

UNCLASSIFIED
 FY 2003 RDT&E,N BUDGET ITEM JUSTIFICATION

DATE: FEBRUARY 2002

BUDGET ACTIVITY: 7

PROGRAM ELEMENT: 0205604N
 PROJECT TITLE: Tactical Data Links

(U) COST: (Dollars in Thousands)

PROJECT NUMBER & TITLE	FY 2001 ACTUAL	FY 2002 ESTIMATE	FY 2003 ESTIMATE	FY 2004 ESTIMATE	FY 2005 ESTIMATE	FY 2006 ESTIMATE	FY 2007 ESTIMATE	TO COMPLETE	TOTAL PROGRAM
X1743 Link-16 Improvements	4,219	15,073	15,207	17,586	7,564	14,496	7,847	CONT	CONT
X2126 ATDLS Integration	21,513	23,940	27,460	24,440	13,283	19,639	17,696	CONT	CONT
TOTAL	25,732	39,013	42,667	42,026	20,847	34,135	25,543	CONT	CONT

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

(U) This program element (PE) develops and improves the Navy's tactical data link systems. It includes the Link-16 Improvements and Advanced Tactical Data Link Systems (ATDLS) Integration Programs.

(U) Link-16 Improvements extends Link-16 technological improvements to existing and developing U.S. Navy data link systems, including Link-11 and Link-22. Near term Link-11 improvements include: Mobile Universal Link Translator System (MULTS) upgrade, Common Shipboard Data Terminal Set (CSDTS), Link-11 Baseline Freeze message standard work, and the NATO Improved Link-11 (NILE) Project. Link-22 will pass TADIL-J data elements beyond the line of sight (HF) using a Time Division Multiple Access (TDMA) protocol and the improved Link-11 waveform. The Common Data Link Monitoring System (CDLMS) will be upgraded to Next Generation Command and Control Processor (C2P) to accommodate the higher CPU speeds, update rate and memory capacity required for multi-TADIL processing functions. The Multi-TADIL Capability (MTC) is the initial phase of the Next Generation C2P architecture. Next Generation C2P will be based on open system hardware and software architecture, providing a system capable of supporting critical data link functions, including Link-22, Link-16 Joint Range Extension (JRE) and high throughput Link-16. These projects will allow more effective employment of fleet units by increasing timeliness, accuracy, and content of tactical data transfer.

(U) The ATDLS Integration Program will integrate the Multifunctional Information Distribution System – Low Volume Terminal (MIDS-LVT) Link-16 terminal into U.S. Navy platforms. This multinational (U.S., France, Germany, Italy, and Spain) cooperative development program was established to design, develop, and deliver low-volume lightweight tactical information system terminals for U.S. and foreign fighter aircraft, helicopters, ships and ground sites. The terminals are designed as a pre-planned product improvement of the Joint Tactical Information Distribution System (JTIDS) Time Division Multiple Access (TDMA) Class II terminal. The goal of the MIDS-LVT program is to produce a terminal that is

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smaller, lighter, fully compatible with, and as capable as the JTIDS TDMA Class 2 terminals, but suitable for use in platforms that cannot accommodate the bulkier, heavier JTIDS TDMA Class II equipment. This project includes the costs to integrate and test MIDS on the Navy's F/A-18 and selected ship platforms. ATDLS Integration of the MIDS-LVT will also provide selected U.S. Navy and U.S. Marine Corps tactical aircraft, U.S. Navy ships, and U.S. Marine Corps ground units with crypto-secure, jam resistant, low-probability-of-exploitation communication of tactical data and voice at a high data rate. It will have additional capabilities of common grid navigation and automatic relay inherent in the equipment that will enable long-range communication and provide jam resistance. The system will be interoperable among all services and NATO/Allied users equipped with MIDS-LVT or JTIDS Class II/IIA.

(U) ATDLS Integration Program also develops new and improved capabilities for Navy TADIL-J users. The Command and Control Processor is a software development effort that provides an interface between the TADILs (Links 4A, 11, and 16) and major surface ship Command and Control Systems (Advanced Combat Direction System (ACDS) and AEGIS Command and Decision (C&D)). The Common Data Link Management System is a pre-planned product improvement of the Command and Control Processor. The CDLMS will provide translation between TADILs and isolate all tactical data link equipment, message standards and protocols from tactical information processors. This will provide a flexible capability for rapidly exchanging tactical information using a single database for translating various link formats while remaining completely independent of communications equipment and tactical data computing systems. Development of new capabilities in ATDLS includes Low Cost Integration and Dynamic Network Management. Low Cost Integration effort develops a Link-16 transmit capability that will be provided to Navy aircraft platforms as a positive Combat ID method of identifying friendly units in the battlespace. Dynamic Network Management will provide automatic reconfiguration of Link-16 networks that respond instantly to emergent warfighter requirements in the field.

(U) This program element also funds: (1) the development required to accommodate expanded Link-16 operational capabilities for additional warfare areas, (2) development of automated network management aids, and (3) related systems engineering and contractor support efforts.

(U) JUSTIFICATION FOR BUDGET ACTIVITY: This program is funded under OPERATIONAL SYSTEMS DEVELOPMENT because it encompasses engineering and manufacturing development for upgrade of existing, operational systems.

(U) **NOTE:** Defense Emergency Relief Fund (DERF) funding of \$5.164M will: (1) increase the scope of the Link-16 Improvement Program to develop new capabilities which are pivotal in support of the Joint and Navy requirement in developing a coherent tactical picture; and (2) crossdeck Dual Net Multi-Frequency Link-11 (DNMFL) Prototypes for data collection and analysis to design and develop DNMFL capability into the Common Data Link Management System (CDLMS).

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B. (U) PROGRAM CHANGE SUMMARY:

(U) Funding:

FY 2001: Section 8086 .7% Pro-Rata Reduction (-\$183K), Government-Wide Rescission (-\$57K), transfer to SBIR (-\$366K), Federal Technology Transfer (-\$16K), and Department adjustments (\$109K).

FY 2002: Section 8123: Management Reform Initiative (-\$347K), and Section 8032: FFRDC (-\$2K).

(U) Schedule: Link-22/Next Generation C2P IOC changed from 1Q/04 to 4Q/05 as a result of extending the design process development to align with combat system requirements. Also, additional test and evaluation efforts are required to meet fleet interoperability requirements including the Combat System Interoperability Test (CSIT), Battlegroup Interoperability Test (BGIT) and the link certification test.

MIDS DAB Milestone III (MS III) changed from 3Q/01 to 1Q/03 due to recent Navy decision to use LRIP terminals instead of EMD terminals for MOS IOT&E.

Completion of Performance Upgrades development efforts slipped from FY 01 to FY 02. OPTEVFOR's requirement to test CDLMS software version 2.0 integrated into AEGIS Baseline 6.1 has slipped from FY 01 to FY 02 due to slip in AEGIS Baseline 6.1 certification test. The slip was also due to the additional requirements to develop CDLMS software version 3.0 to meet AEGIS Baseline 6 Phase 3 software requirements since Next Generation C2P IOC was delayed until FY 05.

(U) Technical: Not applicable.

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PROGRAM ELEMENT: 0205604N
 PROGRAM ELEMENT TITLE: Tactical Data Links

PROJECT NUMBER: X1743
 PROJECT TITLE: Link-16 Improvements

(U) COST (Dollars in Thousands)

PROJECT NUMBER & TITLE	FY 2001 ACTUAL	FY 2002 ESTIMATE	FY 2003 ESTIMATE	FY 2004 ESTIMATE	FY 2005 ESTIMATE	FY2006 ESTIMATE	FY2007 ESTIMATE	TO COMPLETE	TOTAL PROGRAM
X1743 Link-16 Improvements	4,219	15,073	15,207	17,586	7,564	14,496	7,847	CONT	CONT

A. (U) MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: Link-16 Improvements extends Link-16 technological improvements to existing and developing U.S. Navy data link systems, including Link-11 and Link-22. Near term Link-11 improvements include: Mobile Universal Link Translator System (MULTS) upgrade, Common Shipboard Data Terminal Set (CSDTS), Link-11 Baseline Freeze message standard work, and the NATO Improved Link-11 (NILE) Project. Link-22 will pass TADIL-J data elements beyond the line of sight (HF) using a Time Division Multiple Access (TDMA) protocol and the improved Link-11 waveform. The Common Data Link Monitoring System (CDLMS) will be upgraded to Next Generation Command and Control Processor (C2P) to accommodate the higher CPU speeds, update rate and memory capacity required for multi-TADIL processing functions. The Multi-TADIL Capability (MTC) is the initial phase of the Next Generation C2P architecture. Next Generation C2P will be based on open system hardware and software architecture, providing a system capable of supporting critical data link functions, including Link-22, Link-16 Joint Range Extension (JRE) and High Throughput Link-16. These projects will allow more effective employment of fleet units by increasing timeliness, accuracy, and content of tactical data transfer.

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PROGRAM ELEMENT: 0205604N
PROGRAM ELEMENT TITLE: Tactical Data Links

PROJECT NUMBER: X1743
PROJECT TITLE: Link-16 Improvements

(U) PROGRAM ACCOMPLISHMENTS AND PLANS:

1. (U) FY 2001 ACCOMPLISHMENTS

- (U) (\$2,530) Continued to design and develop combined CDLMS/Link-22 program enhancements, which include design and development of Multi-TADIL Capability (MTC) and Next Generation Command Control Processor (C2P). Initiated development of system specifications and performance baselines for Next Generation C2P.
- (U) (\$1,444) Initiated design definition and requirements for Link-22. Continued reviewing Link-22 message standards as part of the Link-22 design for Next Generation C2P.
- (U) (\$ 245) Completed design and development of Subphase 2 software for the NILE Reference System (NRS), design and development of NILE Subphase 2 software for the Multi-Link Test Tool.

2. (U) FY 2002 PLAN

- (U) (\$7,833) Continue to develop CDLMS/Link-22 program enhancements, which include design and development of MTC and Next Generation C2P and integration of the System Network Controller (SNC). Continue development of systems specifications and performance baselines for Next Generation C2P. Complete MTC development. Conduct Next Generation C2P Software Systems Requirement Review (SRR) and Preliminary Design Review (PDR).
- (U) (\$6,340) Continue Link-22 design requirements to support integration of Link-22 into Next Generation C2P. Initiate development of CSDTS changes to support Link-22 System Processor Controller (SPC) waveforms.
- (U) (\$ 900) Complete NILE Design and Development Subphase 2 software for the Multi-Link Test Tool (MLTT). Commence NILE In-Service Support Phase to continue ongoing requirements to support the Systems Network Controller (SNC) and associated equipment, including performing activities to correct deficiencies and to pursue improvements. Certify the Link-Level COMSEC (LLC) and MLTT software applications used in NILE architecture.

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PROJECT NUMBER: X1743
 PROJECT TITLE: Link-16 Improvements

3. (U) FY 2003 PLAN

- (U) (\$7,842) Continue design and development of CDLMS/Link-22 program enhancements, which include design and development of Next Generation C2P and integration with the System Network Controller. Complete system specifications and performance baselines for Next Generation C2P. Conduct Next Generation C2P Critical Design Review.
- (U) (\$6,436) Continue development of CSDTS changes to support Link-22 waveforms. Continue CSDTS software changes. Complete design of Link-22 and initiate integration of Link-22 with Next Generation C2P.
- (U) (\$ 929) Continue NILE In-Service Support Phase requirements to support the Systems Network Controller (SNC) and associated equipment, including performing activities to correct deficiencies and to pursue improvements. Test LLC LRIP units to validate Link-22 design and development.

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

NUMBER TITLE	FY 2001 ACTUAL	FY 2002 ESTIMATE	FY 2003 ESTIMATE	FY 2004 ESTIMATE	FY 2005 ESTIMATE	FY 2006 ESTIMATE	FY2007 ESTIMATE	TO COMPLETE	TOTAL PROGRAM
OPN Line 2614 ATDLS	18,169	9,876	7,608	16,710	2,648	13,729	12,016	CONT	CONT
DERF R&D		5,164							
OPN		3,416							
O&M		3,920							

Note: OPN includes procurement of hardware developed under Link-16 Improvements and ATDLS Integration Programs.

C. (U) ACQUISITION STRATEGY: NILE Reference System, Link-22 system development, CDLMS/Link-22 program enhancements and Next Generation C2P are utilizing existing cost plus contracts.

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 PROGRAM ELEMENT TITLE: Tactical Data Links

PROJECT NUMBER: X1743
 PROJECT TITLE: Link-16 Improvements

D. (U) SCHEDULE PROFILE:

	<u>FY 2001</u>	<u>FY2002</u>	<u>FY 2003</u>	<u>TO COMPLETE</u>
Program Milestones				Next Gen C2P IOC 4Q/05
Engineering Milestones		Next Gen C2P SRR 1Q/02	Interim Next Gen C2P S/W Certification Test 1Q/03	
		Next Gen C2P PDR 4Q/02	Next Gen C2P CDR 3Q/03	
T&E Milestones		MLTT Certification 3Q/02		Next Gen C2P S/W Acceptance Test 4Q/04
		LLC Certification 4Q/02		Next Gen C2P CSIT 1Q/05
				Next Gen C2P TECHEVAL/OPEVAL 3Q/05
				Next Gen C2P Link Cert 3Q/05
				Next Gen C2P BGIT 4Q/05
Contract Milestones			LLC LRIP 2Q/03	

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PROGRAM ELEMENT: 0205604N
 PROGRAM ELEMENT TITLE: Tactical Data Links

PROJECT NUMBER: X2126
 PROJECT TITLE: ATDLS Integration

Exhibit R-3 Cost Analysis (page 1)												
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY01 Cost	FY01 Award Date	FY02 Cost	FY02 Award Date	FY 03 Cost	FY03 Award Date	Cost To Complete	Total Cost	Target Value of Contract
NATO Improved Link Eleven Subphase 2	CPIF	Logicon, San Diego, CA	2,476	245	Various	100	01/02				2,821	2,821
Link-22 Systems Engineering/Integration	WX	SPAWARSYSCEN San Diego, CA	3,261	286	Various	2,236	Various	1,462	Various	Cont	Cont	Cont
Link-22 Integration	CPFF	Logicon, San Diego, CA		100	03/01	19	01/02	269	01/03	Cont	388	388
Link-22 Integration	CPFF	DRS, Wyndmoor, PA				538	Various	707	Various	Cont	Cont	Cont
Link-22 Network Design	WX	NCTSI, San Diego, CA	345	145	Various	430	Various	380	Various	Cont	Cont	Cont
C2P Improvements	Various	Various	2,377								2,377	2,377
Multi-TADIL Capability (MTC)	Various	Various	855	95	05/01						950	950
Next Generation C2P Design/Dev	CPFF	APC, Austin, TX	1,325	905	Various	5,580	Various	6,455	Various	Cont	Cont	Cont
Next Generation C2P LLC	WX	SPAWARSYSCEN San Diego, CA				1,477	Various	635	Various	Cont	Cont	Cont
Next Generation C2P TDA	CPFF	APL/JHU, Laurel, MD		2,000	Various	2,649	Various	2,789	Various	Cont	Cont	Cont
NILE ISS Phase	Various	Logicon, San Diego, CA				300	Various	400	Various	Cont	Cont	Cont
NILE LLC Dev	CPIF	VIASAT, San Diego, CA				500	12/01	543	12/02	Cont	Cont	Cont
Subtotal Product Development			10,639	3,776		13,829		13,640		Cont	Cont	Cont

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PROJECT NUMBER: X2126
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Exhibit R-3 Cost Analysis (page 2)												
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY01 Cost	FY01 Award Date	FY02 Cost	FY02 Award Date	FY 03 Cost	FY03 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Test and Evaluation	WX	SPAWARSYSCEN San Diego, CA	272	175	12/00	753	Various	913	Various	Cont	Cont	Cont
Subtotal T&E			272	175		753		913		Cont	Cont	Cont
Remarks												
Engineering Support and Travel	Various	Various	547	268	Various	491	Various	654	Various	Cont	Cont	Cont
Subtotal Management			547	268		491		654		Cont	Cont	Cont
Remarks												
Total Cost			11,458	4,219		15,073		15,207		Cont	Cont	Cont
Remarks :												

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PROJECT NUMBER: X2126
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Exhibit R-3 Cost Analysis for DERF (page 1)												
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY01 Cost	FY01 Award Date	FY02 Cost	FY02 Award Date	FY03 Cost	FY03 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Link-22 Systems Engineering/Integration	WX	SPAWARSYSCEN San Diego, CA				800	Various				800	800
Next Generation C2P Systems Engineering	Various	Various				450	Various				450	450
Next Generation C2P Design/Dev	CPFF	APC, Austin, TX				1,500	Various				1,500	1,500
Next Generation C2P TDA	CPFF	APL/JHU, Laurel, MD				750	Various				750	750
Subtotal Product Development						3,500					3,500	3,500
Subtotal T&E						0						0
Remarks												
Engineering Support and Travel						0					0	0
Subtotal Management						0					0	0
Remarks												
Total Cost						3,500					3,500	3,500
Remarks : DERF funding not included in PB 03 totals												

(U) COST (Dollars in Thousands)

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PROGRAM ELEMENT: 0205604N
 PROGRAM ELEMENT TITLE: Tactical Data Links

PROJECT NUMBER: X2126
 PROJECT TITLE: ATDLS Integration

PROJECT NUMBER & TITLE	FY 2001 ACTUAL	FY 2002 ESTIMATE	FY 2003 ESTIMATE	FY 2004 ESTIMATE	FY 2005 ESTIMATE	FY 2006 ESTIMATE	FY 2007 ESTIMATE	TO COMPLETE	TOTAL PROGRAM
X2126 ATDLS Integration	21,513	23,940	27,460	24,440	13,283	19,639	17,696	CONT	CONT

A. (U) MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: The ATDLS Integration program will integrate the Multifunctional Information Distribution System – Low Volume Terminal (MIDS-LVT) Link-16 terminal into U.S. Navy platforms. This multinational (U.S., France, Germany, Italy, and Spain) cooperative development program was established to design, develop, and deliver low-volume lightweight tactical information system terminals for U.S. and foreign fighter aircraft, helicopters, ships and ground sites. The terminals are designed as a Pre-Planned Product Improvement (P³I) of the Joint Tactical Information Distribution System (JTIDS) Time Division Multiple Access (TDMA) Class II terminal. The goal of the MIDS-LVT program is to produce a terminal that is smaller, lighter, fully compatible with, and as capable as the JTIDS TDMA Class II terminals, but suitable for use in platforms that cannot accommodate the bulkier, heavier JTIDS TDMA Class II equipment. This project includes the costs to integrate and test MIDS on the Navy’s F/A-18 and selected ship platforms. ATDLS Integration of the MIDS-LVT will also provide selected U.S. Navy and U.S. Marine Corps tactical aircraft, U.S. Navy ships, and U.S. Marine Corps ground units with crypto-secure, jam resistant, low-probability-of-exploitation communication of tactical data and voice at a high data rate. It will have additional capabilities of common grid navigation and automatic relay inherent in the equipment that will enable long-range communication and provide jam resistance. The system will be interoperable among all services and NATO/Allied users equipped with MIDS-LVT or JTIDS Class II/IIA.

(U) ATDLS Improvement program also develops new and improved capabilities for Navy TADIL-J users. The Command and Control Processor (C2P) is a software development effort that provides an interface between the TADILs (Link 4A, 11, and 16) and major surface ship Command and Control Systems (Advanced Combat Direction System (ACDS) and AEGIS C&D). Common Data Link Management System (CDLMS) is a Pre-planned Product Improvement (P3I) of the C2P. The CDLMS will provide translation between TADILs and isolate all tactical data link equipment, message standards and protocols from tactical information processors. This will provide a flexible capability for rapidly exchanging tactical information using a single database for translating various link formats while remaining completely independent of communications equipment and tactical data computing systems. Development of new capabilities in ATDLS includes Low Cost Integration and Dynamic Network Management. Low Cost Integration effort develops a Link-16 transmit capability that will be provided to Navy aircraft platforms as a positive Combat ID method of identifying friendly units in the battlespace. Dynamic Network Management will provide automatic reconfiguration of Link-16 networks that respond instantly to emergent warfighter requirements in the field.

(U) This project also funds: (1) the development required to accommodate expanded Link-16 operational capabilities for additional warfare areas, (2) development of automated network management aids, and (3) related systems engineering and contractor support efforts.

(U) Additional terminal development costs are funded in program element 0604771D.

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PROGRAM ELEMENT: 0205604N
PROGRAM ELEMENT TITLE: Tactical Data Links

PROJECT NUMBER: X2126
PROJECT TITLE: ATDLS Integration

(U) PROGRAM ACCOMPLISHMENTS AND PLANS:

1. (U) FY 2001 ACCOMPLISHMENTS

- (U) (\$13,611) Continued F/A-18 MIDS integration; software development; aircraft modifications and testing; and interoperability certification testing.
- (U) (\$ 1,999) Completed MIDS on Ship development testing and operational assessment.
- (U) (\$ 1,643) Continued TADIL-J System Engineering to include investigating future capabilities and enhancements and ensuring Naval upgrades are interoperable with Joint U.S. and allied forces such as joint range extension, time slot reallocation, advanced network planning aids, design tools, link monitoring management tools and enhanced throughput.
- (U) (\$ 4,260) Continued Performance Upgrades including C2P Model 5 improvements, Common Data Link Management System (CDLMS) development, and Satellite-TADIL-J development.

2. (U) FY 2002 PLAN

- (U) (\$17,640) Complete F/A-18 MIDS integration software, flight, development and TECHEVAL.
- (U) (\$ 2,851) Integrate MIDS on Ship with Model 5 Combat System and conduct testing.
- (U) (\$ 1,655) Continue TADIL-J System Engineering to include investigating future capabilities and enhancements and ensuring Naval upgrades are interoperable with Joint U.S. and allied forces such as joint range extension, dynamic network management and time critical strike applications.
- (U) (\$ 1,794) Complete Performance Upgrades including C2P Model 5 improvements, Common Data Link Management System (CDLMS) development, and Satellite-TADIL-J development.

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PROJECT NUMBER: X2126
PROJECT TITLE: ATDLS Integration

3. (U) FY 2003 PLAN

- (U) (\$17,232) Complete F/A-18 MIDS OPEVAL. Conduct F/A-18 system interoperability certification testing.
- (U) (\$ 2,491) Complete MIDS on Ship development and operational testing.
- (U) (\$ 2,441) Continue TADIL-J Systems Engineering to include investigating future capabilities and enhancements and ensuring Naval upgrades are interoperable with Joint U.S. and allied forces such as joint range extension, dynamic network management, time critical strike, and support integration concepts for additional aircraft.
- (U) (\$ 2,110) Commence Low Cost Integration development to provide common host and terminal software to support lower cost Link-16 capability on Navy aircraft systems. Supports Combat ID, situational awareness, and joint data network capability for Navy air platforms not currently integration with Link-16.
- (U) (\$ 3,186) Commence Dynamic Network Management development to provide automatic reconfiguration of Link-16 networks and dynamic reallocation of network capacity to meet emergent warfighter requirements in the field as operations evolve.

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PROGRAM ELEMENT: 0205604N
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PROJECT NUMBER: X2126
 PROJECT TITLE: ATDLS Integration

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

NUMBER TITLE	<u>FY 2001 ACTUAL</u>	<u>FY 2002 ESTIMATE</u>	<u>FY 2003 ESTIMATE</u>	<u>FY 2004 ESTIMATE</u>	<u>FY 2005 ESTIMATE</u>	<u>FY 2006 ESTIMATE</u>	<u>FY 2007 ESTIMATE</u>	<u>TO COMPLETE</u>	<u>TOTAL PROGRAM</u>
APN LINE									
LI 052500 F/A-18	47,234	32,373	48,577	48,740	51,294	43,667	49,862	CONT	CONT
RDT&E,DA	16,100	16,572	16,842	17,974	19,030	19,416	19,822	CONT	CONT
OPN LI 2614 ATDLS	18,169	9,876	7,608	16,710	2,648	13,729	12,016	CONT	CONT
DERF R&D		5,164							
OPN		3,416							
O&M		3,920							

Note: OPN includes procurement of hardware developed under Link-16 Improvements and ATDLS Integration Programs.

SCN - Funding for ATDLS hardware is not separately identified in the SCN budget exhibits.

RELATED RDT&E:

PE 0604771D/P771 - Link-16: Link-16 systems engineering support.

PE 0604771D/P773 - MIDS: MIDS-LVT terminal development.

C. (U) ACQUISITION STRATEGY: F/A-18 MIDS aircraft integration is utilizing cost plus fixed fee contracts on an R&D Basic Ordering Agreement with Boeing. MIDS integration and testing, TADIL-J systems engineering, and performance upgrades development are utilizing existing cost plus contracts.

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PROJECT NUMBER: X2126
 PROJECT TITLE: ATDLS Integration

D. (U) SCHEDULE PROFILE

	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>TO COMPLETE</u>
Program Milestones	LRIP 2 4Q/01	LRIP 3 3Q/02	DAB MS III 1Q/03 MIDS IOC 3Q/03	
Engineering Milestones				
T&E Milestones	F/A-18 DT-IIA-6 2Q/01 F/A-18 OT-IIA-3 1Q/01 F/A-18 DT Assist 4Q/01*	F/A-18 DT-IIA-7 1Q/02 F/A-18 TECHEVAL 3Q/02	F/A-18 OPEVAL 1Q/03 F/A-18 Interoperability Cert 1Q/03	F/A-18 FOT&E 2Q/04
Contract Milestones	Ship DT-IIB-2 2Q/01 Ship OT-IIB-1A OA 4Q/01	Ship DT-IIB-3 1Q/02 Ship DT-II-4 3Q/02	Ship TECHEVAL 2Q/03 Ship OPEVAL 4Q/03	

*Test requirements are performed in DT Assist event vice OT-IIA-4 event.

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PROGRAM ELEMENT: 0205604N
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PROJECT NUMBER: X2126
 PROJECT TITLE: ATDLS Integration

Exhibit R-3 Cost Analysis (page 1)												
APPROPRIATION: RDT&E,N BUDGET ACTIVITY: 7				PROGRAM ELEMENT: 0205604N				Tactical Data Links				
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY01 Cost	FY01 Award Date	FY02 Cost	FY02 Award Date	FY03 Cost	FY03 Award Date	Cost To Complete	Total Cost	Target Value of Contract
F/A-18 Integration	PD	NAVAIRSYSCOM PAX River, MD	121,701	9,767	Various	11,819	Various	8,358	Various	17,542	169,187	169,187
TADIL-J System Engineering	WX	SPAWARSYSCEN San Diego, CA	25,082	1,166	Various	1,193	Various	1,224	Various	Cont	Cont	Cont
TADIL-J System Engineering	Various	Various	3,315	285	Various	293	Various	1,028	Various	Cont	Cont	Cont
MIDS on Ship	CPIF	BAE Systems Wayne, NJ (DLS)	11,488	936	Various	1,593	Various	500	12/03		14,517	14,517
MIDS on Ship	Various	Various	43,078	512	Various	650	Various	900	Various		45,140	45,140
Performance Upgrades	WX	SPAWARSYSCEN San Diego, CA	9,157	1,996	Various	1,530	Various				12,683	12,683
Performance Upgrades	Various	Various	4,783								4,783	4,783
Air Defense System Integrator	CPFF	APC, Austin, TX	2,059								2,059	2,059
Dual Net Link-11	WX	Various	1,866								1,866	1,866
Korean Air Defense Sys Impr	CPFF	JHU/APL, Laurel, MD	900								900	900
DNMFL Prototypes	Various	Various		1,766	Various	86	10/01				1,852	1,852
Low Cost Integration	TBD	TBD						1,946	Various	Cont	Cont	Cont
Dynamic Network Management	TBD	TBD						2,940	Various	Cont	Cont	Cont
Subtotal Product Dev			223,429	16,428		17,164		16,896		Cont	Cont	Cont
Remarks:												

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 FY 2003 RDT&E,N PROJECT COST ANALYSIS

DATE: FEBRUARY 2002

BUDGET ACTIVITY: 7

PROGRAM ELEMENT: 0205604N
 PROGRAM ELEMENT TITLE: Tactical Data Links

PROJECT NUMBER: X2126
 PROJECT TITLE: ATDLS Integration

Exhibit R-3 Cost Analysis (page 2)												
APPROPRIATION: RDT&E,N BUDGET ACTIVITY: 7			PROGRAM ELEMENT: 0205604N						Tactical Data Links			
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY01 Cost	FY01 Award Date	FY02 Cost	FY02 Award Date	FY03 Cost	FY03 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Subtotal Support												
Remarks												
Test and Evaluation			3,975									3,975
MIDS F/A-18 T&E	WX	SPAWARSYSCEN San Diego, CA	5,479	1,609	Various	1,607	Various	2,967	Various	Cont	Cont	Cont
MIDS F/A-18 T&E	Various	Various	6,406	643	Various	2,400	Various	4,575	Various	Cont	Cont	Cont
MIDS on Ship T&E	PD	OPTEVFOR, Norfolk, VA		42	Various	50	Various	500	Various			592
MIDS on Ship T&E	WX	SPAWARSYSCEN San Diego, CA	665	275	Various	280	Various	400	Various		1,620	1,620
MIDS Test Assets	SS/CPAF /IF	MIDSCO Fairfield, NJ	6,594								6,594	6,594
Subtotal T&E			23,119	2,569		4,337		8,442		Cont	Cont	Cont
Remarks												

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 FY 2003 RDT&E,N PROJECT COST ANALYSIS

DATE: FEBRUARY 2002

BUDGET ACTIVITY: 7

PROGRAM ELEMENT: 0205604N
 PROGRAM ELEMENT TITLE: Tactical Data Links

PROJECT NUMBER: X2126
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Exhibit R-3 Cost Analysis (page 2)												
APPROPRIATION: RDT&E,N BUDGET ACTIVITY: 7			PROGRAM ELEMENT: 0205604N						Tactical Data Links			
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY01 Cost	FY01 Award Date	FY02 Cost	FY02 Award Date	FY03 Cost	FY03 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Engineering Support and Travel	Various	Various	2,479	2,516	Various	2,439	Various	2,122	Various	Cont	Cont	Cont
Subtotal Management			2,479	2,516		2,439		2,122		Cont	Cont	Cont
Remarks												
Total Cost			249,027	21,513		23,940		27,460		Cont	Cont	Cont

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 FY 2003 RDT&E,N PROJECT COST ANALYSIS

DATE: FEBRUARY 2002

BUDGET ACTIVITY: 7

PROGRAM ELEMENT: 0205604N
 PROGRAM ELEMENT TITLE: Tactical Data Links

PROJECT NUMBER: X2126
 PROJECT TITLE: ATDLS Integration

Exhibit R-3 Cost Analysis for DERF (page 1)												
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY01 Cost	FY01 Award Date	FY02 Cost	FY02 Award Date	FY 03 Cost	FY03 Award Date	Cost To Complete	Total Cost	Target Value of Contract
DNMFL Link 11 Prototype Installation	WX	SPAWARSYSCEN San Diego, CA				1,025	Various				1,025	1,025
DNMFL Link 11 Prototype Systems Engineering	CPFF	JHU/APL, Laurel, MD				389	Various				389	389
DNMFL Link 11 Prototype (MK-70 Switchboard)	WX	NSWC Port Hueneme Division				250	Various				250	250
Subtotal Product Development						1,664					1,664	1,664
						0					0	0
Subtotal T&E												
Remarks												
Engineering Support and Travel						0					0	0
Subtotal Management						0					0	0
Remarks												
Total Cost						1,664					1,664	1,664
Remarks : DERF funding not included in PB 03 totals												