016 |
| Production Milestones: LRIP 1 APN                                                                                                      | 3                                                      | 2014 | 3                                   | 2014 |

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|--------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------|------|-------------------------------------|------|
| Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy                                                                             |                                                        |      | DATE: April 2013                    |      |
| APPROPRIATION/BUDGET ACTIVITY<br>1319: Research, Development, Test & Evaluation, Navy<br>BA 7: Operational Systems Development | R-1 ITEM NOMENCLATURE<br>PE 0204136N: F/A-18 Squadrons |      | PROJECT<br>1662: F/A-18 Improvement |      |
|                                                                                                                                | Start                                                  |      | End                                 |      |
| Events by Sub Project                                                                                                          | Quarter                                                | Year | Quarter                             | Year |
| Production Milestones: LRIP 2 APN                                                                                              | 1                                                      | 2015 | 1                                   | 2015 |
| Production Milestones: FRP I Start                                                                                             | 2                                                      | 2016 | 2                                   | 2016 |
| Production Milestones: FRP 2 Start                                                                                             | 1                                                      | 2017 | 1                                   | 2017 |
| Production Milestones: Deliveries: Low Rate Initial Production 1 (Lot 1 - Qty 6)                                               | 1                                                      | 2016 | 3                                   | 2016 |
| Production Milestones: Deliveries: Low Rate Initial Production 2 (Lot 2 - Qty 12)                                              | 1                                                      | 2017 | 4                                   | 2017 |
| Production Milestones: Deliveries: Full Rate Production Lot 1 (Lot 3 - Qty 15)                                                 | 3                                                      | 2017 | 3                                   | 2018 |
| Production Milestones: Deliveries: Full Rate Production Lot 2 (Lot 4 - Qty 15)                                                 | 2                                                      | 2018 | 4                                   | 2018 |
| Single Ship Geolocation/Specific Emitter Identification, High Gain Electronic Support Measures                                 |                                                        |      |                                     |      |
| System Development: Software Development                                                                                       | 1                                                      | 2012 | 4                                   | 2013 |
| System Development: Reviews: Operational Testing Readiness Review (OTRR)                                                       | 1                                                      | 2012 | 1                                   | 2012 |
| Test and Evaluation: Operational Evaluation (OPEVAL)                                                                           | 1                                                      | 2012 | 3                                   | 2012 |
| Production Milestones: Deliveries: Fleet Release                                                                               | 4                                                      | 2012 | 4                                   | 2012 |
| Multi Sensor Integration Phase I                                                                                               |                                                        |      |                                     |      |
| System Development: Software Development: Software Integration MSI PH I                                                        | 1                                                      | 2012 | 1                                   | 2012 |
| System Development: Reviews: Operational Testing Readiness Review (OTRR) MSI                                                   | 3                                                      | 2012 | 3                                   | 2012 |
| Test and Evaluation: Operational Evaluation (OPEVAL) MSI                                                                       | 3                                                      | 2012 | 1                                   | 2013 |
| Production Milestones: Deliveries: Fleet Release MSI Ph I                                                                      | 2                                                      | 2013 | 2                                   | 2013 |
| Multi Sensor Integration Phase II                                                                                              |                                                        |      |                                     |      |
| System Development: Design & Development                                                                                       | 1                                                      | 2012 | 2                                   | 2012 |
| Test and Evaluation: Integration Testing MSI                                                                                   | 2                                                      | 2012 | 2                                   | 2013 |
| Test and Evaluation: Operational Testing H10                                                                                   | 1                                                      | 2014 | 3                                   | 2014 |
| Production Milestones: Deliveries: Fleet Release MSI Ph II                                                                     | 4                                                      | 2014 | 4                                   | 2014 |
| Multi Sensor Integration Phase III                                                                                             |                                                        |      |                                     |      |
| System Development: Design & Development MSI Ph III/H12                                                                        | 1                                                      | 2013 | 2                                   | 2014 |
| Test and Evaluation: Integration Testing MSI Ph III/H12                                                                        | 2                                                      | 2014 | 1                                   | 2016 |

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| Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy                                                                             |  |                                                        | DATE: April 2013 |                                     |      |
| APPROPRIATION/BUDGET ACTIVITY<br>1319: Research, Development, Test & Evaluation, Navy<br>BA 7: Operational Systems Development |  | R-1 ITEM NOMENCLATURE<br>PE 0204136N: F/A-18 Squadrons |                  | PROJECT<br>1662: F/A-18 Improvement |      |
|                                                                                                                                |  | Start                                                  |                  | End                                 |      |
| Events by Sub Project                                                                                                          |  | Quarter                                                | Year             | Quarter                             | Year |
| Test and Evaluation: OT MSI Ph III/H12                                                                                         |  | 1                                                      | 2016             | 3                                   | 2016 |
| Production Milestones: Fleet Release MSI Ph III/H12                                                                            |  | 4                                                      | 2016             | 4                                   | 2016 |
| Automatic Ground Collision Avoidance System /Automated Terrain Avoidance and Warning System                                    |  |                                                        |                  |                                     |      |
| System Development: Hardware Development: Statement of Work Development                                                        |  | 1                                                      | 2012             | 4                                   | 2012 |
| System Development: Software Development: System Performance Specification                                                     |  | 1                                                      | 2012             | 1                                   | 2012 |
| System Development: Software Development: H12 Software Development & Delivery                                                  |  | 1                                                      | 2012             | 3                                   | 2016 |
| System Development: Software Development: H14 Software Development & Delivery                                                  |  | 4                                                      | 2013             | 4                                   | 2016 |
| System Development: Reviews: System Software Review (SSR)                                                                      |  | 2                                                      | 2012             | 2                                   | 2012 |
| System Development: Reviews: Critical Design Review (CDR)                                                                      |  | 1                                                      | 2013             | 1                                   | 2013 |
| System Development: Reviews: Test Readiness Review (TRR)                                                                       |  | 4                                                      | 2015             | 4                                   | 2015 |
| Test and Evaluation: Developmental Testing                                                                                     |  | 1                                                      | 2016             | 4                                   | 2016 |
| Test and Evaluation: TEMP Development                                                                                          |  | 2                                                      | 2013             | 1                                   | 2014 |
| Test and Evaluation: Developmental Testing Communications & Identification                                                     |  | 4                                                      | 2012             | 4                                   | 2016 |
| Small Diameter Bomb II / Joint Miniature Munitions Bomb Rack Unit                                                              |  |                                                        |                  |                                     |      |
| Acquisition Milestones: SDB II MS C                                                                                            |  | 2                                                      | 2014             | 2                                   | 2014 |
| System Development: SDB II Tech Development                                                                                    |  | 2                                                      | 2014             | 3                                   | 2015 |
| System Development: SDB II System Spec and Design                                                                              |  | 4                                                      | 2015             | 2                                   | 2018 |
| System Development: JMM BRU Tech Development                                                                                   |  | 2                                                      | 2014             | 3                                   | 2015 |
| System Development: JMM BRU System Spec and Design                                                                             |  | 4                                                      | 2015             | 2                                   | 2018 |
| System Development: SDB II / JMM BRU Software Development                                                                      |  | 2                                                      | 2014             | 4                                   | 2018 |
| Test and Evaluation: SDB II Integration DT&E                                                                                   |  | 3                                                      | 2014             | 4                                   | 2018 |
| Test and Evaluation: JMM BRU Integration DT&E                                                                                  |  | 3                                                      | 2014             | 4                                   | 2018 |
| Production Milestones: SDB II LRIP 1 RD TEN (Lot 4 Qty 90)                                                                     |  | 2                                                      | 2017             | 2                                   | 2017 |
| Production Milestones: JMM BRU LRIP 1 RD TEN (Lot 1 Qty 40)                                                                    |  | 2                                                      | 2018             | 2                                   | 2018 |
| Obsolescence Redesign                                                                                                          |  |                                                        |                  |                                     |      |

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|--------------------------------------------------------------------------------------------------------------------------------------------------|--|---------------------------------------------------------------|------------------|--------------------------------------------|
| Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy                                                                                               |  |                                                               | DATE: April 2013 |                                            |
| APPROPRIATION/BUDGET ACTIVITY<br>1319: <i>Research, Development, Test &amp; Evaluation, Navy</i><br>BA 7: <i>Operational Systems Development</i> |  | R-1 ITEM NOMENCLATURE<br>PE 0204136N: <i>F/A-18 Squadrons</i> |                  | PROJECT<br>1662: <i>F/A-18 Improvement</i> |
|                                                                                                                                                  |  | Start                                                         |                  | End                                        |
| Events by Sub Project                                                                                                                            |  | Quarter                                                       | Year             | Quarter                                    |
| System Development: F/A-18 Weapon System & Ancillary Equipment: Obsolescence Redesign Development & Testing                                      |  | 1                                                             | 2014             | 4                                          |
|                                                                                                                                                  |  |                                                               |                  | 2018                                       |

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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 7: Operational Systems Development                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                 |         |                      |              | R-1 ITEM NOMENCLATURE<br>PE 0204136N: F/A-18 Squadrons |               |         |         | PROJECT<br>2065: F/A-18 Radar Upgrade |             |                  |            |
| 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 |
| 2065: F/A-18 Radar Upgrade                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 616.533         | 50.952  | 64.076               | 3.086        | -                                                      | 3.086         | 3.197   | 3.172   | 0.000                                 | 0.000       | 0.000            | 741.016    |
| 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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                 |         |                      |              |                                                        |               |         |         |                                       |             |                  |            |
| F/A-18 Radio Detection and Ranging (RADAR) Upgrade: The F/A-18 RADAR Upgrade, Active Electronically Scanned Array (AESA) development program, which began in FY 1999, is the last of three pre-planned upgrades to the F/A-18 Type/Model/Series RADAR. The AESA system corrects operational test deficiencies noted in the AN/APG-73. It provides multi-target tracking, Synthetic Aperture RADAR (SAR) imagery, SAR Target Location Error (TLE), and improved spotlight map resolution. In addition, it provides greater lethality than previous F/A-18 RADARs by allowing full tactical support of existing and planned air-to-air (A/A) and air-to-ground (A/G) weapons and it significantly increases A/A and A/G detection and tracking ranges. The AESA system provides greater survivability through self-protection and standoff jamming capabilities, while its greater range allows for reduced detection by enemy RADAR. This budget continues spiral capability development of AESA with increased efforts to address Phase II Operational Requirements Document requirements such as Counter-Electronic Attack 1 (CEA 1) against multiple Radio Frequency Emitters, AESA Multi-Jammer Electronic Protection (EP), Precision TLE Improvement, Monopulse and 5th/6th Channel development and Air Combat Maneuvering/Short Range Search and Track development and includes upgrades to Radar Instrumentation, test and evaluation assets and threat assets, and upgraded modeling and simulation of both clean and Electronic Attack threat environments. Budget also supports development and testing of design modifications to address obsolescence issues with APG-65, APG-73 and APG-79 RADAR systems. |                 |         |                      |              |                                                        |               |         |         |                                       |             |                  |            |
| B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                 |         |                      |              |                                                        |               |         |         | FY 2012                               | FY 2013     | FY 2014          |            |
| Title: Distributed Targeting - AESA EP Engineering and Manufacturing Development<br><br>Articles:<br><br>Description: The AESA system provides greater survivability through self-protection and standoff jamming capabilities. This budget continues spiral capability development of AESA by increased efforts to address Phase II Operational Requirements Document requirements.<br><br>FY 2012 Accomplishments:<br>Continue EMD efforts. Continue hardware developmental and refinement to the inherent EP.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                 |         |                      |              |                                                        |               |         |         | 2.457<br>0                            | 0.000       | 0.000            |            |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                 |         |                      |              |                                                        |               |         |         |                                       |             |                  |            |
| Title: Distributed Targeting - CEA 1 Software Development, Developmental Testing, Operational Testing, & Integration<br><br>Articles:<br><br>Description: Funding being utilized to support software capabilities development, integration and associated testing.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                 |         |                      |              |                                                        |               |         |         | 48.495<br>0                           | 64.076<br>0 | 2.986<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 7: <i>Operational Systems Development</i>                                                                                                                                                                                                                 |                |                |                               | <b>R-1 ITEM NOMENCLATURE</b><br>PE 0204136N: <i>F/A-18 Squadrons</i> |                                |                | <b>PROJECT</b><br>2065: <i>F/A-18 Radar Upgrade</i> |                |                |                                   |                   |                |                |
| <b>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</b>                                                                                                                                                                                                                                                                                 |                |                |                               |                                                                      |                                |                |                                                     |                |                |                                   | <b>FY 2012</b>    | <b>FY 2013</b> | <b>FY 2014</b> |
| <b>FY 2012 Accomplishments:</b><br>Continue software (SW) development, Development Testing, systems integration efforts, and Active Electronically Scanned Array (AESA) Operational Test and Evaluation (OT&E) inclusive of some Follow On Test and Evaluation (FOT&E) for Hardware (HW) and SW change efforts. Begin AESA Counter-Electronic Attack 1 (CEA 1) efforts. |                |                |                               |                                                                      |                                |                |                                                     |                |                |                                   |                   |                |                |
| <b>FY 2013 Plans:</b><br>Continue SW development, Development Testing, systems integration efforts, and AESA OT&E inclusive of some FOT&E for HW and SW change efforts. Continue AESA CEA 1 efforts.                                                                                                                                                                    |                |                |                               |                                                                      |                                |                |                                                     |                |                |                                   |                   |                |                |
| <b>FY 2014 Plans:</b><br>Continue hardware and software development, integration and testing of instrumentation required to support AESA Radar spiral capability upgrades.                                                                                                                                                                                              |                |                |                               |                                                                      |                                |                |                                                     |                |                |                                   |                   |                |                |
| <b>Title:</b> F/A-18 RADAR Obsolescence Redesign                                                                                                                                                                                                                                                                                                                        |                |                |                               |                                                                      |                                |                |                                                     |                |                |                                   | 0.000             | 0.000          | 0.100          |
| <b>Articles:</b>                                                                                                                                                                                                                                                                                                                                                        |                |                |                               |                                                                      |                                |                |                                                     |                |                |                                   |                   |                | 0              |
| <b>Description:</b> Develop and test design modifications to address obsolescence issues.                                                                                                                                                                                                                                                                               |                |                |                               |                                                                      |                                |                |                                                     |                |                |                                   |                   |                |                |
| <b>FY 2014 Plans:</b><br>Develop and test design modifications to hardware components and software systems in response to F/A-18 RADAR system obsolescence issues.                                                                                                                                                                                                      |                |                |                               |                                                                      |                                |                |                                                     |                |                |                                   |                   |                |                |
| <b>Accomplishments/Planned Programs Subtotals</b>                                                                                                                                                                                                                                                                                                                       |                |                |                               |                                                                      |                                |                |                                                     |                |                |                                   | 50.952            | 64.076         | 3.086          |
| <b>C. Other Program Funding Summary (\$ in Millions)</b>                                                                                                                                                                                                                                                                                                                |                |                |                               |                                                                      |                                |                |                                                     |                |                |                                   |                   |                |                |
| <u>Line Item</u>                                                                                                                                                                                                                                                                                                                                                        | <u>FY 2012</u> | <u>FY 2013</u> | <u>FY 2014</u><br><u>Base</u> | <u>FY 2014</u><br><u>OCO</u>                                         | <u>FY 2014</u><br><u>Total</u> | <u>FY 2015</u> | <u>FY 2016</u>                                      | <u>FY 2017</u> | <u>FY 2018</u> | <u>Cost To</u><br><u>Complete</u> | <u>Total Cost</u> |                |                |
| • APN/0145: <i>F/A-18E/F</i>                                                                                                                                                                                                                                                                                                                                            | 2,237.500      | 2,035.131      | 206.551                       |                                                                      | 206.551                        | 0.000          | 0.000                                               | 0.000          | 0.000          | 0.000                             | 41,638.932        |                |                |
| • APN/0145C: <i>F/A-18E/F AP</i>                                                                                                                                                                                                                                                                                                                                        | 63.262         | 30.296         | 0.000                         |                                                                      | 0.000                          | 0.000          | 0.000                                               | 0.000          | 0.000          | 0.000                             | 1,650.192         |                |                |
| • APN/0143: <i>EA-18G</i>                                                                                                                                                                                                                                                                                                                                               | 994.477        | 1,027.443      | 21.812                        |                                                                      | 21.812                         | 7.990          | 0.000                                               | 0.000          | 0.000          | 0.000                             | 8,650.438         |                |                |
| • APN/1043C: <i>EA-18G AP</i>                                                                                                                                                                                                                                                                                                                                           | 28.119         | 0.000          | 0.000                         |                                                                      | 0.000                          | 0.000          | 0.000                                               | 0.000          | 0.000          | 0.000                             | 263.668           |                |                |
| • APN/05250: <i>F-18 Series Mod</i><br>(OSIP 002-07)                                                                                                                                                                                                                                                                                                                    | 88.251         | 119.586        | 185.855                       |                                                                      | 185.855                        | 217.194        | 285.401                                             | 202.307        | 271.835        | 215.740                           | 1,967.838         |                |                |
| <b>Remarks</b>                                                                                                                                                                                                                                                                                                                                                          |                |                |                               |                                                                      |                                |                |                                                     |                |                |                                   |                   |                |                |



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| Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                               | DATE: April 2013                             |
| APPROPRIATION/BUDGET ACTIVITY<br>1319: <i>Research, Development, Test &amp; Evaluation, Navy</i><br>BA 7: <i>Operational Systems Development</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | R-1 ITEM NOMENCLATURE<br>PE 0204136N: <i>F/A-18 Squadrons</i> | PROJECT<br>2065: <i>F/A-18 Radar Upgrade</i> |
| <b>D. Acquisition Strategy</b><br>The AESA program continues developmental efforts following a successful Full Rate Production milestone decision, after completing a two-phase Acquisition approach during the FY1999 through FY2007 timeframe. This strategy continues utilization of reform initiatives such as: early partnering with industry; leveraging industry investment; optimizing use of Commercial Off-The Shelf software and Non-Developmental Item; using Cost as an Independent Variable; and Electronic Data Deliverables. Basic Ordering Agreement orders for Request for Proposal developments are in place for Boeing, the airframe prime manufacturer/integrator, and Raytheon, the Radio Detection and Ranging manufacturer, for focused risk reduction and sustainment of prior developmental activities. |                                                               |                                              |
| <b>E. Performance Metrics</b><br>Execute the system engineering process for software delivery and support the design and development of Electronic Protection, air to air, and air to ground capabilities.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                               |                                              |

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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 7: Operational Systems Development |                        |                                |                 |         |            | R-1 ITEM NOMENCLATURE<br>PE 0204136N: F/A-18 Squadrons |            |              |            | PROJECT<br>2065: F/A-18 Radar Upgrade |            |                  |                  |            |                          |
| 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 |
| Primary H/W Development                                                                                                        | WR                     | NSMA:Arlington, VA             | 4.910           | 0.100   | Feb 2012   | 0.000                                                  |            | 0.000        |            | -                                     |            | 0.000            | 0.000            | 5.010      |                          |
| Systems Engineering                                                                                                            | WR                     | NAWCWD:China Lake, CA          | 1.095           | 0.474   | Nov 2011   | 0.000                                                  |            | 0.000        |            | -                                     |            | 0.000            | 0.000            | 1.569      |                          |
| Systems Engineering                                                                                                            | WR                     | NAWCAD:Pax River, MD           | 1.046           | 0.545   | Nov 2011   | 1.392                                                  | Nov 2012   | 0.000        |            | -                                     |            | 0.000            | 0.000            | 2.983      |                          |
| CEA 1 - Development/ Integration Counter Electronic Attack #1 (CEA 1)                                                          | Various                | NSMA:Arlington, VA             | 0.000           | 40.038  | Jun 2012   | 52.748                                                 | Dec 2012   | 0.000        |            | -                                     |            | 0.000            | 0.000            | 92.786     |                          |
| CEA 1 - Development / Integration                                                                                              | MIPR                   | AFMC:Washington, DC            | 0.000           | 2.500   | Apr 2012   | 0.000                                                  |            | 0.000        |            | -                                     |            | 0.000            | 0.000            | 2.500      |                          |
| Prior Year Prod Dev cost no longer funded in FYDP                                                                              | Various                | Various:Various                | 459.116         | 0.000   |            | 0.000                                                  |            | 0.000        |            | -                                     |            | 0.000            | 0.000            | 459.116    |                          |
| Subtotal                                                                                                                       |                        |                                | 466.167         | 43.657  |            | 54.140                                                 |            | 0.000        |            | 0.000                                 |            | 0.000            | 0.000            | 563.964    |                          |
| 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 (Instrumentation)                                                                                         | WR                     | NAWCWD:China Lake, CA          | 32.991          | 1.654   | Aug 2012   | 7.284                                                  | Dec 2012   | 2.680        | Dec 2013   | -                                     |            | 2.680            | 5.739            | 50.348     |                          |
| Integrated Logistics Support                                                                                                   | WR                     | Various:Various                | 1.511           | 0.516   | Nov 2011   | 0.000                                                  |            | 0.000        |            | -                                     |            | 0.000            | 0.000            | 2.027      |                          |
| Obsolescence Redesign                                                                                                          | TBD                    | TBD:TBD                        | 0.000           | 0.000   |            | 0.000                                                  |            | 0.100        | Jun 2014   | -                                     |            | 0.100            | 0.000            | 0.100      |                          |
| Subtotal                                                                                                                       |                        |                                | 34.502          | 2.170   |            | 7.284                                                  |            | 2.780        |            | 0.000                                 |            | 2.780            | 5.739            | 52.475     |                          |
|                                                                                                                                |                        |                                |                 |         |            |                                                        |            |              |            |                                       |            |                  |                  |            |                          |

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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: Research, Development, Test & Evaluation, Navy<br>BA 7: Operational Systems Development |  |  |  |  |  |  | <b>R-1 ITEM NOMENCLATURE</b><br>PE 0204136N: F/A-18 Squadrons |  |  |  |  | <b>PROJECT</b><br>2065: F/A-18 Radar Upgrade |                         |  |  |

| <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> |
| Developmental Test & Evaluation              | WR                                | NAWCWD:China Lake, CA                     | 78.958                 | 1.407          | Nov 2011          | 0.000          |                   | 0.000               |                   | -                  |                   | 0.000                | 0.000                   | 80.365            |                                 |
| Prior Year T&E cost no longer funded in FYDP | Various                           | Various:Various                           | 30.443                 | 0.000          |                   | 0.000          |                   | 0.000               |                   | -                  |                   | 0.000                | 0.000                   | 30.443            |                                 |
| <b>Subtotal</b>                              |                                   |                                           | 109.401                | 1.407          |                   | 0.000          |                   | 0.000               |                   | 0.000              |                   | 0.000                | 0.000                   | 110.808           |                                 |

| <b>Management Services (\$ 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> |
| Program Management Support (Seaport CSS)    | C/CPFF                            | Wyle:Pax River, MD                        | 4.187                  | 1.869          | Nov 2011          | 0.534          | Nov 2012          | 0.124               | Dec 2013          | -                  |                   | 0.124                | 0.255                   | 6.969             | 6.969                           |
| Travel                                      | Various                           | NAVAIR:Pax River, MD                      | 1.157                  | 0.049          | Nov 2011          | 0.057          | Nov 2012          | 0.023               | Oct 2013          | -                  |                   | 0.023                | 0.048                   | 1.334             |                                 |
| Contractor Engineering Support              | Various                           | Various:Various                           | 1.119                  | 0.900          | Nov 2011          | 0.351          | Nov 2012          | 0.159               | Nov 2013          | -                  |                   | 0.159                | 0.327                   | 2.856             |                                 |
| Program Management Support                  | WR                                | NAWCAD:Pax River, MD                      | 0.000                  | 0.900          | Dec 2011          | 1.710          | Nov 2012          | 0.000               |                   | -                  |                   | 0.000                | 0.000                   | 2.610             |                                 |
| <b>Subtotal</b>                             |                                   |                                           | 6.463                  | 3.718          |                   | 2.652          |                   | 0.306               |                   | 0.000              |                   | 0.306                | 0.630                   | 13.769            |                                 |

|                            | <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> | 616.533                | 50.952         |  | 64.076         |  | 3.086               |  | 0.000              |  | 3.086                | 6.369                   | 741.016           |                                 |

**Remarks**

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**Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy**

**DATE:** April 2013

**APPROPRIATION/BUDGET ACTIVITY**

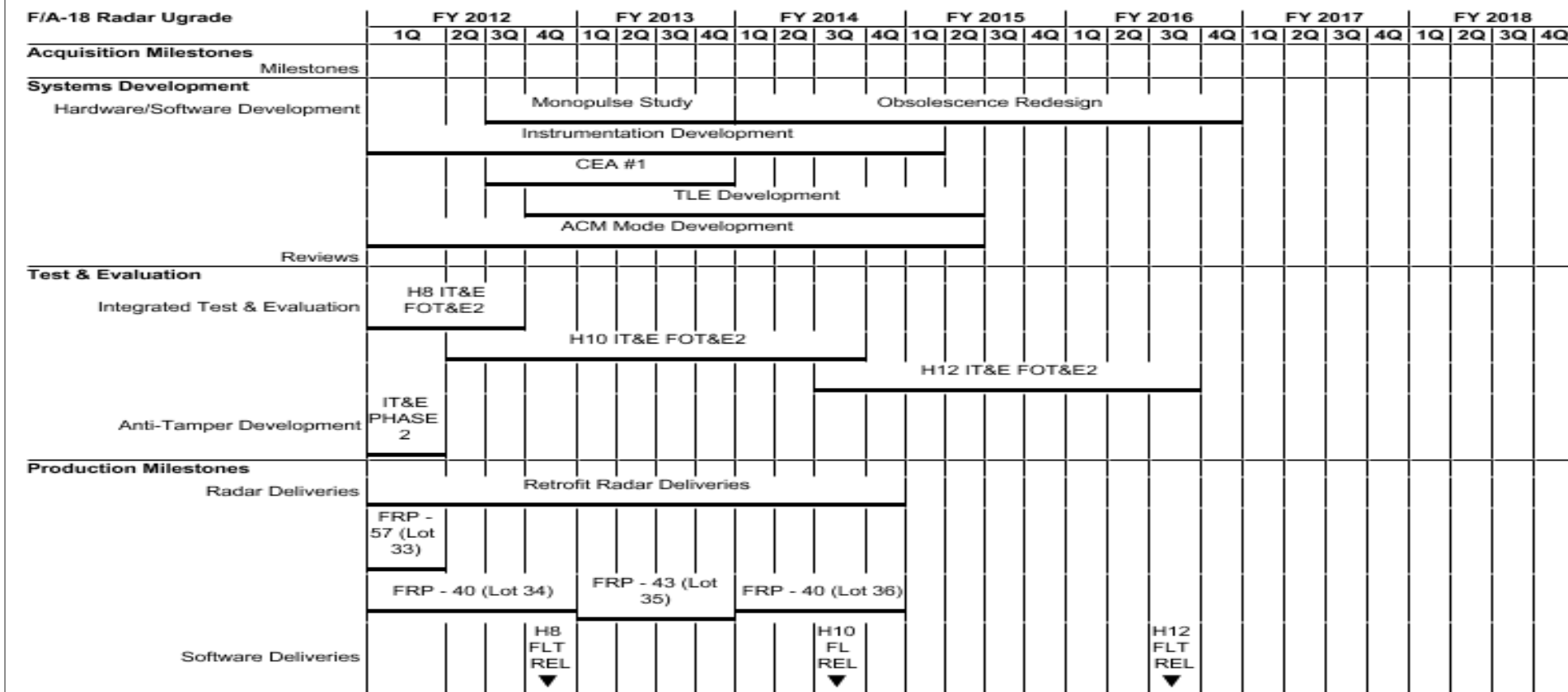
1319: Research, Development, Test & Evaluation, Navy  
BA 7: Operational Systems Development

**R-1 ITEM NOMENCLATURE**

PE 0204136N: F/A-18 Squadrons

**PROJECT**

2065: F/A-18 Radar Upgrade



2014PB - 0204136N - 2065

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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 7: <i>Operational Systems Development</i> | <b>R-1 ITEM NOMENCLATURE</b><br>PE 0204136N: <i>F/A-18 Squadrons</i> | <b>PROJECT</b><br>2065: <i>F/A-18 Radar Upgrade</i> |                         |

**Schedule Details**

| <b>Events by Sub Project</b>                                                                    | <b>Start</b>   |             | <b>End</b>     |             |
|-------------------------------------------------------------------------------------------------|----------------|-------------|----------------|-------------|
|                                                                                                 | <b>Quarter</b> | <b>Year</b> | <b>Quarter</b> | <b>Year</b> |
| <b><i>F/A-18 Radar Upgrade</i></b>                                                              |                |             |                |             |
| Systems Development: Hardware/Software Development: Obsolescence Redesign Development & Testing | 1              | 2014        | 4              | 2016        |
| Systems Development: Hardware/Software Development: Monopulse Study                             | 3              | 2012        | 4              | 2013        |
| Systems Development: Hardware/Software Development: Instrumentation Development                 | 1              | 2012        | 1              | 2015        |
| Systems Development: Hardware/Software Development: CEA #1                                      | 3              | 2012        | 4              | 2013        |
| Systems Development: Hardware/Software Development: TLE Development                             | 4              | 2012        | 2              | 2015        |
| Systems Development: Hardware/Software Development: ACM Mode Development                        | 1              | 2012        | 2              | 2015        |
| Test & Evaluation: Integrated Test & Evaluation: H8 IT&E FOT&E2                                 | 1              | 2012        | 3              | 2012        |
| Test & Evaluation: Integrated Test & Evaluation: H10 IT&E FOT&E2                                | 2              | 2012        | 3              | 2014        |
| Test & Evaluation: Integrated Test & Evaluation: H12 IT&E FOT&E2                                | 3              | 2014        | 3              | 2016        |
| Test & Evaluation: Anti-Tamper Development: IT&E PHASE 2                                        | 1              | 2012        | 1              | 2012        |
| Production Milestones: Radar Deliveries: Retrofit Radar Deliveries                              | 1              | 2012        | 4              | 2014        |
| Production Milestones: Radar Deliveries: FRP Deliveries - 57 (Lot 33)                           | 1              | 2012        | 1              | 2012        |
| Production Milestones: Radar Deliveries: FRP Deliveries - 40 (Lot 34)                           | 1              | 2012        | 4              | 2012        |
| Production Milestones: Radar Deliveries: FRP Deliveries A - 46 (Lot 35)                         | 1              | 2013        | 4              | 2013        |
| Production Milestones: Radar Deliveries: FRP Deliveries B - 40 (Lot 36)                         | 1              | 2014        | 4              | 2014        |
| Production Milestones: Software Deliveries: H8 FLEET RELEASE                                    | 4              | 2012        | 4              | 2012        |
| Production Milestones: Software Deliveries: H10 FLEET RELEASE                                   | 3              | 2014        | 3              | 2014        |
| Production Milestones: Software Deliveries: H12 FLEET RELEASE                                   | 3              | 2016        | 3              | 2016        |