| CLASSIFICATION:                                |         |         |                                   |         |         |               |         |
|--|---------|---------|-----------------------------------|---------|---------|---------------|---------|
| EXHIBIT R-2, RDT&E Budget Item Justification   |         |         |                                   |         | DATE:   | February 2006 |         |
| APPROPRIATION/BUDGET ACTIVITY                  |         |         | R-1 ITEM NOMEN<br>PE 0304785N Tac |         | •       |               |         |
| RESEARCH DEVELOPMENT TEST & EVALUATION, NAVY / | BA 5    |         |                                   |         |         |               |         |
| COST (\$ in Millions)                          | FY 2005 | FY 2006 | FY 2007                           | FY 2008 | FY 2009 | FY 2010       | FY 2011 |
| Total PE Cost                                  |         |         | 23.526                            | 18.379  | 17.676  | 15.688        | 16.059  |
| 2134/SHIPBOARD IW EXPLOIT                      |         |         | 20.522                            | 15.378  | 15.675  | 15.688        | 16.059  |
| 3165/AUTOMATIC IDENTIFICATION SYSTEM (AIS)     |         |         | 3.004                             | 3.001   | 2.001   |               |         |
| Quantity of RDT&E Articles                     |         |         |                                   |         |         |               |         |

Shipboard IW migrates from PE 0604721N (Battle Group Passive Horizon Extension System) beginning FY07.

#### U) A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

The Shipboard Information Warfare (IW) line includes the following programs: Ships Signal Exploitation Equipment (SSEE), the Program of Record that executes the Maritime Cryptologic Systems for the 21st Century (MCS 21) and Communications Data Link System (CDLS) the Program of Record that implements the DoD mandated use of the Common Data Link waveform to downlink un-processed IMINIT (Imagery Intelligence). These systems provide the Battle Group with real time Indications and Warnings (I&W) by acquisition and localization of signals of interest (SOI). This program's funding is required to incorporate new commercial off-the-shelf (COTS) based technologies and software into the existing systems. The funding will focus on merging the current IW sensor systems into a scalable sensor package that can be tailored to different ship types and be compliant with the Maritime Cryptologic Architecture.

Automatic Identification System (AIS) is an International Maritime VHF Communication system that allows any ship to exchange information (machine to machine) on Navigation (Position, Course, Speed, etc), Ship Info (Ship Name, Call Sign, Length/Beam), Cargo Info (Draft, Type, Destination, Route, ETA), and Messaging (Safety, Text). This technology will improve capability in three diverse areas: (a) Situational Awareness/Common Operational Picture (COP) (b) Navigation/Safety of Ship and (c) Other intelligence gathering/correlation. RDT&E will fund the integration of Commercial off-the-shelf (COTS) AIS equipment into the existing Global Command and Control-Maritime (GCCS-M)/COP, Navigation Sensor System Interface (NAVSSI) navigation and bridge capabilities surface search / weapons systems and intelligence / cryptologic capabilities in support of AIS Phase 2 procurement efforts.

### CLASSIFICATION:

| IT R-2, RDT&E Budget Item Justification                 |         |         |         | DATE:                                    |
|---|---------|---------|---------|--|
|   |         |         |         | February 2006                            |
| PRIATION/BUDGET ACTIVITY                                |         |         |         | R-1 ITEM NOMENCLATURE                    |
|   |         |         |         | PE 0304785N Tactical Cryptologic Systems |
| EARCH DEVELOPMENT TEST & EVALUATION, NAVY /             | BA5     |         |         |  |
| EARCH DEVELOT MENT TEST & EVALUATION, NAVI 7            | BAO     |         |         |  |
| (U) B. PROGRAM CHANGE SUMMARY:                          |         |         |         |  |
| (U) Funding:  | FY 2005 | FY 2006 | FY 2007 |  |
| FY2006 President's Budget                               | 0       | 0       | 0       |  |
| FY2007 President's Budget                               | 0       | 0       | 23.526  |  |
| Total Adjustments                                       | 0.000   | 0.000   | 23.526  |  |
| Summary of Adjustments                                  |         |         |         |  |
| Realigns Shipboard IW Exploit R&D project to correct PE |         |         | 22.186  |  |
| FORCEnet AIS  |         |         | 3.000   |  |
| Contract Support Reduction                              |         |         | -1.746  |  |
| NWCF Civpers Efficiencies                               |         |         | -0.048  |  |
| Inflation Adjustment                                    |         |         | 0.099   |  |
| Fuel Price Adjustments                                  |         |         | 0.002   |  |
| Civpers Pay Raise Rate Change                           |         |         | 0.033   |  |
| Subtotal  | 0.000   | 0.000   | 23.526  |  |
|   |         |         |         |  |
|   |         |         |         |  |
|   |         |         |         |  |
|   |         |         |         |  |
|   |         |         |         |  |
|   |         |         |         |  |
|   |         |         |         |  |
|   |         |         |         |  |
| (U) Schedule:   |         |         |         |  |
| Not Applicable.   |         |         |         |  |
|   |         |         |         |  |
|   |         |         |         |  |
|   |         |         |         |  |
|   |         |         |         |  |
|   |         |         |         |  |
| (II) Technical  |         |         |         |  |
| (U) Technical:  |         |         |         |  |
| Not Applicable.   |         |         |         |  |
|   |         |         |         |  |
|   |         |         |         |  |
|   |         |         |         |  |

| CLASSIFICATION:                                |                   |                                     |         |         |         |                                 |         |                        |  |
|--|-------------------|-------------------------------------|---------|---------|---------|---------------------------------|---------|------------------------|--|
| EXHIBIT R-2a, RDT&E Project Justification      |                   |                                     |         |         |         |                                 |         | DATE:<br>February 2006 |  |
| APPROPRIATION/BUDGET ACTIVITY  RDT&E, N / BA-5 | PE 0304785N Tacti | PROGRAM ELEM<br>cal Cryptologic Sys |         | ND NAME |         | PROJECT NUMBI<br>2134/SHIPBOARD |         |                        |  |
| COST (\$ in Millions)                          |                   | FY 2005                             | FY 2006 | FY 2007 | FY 2008 | FY 2009                         | FY 2010 | FY 2011                |  |
| Project Cost                                   |                   | 0.000                               | 0.000   | 20.522  | 15.378  | 15.675                          | 15.688  | 16.059                 |  |
| RDT&E Articles Qty                             |                   |                                     |         |         |         |                                 |         |                        |  |

#### (U) A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

The Shipboard Information Warfare line includes the following programs: Ships Signal Exploitation Equipment (SSEE), the Program of Record that executes the Maritime Cryptologic Systems for the 21st Century (MCS 21) and Communications Data Link System (CDLS) the Program of Record that implements the DoD mandated use of the Common Data Link waveform to downlink un-processed IMINIT (Imagery Intelligence). These systems provide the Battle Group with real time Indications and Warnings (I & W) by acquisition and localization of signals of interest (SOI). This program's funding is required to incorporate new commercial off-the-shelf (COTS) based technologies and software into the existing systems. The funding will focus on merging the current IW sensor systems into a scalable sensor package that can be tailored to different ship types and be compliant with the Maritime Cryptologic Architecture.

## CLASSIFICATION:

|  | ion                               |                        |                       | DATE:   |                                |
|--|-----------------------------------|------------------------|-----------------------|---------|--------------------------------|
|  |                                   |                        |                       |         | February 2006                  |
| PROPRIATION/BUDGET ACTIVITY                  | PROGRAM ELEMENT NUMBER            | R AND NAME             | PROJECT NUMBER AN     | ID NAME |                                |
|  | PE 0304785N Tactical Cryptolog    | ic Systems             |                       |         |                                |
| DT&E, N / BA 5                               |                                   |                        | 2134/SHIPBOARD IW E   | XPLOIT  |                                |
| B. Accomplishments/Planned Program           |                                   |                        |                       |         |                                |
|  | FY 05                             | FY 06                  | FY 07                 |         |                                |
| Accomplishments/Effort/Subtotal Cost         | 0.000                             | 0.000                  | 2.050                 |         |                                |
| RDT&E Articles Quantity                      |                                   |                        |                       |         |                                |
| Testing with emerging Navy sensor systems su | ch as BAMS, MMA, GHMD, F/A-18 SHA | ARP, P-3C AIP, and EP- | 3E Multi-int systems. |         | teroperability and Integration |
| Note: Name change from CDI N Block 1 to CE   | N.C.                              |                        |                       |         |                                |
| Note: Name change from CDL-N Block 1 to CD   | DLS.                              |                        |                       |         |                                |
| Note: Name change from CDL-N Block 1 to CI   | DLS.                              |                        |                       |         |                                |
| Note: Name change from CDL-N Block 1 to CE   | DLS.                              |                        |                       |         |                                |
| Note: Name change from CDL-N Block 1 to CI   | DLS.                              |                        |                       |         |                                |
| Note: Name change from CDL-N Block 1 to CI   | DLS.                              |                        |                       |         |                                |
| Note: Name change from CDL-N Block 1 to CI   | DLS.                              |                        |                       |         |                                |

## CLASSIFICATION:

|  | ation  |          |                       | DATE: |   |
|--|--|----------|-----------------------|-------|---|
|  |  |          |                       |       | February 2006   |
| ROPRIATION/BUDGET ACTIVITY   | PROGRAM ELEMENT NUMBER   | AND NAME | PROJECT NUMBER AND N  | NAME  |   |
|  | PE 0304785N Tactical Cryptologic   | Systems  |                       |       |   |
| T&E, N / BA 5  |  |          | 2134/SHIPBOARD IW EXP | I OIT |   |
| 3. Accomplishments/Planned Program   |  |          |                       |       |   |
|  | FY 05  | FY 06    | FY 07                 |       |   |
| Accomplishments/Effort/Subtotal Cost   | 0.000  | 0.000    | 14.940                |       |   |
| RDT&E Articles Quantity  | 0.000  | 0.000    | 11.010                |       |   |
|  | d integration of Cryptologic Unified Build (Canned and unmanned platforms. |          |                       |       | server to upgrade current<br>nent Models (EDMs), system |
| software releases. Continue development and design, integration, testing and remoting of managery.  Note: CUB and COLT will be migrated into S | anned and unmanned platforms.  |          |                       |       |   |
| design, integration, testing and remoting of ma  | anned and unmanned platforms.  |          |                       |       |   |
| esign, integration, testing and remoting of ma   | anned and unmanned platforms.  |          |                       |       |   |
| esign, integration, testing and remoting of ma   | anned and unmanned platforms.  |          |                       |       |   |
| esign, integration, testing and remoting of ma   | anned and unmanned platforms.  |          |                       |       |   |
| lesign, integration, testing and remoting of ma  | anned and unmanned platforms.  |          |                       |       |   |
| design, integration, testing and remoting of ma  | anned and unmanned platforms.  |          |                       |       |   |
| design, integration, testing and remoting of ma  | anned and unmanned platforms.  |          |                       |       |   |

# CLASSIFICATION:

|  | ion   |  |   | DATE:                   | Tahm.am. 2000                      |
|--|---|--|---|-------------------------|------------------------------------|
| PROPRIATION/BUDGET ACTIVITY  | PROGRAM ELEMENT NUMBER A  | AND NAME   | PROJECT NUMBER AND                                    | NAME                    | February 2006                      |
| PROPRIATION/BUDGET ACTIVITY  | PROGRAM ELEMENT NUMBER A  | AND NAME   | PROJECT NUMBER AND                                    | NAME                    |                                    |
|  | PE 0304785N Tactical Cryptologic S  | Systems  |   |                         |                                    |
|  |   |  |   |                         |                                    |
| DT&E, N / BA 5   |   |  | 2134/SHIPBOARD IW EX                                  | PLOIT                   |                                    |
| B. Accomplishments/Planned Program   |   |  |   |                         |                                    |
|  | FY 05   | FY 06  | FY 07   |                         |                                    |
| Accomplishments/Effort/Subtotal Cost   | 0.000   | 0.000  | 2.512   |                         |                                    |
| RDT&E Articles Quantity  |   |  | -   |                         |                                    |
| Specific Emitter Identification (SEI)  |   |  |   |                         |                                    |
| enhancements to maximize automation of SEI overall Navy EW architecture with the goal of S systems to support new SEI capabilities and da Domaine Awareness. | El being absorbed into ELINT. Continue s  | software enhancements in G                                 | obal Command and Contr                                | ol System - Maritime (G | CCS-M), GALE Lite, and other field |
| overall Navy EW architecture with the goal of S systems to support new SEI capabilities and da   | El being absorbed into ELINT. Continue s  | software enhancements in G                                 | obal Command and Contr                                | ol System - Maritime (G | CCS-M), GALE Lite, and other field |
| overall Navy EW architecture with the goal of S systems to support new SEI capabilities and da   | El being absorbed into ELINT. Continue s ta types. Continue to pursue enhanced SE | software enhancements in G<br>EI algorithms and techniques | obal Command and Contr<br>s, SEI-based deinterleaving | ol System - Maritime (G | CCS-M), GALE Lite, and other field |
| overall Navy EW architecture with the goal of S systems to support new SEI capabilities and da   | El being absorbed into ELINT. Continue s  | software enhancements in G                                 | obal Command and Contr                                | ol System - Maritime (G | CCS-M), GALE Lite, and other field |

## CLASSIFICATION:

| EXHIBIT R-2a, RDT&E Project Justification  |                   |                          |                          |                               |                          |                           |                   | DATE: February 2006                     |
|--|-------------------|--------------------------|--------------------------|-------------------------------|--------------------------|---------------------------|-------------------|---|
| APPROPRIATION/BUDGET ACTIVITY  |                   |                          |                          | BER AND NAM<br>ologic Systems |                          | PROJECT NUI               | MBER AND NA       |   |
| RDT&E, N / BA-5  |                   |                          |                          |                               |                          | 2134/SHIPBO               | ARD IW EXPLO      | OIT                                     |
| (U) C. OTHER PROGRAM FUNDING SUMMARY   | <b>'</b> :        |                          |                          |                               |                          |                           |                   |   |
| <u>Line Item No. &amp; Name</u><br>OPN Line 2360   | FY 2005<br>68.454 | <u>FY 2006</u><br>58.991 | <u>FY 2007</u><br>70.782 | <u>FY 2008</u><br>67.333      | <u>FY 2009</u><br>91.484 | <u>FY 2010</u><br>104.013 | FY 2011<br>87.937 |   |
| (U) D. ACQUISITION STRATEGY:  Acquisition, management and contracting stra  Diego and miscellaneous contractors, with ma |                   |                          |                          | facturing develo              | opment by pro            | oviding funds to          | SPAWAR Sysi       | tems Center (SSC) - Charleston, SSC-San |
| (U) E. MAJOR PERFORMERS:<br>N/A  |                   |                          |                          |                               |                          |                           |                   |   |
| (U) F. METRICS: Earned Value Management (EVM) is used for metric   | cs reporting and  | risk managemer           | ıt.                      |                               |                          |                           |                   |   |
|  |                   |                          |                          |                               |                          |                           |                   |   |

| CLASSIFICATION:                                    |         |                          |                          |               |                |                |           |                |        |                |            |            |                    |
|--|---------|--------------------------|--------------------------|---------------|----------------|----------------|-----------|----------------|--------|----------------|------------|------------|--------------------|
|  |         |                          |                          |               |                |                |           |                | DATE:  |                |            |            |                    |
| Exhibit R-3 Cost Analysis (pag                     | ge 1)   |                          |                          |               |                |                |           |                |        | ebruary 20     | 06         |            |                    |
| APPROPRIATION/BUDGET ACTIV                         | TTY     |                          | PROGRAM E<br>PE 0304785N |               | ptologic Syste | ems            | PROJECT   | NUMBER AND     | NAME   |                |            |            |                    |
| RDT&E, N / BA 5                                    |         |                          |                          |               |                |                | 2134/SHIF | BOARD IW EX    | PLOIT  |                |            |            |                    |
| Cost Categories                                    | Method  | Performing<br>Activity & |                          | Total<br>PY s | FY 05          | FY 05<br>Award | FY 06     | FY 06<br>Award | FY 07  | FY 07<br>Award | Cost to    | Total      | Target<br>Value of |
| Diamental Designation                              | & Type  | Location                 |                          | Cost          | Cost           | Date           | Cost      | Date           | Cost   | Date           | Complete   | Cost       | Contract           |
| Primary Hardware Development                       | Various | Various                  |                          |               |                |                |           |                | 9.845  | 12/06          | Continuing | 0.000      | Continuing         |
| Ancillary Hardware Development Systems Engineering | \/a=i=  | Mariana                  |                          |               |                | -              |           |                | 2.700  |                | Cantinuina |            | 1                  |
|  | Various | Various                  |                          |               |                |                |           |                | 2.700  |                | Continuing |            | Continuing         |
| Training Development                               | Various | Various                  |                          |               |                | -              |           |                | 0.100  | )              | Continuing | 0.000      | Continuing         |
| Licenses   |         |                          |                          |               |                | +              |           |                |        |                |            | 0.000      | 1                  |
| Tooling<br>GFE                                     |         |                          |                          |               |                |                |           |                |        |                |            | 0.000      |                    |
| Award Fees   |         |                          |                          |               |                |                |           |                |        |                |            | 0.000      | 1                  |
| Subtotal Product Development                       |         |                          |                          |               |                |                |           |                | 12.645 |                | Continuing |            | Continuing         |
|  |         |                          |                          |               |                |                |           |                |        |                |            |            |                    |
| Development Support                                |         |                          |                          |               |                |                |           |                |        |                |            | 0.000      | 0.000              |
| Software Development                               | Various | Various                  |                          |               |                |                |           |                | 4.428  | 3              | Continuing | Continuing | Continuing         |
| Training Development                               |         |                          |                          |               |                |                |           |                |        |                |            | 0.000      | 0.000              |
| Integrated Logistics Support                       | Various | Various                  |                          |               |                |                |           |                | 0.145  | 5              | Continuing | Continuing | Continuing         |
| Configuration Management                           | Various | Various                  |                          |               |                |                |           |                | 0.125  | 5              | Continuing | Continuing | Continuing         |
| Technical Data                                     |         |                          |                          |               |                |                |           |                |        |                |            | 0.000      | 0.000              |
| GFE  |         |                          |                          |               |                |                |           |                |        |                |            | 0.000      | 0.000              |
| Subtotal Support                                   |         |                          |                          |               |                |                |           |                | 4.698  | 3              | Continuing | Continuing | Continuing         |
| Remarks:   |         |                          |                          |               |                |                |           |                |        |                |            |            |                    |

R-1 SHOPPING LIST - Item No.

140

| CLASSIFICATION:                 |          |            |             |                   |                |           |             |               |          |             |            |            |            |
|---------------------------------|----------|------------|-------------|-------------------|----------------|-----------|-------------|---------------|----------|-------------|------------|------------|------------|
|                                 |          |            |             |                   |                |           |             |               | DATE:    |             |            |            |            |
| Exhibit R-3 Cost Analysis (pag  |          |            |             |                   |                |           |             |               |          | ebruary 200 | )6         |            |            |
| APPROPRIATION/BUDGET ACTIV      | ITY      |            | PROGRAM EI  |                   |                |           | PROJECT N   | NUMBER AND N  | IAME     |             |            |            |            |
|                                 |          |            | PE 0304785N | N Tactical Crypto | ologic Systems | S         |             |               |          |             |            |            |            |
| RDT&E, N / BA 5                 |          |            |             |                   |                |           | 2134/SHIPE  | BOARD IW EXPL | OIT      |             |            |            |            |
| Cost Categories                 | Contract | Performing | _1          | Total             | T              | FY 05     | 210-1/011 2 | FY 06         |          | FY 07       | T          | Γ          | Target     |
|                                 | Method   | Activity & |             | PY s              | FY 05          | Award     | FY 06       | Award         | FY 07    | Award       | Cost to    |            | Value of   |
|                                 | & Type   | Location   |             | Cost              | Cost           | Date      | Cost        | Date          |          | Date        | Complete   | Cost       | Contract   |
| Developmental Test & Evaluation | Various  | Various    |             | <b></b>           | <u> </u>       |           | $\bot$      |               | 0.680    |             | Continuing |            | Continuing |
| Operational Test & Evaluation   | Various  | Various    |             | <u> </u>          | <u> </u>       |           |             |               | 0.250    |             | Continuing |            | Continuing |
| Live Fire Test & Evaluation     |          | <u> </u>   |             |                   | <u> </u>       |           |             |               |          | ļ           |            | 0.000      |            |
| Test Assets                     | Various  | Various    |             | <u> </u>          |                |           | <u> </u>    |               | 0.150    |             | Continuing | Continuing | Continuing |
| Tooling                         |          |            |             | 1                 |                |           |             |               |          |             |            | 0.000      | 0.000      |
| GFE                             |          |            |             |                   |                |           |             |               |          |             |            | 0.000      | 0.000      |
| Subtotal T&E                    | l        | l          |             | l                 | I              | l         | <u> </u>    | 1             | 1.080    | L           | Continuing | Continuing | Continuing |
|                                 |          |            |             |                   |                |           |             |               |          |             |            |            |            |
| Contractor Engineering Support  |          |            |             |                   |                |           |             |               |          |             |            | 0.000      | 0.000      |
| Government Engineering Support  |          |            |             |                   |                | $\square$ |             |               |          |             |            | 0.000      | 0.000      |
| Program Management Support      | Various  | Various    |             |                   |                |           |             |               | 1.947    |             | Continuing | Continuing | Continuing |
| Travel                          | Various  | Various    |             |                   |                |           |             |               | 0.152    |             | Continuing | Continuing | Continuing |
| Subtotal Management             |          |            |             |                   |                |           |             |               | 2.099    |             | 0.000      | 2.099      | 0.000      |
| Remarks:                        |          |            |             |                   |                |           |             |               |          |             |            |            |            |
| Total Cost                      | T        | T          |             | 0.000             | 0.000          | 0.000     | 0.0         | 0.000         | 0 20.522 | 0.000       | Continuing | Continuing | Continuing |
| Remarks:                        |          |            |             |                   |                |           |             |               |          |             |            |            |            |
|                                 |          |            |             |                   |                |           |             |               |          |             |            |            |            |

| EXHIBIT R4, Schedule I                                |      |      |     |     |     | GRAM ELEMENT NUMBER AND NAME |     |                    |   |    |     |    |   |         |     |  |   |    |                | DATE<br>Febr | uary  | 2006   |               |     |       |       |        |    |
|---|------|------|-----|-----|-----|------------------------------|-----|--------------------|---|----|-----|----|---|---------|-----|--|---|----|----------------|--------------|-------|--------|---------------|-----|-------|-------|--------|----|
| APPROPRIATION/BUDGET                                  |      |      |     |     |     |                              |     | IENT N<br>tical Cr |   |    |     | ΙE |   |         |     |  |   |    | IUMBE<br>HIPBO |              | N EXF | PLOIT/ |               |     | ATION | S DAT | A LINI | K- |
| RDT&E, N /  | BA-  |      | 005 |     |     | 20                           | 006 |                    |   | 20 | 107 |    |   | 20      | 108 |  |   | 20 | 09             |              | S     |        | M (CDI<br>010 | _S) |       | 20    | 11     |    |
| Fiscal Year   | 1    | 2    | 3   | 3 4 | 1   | 2                            | 3   | 4                  | 1 | 2  | 3   | 4  | 1 | 1 2 3 4 |     |  | 1 | 2  | 3              | 4            | 1     | 2      | . 3           | 4   | 1     | 2     | 3      | 4  |
| Acquisition<br>Milestones                             |      |      |     |     | MSD |                              |     | FOC                |   |    |     |    |   |         |     |  |   |    |                |              |       |        |               |     |       |       |        |    |
| Test & Evaluation<br>Milestones                       | DT-0 |      |     |     |     |                              |     |                    |   |    |     |    |   |         |     |  |   |    |                |              |       |        |               |     |       |       |        |    |
| Development Test                                      |      | OA-C |     |     |     |                              |     |                    |   |    |     |    |   |         |     |  |   |    |                |              |       |        |               |     |       |       |        |    |
| Operational Test                                      |      |      |     |     |     |                              |     |                    |   |    |     |    |   |         |     |  |   |    |                |              |       |        |               |     |       |       |        |    |
| Interoperability Testing                              |      |      |     |     |     |                              |     |                    |   |    |     |    |   |         |     |  |   |    |                |              |       |        |               |     |       |       |        |    |
| Production Milestones                                 |      |      |     |     |     |                              |     |                    |   |    |     |    |   |         |     |  |   |    |                |              |       |        |               |     |       |       |        |    |
| LRIP I  |      |      |     |     |     |                              |     |                    |   |    |     |    |   |         |     |  |   |    |                |              |       |        |               |     |       |       |        |    |
| LRIPII  |      |      |     |     |     |                              |     |                    |   |    |     |    |   |         |     |  |   |    |                |              |       |        |               |     |       |       |        |    |
| FRP FY04  |      |      |     |     |     |                              |     |                    |   |    |     |    |   |         |     |  |   |    |                |              |       |        |               |     |       |       |        |    |
| Deliveries  |      |      |     |     |     |                              |     |                    |   |    |     |    |   |         |     |  |   |    |                |              |       |        |               |     |       |       |        |    |
| Development Milestones<br>Phased Array Ant Interfaces |      |      |     |     |     |                              |     |                    |   |    |     |    |   |         |     |  |   |    |                |              |       |        |               |     |       |       |        |    |
| Spiral 1 Design<br>Spiral 1 ECP Dev                   |      |      |     |     |     |                              |     |                    |   |    |     |    | ] |         |     |  |   |    |                |              |       |        |               |     |       |       |        |    |
| JTRS SCA Core Framework<br>JTRS SCA ECP Dev           |      |      |     |     |     |                              |     |                    |   |    |     |    |   |         |     |  |   |    |                |              |       |        |               |     |       |       |        |    |
| Vendor Interop & Int Testing                          |      |      |     |     | l   |                              |     |                    |   |    |     |    |   |         |     |  |   |    |                |              |       |        |               |     |       |       |        |    |

KISERDLG;: P LJ LDMM / IURP 3( 1 %DMIDH\* URXS 3 DWIYH+ RU] RQ([ VMQVIRQ6\ WMP EHJLQQIQJ ) < Schedule data for PE 0304785N included in this exhibit for presentation purposes only.

### **CLASSIFICATION:**

| Exhibit R-4a, Schedule Detail  |                           | DATE:                      | February 2006 |         |                   |                    |                     |             |
|--|---------------------------|----------------------------|---------------|---------|-------------------|--------------------|---------------------|-------------|
| APPROPRIATION/BUDGET ACTIVITY  | PROGRAM EL<br>PE 0304785N | EMENT<br>Tactical Cryptolo | gic Systems   |         | PROJECT NUMBER    |                    |                     |             |
| RDT&BA-5   |                           |                            |               |         | 2134 SHIPBOARD IW | EXPLOIT/COMMUNICAT | TIONS DATA LINK-SYS | STEM (CDLS) |
| Schedule Profile   | FY 2005                   | FY 2006                    | FY 2007       | FY 2008 | FY 2009           | FY 2010            | FY 2011             |             |
| Material Support Date Full Operational Capability                        |                           | Q1<br>Q4                   |               |         |                   |                    |                     |             |
| Developmental Testing (DT) Operational Analysis Interoperability Testing | Q1<br>Q2-Q3               | Q1-Q2                      |               |         |                   |                    |                     |             |
| Phased Array Antenna Interfaces  | Q1-Q4                     | Q1-Q4                      |               |         |                   |                    |                     |             |
| Spiral 1 Design<br>Spiral 1 ECP Dev                                      | Q1-Q4                     |                            | Q1-Q4<br>Q4   |         |                   |                    |                     |             |
| JTRS SCA Core Framework  | Q1-Q4                     |                            |               |         |                   |                    |                     |             |
| Vendor Interoperability and Integration Testing                          | Q1-Q4                     | Q1-Q4                      | Q1-Q4         |         |                   |                    |                     |             |
|  |                           |                            |               |         |                   |                    |                     |             |
|  |                           |                            |               |         |                   |                    |                     |             |
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|  |                           |                            |               |         |                   |                    |                     |             |

R-1 SHOPPING LIST - Item No.

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KISERDLG,: P LJ LDMMV I LRP 3( 1 %DMMDI\* LRXS 3 DVVLYH+ RLIJ RQ([ VMQVLRQ6\ VMP EHJ LQQLQJ ) < Schedule data for PE 0304785N included in this exhibit for presentation purposes only.

| EXHIBIT R4, Schedule Pro  | file   |          |         |         |       | SHIPS SIGNAL EXPLOITATION EQUIPMENT INCREME |       |          |        |          |         |          |         |          | MENT       | F (SSF      | F Inc               | r F)  |           | DATE     | uary        | 2006          |             |                    |                |                   |     |   |
|---|--------|----------|---------|---------|-------|---|-------|----------|--------|----------|---------|----------|---------|----------|------------|-------------|---------------------|-------|-----------|----------|-------------|---------------|-------------|--------------------|----------------|-------------------|-----|---|
| APPROPRIATION/BUDGET AC   | TIVITY |          |         |         | PROG  | BRAM  |       |          |        |          |         |          |         |          |            |             |                     |       | UMBE      | R ANI    |             |               | _000        |                    |                |                   |     |   |
|   |        |          |         |         | PE 03 | 04785                                       | N Tac | tical Cr | yptolo | gic Sys  | stems   |          |         |          |            |             |                     |       |           |          |             |               |             |                    |                |                   |     |   |
|   |        |          |         |         |       |   |       |          |        |          |         |          |         |          |            |             |                     |       |           |          |             |               |             |                    | KPLOIT         | 1OITA             | N   |   |
| RDT&E, N /  | BA-    | 5        |         |         |       |   |       |          |        |          |         |          |         |          |            |             | EQUIF               | PMEN  | T INCF    | REMEN    | NT E (      | SSEE          | Incr E      | and F)             |                |                   |     |   |
| Fiscal Year   |        | 20       | 005     |         |       | 20  | 06    |          |        | 20       | 007     |          |         | 20       | 08         |             |                     | 20    | 009       |          |             | 2             | 010         |                    |                | 20                | 11  |   |
|   | 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 |
| A   | INC I  | E        |         |         | INC F | SSE   | E Inc | F        |        |          |         |          |         |          | INC F      | MS C        |                     | RIP   |           |          | FRP         | İ             |             |                    |                |                   |     |   |
| Acquisition<br>Milestones   | IOC    |          |         |         | MS B  |   | ct Aw | ard      |        |          |         |          |         |          |            | ٨           | Cont<br>\(\Lambda\) | ract  |           |          | Decision    | lΛ            | IOC<br>A    | MSD<br>\(\Lambda\) | FRP Opt        | lion              |     |   |
|   |        |          |         |         | L     | $\mathbb{N}$                                |       |          |        |          |         |          |         |          |            | $\triangle$ | $\triangle$         |       |           |          | $\triangle$ | $\triangle$   | $\triangle$ | $\triangle$        | $\triangle$    |                   |     |   |
| System Development  |        |          |         |         |       | IBR   | SRR   | SFR      | PDR    | CDR      | DRR     | TRR      |         |          |            |             |                     |       |           |          |             | FRP<br>Contra | ct Option   |                    |                |                   |     |   |
| Development   |        |          |         |         |       |   |       |          |        |          |         |          |         |          |            |             |                     |       |           |          |             | Contra        |             |                    |                |                   |     |   |
| SSEE INC F EDM Deliveries   |        |          |         |         |       |   |       |          |        |          |         |          | Λ       | NC F     | EDMs       | $\wedge$    |                     |       |           |          |             |               |             |                    |                |                   |     |   |
| Software Development  | 1      |          |         |         |       |   |       |          |        |          |         | <u> </u> |         |          |            |             |                     |       |           |          |             |               | -           |                    |                | $\longrightarrow$ |     |   |
| SSEE Inc E<br>LRIP Baseline SW Development<br>FRP Baseline SW Development | l<br>I | ull Ra   | te Prod | duction | Build | Inc E                                       |       |          |        | F        | ull Rat | e Prod   | luction | Build I  | nc E       |             |                     |       |           |          |             |               |             |                    |                |                   |     |   |
| ·   |        |          |         |         |       |   |       |          |        | 1        | EDI     | M Build  | d Inc F | •        |            |             |                     |       | l<br>LRII | l<br>P   | l           | ı             |             |                    |                |                   | FRE | 5 |
| SSEE Inc F<br>EDM Baseline SW Development                                 |        |          |         |         |       |   |       |          |        |          |         |          |         |          |            | -1          |                     |       |           |          | Н           | $\vdash$      |             |                    |                | $\rightarrow$     |     |   |
| FRP Baseline SW Development   |        |          |         |         |       |   |       |          |        |          |         |          |         |          |            |             |                     |       |           |          |             |               |             |                    |                |                   |     |   |
| Test & Evaluation   |        |          |         |         |       |   |       |          |        |          |         |          |         | Λ        | SSEE<br>FO | Inc E       |                     |       |           |          |             |               |             |                    |                |                   |     |   |
| Milestones  |        |          |         |         |       |   |       |          |        |          |         |          |         |          | FU         | I &E        |                     |       |           |          |             |               |             | ٨                  |                |                   |     |   |
| Development Test  |        |          |         |         |       |   |       |          |        |          |         |          |         | 4        | M-Dem      | 10          |                     |       |           |          |             |               |             |                    |                |                   |     |   |
|   |        |          |         |         |       |   |       |          |        |          |         |          | B1 (E   |          | )          | $\Diamond$  | Dec.<br>Report      |       |           |          |             |               | SSEE        | Inc F F            | ОТ&Е           |                   |     |   |
| Operational Test  |        |          |         |         |       |   |       |          |        |          |         | Integra  | ated Te | st       |            | INC         | FOA                 |       |           |          |             |               |             |                    |                |                   |     |   |
| Production Milestones   |        |          |         |         |       |   |       |          |        |          |         |          |         |          |            |             |                     |       |           |          |             |               |             |                    |                |                   |     |   |
| FRP FY 04 SSEE Inc E  |        | FRP      | FY04    |         |       |   |       |          |        |          |         |          |         |          |            |             |                     |       |           |          |             |               |             |                    |                |                   |     |   |
|   |        |          |         |         |       |   |       |          | Ţ      |          |         |          |         |          |            |             |                     |       |           |          |             |               |             |                    |                |                   |     |   |
| FRP FY 05 SSEE Inc E  |        |          |         |         |       | FRP<br>I                                    | FY05  |          | ļ      | <u> </u> | L       | L        |         |          |            |             |                     |       |           |          |             |               |             |                    |                |                   |     |   |
| FRP FY 06 SSEE Inc E  |        |          |         |         |       |   |       |          |        | FRP      | FY06    |          |         |          |            |             |                     |       |           |          |             |               |             |                    |                |                   |     |   |
| FRP FY 07 SSEE Inc E  |        |          |         |         |       |   |       |          |        |          |         |          |         | FRP      | FY07       |             |                     |       |           |          |             |               |             |                    |                |                   |     |   |
| FRP FY 08 SSEE Inc E  |        |          |         |         |       |   |       |          |        |          |         |          |         |          |            |             |                     | FRP   | FY08      | <u> </u> |             |               |             |                    |                |                   |     |   |
| LRIP FY 09 SSEE Inc F   |        |          |         |         |       |   |       |          |        |          |         |          |         |          |            |             |                     |       |           |          | LF          | RIP FY        | 09          |                    |                |                   |     |   |
| LRIP FY 10 SSEE Inc F   |        |          |         |         |       |   |       |          |        |          |         |          |         |          |            |             |                     |       |           |          |             |               |             |                    | FRF            | P FY10            | )   |   |
|   |        | ↓        |         |         |       |   |       |          |        |          |         |          |         |          |            |             |                     |       |           |          |             |               |             |                    | $ \downarrow $ |                   |     |   |
| Deliveries  | FRP(1  | 2)       |         |         |       | FRP(8                                       | )     |          |        | FRP(9    | ))      |          |         | FRP(1    | 0)         |             |                     | FRP(8 | 3)        |          |             | LRIP(         | 11)         | <br>               | FRP (1         | 4)                |     |   |
| ı   |        | <u> </u> |         |         |       | <u> </u>                                    |       |          | 01:0   |          |         | <u> </u> | em No   | <u> </u> | 140        |             |                     |       |           |          |             | <u> </u>      |             |                    |                |                   |     |   |

## **CLASSIFICATION:**

| Exhibit R-4a, Schedule Detail         |                  |                    |        |         |             | DATE:       |                | _          |
|---------------------------------------|------------------|--------------------|--------|---------|-------------|-------------|----------------|------------|
|                                       |                  |                    |        |         |             | l F         | ebruary 200    | 06         |
| APPROPRIATION/BUDGET ACTIVITY         | PROGRAM ELEME    | ENT                |        |         | PROJECT NU  |             |                |            |
|                                       | PE 0304785N Tact | ical Cryptologic S | ystems |         |             |             |                |            |
|                                       |                  |                    |        |         | 2134 SHIPBO | ARD IW EXPL | OIT/SHIPS SIG  | SNAL       |
| RDT&E, N /BA 5                        |                  |                    |        |         | EXPLOITATIO | ON EQUIPMEN | IT INCR E (SSI | EE Incr E) |
| chedule Profile                       | FY2005           | FY2006             | FY2007 | FY 2008 | FY 2009     | FY 2010     | FY 2011        |            |
| Increment E                           |                  |                    |        |         |             |             |                |            |
| Follow-On Test & Evaluation (FOTE)    |                  |                    |        | Q2      |             |             |                |            |
| IOC                                   | Q1               |                    |        |         |             |             |                |            |
| Full Rate Production                  | Q1-Q4            | Q1-Q4              | Q1-Q4  | Q1-Q4   |             |             |                |            |
| Pre-Planned Improvements (P3I)        | Q1-Q4            | Q1-Q4              | Q1-Q4  | Q1-Q4   |             |             |                |            |
| ·                                     |                  |                    |        |         |             |             |                |            |
|                                       |                  |                    |        |         |             |             |                |            |
| Increment F                           |                  |                    |        |         |             |             |                |            |
| Milestone II (MS B)                   |                  | Q2                 |        |         |             |             |                |            |
| Contract Award                        |                  | Q2                 |        |         |             |             |                |            |
| IBR/SBR/SFR/PDR/CDR/DRR/TRR           |                  | Q2-Q4              | Q1-Q4  |         |             |             |                |            |
| Developmental Testing                 |                  |                    |        | Q2-Q4   |             |             |                |            |
| Operational Testing                   |                  |                    |        |         | Q4          |             |                |            |
| EDM SSEE Delivery - Ship              |                  |                    |        | Q1-Q4   |             |             |                |            |
| Milestone III (MS C)LRIP/FRP Decision |                  |                    |        | Q4      |             |             |                |            |
| Production Start                      |                  |                    |        |         |             | Q1          |                |            |
| Material Support Date                 |                  |                    |        |         |             | Q4          |                |            |
| IOC                                   |                  |                    |        |         | 0.1         | Q3          |                |            |
| LRIP (5DD)                            |                  |                    |        |         | Q1          |             |                |            |
| Full Rate Production (FRP)            |                  |                    |        |         |             | Q2          | Q1             |            |
| Follow-On Test & Evaluation (FOT&E)   |                  |                    |        |         |             |             | QI             |            |
|                                       |                  |                    |        |         |             |             |                |            |
|                                       |                  |                    |        |         |             |             |                |            |
|                                       |                  |                    |        |         |             |             |                |            |
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|                                       |                  |                    | -      |         |             |             | -              |            |

R-1 SHOPPING LIST - Item No.

140

SSEE is a spiral development program.

FY09 will introduce a future Increment with new antenna design and P3I.

<sup>\*</sup> Shipboard IW migrates from PE 0604721N (Battle Group Passive Horizon Extension System) beginning FY07. Schedule data for PE 0304785N included in this exhibit for presentation purposes only.

| EXHIBIT R4, Schedule P           | rofile |        |       |     |       |       |       |          |        |         |       |     |   |    |     |   |      |       |       |       | DATE<br>Febr | :<br>uary | 2006 |      |       |       |         |    |
|----------------------------------|--------|--------|-------|-----|-------|-------|-------|----------|--------|---------|-------|-----|---|----|-----|---|------|-------|-------|-------|--------------|-----------|------|------|-------|-------|---------|----|
| APPROPRIATION/BUDGET             | CTIVI  | TY     |       |     | PROC  | SRAM  | ELEMI | ENT N    | UMBE   | R AND   | NAME  |     |   |    |     |   | PROJ | ECT N | IUMBE | R AND | NAM          | IE        |      |      |       |       |         |    |
| RDT&E, N /                       | BA-    | 5      |       |     | PE 03 | 04785 | N Tac | tical Cr | yptolo | gic Sys | stems |     |   |    |     |   | 2134 | SHIPE | OARD  | IW EX | (PLOI        | T/ANT     | ENNA | RF D | STRIB | UTION | l (ARFI | D) |
| Fiscal Year                      |        | 20     | 005   |     |       | 20    | 006   |          |        | 20      | 07    |     |   | 20 | 800 |   |      | 20    | 009   |       |              | 20        | 010  |      |       | 2     | 011     |    |
|                                  | 1      | 2      | 3     | 4   | 1     | 2     | 3     | 4        | 1      | 2       | 3     | 4   | 1 | 2  | 3   | 4 | 1    | 2     | 3     | 4     | 1            | 2         | 2 3  | 3    | 4 -   | 2     | 2 3     | 4  |
| Acquisition<br>Milestones        | Awa    | rd Cor | tract |     |       |       |       |          |        |         |       |     |   |    |     |   |      |       |       |       |              |           |      |      |       |       |         |    |
| Prototype Phase                  |        |        |       |     |       |       |       |          |        |         |       |     |   |    |     |   |      |       |       |       |              |           |      |      |       |       |         |    |
| System Development               |        |        |       | SDR |       |       |       | SDR      |        |         |       | SDR |   |    |     |   |      |       |       |       |              |           |      |      |       |       |         |    |
| EDM Delivery<br>Four EDMs        |        |        |       | EDM |       |       |       | EDM      |        |         |       | EDM |   |    |     |   |      |       |       |       |              |           |      |      |       |       |         |    |
| Test & Evaluation Milestones FAT |        |        | FAT   |     |       |       | FAT   |          |        |         | FAT   |     |   |    |     |   |      |       |       |       |              |           |      |      |       |       |         |    |
| Developmental Test               |        |        |       |     |       |       |       | DT       |        |         |       |     |   |    |     |   |      |       |       |       |              |           |      |      |       |       |         |    |
| Production Milestones            |        |        |       |     |       |       |       |          |        |         |       |     |   |    |     |   |      |       |       |       |              |           |      |      |       |       |         |    |
| Deliver Design Package to SSEE   |        |        |       |     |       |       |       |          |        |         |       |     |   |    |     |   |      |       |       |       |              |           |      |      |       |       |         |    |
| Deliveries                       |        |        |       |     |       |       |       |          |        |         |       |     |   |    |     |   |      |       |       |       |              |           |      |      |       |       |         |    |

<sup>\*</sup> Shipboard IW migrates from PE 0604721N (Battle Group Passive Horizon Extension System) beginning FY07. Schedule data for PE 0304785N included in this exhibit for presentation purposes only.

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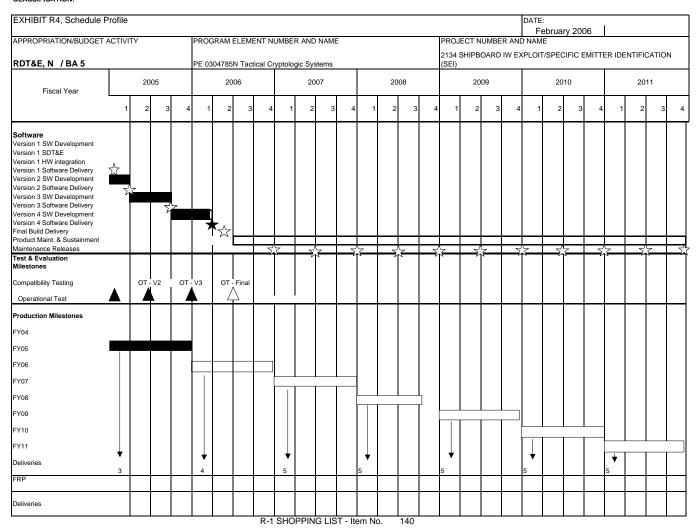
| Exhibit R-4a, Schedule Detail                     |                |                    |         |         |              | DATE:       |                  |           |
|---|----------------|--------------------|---------|---------|--------------|-------------|------------------|-----------|
|   |                |                    |         |         |              |             | February 200     | 06        |
| APPROPRIATION/BUDGET ACTIVITY                     | PROGRAM ELEM   | ЛЕNT               |         |         | PROJECT NUM  | BER AND NAM | ЛE               |           |
|   | PE 0304785N Ta | ctical Cryptologic | Svstems |         |              |             |                  |           |
|   |                | 71 0               | •       |         | 2134 SHIPBOA |             | T/ANTENNIA D     | ) <u></u> |
| RDT&E, N /BA 5                                    |                |                    |         |         | DISTRIBUTION |             | II/AN I EININA N | чL        |
| Schedule Profile                                  | FY 2005        | FY 2006            | FY 2007 | FY 2008 | FY 2009      | FY 2010     | FY 2011          |           |
| Contract Award                                    | 1Q             |                    |         |         |              |             |                  |           |
| Prototype Phase                                   | Q1-Q4          | Q1-Q4              | Q1-Q4   |         |              |             |                  |           |
| EDM Delivery                                      | 4Q             | 4Q                 | 4Q      |         |              |             |                  |           |
| System Design Review (SDR)                        | 4Q             | 4Q                 | 4Q      |         |              |             |                  |           |
| Factory Acceptance Testing                        | 3Q             | 3Q                 | 3Q      |         |              |             |                  |           |
| Developmental Test Deliver Design Package to SSEE |                | 4Q                 |         |         |              |             |                  |           |
| Deliver Design Package to SSEE                    |                |                    |         | 1Q      |              |             |                  |           |
|   |                |                    |         |         |              |             |                  |           |
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<sup>\*</sup> Shipboard IW migrates from PE 0604721N (Battle Group Passive Horizon Extension System) beginning FY07. Schedule data for PE 0304785N included in this exhibit for presentation purposes only.



 $\textit{KISERDIG,:} \quad \textit{PLJLDMMV1URP} \quad \textit{3(} \quad \textit{1} \quad \textit{%DMM0} \\ ^* \text{ URXS 3DVVLYH+ RUJ RQ([ \mbox{VMP} \mbox{EHJLQQLQJ }) < \mbox{} \\ \end{aligned}$ 

Schedule data for PE 0304785N included in this exhibit for presentation purposes only.

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| Exhibit R-4a, Schedule Detail                |             |                 |                |         |             | DATE:       |              |         |
|--|-------------|-----------------|----------------|---------|-------------|-------------|--------------|---------|
|  |             |                 |                |         |             | F           | ebruary 200  | 6       |
| APPROPRIATION/BUDGET ACTIVITY                | PROGRAM E   | LEMENT          |                |         | PROJECT NU  | MBER AND N  | AME          |         |
|  |             |                 |                |         | 2134 SHIPBO | ARD IW EXPL | OIT/SPECIFIC | EMITTER |
| RDT&E, N / BA 5                              | PE 0304785N | Tactical Crypto | ologic Systems |         | IDENTIFICAT |             |              |         |
| Schedule Profile                             | FY 2005     | FY 2006         | FY 2007        | FY 2008 | FY 2009     | FY 2010     | FY 2011      |         |
| SURPAS Development                           |             |                 |                |         |             |             |              |         |
| Phase 1 - Software Delivery                  |             |                 |                |         |             |             |              |         |
| Phase 2 - Software Delivery                  | Q1          |                 |                |         |             |             |              |         |
| Phase 3 - Software Delivery                  | Q2-3        |                 |                |         |             |             |              |         |
| Phase 4 - Software Delivery                  | Q4          | Q1              |                |         |             |             |              |         |
| Technical Information Meeting                | Q1-Q4       | Q1-Q4           |                |         |             |             |              |         |
| Software Delivery                            | Q2 & Q4     | Q2              |                |         |             |             |              |         |
| Software Maintenance Release                 |             |                 | Q1 & Q3        | Q1 & Q3 | Q1 & Q3     | Q1 & Q3     | Q1 & Q3      |         |
| Hardware/software compatibility testing      | Q1-Q4       | Q1-Q4           | Q1-Q4          | Q1-Q4   | Q1-Q4       | Q1-Q4       | Q1-Q4        |         |
| Test Readiness Review (TRR)                  | Q2 & Q4     | Q2              |                |         |             |             |              |         |
| Developmental Testing (DT-IIA)               | Q1-Q4       | Q1-Q2           |                |         |             |             |              |         |
| Logistics                                    |             |                 |                |         |             |             |              |         |
| Operational Testing (OT-IIA)                 | Q2 & Q4     | Q2              |                |         |             |             |              |         |
| Start Low-Rate Initial Production I (LRIP I) |             | Q3              |                |         |             |             |              |         |
| IOC  |             | Q3              |                |         |             |             |              |         |
|  |             |                 |                |         |             |             |              |         |
|  |             |                 |                |         |             |             |              |         |

R-1 SHOPPING LIST - Item No. 140

KISERDUG,: P LJUDMV IURP 3( 1 %DWDI\* URXS 3 DVVLYH+RUJ RQ([VMQVIRQ6\VMP EHJIQQIQJ) < Schedule data for PE 0304785N included in this exhibit for presentation purposes only.

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| CLASSIFICATION:                           |                   |                    |               |         |         |                |              |                 |  |
|---|-------------------|--------------------|---------------|---------|---------|----------------|--------------|-----------------|--|
| EXHIBIT R-2a, RDT&E Project Justification |                   |                    |               |         |         |                |              | DATE:           |  |
|   |                   |                    |               |         |         |                |              | February 2006   |  |
| APPROPRIATION/BUDGET ACTIVITY             |                   | PROGRAM ELEM       | IENT NUMBER A | ND NAME |         | PROJECT NUMB   | ER AND NAME  |                 |  |
|   | PE 0304785N Tacti | cal Cryptologic Sy | stems         |         |         |                |              |                 |  |
| RDT&E, N / BA-5                           |                   |                    |               |         |         | 3165 AUTOMATIO | DENTIFICATIO | ON SYSTEM (AIS) |  |
|   |                   |                    |               |         |         |                |              |                 |  |
| COST (\$ in Millions)                     |                   | FY 2005            | FY 2006       | FY 2007 | FY 2008 | FY 2009        | FY 2010      | FY 2011         |  |
|   |                   |                    |               |         |         |                |              |                 |  |
| Project Cost                              |                   | 0.000              | 0.000         | 3.000   | 2.604   | 1.822          | 0.000        | 0.000           |  |
| RDT&E Articles Qty                        |                   |                    |               |         |         |                |              |                 |  |

#### (U) A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

AUTOMATIC IDENTIFICATION SYSTEM (AIS): AIS is an International Maritime Very High Frequency (VHF) Communication system that allows any ship to exchange information (machine to machine) on Navigation (Position, Course, Speed, etc), Ship Info (Ship Name, Call Sign, Length/Beam), Cargo Info (Draft, Type, Destination, Route, Estimated Time of Arrival (ETA)), and Messaging (Safety, Text). This technology will improve capability in three diverse areas: (a) Situational Awareness/Common Operational Picture (COP) (b) Navigation/Safety of Ship and (c) Other intelligence gathering/correlation. RDT&E will fund the integration of Commercial off-the-shelf (COTS) AIS equipment into the existing Global Command and Control - Maritime (GCCS-M)/COP, Navigation Sensor System Interface (NAVSSI) navigation and bridge capabilities surface search / weapons systems and intelligence / cryptologic capabilities in support of AIS Phase 2 procurement efforts.

# CLASSIFICATION:

|                                  |   |  | DATE:  |   |
|----------------------------------|---|--|--|---|
|                                  |   |  |  | February 2006   |
| PROGRAM ELEMENT NUMBER           | AND NAME  | PROJECT NUMBER AND N   | NAME   |   |
| PE 0304785N Tactical Cryptologic | Systems   |  |  |   |
|                                  |   | 3165 AUTOMATIC IDENTIF   | FICATION SYSTEM (AIS)  |   |
|                                  |   |  |  |   |
| FY 05                            | FY 06   | FY 07  |  |   |
|                                  |   | 3.004  |  |   |
|                                  |   |  |  |   |
|                                  |   |  |  |   |
|                                  | PE 0304785N Tactical Cryptologic  FY 05  PE 0304785N Tactical Cryptologic | PE 0304785N Tactical Cryptologic Systems  FY 05  FY 06  RDT&E will fund the integration of Commercial off-the-shelf (COT | PE 0304785N Tactical Cryptologic Systems  3165 AUTOMATIC IDENTIF | PE 0304785N Tactical Cryptologic Systems  3165 AUTOMATIC IDENTIFICATION SYSTEM (AIS)  FY 05 FY 06 FY 07 3.004  3.004  PE 0304785N Tactical Cryptologic Systems  STEP 05 FY 06 FY 07 FY 07 FY 06 FY 07 |

| CLASSIFICATION:  |              |            |             |        |                |               |       |       |             |               |                |               |            |
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|  |              |            |             |        |                |               |       |       | T           |               |                |               |            |
| Exhibit B 2 Cost Applysis (pos                           | ro 1\        |            |             |        |                |               |       |       | DATE:       | ebruary 200   | ne.            |               |            |
| Exhibit R-3 Cost Analysis (pagappropriation/BUDGET ACTIV | Je I)<br>ITY |            | PROGRAM EI  | IEMENT |                |               |       |       | PROJECT NU  |               |                |               |            |
| AT NOT KIATION/BOBGET ACTIV                              |              |            | PE 0304785N |        | ologic Systems | S             |       |       | I KOSEOT NO | WIDER AND IN  | AWL            |               |            |
| RDT&E, N / BA 5  |              |            |             |        |                |               |       |       | 3165/AUTOM  | ATIC IDENTIF  | ICATION SYSTEM | (AIS)         |            |
| Cost Categories  | Contract     | Performing |             | Total  |                | FY 05         |       | FY 06 |             | FY 07         |                |               | Target     |
|  | Method       | Activity & |             | PY s   | FY 05          | Award<br>Date | FY 06 | Award | FY 07       | Award<br>Date | Cost to        | Total<br>Cost | Value of   |
| Primary Hardware Development                             | & Type       | Location   |             | Cost   | Cost           | Date          | Cost  | Date  | Cost        | Date          | Complete       | Cost          | Contract   |
| Ancillary Hardware Development                           | TBD/VAR      | TBD/VAR    |             |        |                |               |       |       | 0.130       | 11/06         | Continuing     | Continuing    | Continuing |
| Systems Engineering                                      | TBD/VAR      | TBD/VAR    |             |        |                |               |       |       | 0.130       |               | Continuing     | Continuing    |            |
| Training Development                                     | TBD/VAR      | TBD/VAR    |             |        |                | +             |       |       | 0.100       |               | Continuing     | Continuing    |            |
| Licenses   | TDD/VAIX     | I DD/VAIX  |             |        |                |               |       |       | 0.100       | 11/00         | Continuing     | Continuing    | Continuing |
| Tooling  |              |            |             |        |                | +             |       |       |             |               |                |               |            |
| GFE  |              |            |             |        |                |               |       |       |             |               |                |               |            |
| Award Fees   |              |            |             |        |                |               |       |       |             |               |                |               |            |
| Subtotal Product Development                             |              |            |             |        |                |               |       |       | 0.330       |               |                |               |            |
|  |              |            | 1           | ļ.     |                | -1            | J     | - J   | 1           | ļ.            |                | Į.            | ı          |
| Remarks:   |              |            |             |        |                |               |       |       |             |               |                |               |            |
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|  |              |            |             |        |                |               |       |       |             |               |                |               |            |
| Development Support                                      |              |            |             |        |                |               |       |       |             |               |                |               |            |
| Software Development                                     | TBD/VAR      | TBD/VAR    |             |        |                |               |       |       | 2.000       | 11/06         | Continuing     | Continuing    | Continuina |
| Training Development                                     |              |            |             |        |                |               |       |       |             |               | <u> </u>       | J             | J          |
| Integrated Logistics Support                             | TBD/VAR      | TBD/VAR    |             |        |                |               |       |       | 0.100       | 11/06         | Continuing     | Continuing    | Continuing |
| Configuration Management                                 | TBD/VAR      | TBD/VAR    |             |        |                |               |       |       | 0.100       | 11/06         | Continuing     | Continuing    | Continuing |
| Technical Data   |              |            |             |        |                |               |       |       |             |               |                |               |            |
| GFE  |              |            |             |        |                |               |       |       |             |               |                |               |            |
| Subtotal Support   |              |            |             |        |                |               |       |       | 2.200       |               |                |               | '          |
| ·  | •            | •          | *           |        |                | •             |       | •     | •           |               |                |               |            |
| Remarks:   |              |            |             |        |                |               |       |       |             |               |                |               |            |
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| CLASSIFICATION:                 |                  |                        |             |                 |                |       |               |               |            |               |                |  |                      |
|---------------------------------|------------------|------------------------|-------------|-----------------|----------------|-------|---------------|---------------|------------|---------------|----------------|--|----------------------|
|                                 |                  |                        |             |                 |                |       |               |               | DATE:      |               |                |  |                      |
| Exhibit R-3 Cost Analysis (pag  | je 2)            |                        |             |                 |                |       |               |               |            |               | February       | / 2006   |                      |
| APPROPRIATION/BUDGET ACTIV      | TY               |                        | PROGRAM E   |                 |                |       |               |               | PROJECT NU | MBER AND N    | AME            |  |                      |
|                                 |                  |                        | PE 0304785N | Tactical Crypto | ologic Systems |       | ı             |               |            |               |                |  |                      |
| RDT&E, N / BA 5                 | 1-               | <u> </u>               |             |                 | 1              | I=    |               |               |            |               | ICATION SYSTEM | (AIS)  |                      |
| Cost Categories                 | Contract         | Performing             |             | Total           | EV 05          | FY 05 | EV 00         | FY 06         |            | FY 07         | 0 1 1 -        | T. ( - 1   | Target               |
|                                 | Method<br>& Type | Activity &<br>Location |             | PY s<br>Cost    | FY 05<br>Cost  |       | FY 06<br>Cost | Award<br>Date |            | Award<br>Date |                |  | Value of<br>Contract |
| Developmental Test & Evaluation | TBD/VAR          | TBD/VAR                |             | Cost            | Cost           | Date  | COSI          | Date          | 0.104      | 11/06         | Continuing     |  |                      |
| Operational Test & Evaluation   | TBD/VAR          | TBD/VAR                |             |                 |                |       |               |               | 0.104      |               | Continuing     |  |                      |
| Live Fire Test & Evaluation     | I DD/VAR         | I DD/VAR               | 1           |                 |                |       |               |               | 0.130      | 11/06         | Continuing     | Continuing                                       | Continuing           |
|                                 |                  |                        |             | +               |                |       |               |               |            |               |                | <del>                                     </del> |                      |
| Test Assets                     |                  |                        |             |                 |                |       |               |               |            |               |                |  |                      |
| Tooling                         |                  |                        |             |                 |                |       |               |               |            |               |                |  |                      |
| GFE                             |                  |                        |             |                 |                |       |               |               |            |               |                |  |                      |
| Subtotal T&E                    |                  |                        |             |                 |                |       |               |               | 0.234      |               |                |  |                      |
|                                 |                  |                        |             |                 |                |       |               |               |            |               |                |  |                      |
| Contractor Engineering Support  | TBD/VAR          | TBD/VAR                |             |                 |                |       |               |               | 0.100      | 11/06         | Continuing     | Continuing                                       | Continuing           |
| Government Engineering Support  |                  |                        |             |                 |                |       |               |               |            |               |                |  |                      |
| Program Management Support      |                  |                        |             |                 |                |       |               |               | 0.100      | 11/06         | Continuing     | Continuing                                       | Continuing           |
| Travel                          |                  |                        |             |                 |                |       |               |               | 0.040      | 11/06         | Continuing     | Continuing                                       | Continuing           |
| Subtotal Management             |                  |                        |             |                 |                |       |               |               | 0.240      |               |                |  |                      |
| Remarks:                        |                  |                        |             |                 |                |       |               |               |            |               |                |  |                      |
| Total Cost                      |                  |                        |             |                 |                |       |               |               | 3.004      | TBC           | TBD            | TBD  |                      |
| Remarks:                        | •                |                        |             |                 |                |       |               | ,             |            |               |                | ,  | <u>'</u>             |

| EXHIBIT R4, Schedule Profil                   | е    |    |     |   |   |                |     |   |   |   |               |     |   |   |     |         |       |       |        |         | DATE  |       | ary 20 | 06     | 1    |   |     |   |
|---|------|----|-----|---|---|----------------|-----|---|---|---|---------------|-----|---|---|-----|---------|-------|-------|--------|---------|-------|-------|--------|--------|------|---|-----|---|
| APPROPRIATION/BUDGET ACTI                     | VITY |    |     |   |   | GRAM<br>304785 |     |   |   |   | NAMI<br>stems |     |   |   |     |         | PROJ  | ECT N | IUMBEI | R AND I |       |       | ,      |        |      |   |     |   |
| RDT&E, N /                                    | BA-  | 5  |     |   |   |                |     |   |   |   |               |     |   |   |     |         | 3165/ | IOTUA | MATIC  | IDENTI  | FICAT | ION S | YSTEN  | / (AIS | )    |   |     |   |
| Fiscal Year                                   |      | 20 | 005 |   |   | 20             | 006 |   |   | 2 | 2007          |     |   | 2 | 800 |         |       | 2     | 009    |         |       | 20    | 010    |        |      | 2 | 011 |   |
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| Acquisition<br>Milestones                     |      |    |     |   |   |                |     |   |   |   |               |     |   |   |     |         |       |       |        |         |       |       |        |        |      |   |     |   |
| Software Integration / Development<br>Phase 2 |      |    |     |   |   |                |     |   |   |   |               |     |   |   |     |         |       |       |        |         |       |       |        |        |      |   |     |   |
| Test & Evaluation<br>Milestones               |      |    |     |   |   |                |     |   |   |   |               |     |   |   |     |         |       |       |        |         |       |       |        |        |      |   |     |   |
| Operational Assessment                        |      |    |     |   |   |                |     |   |   |   |               | OA  |   |   |     | OA      |       |       |        | OA      |       |       |        |        |      |   |     |   |
| Production Milestones                         |      |    |     |   |   |                |     |   |   |   |               |     |   |   |     |         |       |       |        |         |       |       |        |        |      |   |     |   |
| FY08<br>FY09                                  |      |    |     |   |   |                |     |   |   |   |               |     |   |   |     |         |       |       |        |         |       |       |        |        |      |   |     |   |
| FY10  |      |    |     |   |   |                |     |   |   |   |               |     |   |   |     |         |       |       |        |         |       |       |        |        |      |   |     |   |
| Deliveries                                    |      |    |     |   |   |                |     |   |   |   |               |     |   |   |     | Various | *     |       |        | Various | *     |       |        | Variou | ıs * |   |     |   |

<sup>\*</sup> Quantity varies because the equipment being procured is COTS/NDI.

### **CLASSIFICATION:**

| Exhibit R-4a, Schedule Detail    |                |                    |         |         |             | DATE:        | Fobruary 20 | 06           |
|----------------------------------|----------------|--------------------|---------|---------|-------------|--------------|-------------|--------------|
| APPROPRIATION/BUDGET ACTIVITY    | PROGRAM ELEI   | ACNIT              |         |         | PROJECT NUM |              | February 20 | 06           |
| APPROPRIATION/BUDGET ACTIVITY    |                |                    | _       |         | PROJECT NOW | IDEK AND NAI | VI⊏         |              |
|                                  | PE 0304785N Ta | ctical Cryptologic | Systems |         |             |              |             |              |
|                                  |                |                    |         |         |             |              |             |              |
| RDT&E, N / BA 5                  |                |                    |         |         | 3165/AUTOMA |              |             | M (AIS)      |
| Schedule Profile                 | FY 2005        | FY 2006            | FY 2007 | FY 2008 | FY 2009     | FY 2010      | FY 2011     |              |
| Contract Award                   |                |                    | Q1      | Q1      | Q1          |              |             |              |
| Software Integration Development |                |                    | Q1-Q4   | Q1-Q4   | Q1-Q4       |              |             |              |
| OA                               |                |                    | Q4      | Q4      | Q4          |              |             |              |
|                                  |                |                    |         |         |             |              |             |              |
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R-1 SHOPPING LIST - Item No.

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