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| EXHIBIT R-2, RDT&E Budget Item Justification   |                  |  |         |         |         |  | DATE: <b>February 2002</b> |         |         |                  |               |
|--|------------------|--|---------|---------|---------|--|----------------------------|---------|---------|------------------|---------------|
| APPROPRIATION/BUDGET ACTIVITY<br><b>RESEARCH DEVELOPMENT TEST &amp; EVALUATION, NAVY / BA-4</b>  |                  |  |         |         |         | R-1 ITEM NOMENCLATURE<br>0603261N Tactical Airborne Reconnaissance |                            |         |         |                  |               |
| COST (\$ in Millions)  | Prior Years Cost |  | FY 2001 | FY 2002 | FY 2003 | FY 2004  | FY 2005                    | FY 2006 | FY 2007 | Cost to Complete | Total Program |
| Total PE Cost  |                  |  | 2.334*  | 1.934   | 1.922   | 1.921  | 11.493                     | 11.517  | 11.545  | Continuing       | Continuing    |
| A2467 UAV CONOPS   |                  |  | 2.334*  | 1.934   | 1.922   | 1.921  | 11.493                     | 11.517  | 11.545  | Continuing       | Continuing    |
| Quantity of RDT&E Articles   | Not Applicable   |  |         |         |         |  |                            |         |         |                  |               |
| <p>* The FY 01 budget reflects a \$0.400M Congressional Add for spares procurement for the Predator exected under A2851, which has been decreased by \$0.003M for Congressional Reductions.</p> <p>(U) A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: This program provides for the development of studies, analyses and demonstrations for Unmanned Aerial Vehicle (UAV) concept of operation (CONOP) development. UAV CONOPS Research: The efforts supported under this program provide studies of CONOPS for UAV integration into USN Battlespace Dominance Operations. CONOPS research will evaluate the roles UAV's play in network centric warfare, sensor-to-shooter, and time critical strike (TCS). Areas of interest include the joint utility Global Hawk (LVL II-IV) integration into carrier battle group operations. The lessons learned from this research directly support the development of DoN requirements for UAVs.</p> <p>(U) JUSTIFICATION FOR BUDGET ACTIVITY: This program is funded under DEMONSTRATION &amp; VALIDATION because it develops and integrates hardware for experimental test related to specific ship or aircraft applications.</p> |                  |  |         |         |         |  |                            |         |         |                  |               |

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| EXHIBIT R-2a, RDT&E Project Justification  |   |  |         |         |         |                           |         | DATE: <b>February 2002</b> |         |                  |               |
|--|---|--|---------|---------|---------|---------------------------|---------|----------------------------|---------|------------------|---------------|
| APPROPRIATION/BUDGET ACTIVITY  | PROGRAM ELEMENT NUMBER AND NAME           |  |         |         |         | PROJECT NUMBER AND NAME   |         |                            |         |                  |               |
| <b>RDT&amp;E, N / BA-4</b>   | 0603261N Tactical Airborne Reconnaissance |  |         |         |         | A2467 UAV CONOPS Research |         |                            |         |                  |               |
| COST (\$ in Millions)  | Prior Years Cost                          |  | FY 2001 | FY 2002 | FY 2003 | FY 2004                   | FY 2005 | FY 2006                    | FY 2007 | Cost to Complete | Total Program |
| Project Cost   |   |  | 2.334   | 1.934   | 1.922   | 1.921                     | 11.493  | 11.517                     | 11.545  | Continuing       | Continuing    |
| RDT&E Articles Qty   | Not Applicable                            |  |         |         |         |                           |         |                            |         |                  |               |
| <p>* The FY 01 budget reflects a \$0.400M Congressional Add for spares procurement for the Predator executed under A2851; which has been decreased by \$0.003M for Congressional Reductions.</p> <p>(U) A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: This program provides funding for concept of operations (CONOPS) development, research and studies in the integration of Unmanned Aerial Vehicles (UAVs) into Naval Strike Warfare. The efforts supported under this program provide studies of CONOPS for UAV integration into USN Battlespace Dominance Operations. Specifically, the CONOPS research will evaluate the roles UAV's play in network centric warfare, sensor-to-shooter, and time critical strike. Areas of interest include the joint utility of Global Hawk (LVL II-IV) and Predator (LVL IV) integration into carrier battle group operations.</p> <p>(U) PROGRAM ACCOMPLISHMENTS AND PLANS:</p> <p>1. FY 2001 ACCOMPLISHMENTS:</p> <ul style="list-style-type: none"> <li>- (U) (\$1.937) Developed CONOPS via integration of Navy, Predator and Pioneer assets into three Carrier Airwing Deployments (CVW-1, CVW-9, and CVW-7) exploring UAV employment in the mission areas of Overland Strike, Close Air Support, Expeditionary Operations, Combat Search and Rescue, and Non-Combatant Evacuation Operations. Provided Navy Predator and the Center for Interdisciplinary Remotely Piloted Aircraft Studies (CIRPAS) support for UAV CONOPS efforts in two Naval Warfare Development Center sponsored tactical development exercises: Decisive Suppression Enemy Air Defense (SEAD) and "UAV Operations in Support of Battlespace Dominance." Provided essential input to Navy UAV program planning via the Naval UAV Executive Steering Group and UCAV-N Science &amp; Technology demo activities.</li> <li>- (U) (\$0.397) Predator Spares Buy.</li> </ul> <p>2. FY 2002 PLANS:</p> <ul style="list-style-type: none"> <li>- (U) (\$1.934) Continue studies and demonstrations for CONOPS development into Naval Strike Warfare.</li> </ul> <p>3. FY 2003 PLANS:</p> <ul style="list-style-type: none"> <li>- (U) (\$1.922) Continue studies and demonstrations for CONOPS development into Naval Strike Warfare.</li> </ul> |   |  |         |         |         |                           |         |                            |         |                  |               |

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| EXHIBIT R-2a, RDT&E Project Justification   |  | DATE:<br><b>February 2002</b>                        |               |               |               |               |                                 |       |       |  |  |       |       |  |                                       |       |       |       |
|---|--|--|---------------|---------------|---------------|---------------|---------------------------------|-------|-------|--|--|-------|-------|--|---------------------------------------|-------|-------|-------|
| APPROPRIATION/BUDGET ACTIVITY<br><b>RDT&amp;E, N / BA - 4</b>   | PROGRAM ELEMENT NUMBER AND NAME<br>0603261N Tactical Airborne Reconnaissance | PROJECT NUMBER AND NAME<br>A2467 UAV CONOPS Research |               |               |               |               |                                 |       |       |  |  |       |       |  |                                       |       |       |       |
| <p>(U) B. PROGRAM CHANGE SUMMARY:</p> <table style="margin-left: auto; margin-right: auto; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;"></th> <th style="text-align: center; border-bottom: 1px solid black;"><u>FY2001</u></th> <th style="text-align: center; border-bottom: 1px solid black;"><u>FY2002</u></th> <th style="text-align: center; border-bottom: 1px solid black;"><u>FY2003</u></th> </tr> </thead> <tbody> <tr> <td style="padding-left: 20px;">(U) FY 2002 President's Budget:</td> <td style="text-align: center;">2.332</td> <td style="text-align: center;">1.934</td> <td></td> </tr> <tr> <td style="padding-left: 20px;">(U) Adjustments from the FY 2002 President's Budget:</td> <td style="text-align: center;">0.002</td> <td style="text-align: center;">0.000</td> <td></td> </tr> <tr> <td style="padding-left: 20px;">(U) FY2003 President's Budget Submit:</td> <td style="text-align: center;">2.334</td> <td style="text-align: center;">1.934</td> <td style="text-align: center;">1.922</td> </tr> </tbody> </table> <p style="margin-top: 20px;">CHANGE SUMMARY EXPLANATION:</p> <p style="margin-left: 40px;">(U) Funding: FY 2001 net increase of \$0.002 million for CONOPS Studies .</p> <p style="margin-left: 40px;">(U) Schedule: N/A</p> <p style="margin-left: 40px;">(U) Technical: N/A</p> <p style="margin-top: 40px;">(U) C. OTHER PROGRAM FUNDING SUMMARY: N/A</p> <p style="margin-top: 10px;">(U) D. ACQUISITION STRATEGY: N/A</p> <p style="margin-top: 10px;">(U) E. SCHEDULE PROFILE: N/A</p> |  |  |               | <u>FY2001</u> | <u>FY2002</u> | <u>FY2003</u> | (U) FY 2002 President's Budget: | 2.332 | 1.934 |  | (U) Adjustments from the FY 2002 President's Budget: | 0.002 | 0.000 |  | (U) FY2003 President's Budget Submit: | 2.334 | 1.934 | 1.922 |
|   | <u>FY2001</u>  | <u>FY2002</u>  | <u>FY2003</u> |               |               |               |                                 |       |       |  |  |       |       |  |                                       |       |       |       |
| (U) FY 2002 President's Budget:   | 2.332  | 1.934  |               |               |               |               |                                 |       |       |  |  |       |       |  |                                       |       |       |       |
| (U) Adjustments from the FY 2002 President's Budget:  | 0.002  | 0.000  |               |               |               |               |                                 |       |       |  |  |       |       |  |                                       |       |       |       |
| (U) FY2003 President's Budget Submit:   | 2.334  | 1.934  | 1.922         |               |               |               |                                 |       |       |  |  |       |       |  |                                       |       |       |       |

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**Exhibit R-2a, RDTEN Project Justification**  
(Exhibit R-2a, page 3 of 5)

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| Exhibit R-3 Cost Analysis (page 1)                                 |                        |                                |  |            |                  |  |                  |            |                  | DATE: <b>February 2002</b> |            |                          |
|--|------------------------|--------------------------------|--|------------|------------------|--|------------------|------------|------------------|----------------------------|------------|--------------------------|
| APPROPRIATION/BUDGET ACTIVITY<br><b>RDT&amp;E, N / BA-4</b>        |                        |                                | PROGRAM ELEMENT<br>0603261N Tactical Airborne Reconnaissance |            |                  | PROJECT NUMBER AND NAME<br>A2467 UAV CONOPS Research |                  |            |                  |                            |            |                          |
| Cost Categories  | Contract Method & Type | Performing Activity & Location | Total PY s Cost  | FY 01 Cost | FY 01 Award Date | FY 02 Cost   | FY 02 Award Date | FY 03 Cost | FY 03 Award Date | Cost to Complete           | Total Cost | Target Value of Contract |
| CONOPS Development   | WX                     | NSAWC, Fallon Nevada           | 1.956  | 1.937      | 11/00            | 1.934  | 12/01            | 1.922      | 12/02            | Continuing                 | Continuing |                          |
| Predator Spares *  | WX                     | NPGS Monterey, CA              |  | 0.397      | 02/01            |  |                  |            |                  |                            | 0.397      |                          |
| Subtotal Product Development                                       |                        |                                | 1.956  | 2.334      |                  | 1.934  |                  | 1.922      |                  | Continuing                 | Continuing |                          |
| Remarks: * Congressional Add for Spares procurement for Predators. |                        |                                |  |            |                  |  |                  |            |                  |                            |            |                          |
| Subtotal Support   |                        |                                |  |            |                  |  |                  |            |                  |                            |            |                          |
| Remarks:   |                        |                                |  |            |                  |  |                  |            |                  |                            |            |                          |

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| Exhibit R-3 Cost Analysis (page 2)                          |                        |                                |  |            |                  |  |                  |            |                  | DATE: <b>February 2002</b> |            |                          |
|---|------------------------|--------------------------------|--|------------|------------------|--|------------------|------------|------------------|----------------------------|------------|--------------------------|
| APPROPRIATION/BUDGET ACTIVITY<br><b>RDT&amp;E, N / BA-4</b> |                        |                                | PROGRAM ELEMENT<br>0603261N Tactical Airborne Reconnaissance |            |                  | PROJECT NUMBER AND NAME<br>A2467 UAV CONOPS Research |                  |            |                  |                            |            |                          |
| Cost Categories   | Contract Method & Type | Performing Activity & Location | Total PY s Cost  | FY 01 Cost | FY 01 Award Date | FY 02 Cost   | FY 02 Award Date | FY 03 Cost | FY 03 Award Date | Cost to Complete           | Total Cost | Target Value of Contract |
|   |                        |                                |  |            |                  |  |                  |            |                  |                            |            |                          |
|   |                        |                                |  |            |                  |  |                  |            |                  |                            |            |                          |
|   |                        |                                |  |            |                  |  |                  |            |                  |                            |            |                          |
| Subtotal T&E  |                        |                                |  |            |                  |  |                  |            |                  |                            |            |                          |
| Remarks:  |                        |                                |  |            |                  |  |                  |            |                  |                            |            |                          |
| Government Engineering Support                              |                        |                                |  |            |                  |  |                  |            |                  |                            |            |                          |
|   |                        |                                |  |            |                  |  |                  |            |                  |                            |            |                          |
|   |                        |                                |  |            |                  |  |                  |            |                  |                            |            |                          |
|   |                        |                                |  |            |                  |  |                  |            |                  |                            |            |                          |
|   |                        |                                |  |            |                  |  |                  |            |                  |                            |            |                          |
| Subtotal Management   |                        |                                |  |            |                  |  |                  |            |                  |                            |            |                          |
| Remarks:  |                        |                                |  |            |                  |  |                  |            |                  |                            |            |                          |
| Total Cost  |                        |                                | 1.956  | 2.334      |                  | 1.934  |                  | 1.922      |                  | Continuing                 | Continuing |                          |
| Remarks:  |                        |                                |  |            |                  |  |                  |            |                  |                            |            |                          |

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