

UNCLASSIFIED

| Exhibit R-2, RDT&E Budget Item Justification: PB 2015 Navy | | | | | | | | | | Date: March 2014 | | |
|--|-------------|---------|---------|--------------|---|---------------|---------|---------|---------|------------------|------------------|------------|
| Appropriation/Budget Activity | | | | | R-1 Program Element (Number/Name) | | | | | | | |
| 1319: Research, Development, Test & Evaluation, Navy / BA 4: Advanced Component Development & Prototypes (ACD&P) | | | | | PE 0603654N / JT Service Explosive Ordn Dev | | | | | | | |
| COST (\$ in Millions) | Prior Years | FY 2013 | FY 2014 | FY 2015 Base | FY 2015 OCO # | FY 2015 Total | FY 2016 | FY 2017 | FY 2018 | FY 2019 | Cost To Complete | Total Cost |
| Total Program Element | 470.233 | 41.468 | 34.958 | 21.399 | - | 21.399 | 29.982 | 33.087 | 32.377 | 33.034 | Continuing | Continuing |
| 0377: JT Service Expl Ord Disp System | 318.181 | 12.270 | 15.583 | 10.212 | - | 10.212 | 11.859 | 11.848 | 11.461 | 11.722 | Continuing | Continuing |
| 1317: EOD Diving System | 98.028 | 2.839 | 2.607 | 2.050 | - | 2.050 | 4.429 | 4.476 | 4.436 | 4.530 | Continuing | Continuing |
| 3177: Joint Counter Radio-Controlled IED Elec Warfare | 0.000 | 4.440 | - | - | - | - | - | - | - | - | - | 4.440 |
| 4023: VSW MCM/Force Protection UUV | 54.024 | 21.919 | 16.768 | 9.137 | - | 9.137 | 13.694 | 16.763 | 16.480 | 16.782 | Continuing | Continuing |

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

A. Mission Description and Budget Item Justification

This is a Joint Service Program. This program provides for the development of Explosive Ordnance Disposal tools and equipment for use by all military services. The responsibility is assigned to the Navy as single service manager, by Department of Defense Directive 5160.62 of 26 April 1989, for management of the Joint Service Explosive Ordnance Disposal Research and Development Program. Proliferation of sophisticated types of foreign and domestic ordnance and Improvised Explosive Devices necessitate a continuing development program to provide Explosive Ordnance Disposal personnel of all military services with the special equipment and tools required to support this mission. This program also provides life support related equipment necessary to support the performance of Navy Explosive Ordnance Disposal tasks underwater. This equipment must have inherently low acoustic and magnetic signatures in order to allow the Explosive Ordnance Disposal technician to safely approach, render-safe and dispose of sea mines and other underwater ordnance. This program also provides force protection of all military services against Radio Controlled Improvised Explosive Devices (RCIED) to prevent initiation. The Navy has been designated as DOD Executive Agent and Single Manager for Military Ground-Based Counter Radio-Controlled Improvised Explosive Electronic Warfare (CREW) Technology by DOD Directive 5101.14 of 11 June 2007, requiring RDT&E to develop capabilities that meet joint requirements.

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| Exhibit R-2, RDT&E Budget Item Justification: PB 2015 Navy | | | | Date: March 2014 | |
| Appropriation/Budget Activity | | R-1 Program Element (Number/Name) | | | |
| 1319: Research, Development, Test & Evaluation, Navy I BA 4: Advanced Component Development & Prototypes (ACD&P) | | PE 0603654N I JT Service Explosive Ordn Dev | | | |
| B. Program Change Summary (\$ in Millions) | FY 2013 | FY 2014 | FY 2015 Base | FY 2015 OCO | FY 2015 Total |
| Previous President's Budget | 56.931 | 38.422 | 28.229 | - | 28.229 |
| Current President's Budget | 41.468 | 34.958 | 21.399 | - | 21.399 |
| Total Adjustments | -15.463 | -3.464 | -6.830 | - | -6.830 |
| • Congressional General Reductions | - | -0.065 | | | |
| • Congressional Directed Reductions | - | -3.399 | | | |
| • Congressional Rescissions | - | - | | | |
| • Congressional Adds | - | - | | | |
| • Congressional Directed Transfers | - | - | | | |
| • Reprogrammings | 3.100 | - | | | |
| • SBIR/STTR Transfer | -0.964 | - | | | |
| • Program Adjustments | - | - | -0.315 | - | -0.315 |
| • Rate/Misc Adjustments | - | - | -6.515 | - | -6.515 |
| • Congressional General Reductions | -3.599 | - | - | - | - |
| Adjustments | | | | | |
| • Congressional Directed Reductions | -14.000 | - | - | - | - |
| Adjustments | | | | | |
| Change Summary Explanation | | | | | |
| Program Adjustments: FY15 0.315K in Other Rate Adjustments and \$6.515M Rate/Misc Adjustments. | | | | | |

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| Exhibit R-2A, RDT&E Project Justification: PB 2015 Navy | | | | | | | | | | Date: March 2014 | | |
| Appropriation/Budget Activity 1319 / 4 | | | | | R-1 Program Element (Number/Name) PE 0603654N / JT Service Explosive Ordn Dev | | | | Project (Number/Name) 0377 / JT Service Expl Ord Disp System | | | |
| COST (\$ in Millions) | Prior Years | FY 2013 | FY 2014 | FY 2015 Base | FY 2015 OCO # | FY 2015 Total | FY 2016 | FY 2017 | FY 2018 | FY 2019 | Cost To Complete | Total Cost |
| 0377: JT Service Expl Ord Disp System | 318.181 | 12.270 | 15.583 | 10.212 | - | 10.212 | 11.859 | 11.848 | 11.461 | 11.722 | Continuing | Continuing |
| Quantity of RDT&E Articles | 0.000 | - | - | - | - | - | - | - | - | - | | |
| # The FY 2015 OCO Request will be submitted at a later date. | | | | | | | | | | | | |
| A. Mission Description and Budget Item Justification | | | | | | | | | | | | |
| Provides Explosive Ordnance Disposal personnel of all military services with the specialized equipment and tools required to support their mission of detection/location, identification, render-safe, recovery, field and laboratory evaluation, and disposal of unexploded ordnance (UXO) that is a threat to military operations, installations, personnel, or material. UXO includes foreign and domestic, both conventional and non-conventional, including Improvised Explosive Devices (IEDs). High Fidelity Weapons Mass Destruction performs detection and identification of hazardous materials contained in devices using radiological and biological means. Advanced EOD Robot System (AEODRS) consists of multiple interoperable robot systems. The first class of robot and the architecture for the system will be developed first, then the other classes of robots will be developed. | | | | | | | | | | | | |
| B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each) | | | | | | | | | FY 2013 | FY 2014 | FY 2015 | |
| Title: EOD FUTURE RADIOGRAPHIC SYSTEMS (FRS) AND EOD DECISION SUPPORT SYSTEMS (DSS) Articles: | | | | | | | | | 2.661 | 5.227 | 1.777 | |
| | | | | | | | | | - | - | - | |
| FY 2013 Accomplishments: Continued development of increment one capabilities for Future Radiographic System (FRS) and incremental improvements to capability for the Decision Support System (DSS). | | | | | | | | | | | | |
| FY 2014 Plans: Continue improvements to the JEOD Decision Support System (DSS) based upon user input, development of the Future Radiographic Systems (FRS) and provide Analysis of Alternatives for warfighter initiated improvements. | | | | | | | | | | | | |
| FY 2015 Plans: Continue improvements to the JEOD Decision Support System (DSS) based upon user input, development of the Increment 1 System and improvements to the Future Radiographic Systems (FRS) and provide Analysis of Alternatives for warfighter initiated improvements. | | | | | | | | | | | | |
| Title: HIGH FIDELITY WEAPONS MASS DESTRUCTION (WMD) IDENTIFICATION AND DETECTION Articles: | | | | | | | | | - | 0.723 | - | |
| | | | | | | | | | - | - | - | |
| FY 2013 Accomplishments: | | | | | | | | | | | | |

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| Exhibit R-2A, RDT&E Project Justification: PB 2015 Navy | | Date: March 2014 | | |
| Appropriation/Budget Activity 1319 / 4 | R-1 Program Element (Number/Name) PE 0603654N / JT Service Explosive Ordn Dev | Project (Number/Name) 0377 / JT Service Expl Ord Disp System | | |
| B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each) | | FY 2013 | FY 2014 | FY 2015 |
| N/A | | | | |
| FY 2014 Plans: Continue to develop Weapons Mass Destruction (WMD) family of systems focused on development of the Explosives Identification Kit (ID). | | | | |
| FY 2015 Plans: Continue development of Weapons Mass Destruction (WMD) identification and detection family of systems with focus on consolidation of Explosive ID & detect technologies capable of integration into a single handheld unit. | | | | |
| Title: EOD ROBOTICS | | 9.242 | 8.633 | 7.435 |
| Articles: | | - | - | - |
| FY 2013 Accomplishments: Continued development of a family of Advanced EOD Robotic of Systems to fill capability gaps and develop improved capabilities for existing EOD Robotic platforms. | | | | |
| FY 2014 Plans: Continue development of Advanced EOD Robotic Systems Increments 1,2 and 3 to fill capability gap and to replace existing EOD Robotic Platforms. | | | | |
| FY 2015 Plans: Expand Advanced EOD Robotics Increment 1 architecture for use in Increments 2 & 3 resulting in prototype development and testing. | | | | |
| Title: TCM AN/PLT-XXX SYSTEMS | | 0.367 | 1.000 | 1.000 |
| Articles: | | - | - | - |
| FY 2013 Accomplishments: Continued improvements to loadsets for fielded EOD TCM systems based upon changing threats and continue monitoring and development of capabilities to determine the state of and defeat electronic safe-arm fuzes. | | | | |
| FY 2014 Plans: Continue upgrades to EOD TCM loadsets to account for continually changing threats. | | | | |
| FY 2015 Plans: Development of Non-theater loadsets based upon current threats. Upgrade current theater loadsets to remain current with continually changing threats. | | | | |
| Accomplishments/Planned Programs Subtotals | | 12.270 | 15.583 | 10.212 |

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| Appropriation/Budget Activity 1319 / 4 | | | | R-1 Program Element (Number/Name) PE 0603654N / JT Service Explosive Ordn Dev | | | | Project (Number/Name) 0377 / JT Service Expl Ord Disp System | | | |
| C. Other Program Funding Summary (\$ in Millions) | | | | | | | | | | | |
| Line Item | FY 2013 | FY 2014 | FY 2015 Base | FY 2015 OCO | FY 2015 Total | FY 2016 | FY 2017 | FY 2018 | FY 2019 | Cost To Complete | Total Cost |
| • OPN/5509: EOD Equipment (VN075) | - | 8.080 | 6.080 | - | 6.080 | 12.712 | 19.759 | 7.305 | 9.110 | - | 72.849 |
| Remarks | | | | | | | | | | | |
| D. Acquisition Strategy | | | | | | | | | | | |
| Analysis of Alternatives (AOA) studies are always conducted prior to the initiation of new subprojects. The AOA addresses and emphasizes acquisition strategies of the most cost-effective solution over the subprojects' life-cycle. The acquisition strategies observe the following hierarchy of alternatives: commercial item (including modification), non-developmental item (including modification), and lastly, developmental programs. Contracting for RDT&E, if required, is always competitive and when feasible, production options are included. | | | | | | | | | | | |
| E. Performance Metrics | | | | | | | | | | | |
| Conducted Electronic Safe/Arm Fuze IED/UXO Technology Development review and worked with contractors to explore technology options. Processed 86 Joint Service EOD Decision Support System (DSS) change requests resulting in the release of 4195 Mobile Field Kit and Publication Suite Software copies to the Joint Services including USN. Completed TCM, AN/PLT-5 loadset upgrade for EOD use in-theatre based upon new IED/UXO threats seen during operations. Completed JSEOD Weapons of Mass Destruction developmental testing of COTS systems resulting in the procurement of systems. Completed Advanced EOD Robotics Systems first of two Critical Design Reviews for Increment 1 and Test Readiness Review for Increment 1. | | | | | | | | | | | |

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Exhibit R-4, RDT&E Schedule Profile: PB 2015 Navy

Date: March 2014

Appropriation/Budget Activity

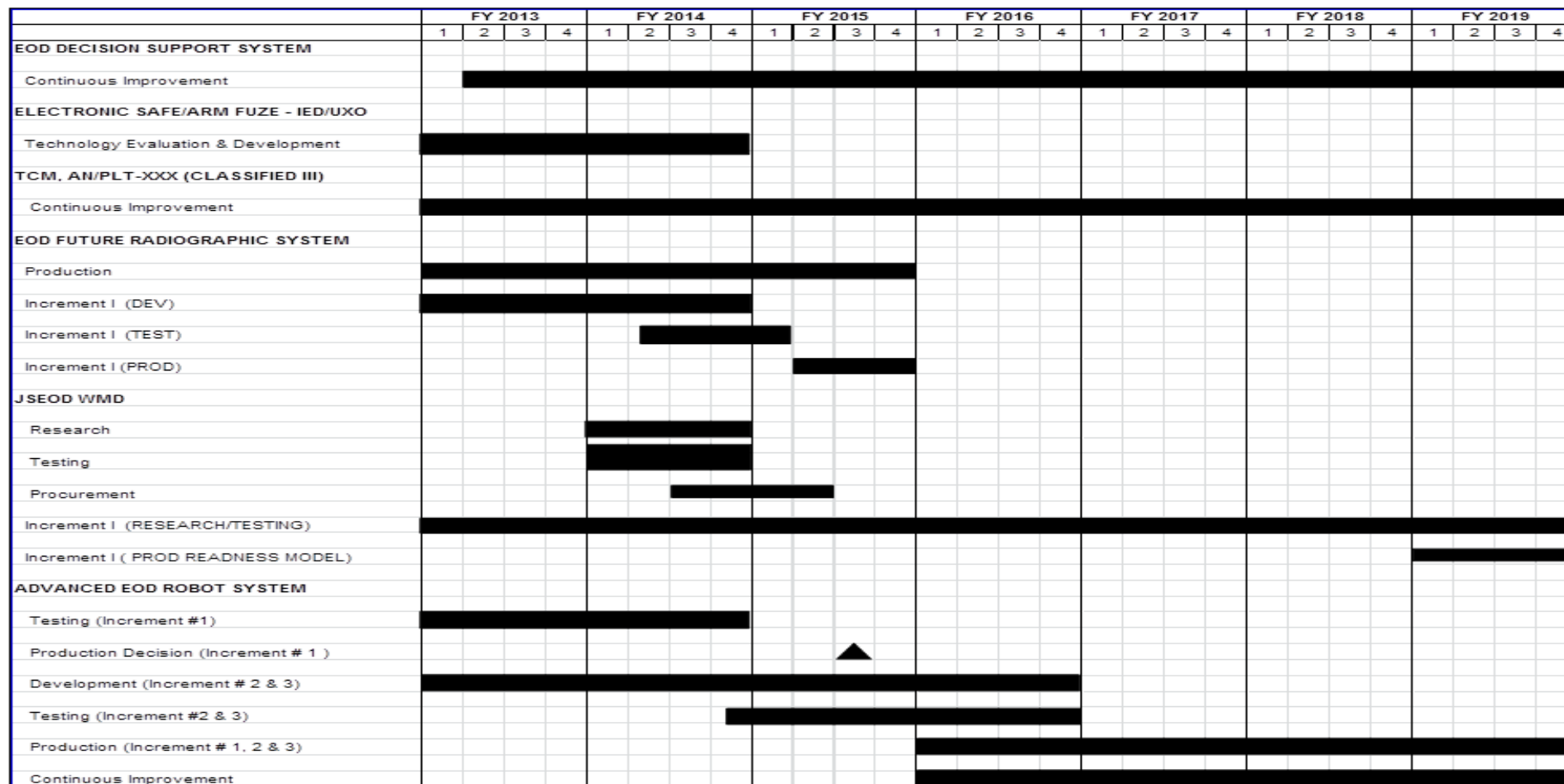
1319 / 4

R-1 Program Element (Number/Name)

PE 0603654N / JT Service Explosive Ordn
Dev

Project (Number/Name)

0377 / JT Service Expl Ord Disp System



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| Exhibit R-2A, RDT&E Project Justification: PB 2015 Navy | | | | | | | | | | Date: March 2014 | | |
| Appropriation/Budget Activity 1319 / 4 | | | | | R-1 Program Element (Number/Name) PE 0603654N / JT Service Explosive Ordn Dev | | | | Project (Number/Name) 1317 / EOD Diving System | | | |
| COST (\$ in Millions) | Prior Years | FY 2013 | FY 2014 | FY 2015 Base | FY 2015 OCO # | FY 2015 Total | FY 2016 | FY 2017 | FY 2018 | FY 2019 | Cost To Complete | Total Cost |
| 1317: EOD Diving System | 98.028 | 2.839 | 2.607 | 2.050 | - | 2.050 | 4.429 | 4.476 | 4.436 | 4.530 | Continuing | Continuing |
| Quantity of RDT&E Articles | 0.000 | - | - | - | - | - | - | - | - | - | | |
| # The FY 2015 OCO Request will be submitted at a later date. | | | | | | | | | | | | |
| A. Mission Description and Budget Item Justification | | | | | | | | | | | | |
| Provides for development of Diver Safety/Life Support Equipment, Advanced Diver Integrated Sensors and Advanced Firing Systems to support Navy Explosive Ordnance Disposal (EOD) underwater operations. The equipment must have inherently low acoustic and magnetic signatures in order to allow the EOD divers to safely approach, render-safe, recover, exploit, and dispose of underwater explosive threats to include sea mines, limpet mines and unexploded ordnance. | | | | | | | | | | | | |
| B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each) | | | | | | | | | | FY 2013 | FY 2014 | FY 2015 |
| Title: DIVER SAFETY & LIFE SUPPORT SYSTEMS Articles: Description: Diver Safety & Life Support Systems: Develop diver safety tools to include more capable life support systems for EOD, and Mobile Diving & Salvage Units (MDSU) operations. Specific tools include but are not limited to Underwater Breathing Apparatus (UBA), specialized dive masks, heads-up displays, emergency life support systems and the ability to train divers and to evaluate Mine Countermeasures (MCM)/Explosive Ordnance Disposal (EOD) tools, tactics and procedures with regard to influence cleanliness against sea mines both at home and in controlled threat areas prior to commencing EOD operations. FY 2013 Accomplishments: Initiated Analysis of Alternatives (AoA) to investigate the feasibility for replacement or technological upgrade of current forty year old EOD UBA MK 16 MOD 1 and the fourteen year old VIPER VSW UBA. FY 2014 Plans: Continue the EOD UBA AoA acquisition efforts to develop, test, and field future Underwater Mine Countermeasures (UMCM) systems in accordance with approved OPNAV requirements. FY 2015 Plans: Continue EOD UBA acquisition initiative. | | | | | | | | | | 1.395 | 1.056 | 1.600 |
| | | | | | | | | | | - | - | - |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| Title: ADVANCED DIVER INTEGRATED SENSORS Articles: | | | | | | | | | | 0.949 | 0.901 | 0.399 |
| | | | | | | | | | | - | - | - |

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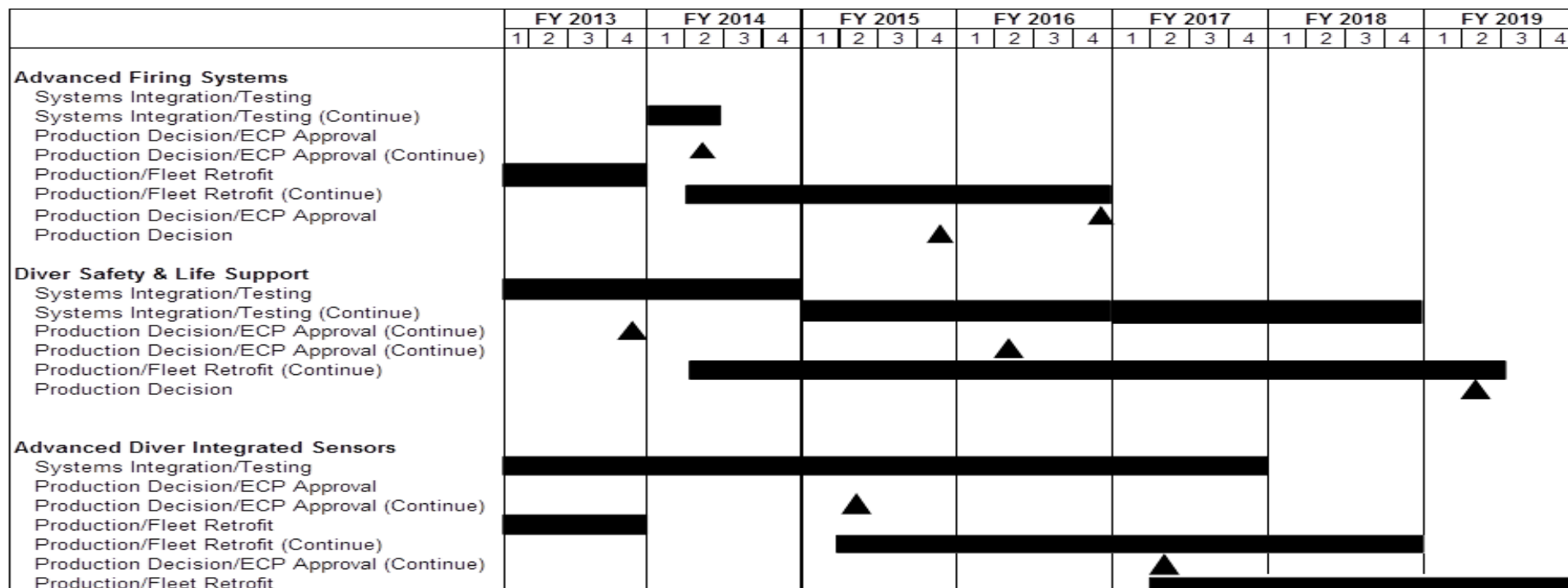
| | | | | | | | | | | | | |
|---|---------|---------|-----------------|--|------------------|---------|---------|---|---------|---------------------|------------|------------|
| Exhibit R-2A, RDT&E Project Justification: PB 2015 Navy | | | | | | | | | | Date: March 2014 | | |
| Appropriation/Budget Activity 1319 / 4 | | | | R-1 Program Element (Number/Name) PE 0603654N / JT Service Explosive Ordn Dev | | | | Project (Number/Name) 1317 / EOD Diving System | | | | |
| B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each) | | | | | | | | | | FY 2013 | FY 2014 | FY 2015 |
| <p>Description: Develop Advanced Diver Integrated Sensors equipment to enhance EOD and MDSU ability to detect, neutralize and gather intelligence on underwater targets of interest. Requirements include Diver Hull Inspection Navigation System (DHINS) and improvements to the Underwater Imaging System (UIS).</p> <p>FY 2013 Accomplishments: Conducted ECP development for increased capabilities in the DHINS systems as recommended by operator input and technology refresh requirements due to parts obsolescence. Conducted market study for next generation advanced underwater sensor requirements.</p> <p>FY 2014 Plans: Initiate acquisition program to replace UIS based on Analysis of Alternatives (AOA) conducted in FY13. Continue CIP integration with DHINS.</p> <p>FY 2015 Plans: Begin development of the next generation Advanced Integrated Sensor System for EOD divers as a replacement of the UIS.</p> | | | | | | | | | | | | |
| <p>Title: ADVANCED FIRING SYSTEM</p> <p>Articles:</p> <p>Description: Develops new acquisitions and product improvements to existing systems for below and above water neutralization of underwater threats to support EOD and MDSU operations.</p> <p>FY 2013 Accomplishments: Continued implementing upgrades in accordance with OPNAV approved requirements and validate system performance.</p> <p>FY 2014 Plans: Continue towards completing miniaturized AFCT.</p> <p>FY 2015 Plans: Begin fielding miniaturized AFCT to meet approved inventory objectives.</p> | | | | | | | | | | 0.495 - | 0.650 - | 0.051 - |
| Accomplishments/Planned Programs Subtotals | | | | | | | | | | 2.839 | 2.607 | 2.050 |
| C. Other Program Funding Summary (\$ in Millions) | | | | | | | | | | | | |
| Line Item | FY 2013 | FY 2014 | FY 2015 Base | FY 2015 OCO | FY 2015 Total | FY 2016 | FY 2017 | FY 2018 | FY 2019 | Cost To Complete | Total Cost | |
| • OPN/0977a: Underwater EOD Program (Cost Code UQ034) | 4.257 | 4.588 | 1.000 | - | 1.000 | 1.000 | 2.652 | 1.540 | 2.000 | - | 32.937 | |

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| Appropriation/Budget Activity 1319 / 4 | | | | R-1 Program Element (Number/Name) PE 0603654N / JT Service Explosive Ordn Dev | | | | Project (Number/Name) 1317 / EOD Diving System | | | |
| C. Other Program Funding Summary (\$ in Millions) | | | | | | | | | | | |
| Line Item | FY 2013 | FY 2014 | FY 2015 Base | FY 2015 OCO | FY 2015 Total | FY 2016 | FY 2017 | FY 2018 | FY 2019 | Cost To Complete | Total Cost |
| • 0340: PANMC | 0.336 | - | - | - | - | - | - | - | - | - | 1.057 |
| • OPN/0977b: UW EOD (UQ036) | - | 2.000 | - | - | - | - | 1.802 | 0.761 | 0.987 | - | 6.750 |
| Remarks | | | | | | | | | | | |
| D. Acquisition Strategy | | | | | | | | | | | |
| Analysis of Alternatives (AOA) studies are always conducted prior to the initiation of new sub-projects. The AOA addresses and emphasizes acquisition strategies of the most cost-effective solution over the sub-projects life-cycle. The acquisition strategies observe the following hierarchy of alternatives: commercial item (including modification), non-developmental item (including modification), and lastly, developmental programs. Contracting for RDT&E, if required, is always competitive and when feasible, production options are included. | | | | | | | | | | | |
| E. Performance Metrics | | | | | | | | | | | |
| Research and Develop technologies for the design of Diver Safety Systems, Advanced Diver Integrated Sensors and Advanced Underwater Firing Systems used to render safe, recover, exploit, and dispose of sea limpet mines and unexploded ordnance. | | | | | | | | | | | |

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| Exhibit R-4, RDT&E Schedule Profile: PB 2015 Navy | | | Date: March 2014 | | |
| Appropriation/Budget Activity 1319 / 4 | | R-1 Program Element (Number/Name) PE 0603654N / JT Service Explosive Ordn Dev | | Project (Number/Name) 1317 / EOD Diving System | |



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|--|--------------------|----------------|----------------|---------------------|---|----------------------|----------------|----------------|--|-------------------------|-------------------------|-------------------|--|----------------|----------------|----------------|------------------------------|-------|---|---|------------------|---|---|---|---|--|--|--|------------------------------|--|--|--|------------------------------|--|--|--|---|--|-------|---|
| Exhibit R-2A, RDT&E Project Justification: PB 2015 Navy | | | | | | | | | | Date: March 2014 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Appropriation/Budget Activity 1319 / 4 | | | | | R-1 Program Element (Number/Name) PE 0603654N / JT Service Explosive Ordn Dev | | | | Project (Number/Name) 3177 / Joint Counter Radio-Controlled IED Elec Warfare | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| COST (\$ in Millions) | Prior Years | FY 2013 | FY 2014 | FY 2015 Base | FY 2015 OCO # | FY 2015 Total | FY 2016 | FY 2017 | FY 2018 | FY 2019 | Cost To Complete | Total Cost | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3177: Joint Counter Radio-Controlled IED Elec Warfare | - | 4.440 | - | - | - | - | - | - | - | - | - | 4.440 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Quantity of RDT&E Articles | 0.000 | - | - | - | - | - | - | - | - | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p># The FY 2015 OCO Request will be submitted at a later date.</p> <p>A. Mission Description and Budget Item Justification Provides for the research, development, for all military services against Radio Controlled Improvised Explosive Devices (RCIED) to prevent initiation. The Navy has been designated as DOD Executive Agent and Single Manager for Military Ground-Based Counter Radio-Controlled Improvised Explosive Electronic Warfare (CREW) Technology by DOD Directive 5101.14 of 11 June 2007, requiring RDT&E to develop capabilities that meet joint requirements. Utilize Joint requirements to provide a system of systems approach for a suite of equipment for mounted, dismounted and fixed site operations. CREW development to make rapid improvements to performance, supportability and affordability.</p> <p>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td></td> <td align="center">FY 2013</td> <td align="center">FY 2014</td> <td align="center">FY 2015</td> </tr> <tr> <td>Title: JOINT CREW OCO</td> <td align="right">4.440</td> <td align="center">-</td> <td align="center">-</td> </tr> <tr> <td align="right">Articles:</td> <td align="center">-</td> <td align="center">-</td> <td align="center">-</td> </tr> <tr> <td colspan="4"> FY 2013 Accomplishments: OCO: OCO: JOINT CREW - New techniques and threat loads will be needed to support delivered systems in order to address in-theater priority threats, including threat analysis, procurement of test assets, building of threat libraries, etc. </td> </tr> <tr> <td colspan="4"> FY 2014 Plans: N/A </td> </tr> <tr> <td colspan="4"> FY 2015 Plans: N/A </td> </tr> <tr> <td align="right" colspan="2">Accomplishments/Planned Programs Subtotals</td> <td align="right">4.440</td> <td align="center">-</td> </tr> </table> <p>C. Other Program Funding Summary (\$ in Millions) N/A</p> <p>Remarks</p> | | | | | | | | | | | | | | FY 2013 | FY 2014 | FY 2015 | Title: JOINT CREW OCO | 4.440 | - | - | Articles: | - | - | - | FY 2013 Accomplishments: OCO: OCO: JOINT CREW - New techniques and threat loads will be needed to support delivered systems in order to address in-theater priority threats, including threat analysis, procurement of test assets, building of threat libraries, etc. | | | | FY 2014 Plans: N/A | | | | FY 2015 Plans: N/A | | | | Accomplishments/Planned Programs Subtotals | | 4.440 | - |
| | FY 2013 | FY 2014 | FY 2015 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Title: JOINT CREW OCO | 4.440 | - | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Articles: | - | - | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FY 2013 Accomplishments: OCO: OCO: JOINT CREW - New techniques and threat loads will be needed to support delivered systems in order to address in-theater priority threats, including threat analysis, procurement of test assets, building of threat libraries, etc. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FY 2014 Plans: N/A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FY 2015 Plans: N/A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Accomplishments/Planned Programs Subtotals | | 4.440 | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

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| Exhibit R-2A, RDT&E Project Justification: PB 2015 Navy | | Date: March 2014 |
| Appropriation/Budget Activity 1319 / 4 | R-1 Program Element (Number/Name) PE 0603654N / JT Service Explosive Ordn Dev | Project (Number/Name) 3177 / Joint Counter Radio-Controlled IED Elec Warfare |

D. Acquisition Strategy

Analysis of Alternatives (AOA) studies are always conducted prior to the initiation of new subprojects. The AOA addresses and emphasizes acquisition strategies of the most cost effective solution over subprojects' life-cycle. The acquisition strategies observe the following hierarchy of alternatives: commercial item (including modification), non-developmental item (including modification), and lastly, developmental programs. Contracting for RDT&E, if required, is always competitive and when feasible, production options are included. Procurements across the services will be combined to gain quantity discounts.

E. Performance Metrics

Threat prototyping, characterization, procurement, and sustainment of threats for testing, coalition coordination and support, generation of EME scripts for testing, protocol development.

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|---|-------------|---------|---------|--------------|--|---------------|---------|---------|--|------------------|------------------|------------|
| Exhibit R-2A, RDT&E Project Justification: PB 2015 Navy | | | | | | | | | | Date: March 2014 | | |
| Appropriation/Budget Activity 1319 / 4 | | | | | R-1 Program Element (Number/Name) PE 0603654N / JT Service Explosive Ordn Dev | | | | Project (Number/Name) 4023 / VSW MCM/Force Protection UUV | | | |
| COST (\$ in Millions) | Prior Years | FY 2013 | FY 2014 | FY 2015 Base | FY 2015 OCO # | FY 2015 Total | FY 2016 | FY 2017 | FY 2018 | FY 2019 | Cost To Complete | Total Cost |
| 4023: VSW MCM/Force Protection UUV | 54.024 | 21.919 | 16.768 | 9.137 | - | 9.137 | 13.694 | 16.763 | 16.480 | 16.782 | Continuing | Continuing |
| Quantity of RDT&E Articles | 0.000 | - | - | - | - | - | - | - | - | - | | |
| # The FY 2015 OCO Request will be submitted at a later date. | | | | | | | | | | | | |
| A. Mission Description and Budget Item Justification | | | | | | | | | | | | |
| Provides for development of affordable expeditionary, unmanned underwater systems to support Navy Expeditionary forces including Explosive Ordnance (EOD). Mobile Diving and Salvage Units, and Shallow Water (SW), Very Shallow Water (VSW) and Underwater Mine Countermeasures (UMCM) mission operations. The equipment must be highly portable in order to support the Navy EOD technician to safely approach, render safe, recover, exploit and dispose of underwater explosive threats to include sea mines, limpet mines and unexploded ordnance. Provides support for the Navy's high priority missions of Maritime Homeland Defense, MCM, including clandestine reconnaissance and mine clearance in support of amphibious operations. Development of Expeditionary UUV systems to support localization render-safe and detailed intelligence gathering of UXO including Underwater Improvised Explosive Devices. This project supports CNO N957 MCM UUV Roadmap. | | | | | | | | | | | | |
| B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each) | | | | | | | | | FY 2013 | FY 2014 | FY 2015 | |
| Title: VSW MCM/Force Protection UUV | | | | | | | | | 21.919 | 16.768 | 9.137 | |
| | | | | | | | | | Articles: - | - | - | |
| Description: This program supports development, testing and Fleet approval for evolving generations of affordable, expeditionary Unmanned Underwater Vehicles (UUV), support equipment, and Common Operator Interface Navy (COIN) systems to address validated requirements in support of Expeditionary SW and VSW UMCM mission areas. Mission areas include: open and confined areas, hulls, piers and pilings to search, classify, map, re-acquire, identify, and neutralize sea and limpet mines and underwater improvised explosive devices. | | | | | | | | | | | | |
| | | | | | | | | | FY 2013 Accomplishments: | | | |
| | | | | | | | | | Continued to enhance both the HULS and UMCM UUV's with pre-planned product improvements to meet approved OPNAV operational requiremetns. UOES and RDT&E will be used to validate operational capabilities. | | | |
| FY 2014 Plans: | | | | | | | | | | | | |
| | | | | | | | | | Due to Sequestration delays in FY2013, FY14 plans will leverage prior UOES testing and ONR Science and Technology (S&T) investments in standoff neutralization capabilities to initiate 1st increment of UUV-Neutralization (UUV-N program to develop standoff neutralization capabilities to counter naval mines and other underwater explosive threats. Develop Joint Capability Integration Development System (JCIDS) documentation as required to support future MK 18 MOD 2 improvements. Continue | | | |

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|--|--|--|--|---|--|--|--|---|--|--|--|
| Exhibit R-2A, RDT&E Project Justification: PB 2015 Navy | | | | | | | | Date: March 2014 | | | |
| Appropriation/Budget Activity 1319 / 4 | | | | R-1 Program Element (Number/Name) PE 0603654N / JT Service Explosive Ordn Dev | | | | Project (Number/Name) 4023 / VSW MCM/Force Protection UUV | | | |

| | | | |
|--|----------------|----------------|----------------|
| B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each) | FY 2013 | FY 2014 | FY 2015 |
| to enhance both the HULS and UCMU UUV's with pre-planned product improvements to meet approved OPNAV operational requirements. UOES and RCT&E will be used to validate operational capabilities. | | | |
| FY 2015 Plans: Continue to develop, test and evaluate mature technology solutions to support integration into block upgrades via ECP retrofits to fielded MK 18 MOD 1, MOD 2 HULS UUV and Neutralization systems. Plan and execute structure UOES and requirements compliance testing and evaluation (RCT&E) to evaluate effectiveness, supportability and suitability of prototype block upgrade retrofit kits. | | | |
| Accomplishments/Planned Programs Subtotals | 21.919 | 16.768 | 9.137 |

| | | | | | | | | | | | |
|--|----------------|----------------|-------------------------|------------------------|--------------------------|----------------|----------------|----------------|----------------|-----------------------------|-------------------|
| C. Other Program Funding Summary (\$ in Millions) | | | | | | | | | | | |
| Line Item | FY 2013 | FY 2014 | FY 2015 Base | FY 2015 OCO | FY 2015 Total | FY 2016 | FY 2017 | FY 2018 | FY 2019 | Cost To Complete | Total Cost |
| • OPN/0977: Underwater EOD Program (Cost Code UQ034) | 15.599 | 14.400 | 40.569 | - | 40.569 | 34.570 | 14.557 | 34.404 | 33.378 | - | 202.098 |
| Remarks | | | | | | | | | | | |
| D. Acquisition Strategy | | | | | | | | | | | |
| Analysis of Alternatives (AOA) studies are always conducted prior to the initiation of new sub-projects. The AOA addresses and emphasizes acquisitions strategies of the most cost-effective solution over the sub-projects' life -cycle. The acquisition strategies observe the following hierarchy of alternatives: commercial item (including modifications), non-developmental item (including modifications), and lastly, developmental programs. Contracting for RDT&E, if required is always competitive and when feasible, production options are included. | | | | | | | | | | | |
| This ongoing program capitalizes on a User Operational Evaluation System (UOES) effort involving Fleet operators engaged in tactical experimentation with prototype UUVs prior to fielding baseline systems and capability improvement package increments. These UUV operators also participate in detailed requirements analyses and definition. Operational capabilities with UUV have been realized at designated operational units, with a competitive acquisition strategy. The addition of enhanced capabilities through an evolutionary acquisition approach to the UUV toolbox is programmed for delivery in accordance with approved CNO requirements and ONR TTAs. Further improvements to the toolbox to add basic mine and underwater explosive threats neutralization capabilities will be pursued. | | | | | | | | | | | |
| E. Performance Metrics | | | | | | | | | | | |
| Research and Develop technologies for the design of Unmanned Underwater Systems to provide enhanced fleet capabilities to locate, classify, and neutralized mines and unexploded ordnance. | | | | | | | | | | | |

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| Exhibit R-4, RDT&E Schedule Profile: PB 2015 Navy | | | Date: March 2014 | | |
| Appropriation/Budget Activity 1319 / 4 | | R-1 Program Element (Number/Name) PE 0603654N / JT Service Explosive Ordn Dev | | Project (Number/Name) 4023 / VSW MCM/Force Protection UUV | |

| | FY2013 | | | | FY2014 | | | | FY2015 | | | | FY2016 | | | | FY2017 | | | | FY2018 | | | | FY2019 | | | |
|--|--------|---|---|---|--------|---|---|---|--------|---|---|---|--------|---|---|---|--------|---|---|---|--------|---|---|---|--------|---|---|---|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| 3RD GENERATION (NEUTRALIZATION) | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Development | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Testing Final | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Production Decision (Limited) | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4TH GENERATION (SEARCH, CLASSIFY & ID) | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Test and Evaluation | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Production Retrofit/Decision | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Production Retrofit/Decision | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Production Retrofit/Decision | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5TH GENERATION (SEARCH, CLASSIFY & ID, in Complex MCM Environments) | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Production Retrofit/Decision | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Production Retrofit/Decision | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| HULS | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| UOES Operational Eval System | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Testing Final | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Production Decision (Limited) | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Preliminary Engineering Change Proposal (PECP) - A | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Production Retrofit/Decision 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Preliminary Engineering Change Proposal (PECP) - B | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Production Retrofit/Decision 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Preliminary Engineering Change Proposal (PECP) - C (HULS N) | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Production Retrofit/Decision 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |