

CLASSIFICATION:

EXHIBIT R-2, RDT&E Budget Item Justification						DATE: February 2007		
APPROPRIATION/BUDGET ACTIVITY <b>RESEARCH DEVELOPMENT TEST &amp; EVALUATION, NAVY/BA-7</b>				R-1 ITEM NOMENCLATURE <b>0205604N Tactical Data Links</b>				
COST (\$ in Millions)	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
<b>Total PE Cost</b>	<b>84.917</b>	<b>41.798</b>	<b>5.534</b>	<b>6.165</b>	<b>4.878</b>	<b>15.293</b>	<b>23.782</b>	<b>22.769</b>
1743 Link-16 Improvements	2.727	0.496						
2126 ATDLS Integration	80.450	41.302	5.534	6.165	4.878	15.293	23.782	22.769
9999 Congressional Increases	1.740							
Quantity of RDT&E Articles	3							

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

(U) This program element (PE) develops and improves the Navy's tactical data link (TDL) 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 new United States (US) Navy TDL systems, including Link-16 and Link-22. Link-16 Joint Range Extension (JRE) transfers Link-16 data via satellite communications and other non-radio frequency (RF) paths. High Throughput Link-16 provides improved data transmission rates by altering the modulation characteristics of Link-16. Link-22 will pass Link-16 data elements beyond the line-of-sight using a Time Division Multiple Access (TDMA) protocol and improved waveform with existing high-frequency (HF) and ultra-high-frequency (UHF) radios. This project allows more effective employment of fleet units by increasing timeliness, accuracy, and content of tactical data transfer and eliminate line-of-sight transmission limitations thereby improving operational flexibility. The Common Data Link Monitoring System (CDLMS) will be upgraded to Next Generation Command and Control Processor (NGC2P) to provide higher Central Processing Unit (CPU) speeds, update rate and memory capacity required for advanced multi-TDL processing functions. NGC2P will update CDLMS with advanced processors required to support critical data link functions including Link-16 JRE.

(U) ATDLS Integration Program develops new and improved capabilities for Navy Link-16 users. Development of new capabilities in ATDLS includes the Joint Interface Control Officer (JICO) Support System (JSS), Common Link Integration Processing (CLIP) and Dynamic Network Management (DNM). JSS will be the standard joint service toolset to monitor and control Multi-TDL network architectures. The Common Link Integration Processing (CLIP) concept will introduce open system software required to reduce life cycle support costs and commercial off-the-shelf (COTS) technology refresh objectives and high throughput Link-16. The CLIP development concept addresses fundamental interoperability and affordability of tactical data link capabilities through cooperative development program under both U. S. Navy (USN) and U.S. Air Force (USAF) sponsorship. The principal goal of CLIP is to develop a multi-TDL software capability that can be utilized by multiple platforms (aircraft, ships, and ground) for all services. Dynamic Network Management (DNM) will provide automatic reconfiguration of Link-16 networks that respond instantly to emergent warfighter requirements in the field. DNM consists of different capabilities including NetworkControl Technologies (NCT), new terminal protocols (time slot reallocation (TSR) receipt compliance (RC) (TSR RC) and Stochastic Unified Multiple Access (SHUMA)) and has been significantly expanded to include a more robust TSR and adaptive multi-netting. The DNM capability will be integrated into the JSS host system and also Joint Tactical Information Distribution System (JTIDS), Multifunctional Information Distribution System (MIDS) and Joint Tactical Radio System (JTRS) terminals.

(U) FY06 includes Congressional Increase for the Airborne Tactical Server (ATS). ATS is a digital audio/video recorder with removable mass memory and a CPU. The ATS will function as an adjunct processor within the F/A-18 to demonstrate Level 2 Airborne Network Integration. The ATS will use an existing contract for demonstration only as risk reduction for future Battlespace Networking efforts.

(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.

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APPROPRIATION/BUDGET ACTIVITY <b>RESEARCH DEVELOPMENT TEST &amp; EVALUATION, NAVY/BA-7</b>		R-1 ITEM NOMENCLATURE <b>0205604N Tactical Data Links</b>		
<b>(U) B. PROGRAM CHANGE SUMMARY:</b>				
(U) Funding:	FY 2006	FY 2007	FY 2008	FY 2009
FY07 President's Budget	86.864	41.967	25.611	17.507
FY08 President's Budget	84.917	41.798	5.534	6.165
Total Adjustments	-1.947	-0.169	-20.077	-11.342
<b>Summary of Adjustments</b>				
Small Business Innovation Research (SBIR) Tax	-1.978			
Personnel Security Investigations (DSS)	-0.007			
FY 08 / FY 09 NWCF Rate Adjustments - SPAWAR Systems Centers			0.163	0.091
Program Adjustments	0.038	-0.159	-20.24	-11.433
Federal Fund R &D Center		-0.010		
Subtotal	-1.947	-0.169	-20.077	-11.342
 (U) Schedule:				
Link 16 (project 1743) - Next Generation Command and Control Processor (NGC2P) milestone C ( MS C ) properly renamed as Low Rate Initial Production - 2 (LRIP-2) Program Review for interim LRIP decision. TECHEVAL and OPEVAL will occur together in 4th Qtr FY07. FRP for NGC2P has now planned for in 2nd Qtr FY08.				
ATDLS (project 2126) - Common Link Integration Processing (CLIP) CDR modified from 2nd Qtr FY 06 to 3rd Qtr FY 06 and, DT shifted 3rd Qtr FY 06 to 4th Qtr FY 06 in order to facilitate incorporation of additional technical requirements to support platform integration and CLIP key performance parameters. Following Increment 1 MS C (2nd Qtr FY08), CLIP development continues as a U.S. Air Force program.				
Dynamic Network Management (DNM) Stochastic Unified Multiple Access (SHUMA)/time slot reallocation (TSR) initial operating capabilities (IOC) shifted from 3rd Qtr FY 08 to 1st Qtr FY 09 to align with Joint Tactical Information Distribution System (JTIDS)/Multifunctional Information Distribution System (MIDS) and host platform updates. Platform Integration Testing events have been added to meet the AEGIS Baseline requirements. Multi-netting test events described as Phase I and Phase II. Phase I addresses requirements in the Tactical Data Link (TDL) Capabilities Development Document (CDD). Phase II addresses a fully dynamic multi-netting capability as addressed in the TDL CDD.				
JSS milestone C slipped from 4th quarter FY07 to 4th quarter FY08. Full Rate Production (FRP) slipped 2nd quarter FY08 to 4th quarter FY08.				
 (U) Technical: Not applicable.				

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification						DATE: February 2007		
APPROPRIATION/BUDGET ACTIVITY <b>RDT&amp;E,N/BA-7</b>	PROGRAM ELEMENT NUMBER AND NAME <b>0205604N Tactical Data Links</b>			PROJECT NUMBER AND NAME <b>1743 Link-16 Improvements</b>				
COST (\$ in Millions)	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
Project Cost	2.727	0.496						
RDT&E Articles Qty								

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

(U) Link-16 Improvements extends Link-16 technological improvements to existing and new United States Navy TDL systems. Link-16 Joint Range Extension (JRE) transfers Link-16 data via satellite communications and other non-radio frequency (RF) paths. High throughput Link-16 provides improved data transmission rates by altering the modulation characteristics of Link-16. This project allows more effective employment of fleet units by increasing timeliness, accuracy, and content of tactical data transfer and eliminate line-of-sight transmission limitations thereby improving operational flexibility. The Common Data Link Monitoring System (CDLMS) will be upgraded to Next Generation Command and Control Processor (NGC2P) to provide higher central processing unit (CPU) speeds, update rate and memory capacity required for advanced multi-TDL processing functions. NGC2P will update CDLMS with advanced processors required to support critical data link functions including Link-16 JRE.

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EXHIBIT R-2a, RDT&E Project Justification			<b>DATE: February 2007</b>	
APPROPRIATION/BUDGET ACTIVITY <b>RDT&amp;E,N/BA-7</b>	PROGRAM ELEMENT NUMBER AND NAME <b>0205604N Tactical Data Links</b>	PROJECT NUMBER AND NAME <b>1743 Link-16 Improvements</b>		
<b>(U) B. Accomplishments/Planned Program</b>				
<b>NGC2P CAPABILITY</b>				
	FY 06	FY 07	FY 08	FY 09
Accomplishments/Effort/Subtotal Cost	2.727	0.496		
RDT&E Articles Quantity				
<p>FY 06 Accomplishments: Conducted Operational Assessment (OA) for Next Generation Command and Control Processor (NGC2P) Joint Range Extension (JRE) capability. Achieved Low Rate Initial Production - 3 (LRIP-3) Program Review (PR).</p> <p>FY 07 Plan: Conduct technical evaluation (TECHEVAL) and operational evaluation (OPEVAL) of NGC2P JRE. Achieve full rate production (FRP) decision for NGC2P.</p>				

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification									<b>DATE: February 2007</b>	
APPROPRIATION/BUDGET ACTIVITY <b>RDT&amp;E,N/BA-7</b>			PROGRAM ELEMENT NUMBER AND NAME <b>0205604N Tactical Data Links</b>				PROJECT NUMBER AND NAME <b>1743 Link-16 Improvements</b>			
<b>(U) C. OTHER PROGRAM FUNDING SUMMARY:</b>										
<u>Line Item No. &amp; Name</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>To Complete</u>	<u>Total Cost</u>
OPN Line 2614 ATDLS	12.200	12.408	3.861	15.369	14.761	0.000	0.000	0.000	5.481	63.880
<b>(U) D. ACQUISITION STRATEGY:</b>										
Next Generation Command and Control Processor (NGC2P) software development is utilizing an existing Northrop Grumman Defense Mission Systems, Inc., cost plus contract.										
<b>(U) E. MAJOR PERFORMERS:</b>										
Northrop Grumman Defense Mission Systems, Inc., Reston, Virginia. Performs as prime hardware and software development contractor for NGC2P. Technical Direction Letter awarded 18 July 2003.										
Space & Naval Warfare Systems Command Systems Center (SPAWARSYSCEN), San Diego, California. Performs as lead laboratory for NGC2P development, systems engineering, integration and test and evaluation.										



CLASSIFICATION:

Exhibit R-3 Cost Analysis (page 3)								DATE: February 2007				
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT			PROJECT NUMBER AND NAME						
RDT&E,N/BA-7			0205604N Tactical Data Links			1743 Link-16 Improvements						
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 07 Cost	FY 07 Award Date	FY 08 Cost	FY 08 Award Date	FY 09 Cost	FY 09 Award Date	Cost to Complete	Total Cost	Target Value of Contract
NGC2P Test & Evaluation	WX	SPAWARSYSCEN, San Diego, CA	6.131	0.189	11/06						6.320	6.320
NGC2P Test & Evaluation	WX	NCTSI, San Diego, CA	0.724								0.724	0.724
NGC2P Test & Evaluation	WX	OPTEVFOR, Norfolk, VA	0.140	0.144	11/06							
Subtotal T&E			6.995	0.333		0.000		0.000				
Remarks:												
Engineering Support and Travel	Various	Various	5.239	0.163	Various						5.402	5.402
Subtotal Management			5.239	0.163		0.000		0.000				
Remarks:												
Total Cost			65.455	0.496		0.000		0.000				
Remarks:												

CLASSIFICATION:

EXHIBIT R4, Schedule Profile																					DATE: February 2007											
APPROPRIATION/BUDGET ACTIVITY					PROGRAM ELEMENT NUMBER AND NAME										PROJECT NUMBER AND NAME																	
RDT&E,N/BA-7					0205604N Tactical Data Links										1743 Link-16 Improvements																	
Fiscal Year	2005				2006				2007				2008				2009				2010				2011				2012			
	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	1	2	3	4
<b>Program</b>	EGIS BMD MS C LRIP				LRIP-2 Program Review (PR)																											
<b>Milestones</b>	△				△										FRP △																	
					LRIP-3 Program Review (PR) △																											
NGC2P																																
<b>Engineering Milestones</b>																																
NGC2P																																
<b>Test &amp; Evaluation Milestones</b>																																
	DT △				DT/CSIT/LINK CERT △				DT △				TECHEVAL / OPEVAL △△																			
NGC2P - JRE																																
<b>Production Milestones</b>																																
NGC2P	AEGIS BMD LRIP △				LRIP-2 △										LRIP-3 △						FRP △											



CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification						DATE: February 2007			
APPROPRIATION/BUDGET ACTIVITY RDT&E,N/BA-7		PROGRAM ELEMENT NUMBER AND NAME 0205604N Tactical Data Links			PROJECT NUMBER AND NAME 2126 ATDLS Integration				
COST (\$ in Millions)		FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
Project Cost		80,450	41,302	5,534	6,165	4,878	15,293	23,782	22,769
RDT&E Articles Qty		3							

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

(U) ATDLS Integration Program develops new and improved capabilities for Navy Link-16 users. Development of new capabilities in ATDLS includes the Joint Interface Control Officer (JICO) Support System (JSS), Common Link Integration Processing (CLIP) and Dynamic Network Management (DNM). JSS will be the standard joint service toolset to monitor and control Multi-TDL network architectures. The Common Link Integration Processing (CLIP) concept will introduce open system software required to reduce life cycle support costs and commercial off-the-shelf (COTS) technology refresh objectives and high throughput Link-16. The CLIP development concept addresses fundamental interoperability and affordability of tactical data link capabilities through cooperative development program under both U. S. Navy (USN) and U.S. Air Force (USAF) sponsorship. The principal goal of CLIP is to develop a Multi-TDL software capability that can be utilized by multiple platforms (aircraft, ships, and ground) for all services. Dynamic Network Management (DNM) will provide automatic reconfiguration of Link-16 networks that respond instantly to emergent warfighter requirements in the field. DNM consists of different capabilities including Network Control Technologies (NCT), new terminal protocols (Time Slot Reallocation (TSR) receipt compliance (TC) (TSR RC) and Stochastic Unified Multiple Access (SHUMA)) and has been significantly expanded to include a more robust TSR and adaptive multi-netting. The DNM capability will be integrated into the JSS host system and also Joint Tactical Information Distribution System (JTIDS), Multifunctional Information Distribution System (MIDS) and Joint Tactical Radio System (JTRS) terminals.

(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.

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EXHIBIT R-2a, RDT&E Project Justification			<b>DATE: February 2007</b>																
<b>APPROPRIATION/BUDGET ACTIVITY</b> RDT&E,N/BA-7	<b>PROGRAM ELEMENT NUMBER AND NAME</b> 0205604N Tactical Data Links	<b>PROJECT NUMBER AND NAME</b> 2126 ATDLS Integration																	
<p><b>(U) B. Accomplishments/Planned Program</b></p> <p>MNIS delete</p>																			
<table border="1" style="width: 100%; border-collapse: collapse; margin: 10px 0;"> <thead> <tr> <th style="text-align: left; padding: 2px;">Joint Interface Control Officer Spt Sys (JSS)</th> <th style="text-align: center; padding: 2px;">FY 06</th> <th style="text-align: center; padding: 2px;">FY 07</th> <th style="text-align: center; padding: 2px;">FY 08</th> <th style="text-align: center; padding: 2px;">FY 09</th> </tr> </thead> <tbody> <tr> <td style="padding: 2px;">Accomplishments/Effort/Subtotal Cost</td> <td style="text-align: center; padding: 2px;">26,746</td> <td style="text-align: center; padding: 2px;">15,205</td> <td style="text-align: center; padding: 2px;">0.500</td> <td></td> </tr> <tr> <td style="padding: 2px;">RDT&amp;E Articles Quantity</td> <td style="text-align: center; padding: 2px;">3</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>					Joint Interface Control Officer Spt Sys (JSS)	FY 06	FY 07	FY 08	FY 09	Accomplishments/Effort/Subtotal Cost	26,746	15,205	0.500		RDT&E Articles Quantity	3			
Joint Interface Control Officer Spt Sys (JSS)	FY 06	FY 07	FY 08	FY 09															
Accomplishments/Effort/Subtotal Cost	26,746	15,205	0.500																
RDT&E Articles Quantity	3																		
<p>This funding includes the Navy's contribution to the JSS joint development initiative with the Air Force.</p> <p>FY 06 Accomplishments: Conducted development test 1(DT 1) on JSS software capabilities and functionalities. Conducted Preliminary Design Review (PDR). Continued software development to fully implement the Multi-Tactical Data Link (TDL) architecture (MTA) planning capability and generation of operational task (OPTASK) Link message for on-line/off-line mode, the local JICO database repository (JDR); database management and joint symbology; Joint Range Extension (JRE); interfaces to the Theater Battle Management Core System (TBMCS); interfaces capability to Network Design Facility (NDF) for assessing JTIDS Network Library; Spectrum toolkit for submit/receive frequency request; software for calculation of Time Slot Duty Factor (TSDF) and Link-16 dynamic network management. Procured three Engineering Development Models (EDM) for technical evaluation that were tested at DT1.</p> <p>FY 07 Plan: Continue software development to include the implementation of remote JDR; dynamic network management and reconfiguration lists in Link-16 message standards; gateways to be interfaced to variable message format (VMF) and Intelligent Broadcast System (IBS); on-line and off-line training mode via simulation and computer based training; and system security administration/profile management to ensure data security integrity. Conduct early operational assessment (EOA) on JSS software capabilities and functionalities developed and to demonstrate system maturity and readiness. Conduct the security and vulnerability for system approval to operate (ATO). Prepare and update all required documents for MS C decision.</p> <p>FY 08 Plan: Conduct development test 2 (DT 2) and operational test (OT) on all software and hardware developed. Conduct the Joint Interoperability Certification Testing. Achieve Joint MS C Decision and full rate production (FRP).</p>																			

Exhibit R-2a, RDTEN Project Justification

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EXHIBIT R-2a, RDT&E Project Justification		DATE: February 2007
APPROPRIATION/BUDGET ACTIVITY <b>RDT&amp;E,N/BA-7</b>	PROGRAM ELEMENT NUMBER AND NAME <b>0205604N Tactical Data Links</b>	PROJECT NUMBER AND NAME <b>2126 ATDLS Integration</b>

(U) B. Accomplishments/Planned Program

<b>Common Link Integration Processing (CLIP)</b>	FY 06	FY 07	FY 08	FY 09
Accomplishments/Effort/Subtotal Cost	38.656	20.146	0.000	0.000
RDT&E Articles Quantity				

This funding line includes the Navy's contribution to the Common Link Integration Processing (CLIP) joint development initiative with the Air Force. The Air Force is funding the CLIP software development contract in FYs 08 and 09.

FY 06 Accomplishments: Conducted CLIP Increment 1 Preliminary Design Review (PDR) and Critical Design Review (CDR). Conducted development testing of Increment 1 software capabilities and functionality.

FY 07 Plan: Conduct CLIP Acceptance Testing (CAT) of Increment 1 software capabilities and functionality including COMOPTEVFOR and Air Force Operational Test and Evaluation Command participation (AFOTEC). Develop plans for platform integration and testing of Increment 1 software on lead air platform. Prepare for U.S. Navy and U.S. Air Force (USAF) CLIP increment 1 Milestone C decision (2QT/FY08). After increment 1 MS C, CLIP development continues as an USAF program.

<b>Dynamic Network Management (DNM)</b>	FY 06	FY 07	FY 08	FY 09
Accomplishments/Effort/Subtotal Cost	15.048	5.951	5.034	6,165
RDT&E Articles Quantity				

FY 06 Accomplishments: Continued Dynamic Network Management (DNM) development expanding capability to support full Multi-netting Phase I capability allowing for data forwarding between Link-16, Internet Protocol (IP) networks and new Joint Tactical Radio System (JTRS) waveforms. Conducted Multi-netting Phase I CDR. Conducted Multi-netting Phase I capabilities development test. Completed integration of NetworkControl Technologies (NCT) capabilities into JSS. Conducted SHUMA development test. Commenced shipboard and aircraft integration of the DNM capabilities including the expanded Time Slot Reallocation (TSR) Receipt Compliance TSR RC. Conducted TSR RC development test. Conducted TSR RC platform integration testing for C2P/CDLMS. Continued support on DNM integrated logistic support products.

FY07 Plan: Continue development of multi-netting capabilities and migration efforts to Wideband Networking Waveform (WNW) and JTRS waveforms. Commence development of Multi-netting Phase II capability. Continue platform integration and testing of TSR RC (AEGIS Baselines).

FY08: Continue development of Multi-netting Phase II capabilities. Conduct Multi-netting Phase I operational test. Continue migration efforts to WNW and Joint Tactical Radio System (JTRS) waveforms. Conduct TSR RC/SHUMA operational test. Continue platform integration testing for TSR RC (AEGIS Baselines).

FY 09: Conduct Multi-netting Phase II CDR. Conduct Multi-netting Phase II development test with both JSS system and Link-16 terminals. Continue migration efforts to WNW and JTRS waveform. Achieve Stochastic Unified Multiple Access (SHUMA)/TSR RC IOC.

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APPROPRIATION/BUDGET ACTIVITY		PROGRAM ELEMENT NUMBER AND NAME			PROJECT NUMBER AND NAME					
RDT&E,N/BA-7		0205604N Tactical Data Links			2126 ATDLS Integration					
<b>(U) C. OTHER PROGRAM FUNDING SUMMARY:</b>										
<u>Line Item No. &amp; Name</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>To Complete</u>	<u>Total Cost</u>
OPN LI 2614 ATDLS	12.200	12.408	3.861	15.369	14.761	0.000	0.000	0.000	5.481	63.880
RDT&E,AF 0207434F/5050	157.677	184.100	151.289	155.710	159.298	162.024	165.427	168.900	Continuing	Continuing
SCN - Funding for ATDLS hardware is not separately identified in the SCN budget exhibits.										
RELATED RDT&E:										
PE 0207434F/5050 - TDL System Integration										
<b>(U) D. ACQUISITION STRATEGY:</b>										
<p>The Air Force was designated as the acquisition executive for the Joint Interface Control Officer Support System (JSS). For JSS Phase I, the government competed and awarded three firm fixed price contracts to Northrop Grumman Defense Mission Systems, Inc.; Lockheed Martin Corporation and Advanced Information Engineering Services, Inc. for Engineering Development Models (EDM) system development and demonstration. For JSS Phase II, there was a down select to Northrop Grumman Defense Mission Systems, Inc. to complete Phase II development, integration and test utilizing cost plus award fee, firm fixed price, time and material and cost reimbursable contract options. For Common Link Integration Processing (CLIP), a competitive cost plus award fee/incentive fee contract was awarded by the Navy to Northrop Grumman Defense Mission Systems, Inc. to develop a single common data link integration solution that can be configured to satisfy a broad-range of platforms. The Dynamic Network Management (DNM) Network Controller Technology will be incorporated into JSS Block 1 and will utilize the contract for JSS. Remaining DNM development efforts will utilize an existing development contract with BAE Systems.</p>										
<b>(U) E: MAJOR PERFORMERS:</b>										
<p>Northrop Grumman Defense Mission Systems, Inc., Reston, Virginia (VA). Performs as prime hardware and software development contractor for JSS. Contract awarded 27 May 2005.</p> <p>Northrop Grumman Defense Mission Systems, Inc., Reston, VA. Performs as prime software development contractor for CLIP. Contract awarded 9 June 2005.</p> <p>Space &amp; Naval Warfare Systems Command Systems Center (SPAWARSYSCEN), San Diego, California. Performs as lead laboratory for CLIP, JSS and DNM development, systems engineering, integration and test and evaluation.</p>										
<b>(U) F: METRICS:</b>										
Earned Value Management is used for metrics reporting and risk management.										

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Exhibit R-3 Cost Analysis (page 1)								DATE: February 2007				
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT			PROJECT NUMBER AND NAME						
RDT&E,N/BA-7			0205604N Tactical Data Links			2126 ATDLS Integration						
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 07 Cost	FY 07 Award Date	FY 08 Cost	FY 08 Award Date	FY 09 Cost	FY 09 Award Date	Cost to Complete	Total Cost	Target Value of Contract
MIDS F/A-18 Integration	WX	Various	153.119								153.119	153.119
TADIL-J System Engineering	WX	SPAWARSCEN, San Diego, CA	28.233								28.233	28.233
TADIL-J System Engineering	Various	Various	4.654								4.654	4.654
MIDS on Ship	CPIF	BAE Systems, Wayne, NJ (DLS)	15.944								15.944	15.944
MIDS on Ship	Various	Various	44.331								44.331	44.331
Performance Upgrades	WX	SPAWARSCEN, San Diego, CA	14.213								14.213	14.213
Performance Upgrades	Various	Various	5.236								5.236	5.236
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	0.900								0.900	0.900
DNMFL Prototypes	Various	Various	2.127								2.127	2.127
JSS Software Dev and Integration	FFP	Various	8.778								8.778	8.778
JSS Software Dev and Integration	CPAF/FFP	Northrop Grumman DMS, Reston, VA	22.322	12.204	11/06						35	35
JSS Systems Engineering	CPFF	Galaxy Scientific, Arlington, VA	0.769								0.769	0.769
JSS Systems Engineering	WX	SPAWARSCEN, San Diego, CA	2.619	0.888	11/06	0.200	11/07				3.707	3.707
JSS Systems Engineering	Various	Various	0.333	0.426	Various	0.098	Various				0.857	0.857
CLIP Dev	WX	SPAWARSCEN, San Diego, CA	2.918	1.738	11/06					Continuing	Continuing	Continuing
CLIP Dev	Various	Various	8.090	3.251	Various					Continuing	Continuing	Continuing
CLIP SW Dev	CPAF/IF	Northrop Grumman DMS, Reston, VA	27.794	8.442	11/06					Continuing	Continuing	Continuing
CLIP Lead Platform Integration	CPFF	Lockheed Martin Corp, Moorestown, NJ	0.000	1.879	11/06					Continuing	Continuing	Continuing
TDL Training SW Dev	WX	NAVAIR Training Sys Div, Orlando, FL	1.605							Continuing	Continuing	Continuing
DNM System Engineering & Integration	WX	SPAWARSCEN, San Diego, CA	14.474	1.800	11/06	1.413	11/07	2.301	11/08	Continuing	Continuing	Continuing
DNM Development	CPFF	Northrop Grumman DMS, Reston, VA	3.747								3.747	3.747
DNM Development	MIPR	Warner Robbins AFB, GA	1.485	0.348	11/06	0.100	11/07	0.102	11/08	Continuing	Continuing	Continuing
DNM Development	CPIF	BAE Systems, Wayne, NJ (DLS)	2.327	0.232	11/06	0.200	11/07				2.759	2.759
DNM Host Platform Integration Sys Eng	CPFF	SeaPort-E/TBD	0.550	0.232	11/06	0.450	11/07	0.100	11/08	Continuing	Continuing	Continuing
DNM Systems Engineering	Various	Various	2.971	0.933	Various	0.450	Various	0.550	Various	Continuing	Continuing	Continuing
Subtotal Product Development			373.464	32.373		2.911		3.053				

CLASSIFICATION:

Exhibit R-3 Cost Analysis (page 3)								DATE: February 2007				
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT			PROJECT NUMBER AND NAME						
RDT&E,N/BA-7			0205604N Tactical Data Links			2126 ATDLS Integration						
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 07 Cost	FY 07 Award Date	FY 08 Cost	FY 08 Award Date	FY 09 Cost	FY 09 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Test and Evaluation	Various	Various	4.025								4.025	4.025
MIDS F/A-18 T&E	WX	SPAWARSYSCEN, San Diego, CA	12.774								12.774	12.774
MIDS F/A-18 T&E	Various	Various	11.706								11.706	11.706
MIDS on Ship T&E	PD	OPTEVFOR, Norfolk, VA	0.092								0.092	0.092
MIDS on Ship T&E	WX	SPAWARSYSCEN, San Diego, CA	1.340								1.340	1.340
MIDS Test Assets	SS/CPAF/IF	MIDSCO, Fairfield, NJ	6.594								6.594	6.594
JSS T&E	WX	SPAWARSYSCEN, San Diego, CA	0.553	0.445	11/06						0.998	0.998
JSS T&E	WX	OPTEVFOR, Norfolk, VA	0.442	0.222	11/06	0.150	11/07				0.664	0.664
JSS T&E	WX	NCTSI, San Diego, CA	0.131	0.056	11/06	0.052	11/07				0.239	0.239
JSS Test Articles	CPAF/FFP	Northrop Grumman DMS, Reston, VA	3.536	0.118	11/06						3.654	3.654
JSS Test Articles	WX	SPAWARSYSCEN, San Diego, CA	0.553	0.222	11/06						Continuing	Continuing
CLIP T&E	WX	OPTEVFOR, Norfolk, VA	0.126	0.071	11/06					Continuing	Continuing	Continuing
CLIP T&E	WX	SPAWARSYSCEN, San Diego, CA	3.179	3.765	11/06					Continuing	Continuing	Continuing
Dynamic Network Management T&E	WX	SPAWARSYSCEN, San Diego, CA	7.216	1.682	11/06	0.550	11/07	0.984	11/08	Continuing	Continuing	Continuing
Dynamic Network Management T&E	WX	OPTEVFOR, Norfolk, VA	0.214					0.200	11/08	Continuing	Continuing	Continuing
Dynamic Network Management T&E	WX	Various	1.310	0.226	Various	0.324	Various	0.374	Various	Continuing	Continuing	Continuing
ATDLS T&E Support	CPFF	AMSEC LLC, Virginia Beach, VA	0.539	0.280	11/06	0.286	11/07	0.292	11/08	Continuing	Continuing	Continuing
Subtotal T&E			54.330	7.087		1.362		1.850				
Remarks:												
Engineering Support and Travel	Various	Various	14.876	1.842	Various	1.261	Various	1.262	Various	Continuing	Continuing	Continuing
Subtotal Management			14.876	1.842		1.261		1.262				
Remarks:												
Total Cost			442.670	41.302		5.534		6.165				

CLASSIFICATION:

EXHIBIT R4, Schedule Profile																				DATE: February 2007												
APPROPRIATION/BUDGET ACTIVITY								PROGRAM ELEMENT NUMBER AND NAME								PROJECT NUMBER AND NAME																
RDT&E,N/BA-7								0205604N Tactical Data Links								2126 ATDLs Integration																
Fiscal Year	2006				2007				2008				2009				2010				2011				2012				2013			
	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	1	2	3	4
<b>Program Milestones</b>																																
JSS												MS C / FRP																				
CLIP								Inc 2 MS B		Inc 1 MS C										Inc 2 MS C												
DNM												SHUMA/TSR RC IOC								Multinetting Phase I IOC												Multinetting Phase II IOC
<b>Engineering Milestones</b>																																
JSS	PDR						CDR																									
CLIP	Increment 1 PDR		CDR						SRR		Increment 2 PDR	CDR																				
DNM																				Multinetting Phase II CDR												
<b>Test &amp; Evaluation Milestones</b>																																
JSS							EOA																									
CLIP INCREMENT 1																																
CLIP INCREMENT 2																																
DNM																																
<b>Production Milestones</b>																																
JSS																																

The Joint Interface Control Officer (JICO) Support System (JSS) is a multi-service development effort and is currently funded by the Navy's Tactical Data Links Program Office (PE 0205604N/2126) and the Air Force's Electronic Systems Center Tactical Data Links System Program Office (TDL SPO) (PE 0207434F/5050). The JSS Program schedule is shown above.

The CLIP Program is a joint initiative and is funded by U.S. Navy and U.S. Air Force programs. The development of the CLIP software is funded by the Navy's Tactical Data Links Program Office (PE 0205604N/2126) and the Air Force Tactical Data Links (TDL) Gateways and Network Management (TGN) System Program Office (PE 0207434F/5050). The integration of CLIP software is funded by platforms. The CLIP Program schedule is shown above. U.S. Navy is not participating in Increment 2 of CLIP.

CLASSIFICATION:

Exhibit R-4a, Schedule Detail					DATE: February 2007			
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT				PROJECT NUMBER AND NAME			
<b>RDT&amp;E,N/BA-7</b>	<b>0205604N Tactical Data Links</b>				<b>2126 ATDLS Integration</b>			
Schedule Profile	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
JSS PDR	1Q							
CLIP Increment 1 PDR	1Q							
DNM Multinetting Phase I CDR	2Q							
DNM SHUMA DT	2Q							
DNM TSR RC Platform Integration	2Q							
CLIP Increment 1 CDR	3Q							
DNM TSR RC DT	3Q							
JSS DT 1 / Integration Testing	4Q							
CLIP Increment 1 DT	4Q							
DNM Multinetting Phase 1 DT	4Q							
JSS EOA		1Q						
JSS CDR		2Q						
DNM Platform Integration		3Q						
CLIP Increment 1 CAT		4Q						



CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification					DATE: February 2007			
APPROPRIATION/BUDGET ACTIVITY <b>RDT&amp;E,N/BA-7</b>	PROGRAM ELEMENT NUMBER AND NAME <b>0205604N Tactical Data Links</b>			PROJECT NUMBER AND NAME <b>9999 Congressional Increases</b>				
COST (\$ in Millions)	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	
Project Cost		1.740						
RDT&E Articles Qty								
<p><b>(U) A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:</b></p> <p>(U) Congressional Increase for the Airborne Tactical Server (ATS). ATS is a digital audio/video recorder with removable mass memory and a central processing unit (CPU). The ATS will function as an adjunct processor within the F/A-18 to demonstrate Level 2 Airborne Network Integration. The ATS will use an existing contract for demonstration only as risk reduction for future Battlespace Networking efforts.</p>								

Exhibit R-2a, RDTEN Project Justification

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification			<b>DATE: February 2007</b>	
APPROPRIATION/BUDGET ACTIVITY <b>RDT&amp;E,N/BA-7</b>	PROGRAM ELEMENT NUMBER AND NAME <b>0205604N Tactical Data Links</b>	PROJECT NUMBER AND NAME <b>9999 Congressional Increases</b>		
<b>(U) B. Accomplishments/Planned Program</b>				
<b>9888 Airborne Tactical Server</b>	FY 06	FY 07	FY 08	FY 09
Accomplishments/Effort/Subtotal Cost	1.740			
RDT&E Articles Quantity				
<p>(U) Congressional Increase for the Airborne Tactical Server (ATS). ATS is a digital audio/video recorder with removable mass memory and a Central Processing Unit (CPU). The ATS will function as an adjunct processor within the F/A-18 to demonstrate Level 2 Airborne Network Integration. The ATS will use an existing contract for demonstration only as risk reduction for future Battlespace Networking efforts.</p>				

Exhibit R-2a, RDTEN Project Justification