

UNCLASSIFIED

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|--|----------------|------------------|-----------------------|--|------------------------|------------------|------------------|------------------|---------------------|------------------|------------|
| Exhibit R-2, RDT&E Budget Item Justification: PB 2011 Navy | | | | | | | | | DATE: February 2010 | | |
| APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 7: Operational Systems Development | | | | R-1 ITEM NOMENCLATURE PE 0702207N: Depot Maintenance (NON-IF) | | | | | | | |
| COST (\$ in Millions) | FY 2009 Actual | FY 2010 Estimate | FY 2011 Base Estimate | FY 2011 OCO Estimate | FY 2011 Total Estimate | FY 2012 Estimate | FY 2013 Estimate | FY 2014 Estimate | FY 2015 Estimate | Cost To Complete | Total Cost |
| Total Program Element | 9.839 | 14.614 | 18.649 | 0.000 | 18.649 | 21.257 | 15.487 | 21.803 | 20.020 | Continuing | Continuing |
| 3030: FA-18 SLAP | 5.547 | 13.631 | 18.649 | 0.000 | 18.649 | 21.257 | 15.487 | 21.803 | 20.020 | Continuing | Continuing |
| 3182: T-45 SLAP | 4.292 | 0.983 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 8.345 |
| A. Mission Description and Budget Item Justification | | | | | | | | | | | |
| 3030: The F/A-18A-F Service Life Assessment Program (SLAP) is assessing the structural condition of the F/A-18 fleet in order to determine what modifications are necessary to extend the aircraft designed life limits to allow it to achieve Chief of Naval Operations (CNO) inventory requirements. | | | | | | | | | | | |
| 3182: The T-45 SLAP is assessing the structural condition of the T-45 Fleet in order to determine structural modifications necessary to extend the aircraft designed service life to support Pilot Training Requirements (PTR) and Naval Flight Officer Training Requirements (NTR) until 2021. | | | | | | | | | | | |
| B. Program Change Summary (\$ in Millions) | | | | | | | | | | | |
| | FY 2009 | FY 2010 | FY 2011 Base | FY 2011 OCO | FY 2011 Total | | | | | | |
| Previous President's Budget | 11.093 | 14.675 | 0.000 | 0.000 | 0.000 | | | | | | |
| Current President's Budget | 9.839 | 14.614 | 18.649 | 0.000 | 18.649 | | | | | | |
| Total Adjustments | -1.254 | -0.061 | 18.649 | 0.000 | 18.649 | | | | | | |
| • Congressional General Reductions | | -0.061 | | | | | | | | | |
| • Congressional Directed Reductions | | 0.000 | | | | | | | | | |
| • Congressional Rescissions | 0.000 | 0.000 | | | | | | | | | |
| • Congressional Adds | | 0.000 | | | | | | | | | |
| • Congressional Directed Transfers | | 0.000 | | | | | | | | | |
| • Reprogrammings | -0.921 | 0.000 | | | | | | | | | |
| • SBIR/STTR Transfer | -0.334 | 0.000 | | | | | | | | | |
| • Program Adjustments | 0.000 | 0.000 | 18.649 | 0.000 | 18.649 | | | | | | |
| • Rate/Misc Adjustments | 0.001 | 0.000 | 0.000 | 0.000 | 0.000 | | | | | | |
| Change Summary Explanation | | | | | | | | | | | |
| Technical: Not applicable. | | | | | | | | | | | |

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| Exhibit R-2, RDT&E Budget Item Justification: PB 2011 Navy | | DATE: February 2010 |
| APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 7: Operational Systems Development | R-1 ITEM NOMENCLATURE PE 0702207N: Depot Maintenance (NON-IF) | |
| <p>Schedule: 3030 F/A-18 SLAP schedule changes are due to schedule descriptions and events that have been updated to more accurately reflect the efforts of the SLAP Program.</p> <p>FY11 from previous President's Budget is shown as zero because no FY11-15 data was presented in President's Budget 2010.</p> | | |

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| Exhibit R-2A, RDT&E Project Justification: PB 2011 Navy | | | | | | | | DATE: February 2010 | | | |
| APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 7: <i>Operational Systems Development</i> | | | | R-1 ITEM NOMENCLATURE PE 0702207N: <i>Depot Maintenance (NON-IF)</i> | | | | PROJECT 3030: <i>FA-18 SLAP</i> | | | |
| COST (\$ in Millions) | FY 2009 Actual | FY 2010 Estimate | FY 2011 Base Estimate | FY 2011 OCO Estimate | FY 2011 Total Estimate | FY 2012 Estimate | FY 2013 Estimate | FY 2014 Estimate | FY 2015 Estimate | Cost To Complete | Total Cost |
| 3030: <i>FA-18 SLAP</i> | 5.547 | 13.631 | 18.649 | 0.000 | 18.649 | 21.257 | 15.487 | 21.803 | 20.020 | Continuing | Continuing |
| Quantity of RDT&E Articles | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| A. Mission Description and Budget Item Justification <p>The F/A-18E/F Service Life Assessment Program (SLAP) is assessing the structural condition of the F/A-18E/F fleet in order to determine what modifications are necessary to extend the aircraft designed life limits to allow it to achieve Chief of Naval Operations (CNO) inventory requirements. The goal of the SLAP program is to identify critical structures and components that can achieve the extended service life limit goals. An increase in total landings and flight hours would allow the F/A-18E/F to meet CNO inventory requirements, to include planning for the announced one year Joint Strike Fighter slide. This effort is required to be conducted for these airframes to ascertain what actions and modifications must be taken to safely operate each system beyond its designed life until the targeted end of service life.</p> | | | | | | | | | | | |
| B. Accomplishments/Planned Program (\$ in Millions) | | | | | | | | | | | |
| | | | | | | FY 2009 | FY 2010 | FY 2011 Base | FY 2011 OCO | FY 2011 Total | |
| FA-18 SLAP Funding supports assessing the structural condition of the F/A-18 fleet in order to determine what modifications are necessary to extend the aircraft designed life limits to allow it to achieve Chief of Naval Operations (CNO) inventory requirements. <i>FY 2009 Accomplishments:</i> Began analysis of numerous data points to provide exploitation of complete structural fatigue testing with the expectation of extending the current service life of F/A-18E/F flight hours from 6,000 to 9,000 hours. | | | | | | 5.547 | 13.631 | 18.649 | 0.000 | 18.649 | |

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| B. Accomplishments/Planned Program (\$ in Millions) | | | | | | | | | | | |
| | | | | | | FY 2009 | FY 2010 | FY 2011 Base | FY 2011 OCO | FY 2011 Total | |
| FY 2010 Plans: Continue analysis of numerous data points to provide exploitation of complete structural fatigue testing with the expectation of extending the current service life of F/A-18E/F flight hours from 6,000 to 9,000 hours. | | | | | | | | | | | |
| FY 2011 Base Plans: Continue analysis of numerous data points to provide exploitation of complete structural fatigue testing with the expectation of extending the current service life of F/A-18E/F flight hours from 6,000 to 9,000 hours. | | | | | | | | | | | |
| Accomplishments/Planned Programs Subtotals | | | | | | 5.547 | 13.631 | 18.649 | 0.000 | 18.649 | |
| C. Other Program Funding Summary (\$ in Millions) | | | | | | | | | | | |
| Line Item | FY 2009 | FY 2010 | FY 2011 Base | FY 2011 OCO | FY 2011 Total | FY 2012 | FY 2013 | FY 2014 | FY 2015 | Cost To Complete | Total Cost |
| • APN/0525: F-18 Series (OSIP 011-99) | 101.451 | 118.074 | 117.266 | 0.000 | 117.266 | 122.520 | 166.868 | 161.300 | 139.308 | 235.600 | 1,651.147 |
| D. Acquisition Strategy | | | | | | | | | | | |
| The Service Life Assessment Program (SLAP) program employs sole source contracts with Boeing, the aircraft prime manufacturer. SLAP consists of structural analyses of the main landing gear, arresting hook and catapult back-up structures, vertical tails, wings and fuselage. The current life limits for the F/A-18 E/F are 6,000FH, 2,250 Cat/Traps and 15,750 total landings. The F/A-18 E/F SLAP program of record states the SLAP goals as 12,000FH, 3,500 Cat/Traps and 22,500 total landings. The primary objective of F/A-18 E/F SLAP is to determine if the stated SLAP goals are feasible. These analyses will provide for the development of aircraft modifications necessary to extend total aircraft landings, catapults /arrestments, and flight hours. The F/A-18 E/F SLAP Program is broken into three phases: Phase A , Phase B, and Phase C. Completion of F/A-18 E/F Phase A will select, but not provide, the fatigue lives for the "Hot-Spots." Phase B of the F/A-18 E/F will provide the fatigue lives for all "Hot-Spots." Phase C will provide a set of fatigue lives for "Hot-Spots" across the entire fuselage and wing. Engineering Change Proposals (ECPs) generated by the SLAP analyses will be incorporated into the Service Life Management Program (SLMP) under OSIP (11-99). The program will consist of | | | | | | | | | | | |

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| exploitation of complete structural fatigue testing with the expectation of extending the current service life of the F/A-18E/F. Conducting F/A-18E/F SLAP to study the aircraft lifetime will provide a better estimate of aircraft service life and a follow on Service Life Extension Program (SLEP). | | |
| E. Performance Metrics The SLAP provides an assessment of aircraft structure fatigue life as affected by flight maneuver, catapults, arrestments and landings, based on actual usage and identifies the efforts required to extend the aircraft life to SLAP goals. During SLAP Phase A (FY08-FY12) tools and modeling necessary to assess usage and fatigue life are developed. During SLAP Phase B (FY11-FY13) specific structural locations which do not meet SLAP goals are identified and analyzed. Flight Control Surface and Subsystems SLAP is also initiated in Phase B. Retrofit concepts and repairs for deficient locations are developed during SLAP Phase C (FY13-FY17). SLAP is followed by the Service Life Extension Program (SLEP) during which the actual retrofit and repairs are undertaken. | | |

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| Exhibit R-3, RDT&E Project Cost Analysis: PB 2011 Navy | | | | | | | | | | | DATE: February 2010 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|------------------------|--------------------------------|------------------------|--|------------|--------------|------------|---|------------|---------------|----------------------------|------------|--------------------------|--------------------|------------------------|--------------------------------|------------------------|---------|--|--------------|--|-------------|--|---------------|------------------|------------|--------------------------|------|------------|------|------------|------|------------|------|----------------------------|---------|----------------------|--------|-------|--|-------|----------|-------|--|-------|-------|--------|------------|--------------------------|---------|----------------------|--------|--------|----------|--------|----------|-------|--|--------|--------|---------|---------|-----------------|--|--|--------|--------|--|--------|--|-------|--|--------|--------|---------|---------|
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| Product Development (\$ in Millions) <table border="1" style="width:100%; border-collapse: collapse; margin-top: 10px;"> <thead> <tr> <th rowspan="2">Cost Category Item</th> <th rowspan="2">Contract Method & Type</th> <th rowspan="2">Performing Activity & Location</th> <th rowspan="2">Total Prior Years Cost</th> <th colspan="2">FY 2010</th> <th colspan="2">FY 2011 Base</th> <th colspan="2">FY 2011 OCO</th> <th>FY 2011 Total</th> <th rowspan="2">Cost To Complete</th> <th rowspan="2">Total Cost</th> <th rowspan="2">Target Value of Contract</th> </tr> <tr> <th>Cost</th> <th>Award Date</th> <th>Cost</th> <th>Award Date</th> <th>Cost</th> <th>Award Date</th> <th>Cost</th> </tr> </thead> <tbody> <tr> <td>Prod Dev SLAP F/ A-18A-D</td> <td>SS/CPFF</td> <td>Boeing St. Louis, MO</td> <td align="right">28.775</td> <td align="right">0.000</td> <td></td> <td align="right">0.000</td> <td></td> <td align="right">0.000</td> <td></td> <td align="right">0.000</td> <td align="right">0.000</td> <td align="right">28.775</td> <td align="right">28.775</td> </tr> <tr> <td>Prod Dev SLAP F/ A-18E-F</td> <td>SS/CPFF</td> <td>Boeing St. Louis, MO</td> <td align="right">20.123</td> <td align="right">11.971</td> <td>Mar 2010</td> <td align="right">12.235</td> <td>Mar 2011</td> <td align="right">0.000</td> <td></td> <td align="right">12.235</td> <td align="right">55.800</td> <td align="right">100.129</td> <td align="right">100.129</td> </tr> <tr> <td align="right" colspan="3">Subtotal</td><td align="right">48.898</td><td align="right">11.971</td><td></td><td align="right">12.235</td><td></td><td align="right">0.000</td><td></td><td align="right">12.235</td><td align="right">55.800</td><td align="right">128.904</td><td align="right">128.904</td></tr> </tbody> </table> | | | | | | | | | | | | | | Cost Category Item | Contract Method & Type | Performing Activity & Location | Total Prior Years Cost | FY 2010 | | FY 2011 Base | | FY 2011 OCO | | FY 2011 Total | Cost To Complete | Total Cost | Target Value of Contract | Cost | Award Date | Cost | Award Date | Cost | Award Date | Cost | Prod Dev SLAP F/ A-18A-D | SS/CPFF | Boeing St. Louis, MO | 28.775 | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 28.775 | 28.775 | Prod Dev SLAP F/ A-18E-F | SS/CPFF | Boeing St. Louis, MO | 20.123 | 11.971 | Mar 2010 | 12.235 | Mar 2011 | 0.000 | | 12.235 | 55.800 | 100.129 | 100.129 | Subtotal | | | 48.898 | 11.971 | | 12.235 | | 0.000 | | 12.235 | 55.800 | 128.904 | 128.904 |
| Cost Category Item | Contract Method & Type | Performing Activity & Location | Total Prior Years Cost | FY 2010 | | FY 2011 Base | | FY 2011 OCO | | FY 2011 Total | Cost To Complete | Total Cost | Target Value of Contract | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | Cost | Award Date | Cost | Award Date | Cost | Award Date | Cost | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Prod Dev SLAP F/ A-18A-D | SS/CPFF | Boeing St. Louis, MO | 28.775 | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 28.775 | 28.775 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Prod Dev SLAP F/ A-18E-F | SS/CPFF | Boeing St. Louis, MO | 20.123 | 11.971 | Mar 2010 | 12.235 | Mar 2011 | 0.000 | | 12.235 | 55.800 | 100.129 | 100.129 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Subtotal | | | 48.898 | 11.971 | | 12.235 | | 0.000 | | 12.235 | 55.800 | 128.904 | 128.904 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Remarks | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Test and Evaluation (\$ in Millions) <table border="1" style="width:100%; border-collapse: collapse; margin-top: 10px;"> <thead> <tr> <th rowspan="2">Cost Category Item</th> <th rowspan="2">Contract Method & Type</th> <th rowspan="2">Performing Activity & Location</th> <th rowspan="2">Total Prior Years Cost</th> <th colspan="2">FY 2010</th> <th colspan="2">FY 2011 Base</th> <th colspan="2">FY 2011 OCO</th> <th>FY 2011 Total</th> <th rowspan="2">Cost To Complete</th> <th rowspan="2">Total Cost</th> <th rowspan="2">Target Value of Contract</th> </tr> <tr> <th>Cost</th> <th>Award Date</th> <th>Cost</th> <th>Award Date</th> <th>Cost</th> <th>Award Date</th> <th>Cost</th> </tr> </thead> <tbody> <tr> <td>Dev Test & Eval - SLAP E/F</td> <td>WR</td> <td>NAWCAD Pax River, MD</td> <td align="right">0.000</td> <td align="right">0.000</td> <td></td> <td align="right">0.500</td> <td>Jan 2011</td> <td align="right">0.000</td> <td></td> <td align="right">0.500</td> <td align="right">0.500</td> <td align="right">1.000</td> <td>Continuing</td> </tr> <tr> <td align="right" colspan="3">Subtotal</td><td align="right">0.000</td><td align="right">0.000</td><td></td><td align="right">0.500</td><td></td><td align="right">0.000</td><td></td><td align="right">0.500</td><td align="right">0.500</td><td align="right">1.000</td><td></td></tr> </tbody> </table> | | | | | | | | | | | | | | Cost Category Item | Contract Method & Type | Performing Activity & Location | Total Prior Years Cost | FY 2010 | | FY 2011 Base | | FY 2011 OCO | | FY 2011 Total | Cost To Complete | Total Cost | Target Value of Contract | Cost | Award Date | Cost | Award Date | Cost | Award Date | Cost | Dev Test & Eval - SLAP E/F | WR | NAWCAD Pax River, MD | 0.000 | 0.000 | | 0.500 | Jan 2011 | 0.000 | | 0.500 | 0.500 | 1.000 | Continuing | Subtotal | | | 0.000 | 0.000 | | 0.500 | | 0.000 | | 0.500 | 0.500 | 1.000 | | | | | | | | | | | | | | | |
| Cost Category Item | Contract Method & Type | Performing Activity & Location | Total Prior Years Cost | FY 2010 | | FY 2011 Base | | FY 2011 OCO | | FY 2011 Total | Cost To Complete | Total Cost | Target Value of Contract | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | Cost | Award Date | Cost | Award Date | Cost | Award Date | Cost | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Dev Test & Eval - SLAP E/F | WR | NAWCAD Pax River, MD | 0.000 | 0.000 | | 0.500 | Jan 2011 | 0.000 | | 0.500 | 0.500 | 1.000 | Continuing | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Subtotal | | | 0.000 | 0.000 | | 0.500 | | 0.000 | | 0.500 | 0.500 | 1.000 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| Management Services (\$ in Millions) <table border="1" style="width:100%; border-collapse: collapse; margin-top: 10px;"> <thead> <tr> <th rowspan="2">Cost Category Item</th> <th rowspan="2">Contract Method & Type</th> <th rowspan="2">Performing Activity & Location</th> <th rowspan="2">Total Prior Years Cost</th> <th colspan="2">FY 2010</th> <th colspan="2">FY 2011 Base</th> <th colspan="2">FY 2011 OCO</th> <th>FY 2011 Total</th> <th rowspan="2">Cost To Complete</th> <th rowspan="2">Total Cost</th> <th rowspan="2">Target Value of Contract</th> </tr> <tr> <th>Cost</th> <th>Award Date</th> <th>Cost</th> <th>Award Date</th> <th>Cost</th> <th>Award Date</th> <th>Cost</th> </tr> </thead> <tbody> <tr> <td>Govt ETS SLAP F/A-18 E/F</td> <td>WR</td> <td>NAWCAD Pax River, MD</td> <td align="right">2.289</td> <td align="right">0.758</td> <td>Dec 2009</td> <td align="right">0.641</td> <td>Dec 2010</td> <td align="right">0.000</td> <td></td> <td align="right">0.641</td> <td align="right">2.911</td> <td align="right">6.599</td> <td>Continuing</td> </tr> <tr> <td>Govt ETS SLAP F/A-18 E/F</td> <td>WR</td> <td>FRC North Island, CA</td> <td align="right">1.020</td> <td align="right">0.902</td> <td>Dec 2009</td> <td align="right">5.273</td> <td>Dec 2010</td> <td align="right">0.000</td> <td></td> <td align="right">5.273</td> <td align="right">22.841</td> <td align="right">30.036</td> <td>Continuing</td> </tr> <tr> <td align="right" colspan="3">Subtotal</td> <td align="right">3.309</td> <td align="right">1.660</td> <td></td> <td align="right">5.914</td> <td></td> <td align="right">0.000</td> <td></td> <td align="right">5.914</td> <td align="right">25.752</td> <td align="right">36.635</td> <td></td> </tr> </tbody> </table> | | | | | | | | | | | | | | Cost Category Item | Contract Method & Type | Performing Activity & Location | Total Prior Years Cost | FY 2010 | | FY 2011 Base | | FY 2011 OCO | | FY 2011 Total | Cost To Complete | Total Cost | Target Value of Contract | Cost | Award Date | Cost | Award Date | Cost | Award Date | Cost | Govt ETS SLAP F/A-18 E/F | WR | NAWCAD Pax River, MD | 2.289 | 0.758 | Dec 2009 | 0.641 | Dec 2010 | 0.000 | | 0.641 | 2.911 | 6.599 | Continuing | Govt ETS SLAP F/A-18 E/F | WR | FRC North Island, CA | 1.020 | 0.902 | Dec 2009 | 5.273 | Dec 2010 | 0.000 | | 5.273 | 22.841 | 30.036 | Continuing | Subtotal | | | 3.309 | 1.660 | | 5.914 | | 0.000 | | 5.914 | 25.752 | 36.635 | |
| Cost Category Item | Contract Method & Type | Performing Activity & Location | Total Prior Years Cost | FY 2010 | | FY 2011 Base | | FY 2011 OCO | | FY 2011 Total | Cost To Complete | Total Cost | Target Value of Contract | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | Cost | Award Date | Cost | Award Date | Cost | Award Date | Cost | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Govt ETS SLAP F/A-18 E/F | WR | NAWCAD Pax River, MD | 2.289 | 0.758 | Dec 2009 | 0.641 | Dec 2010 | 0.000 | | 0.641 | 2.911 | 6.599 | Continuing | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Govt ETS SLAP F/A-18 E/F | WR | FRC North Island, CA | 1.020 | 0.902 | Dec 2009 | 5.273 | Dec 2010 | 0.000 | | 5.273 | 22.841 | 30.036 | Continuing | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Subtotal | | | 3.309 | 1.660 | | 5.914 | | 0.000 | | 5.914 | 25.752 | 36.635 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Remarks | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <table border="1" style="width:100%; border-collapse: collapse; margin-top: 10px;"> <thead> <tr> <th rowspan="2">Project Cost Totals</th> <th rowspan="2">Total Prior Years Cost</th> <th colspan="2">FY 2010</th> <th colspan="2">FY 2011 Base</th> <th colspan="2">FY 2011 OCO</th> <th>FY 2011 Total</th> <th rowspan="2">Cost To Complete</th> <th rowspan="2">Total Cost</th> <th rowspan="2">Target Value of Contract</th> </tr> <tr> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> </tr> </thead> <tbody> <tr> <td align="right">Project Cost Totals</td> <td align="right">52.207</td> <td align="right">13.631</td> <td></td> <td align="right">18.649</td> <td></td> <td align="right">0.000</td> <td></td> <td align="right">18.649</td> <td align="right">82.052</td> <td align="right">166.539</td> <td align="right">128.904</td> </tr> </tbody> </table> | | | | | | | | | | | | | | Project Cost Totals | Total Prior Years Cost | FY 2010 | | FY 2011 Base | | FY 2011 OCO | | FY 2011 Total | Cost To Complete | Total Cost | Target Value of Contract | | | | | | | Project Cost Totals | 52.207 | 13.631 | | 18.649 | | 0.000 | | 18.649 | 82.052 | 166.539 | 128.904 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Project Cost Totals | Total Prior Years Cost | FY 2010 | | FY 2011 Base | | FY 2011 OCO | | FY 2011 Total | Cost To Complete | Total Cost | Target Value of Contract | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| Project Cost Totals | 52.207 | 13.631 | | 18.649 | | 0.000 | | 18.649 | 82.052 | 166.539 | 128.904 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Remarks | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

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|--|--|------|---|---|---|------|---|---|---|------|---|---|---|--|---|---|---|---------------------|---|---|---|------|---|---|---|------|---|---|---|--|--|--|--|
| Exhibit R-4, RDT&E Schedule Profile: PB 2011 Navy | | | | | | | | | | | | | | | | | | DATE: February 2010 | | | | | | | | | | | | | | | |
| APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 7: Operational Systems Development | | | | | | | | | | | | | | R-1 ITEM NOMENCLATURE PE 0702207N: Depot Maintenance (NON-IF) | | | | | | | | | | PROJECT 3030: FA-18 SLAP | | | | | | | | | |
| APPROPRIATION/BUDGET ACTIVITY 1319 RDT&E, N / BA-7 Operational System Development | | | | | | | | | | | | | | PROGRAM ELEMENT NUMBER AND NAME 0702207N Depot Maintenance (NON-IF) | | | | | | | | | | PROJECT NUMBER AND NAME 3030 F/A-18 SLAP | | | | | | | | | |
| Fiscal Year | | 2009 | | | | 2010 | | | | 2011 | | | | 2012 | | | | 2013 | | | | 2014 | | | | 2015 | | | | | | | |
| | | 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 | | | | |
| Contract Award Phase A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1.1 E/F SLAP Spectrum Development | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1.2 Flight/Ground Loads (FEM) Development | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1.3 Spectrum Generation/Lifing | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1.4 Fatigue Loads Development | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1.5 Hot Spot Selection | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1.6 Flight Control Systems and Subsystems Methodology Development | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2.0 Phase B | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3.0 Phase C | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

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| Exhibit R-4A, RDT&E Schedule Details: PB 2011 Navy | | | DATE: February 2010 |
| APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 7: <i>Operational Systems Development</i> | R-1 ITEM NOMENCLATURE PE 0702207N: <i>Depot Maintenance (NON-IF)</i> | PROJECT 3030: <i>FA-18 SLAP</i> | |

Schedule Details

| Event | Start | | End | |
|---|----------------|-------------|----------------|-------------|
| | Quarter | Year | Quarter | Year |
| 1.1 E/F SLAP Spectrum Development | 1 | 2009 | 2 | 2011 |
| 1.2 Flight/Ground Loads (FEM) Development | 1 | 2010 | 3 | 2011 |
| 1.3 Spectrum Generation/Lifing | 3 | 2009 | 3 | 2012 |
| 1.4 Fatigue Loads Development | 1 | 2009 | 2 | 2011 |
| 1.5 Hot Spot Selection | 1 | 2009 | 3 | 2012 |
| 1.6 Flight Control System and Subsystem Methodology Development | 1 | 2009 | 4 | 2009 |
| 2.0 Phase B | 1 | 2011 | 2 | 2013 |
| 3.0 Phase C | 3 | 2011 | 3 | 2015 |

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| Exhibit R-2A, RDT&E Project Justification: PB 2011 Navy | | | | | | | | DATE: February 2010 | | | |
| APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 7: <i>Operational Systems Development</i> | | | | R-1 ITEM NOMENCLATURE PE 0702207N: <i>Depot Maintenance (NON-IF)</i> | | | | PROJECT 3182: <i>T-45 SLAP</i> | | | |
| COST (\$ in Millions) | FY 2009 Actual | FY 2010 Estimate | FY 2011 Base Estimate | FY 2011 OCO Estimate | FY 2011 Total Estimate | FY 2012 Estimate | FY 2013 Estimate | FY 2014 Estimate | FY 2015 Estimate | Cost To Complete | Total Cost |
| 3182: <i>T-45 SLAP</i> | 4.292 | 0.983 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 8.345 |
| Quantity of RDT&E Articles | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |

A. Mission Description and Budget Item Justification

The T-45 Service Life Assessment Program (SLAP) is assessing the structural condition of the T-45 fleet in order to determine structural modifications necessary to extend the aircraft designed service life to support Pilot Training Requirements (PTR) and Naval Flight Officer Training Requirements (NTR) until 2021. The T-45 aircraft structure is currently fatigue limited to 14,400 flight hours based on initial full-scale fatigue tests conducted from 1992-1996. This service life limit prevents the T-45 fleet from meeting PTR/NTR requirements past 2016. Recent studies have determined that the fleet squadrons have not been flying the T-45 aircraft as aggressively as the initial fatigue studies predicted. These studies demonstrate that the 14,400 flight hour service life can likely be extended to 21,600 flight hours, which will support meeting PTR/NTR until 2021. A T-45 Service Life Assessment Program (SLAP) is required to assess the critical areas within the structure that require modifications to achieve a 21,600 flight hour service life. This assessment will be based on the updated fleet aircraft usage spectrum and future predicted training missions of the T-45 aircraft. The assessment will address critical structural areas that are either landing and/or flight hour limited. To maintain PTR/NTR beyond 2021, analysis and studies will be conducted to outline improvements, assess manufacturing capabilities and develop specifications for future trainer aircraft.

B. Accomplishments/Planned Program (\$ in Millions)

| | FY 2009 | FY 2010 | FY 2011 Base | FY 2011 OCO | FY 2011 Total |
|---|----------------|----------------|-------------------------|------------------------|--------------------------|
| T-45 SLAP | 4.292 | 0.983 | 0.000 | 0.000 | 0.000 |
| <i>FY 2009 Accomplishments:</i> Analyzed structural critical areas requiring modification to increase service life from 14,400 flight hours to 21,600 flight hours. | | | | | |
| <i>FY 2010 Plans:</i> Build/Publish results in three separate reports (Updated Finite Element Model report, SLAP Internal Loads Methodology report, and SLAP Fatigue Analysis report). | | | | | |
| Accomplishments/Planned Programs Subtotals | 4.292 | 0.983 | 0.000 | 0.000 | 0.000 |

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| Exhibit R-2A, RDT&E Project Justification: PB 2011 Navy | | DATE: February 2010 |
| APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 7: <i>Operational Systems Development</i> | R-1 ITEM NOMENCLATURE PE 0702207N: <i>Depot Maintenance (NON-IF)</i> | PROJECT 3182: <i>T-45 SLAP</i> |
| <p><u>C. Other Program Funding Summary (\$ in Millions)</u> N/A</p> <p><u>D. Acquisition Strategy</u> The Service Life Assessment Program (SLAP) is a sole source contract effort with Boeing, the aircraft prime contractor. SLAP consists of structural analyses of landing gear, arresting hook and catapult back-up structure, vertical tail, wings and fuselage. These analyses will facilitate the future development of aircraft modifications necessary to extend the total aircraft service life from 14,400 to 21,600 flight hours.</p> <p><u>E. Performance Metrics</u> SLAP provides an assessment of aircraft structure fatigue life as affected by flight maneuver, catapults, arrestments and landings, based on actual usage and identifies the efforts required to extend the aircraft life to SLAP goals. Effort delineates tasking incrementally to include; Tools and modeling necessary to assess usage and fatigue life are developed, specific structural locations which do not meet SLAP goals are identified and analyzed. Retrofit concepts and repairs for deficient locations are developed, followed by the Service Life Extension Program (SLEP) during which the actual retrofit and repairs are undertaken.</p> | | |

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