DATE: JUNE 2001

BUDGET ACTIVITY: 5   PROGRAM ELEMENT: 0604721N
                            PROGRAM ELEMENT TITLE: Shipboard Information Warfare Exploit System

(U) COST: (Dollars in Thousands)

PROJECT NUMBER & Title	FY2000	FY2001	FY2002	FY2003	FY2004	FY2005	FY2006	FY2007	To Complete	Total Program
X2134 SHIPBOARD IW EXPLOIT	762	703	8,130							
X2135 CHBDL-ST	901	1,508							.	
Total	1,663	2,211	8,130							

A.   (U) MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: The Shipboard Information Warfare line includes the following programs: Cooperative Outboard Logistics Update (COBLU), Battle Group Passive Horizon Extension System (BGPHES), Ships Signal Exploitation Equipment (SSEE) and Common Data Link – Navy (CDL-N) (formerly CHBDL). These systems provide the Battle Group with real time Indications and Warnings (I&W) by acquisition and localization of signals of interest (SOI). In addition, BGPHES extends the Battle Group's line-of-sight radio horizon by using remote receivers in an airborne sensor payload, and sends this information via the CDL-N to the surface ships. This program 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.

(U) JUSTIFICATION FOR BUDGET ACTIVITY: This program is funded under ENGINEERING & MANUFACTURING DEVELOPMENT because it encompasses engineering and manufacturing development of new end-items prior to production approval decision.

DATE: JUNE 2001

BUDGET ACTIVITY: 5   PROGRAM ELEMENT: 0604721N

PROGRAM ELEMENT TITLE: Shipboard Information Warfare Exploit System

B.   (U) PROGRAM CHANGE SUMMARY EXPLANATION:

(U) Funding:

FY 2000:-$118K NSS.
FY 2001: -$16K Section 8086 .7% Pro-Rata Reduction, -$5 Government-Wide Rescission: PL 106-554, Sec. 14.

FY 2002: $1,060K Shipboard IW Exploit OMN, $1,500K Shipboard IW Exploit RDTEN, $2,700K Maritime Cryptologic Strategy for the 21st Century, $467K Realign from OPN to R&D, $128K Program Support

(U) Schedule: None

(U) Technical: None

DATE: JUNE 2001
BUDGET ACTIVITY: 5   PROGRAM ELEMENT: 0604721N   PROJECT NUMBER: X2134
            PROGRAM ELEMENT TITLE: Shipboard Information Warfare Exploit System   PROJECT TITLE: Shipboard IW Exploit

(U) COST: (Dollars in Thousands)

PROJECT NUMBER & Title	FY2000	FY2001	FY2002	FY2003	FY2004	FY2005	FY2006	FY2007	To Complete	Total Program
X2134 SHIPBOARD IW EXPLOIT	762	703	8,130							

Project X2135 has been incorporated into Project X2134 beginning in FY 02.

A. (U) MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: The Shipboard Information Warfare line includes the following programs: Cooperative Outboard Logistics Update (COBLU), Battle Group Passive Horizon Extension System (BGPHES), Ships Signal Exploitation Equipment (SSEE) and Common Data Link – Navy (CDL-N) (formerly CHBDL). These systems provide the Battle Group with real time Indications and Warnings (I&W) by acquisition and localization of signals of interest (SOI). In addition BGPHES extends the Battle Group's line-of-sight radio horizon by using remote receivers in an airborne sensor payload, and sends this information via the CDL-N to the surface ships. This program 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.

Exhibit R-2a, RDT&E Project Justification

DATE: JUNE 2001
BUDGET ACTIVITY: 5   PROGRAM ELEMENT: 0604721N   PROJECT NUMBER: X2134
        PROGRAM ELEMENT TITLE: Shipboard Information Warfare Exploit System   PROJECT TITLE: Shipboard IW Exploit

(U) PROGRAM ACCOMPLISHMENTS AND PLANS:

1. (U) FY 2000 ACCOMPLISHMENTS:
   - (U) ($422) Completed development effort to allow interoperability with USAF upgrade Prime Mission Equipment (PME).

   - (U) ($170) Completed development effort to rehost software and be IT-21 compatible (formerly TAC-N1 development)

   - (U) ($170) Completed P3I development efforts to access EP-3E Joint SIGINT Avionics Family (JSAF) Low Band Sub-System (LBSS).

2. (U) FY 2001 PLAN:

   - (U) ($543) Integrate new GCCS-M functionality into BGPHES-ST baseline.

   - (U) ($160) Improve EP3 (air platform) interoperability.

3. (U) FY 2002 PLAN:

   - (U) ($ 710) Initiate and complete development of topside design for installation of Transportable Radio Direction Finding (TRDF) antennas on LHA-1 class ships.

   - (U) ($1,830) Initiate development of Cryptologic Unified Build (CUB) software to incorporate latest Defense Information Infrastructure Common Operating Environment (DII COE) release for interoperability of Shipboard IW programs. CUB software is utilized on all Shipboard IW programs. This development effort targets the DII COE 4.X baseline. Integrate DMS software/upgrades into CUB baseline and test.

   - (U) ($ 305) Incorporate new signal analysis tools and training aids into COBLU Phase 1 and SSEE Increment D baselines.

   - (U) ($1,830) Initiate and complete development of SSEE Increment E Engineering Development Model (EDM). Includes development and operational testing. Effort is focused on integrating state-of-the-art Electronic Support Measures/Signal Intelligence (ESM/SIGINT) attributes into current surface shipboard IW programs.

   - (U) ($510) Expand Cryptologic On-line Trainer (COLT) software for Shipboard IW programs to include expansion of existing Signals of Interest (SOI) simulations and support for Wide Area Network (WAN) training.

DATE: JUNE 2001

BUDGET ACTIVITY: 5   PROGRAM ELEMENT: 0604721N   PROJECT NUMBER: X2134

PROGRAM ELEMENT TITLE: Shipboard Information Warfare Exploit System   PROJECT TITLE: Shipboard IW Exploit

- (U) ($1,410) Integrate new CUB/DII COE 3.X functionality into BGPHES baseline. Continue development effort to maintain interoperability with USAF airborne Prime Mission Equipment (PME).

- (U) ($ 515) Continue CDL-N development efforts (begun in Project X2135) for interoperability and integration with emerging Navy sensor systems such as VTUAV, F/A-18 SHARP and EP-3E Multi-int systems.

- (U) ($ 510) Complete CDL-N development efforts for ship-to-ship data connectivity.

- (U) ($ 510) Initiate design and development of CDL-N integrated operator station and Intelligence, Surveillance and Reconnaissance (ISR) processing systems.

B. (U) OTHER PROGRAM FUNDING SUMMARY: (Dollars in thousands)

	FY2000 Estimate	FY2001 Estimate	FY2002 Estimate	FY2003 Estimate	FY2004 Estimate	FY2005 Estimate	FY2006 Estimate	FY2007 Estimate	To Complete	Total Program
OPN Line 2360	50,325	60,464	57,535							
OPN Line 2434	35,259	0	0							
O&M,N 5C2C	4,714	8,759	9,297							

(U) RELATED RDT&E: PE 0305885G

Exhibit R-2a, RDT&E Project Justification

DATE: JUNE 2001
BUDGET ACTIVITY: 5   PROGRAM ELEMENT: 0604721N   PROJECT NUMBER: X2134
          PROGRAM ELEMENT TITLE: Shipboard Information Warfare Exploit System   PROJECT TITLE: Shipboard I W Exploit

Cryptologic Unified Build (CUB)

C. (U) ACQUISITION
     STRATEGY

	FY2000	FY2001	FY 2002	To Complete
Program Milestones				
Engineering Milestones			Integration Testing & Engineering Release CUB 4.X	System Requirements Review CUB 5.X
			Test Readiness Review CUB 4.X	Critical Design Review CUB 5.X
T&E Milestones			Interoperability Certification & Shipboard Tes	Interoperability Testing, Certification & Shipboard Test
Contract Milestones				

                                                        Exhibit R-2a, RDT&E Project Justification

DATE: JUNE 2001

BUDGET ACTIVITY: 5   PROGRAM ELEMENT: 0604721N   PROJECT NUMBER: X2134
              PROGRAM ELEMENT TITLE: Shipboard Information Warfare Exploit System   PROJECT TITLE: Shipboard I W Exploit

SSEE Increment E

C. (U) ACQUISITION
      STRATEGY:

	FY2000	FY2001	FY 2002	To Complete
Program Milestones			Operational Test Readiness Review (OTRR)	Operational Assessment (LRIP) Milestone IIID
Engineering Milestones			Integration Testing and Factory Acceptance Test (FAT)	P3I development and testing
			Test Readiness Review	Preliminary Design Review (PDR)
T&E Milestones			Development Testing (DT)	Interoperability Testing
			Operational Testing (OPEVAL)	
Contract Milestones		Award Development Contract		Award Full Rate Production Contract

DATE: JUNE 2001
BUDGET ACTIVITY: 5   PROGRAM ELEMENT: 0604721N   PROJECT NUMBER: X2134
            PROGRAM ELEMENT TITLE: Shipboard Information Warfare Exploit System   PROJECT TITLE: Shipboard I W Exploit

BGPHES

	FY2000	FY2001	FY 2002	To Complete
Program Milestones				
Engineering Milestones	P3I Development			
T&E Milestones	-JSAF Interoperability Testing -T&E TAC 4 -T&E SIGINT	Interoperability Testing	Interoperability Testing DII COE/CUB 3.X Upgrade	Interoperability Testing DII COE/CUB 4.X Upgrade
Contract Milestones				

CDL-N

	FY2000	FY2001	FY 2002	To Complete
Program Milestones				
Engineering Milestones				
T&E Milestones			-Complete ship to ship Inter-operability Tests -UAV Inter-operability Tests	-SHARP Interoperability Testing
Contract Milestones				

                                        Exhibit R-2a, RDT&E Project Justification

DATE: JUNE 2001

BUDGET ACTIVITY: 5   PROGRAM ELEMENT: 0604721N   PROJECT NUMBER: X2134

PROGRAM ELEMENT TITLE: Shipboard Information Warfare Exploit System   PROJECT TITLE: Shipboard I W Exploit

Exhibit R-3 Cost Analysis (page 1)													Date: JUNE 2001		
APPROPRIATION: RDT&E,N BUDGET ACTIVITY : 5				PROGRAM ELEMENT: 0604721N					Shipboard IW Exploit X2134			
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY01 Cost	FY01 Award Date	FY02 Cost	FY02 Award Date	Cost	Award Date	Cost To Complete	Total Cost	Target Value of Contract
Hardware Development/Integration	Various	Various	0	633	Jan 01	7,330	Dec 01			Cont.	Cont.	Cont.
Subtotal Product Development			0	633		7,330				Cont.	Cont.	Cont.
Remarks:												
Integrated Logistics Support	Various	Various	0	0		0						
Subtotal Support			0	0		0						
Remarks

Prior year reflected in Project x2135 | | | | | | | | | | | | |

Exhibit R-3, RDT&E Project Cost Analysis

DATE: JUNE 2001
BUDGET ACTIVITY: 5   PROGRAM ELEMENT: 0604721N   PROJECT NUMBER: X2134
PROGRAM ELEMENT TITLE: Shipboard Information Warfare Exploit System   PROJECT TITLE: Shipboard I W Exploit

Exhibit R-3 Cost Analysis (page 2)										Date: JUNE 2001		
APPROPRIATION: RDT&E,N BUDGET ACTIVITY : 5				PROGRAM ELEMENT: 0604721N						Shipboard IW Exploit: X2134		
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY01 Cost	FY01 Award Date	FY02 Cost	FY02 Award Date	Cost	Award Date	Cost To Complete	Total Cost	Target Value of Contract
Developmental /Operational T&E	Various	Various	0	70	Jan 01	800	Dec 01			Cont.	Cont.	Cont.
Subtotal T&E			0	70		800				Cont.	Cont.	Cont.
Remarks												
Project Management	Various	Various	0	0		0						
Subtotal Management			0	0		0						
Remarks												
Total Cost			0	703		8,130				Cont.	Cont.	Cont.

Exhibit R-3, RDT&E Project Cost Analysis

UNCLASSIFIED
EXHIBIT R-2a, FY 2002 RDT&E,N PROJECT JUSTIFICATION

DATE: JUNE 2001
BUDGET ACTIVITY: 5   PROGRAM ELEMENT: 0604721N   PROJECT NUMBER: X2135
                     PROGRAM ELEMENT TITLE: Shipboard Information Warfare Exploit System   PROJECT TITLE: CDL-N

(U) COST: (Dollars in Thousands)

PROJECT NUMBER & Title	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	To Complete	Total Program
X2135 CDL-N	901	1,508	0						

Request Project Title be changed to Common Data Link – NAVY (CDL-N)

A.   (U) MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: The Common Data Link-NAVY (CDL-N) (formerly CHBDL) equipment will provide a common high bandwidth data link shipboard terminal for the receipt of signal, imagery, second counter-intelligence data from remote airborne sensors and the transmission of link and sensor control data to airborne platforms.   Signal intelligence data is received from the Battle Group Passive Horizon Extension System (BGPHES) Airborne Component (AC) and delivered to the BGPHES Shipboard Terminal.   Imagery intelligence data is received from various tactical airborne reconnaissance systems and delivered to the Joint Service Imagery Processing System – Navy (JSIPS-N).   Acoustic intelligence data is received from various tactical airborne reconnaissance systems and delivered to the Aircraft Carrier Tactical Support Center.

*POM 02 process transferred Project X2135 funding to Project X2134. The lines were consolidated for efficiency of management and also as a reflection of greater commonality in the systems. This latter point reflects the continuing effort to collapse "stovepipes" in order to achieve a scaleable, modular open architecture cryptologic system made up of common hardware components and running common operator interface software.

Exhibit R-2a, RDT&E Project Justification

DATE: JUNE 2001
BUDGET ACTIVITY: 5   PROGRAM ELEMENT: 0604721N   PROJECT NUMBER: X2135
                   PROGRAM ELEMENT TITLE: Shipboard Information Warfare Exploit System   PROJECT TITLE: CDL-N
(U) PROGRAM ACCOMPLISHMENTS AND PLANS:

1. (U) FY 2000 ACCOMPLISHMENTS:

   • (U) ($141) Continued development efforts for interoperability with other emerging sensor systems.

   • (U) ($320) Continued development efforts for ship-to-ship data connectivity.

   • (U) ($100) Continued multi-queuing capability development.

   • (U) ($100) Completed development of wideband encryption (KG35)enhancements.

   • (U) ($240) Complete Test and Evaluation with other systems such as Joint Services Imagery Processing
            System (JSIPS) ATARS, GUARDRAIL, U-2 AIP, and HAE UAVs.

2. (U) FY 2001 PLAN:

   • (U) ($475) Continue development efforts for interoperability with other emerging sensor systems

   • (U) ($325) Continue development efforts for ship-to-ship data connectivity.

   • (U) ($708) Complete multi-queuing capability development.

B. (U) OTHER PROGRAM FUNDING SUMMARY: (Dollars in thousands)

	FY 2000 Estimate	FY 2001 Estimate	FY 2002 Estimate	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	To Complete	Total Program
OPN Line 2434	35,259	0	0	0	0	0	0	0	*	*
O&M,N	812	0	0	0	0	0	0	0	*	*

* See Project x2134.

   (U) RELATED RDT&E: PE 0603261N Project A2174 Joint Service Imagery Processing Systems - Navy (JSIPS-N).

DATE: JUNE 2001

BUDGET ACTIVITY: 5   PROGRAM ELEMENT: 0604721N   PROJECT NUMBER: X2135
                     PROGRAM ELEMENT TITLE: Shipboard Information Warfare Exploit System   PROJECT TITLE: CDL-N

CDL-N

	FY2000	FY2001	FY 2002	3	To Complete

Program Milestones

Engineering Milestones   Complete Multi
                                                Queuing Capability

T&E Milestones   ATARS/UAV Interoperability
                        Tests
                        AIP Interoperability
                        Tests

Contract Milestones

                                        Exhibit R-2a, RDT&E Project Justification

DATE: JUNE 2001
BUDGET ACTIVITY: 5   PROGRAM ELEMENT: 0604721N   PROJECT NUMBER: X2135
                     PROGRAM ELEMENT TITLE: Shipboard Information Warfare Exploit System   PROJECT TITLE: CDL-N

Exhibit R-3 Cost Analysis (page 1)										Date: JUNE 2001		
APPROPRIATION: RDT&E,N BUDGET ACTIVITY : 5				PROGRAM ELEMENT: 0604721N						CDL-N X2135		
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY01 Cost	FY01 Award Date	FY02 Cost	FY02 Award Date	Cost	Award Date	Cost To Complete	Total Cost	Target Value of Contract
Primary Hardware Development	CPFF	Loral- Salt Lake, UT	20,502	0		0				20,502	20,502	20,502
Hardware Development/Integration	Various	Various	5,057	1,358	Dec 00	0				*	*	*
Subtotal Product Development			25,559	1,358		0				*	*	*
Remarks: *SEE PROJECT X2134												
Integrated Logistics Support	Various	Various	254	0		0				*	*	*
Subtotal Support			254	0		0						
Remarks * SEE PROJECT X2134												

DATE: JUNE 2001
BUDGET ACTIVITY: 5   PROGRAM ELEMENT: 0604721N   PROJECT NUMBER: X2135
          PROGRAM ELEMENT TITLE: Shipboard Information Warfare Exploit System   PROJECT TITLE: CDL-N

Exhibit R-3 Cost Analysis (page 2)									Date: JUNE 2001			
APPROPRIATION: RDT&E,N BUDGET ACTIVITY : 5			PROGRAM ELEMENT: 0604721N					CDL-N X2135				
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY01 Cost	FY01 Award Date	FY02 Cost	FY02 Award Date	Cost	Award Date	Cost To Complete	Total Cost	Target Value of Contract
Developmental/Operational T&E	Various	Various	1,515	150	Dec 00	0				*	*	*
Subtotal T&E			1,515	150		0				*	*	*
Remarks *SEE PROJECT X2134												
Project Management	Various	Various	465	0		0				*	*	*
Subtotal Management			465	0		0						
Remarks * SEE PROJECT X2134												
Total Cost			27,793	1,508		0				Cont.	Cont.	Cont.

                                                    Exhibit R-3, RDT&E Project Cost Analysis