EXHIBIT R-2, RDT&E Budget Item Justification							DATE: May 2009	
APPROPRIATION/BUDGET ACTIVITY RESEARCH DEVELOPMENT TEST & EVALUATION, NAVY/BA-7				R-1 ITEM NOMENCLATURE 0205604N TACTICAL DATA LINKS				
COST ($ in Millions)	**FY 2008**	**FY 2009**	**FY 2010**					
Total PE Cost	**5.109**	**4.226**	**25.003**					
2126 ATDLS Integration	5.109	4.226	25.003					

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

This Program Element (PE) develops and improves the Navy's Tactical Data Link (TDL) systems. It includes the Advanced Tactical Data Link Systems (ATDLS) Integration Programs.

ATDLS Integration Program develops new and improved capabilities for Navy Link-16 users. The Navy Link 16 Network Program consists of three increments.

Increment I funded continued fielding of Link 16 maintenance updates for additional warfare areas and development of automated network management aids.

Increment II funds the Dynamic Network Management (DNM) capability and the implementation of the Link 16 DNM Networks on Navy shore, shipboard, and airborne Link 16 terminals, including associated ship platforms. DNM will provide automatic reconfiguration of Link-16 networks that respond instantly to emergent warfighter requirements. DNM consists of different capabilities including new terminal protocols Time Slot Reallocation (TSR) Receipt Compliance (RC) (TSR RC) and TSR with Combined Network Participation Groups (CNPG). The DNM capabilities will be incorporated into Next Generation Command and Control Processor (NGC2P).

Increment III funds the following activities: (1) development and implementation of Crypto Modernization (CM), Frequency Remapping (FR), and Enhanced Throughput (ET) capability into Link 16 terminals and integration into shore, shipboard (NGC2P), and current Navy Joint Tactical Information Distribution System (JTIDS) airborne platforms; (2) development, integration, testing, and fielding of additional stacked networks (formerly Multinetting Phase I) and concurrent multinetting (formerly Multinetting Phase II); and (3) Developmental Test / Operational Test (DT/OT) of all Navy platform modifications.

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.

Justification of FY10 Requirements:

Increment II - Funding will provide for the platform integration efforts of Increment II DNM, TSR RC and TSR CNPG, as well as conducting Developmental Testing and Operational Assessment.

Increment III - In support of National Security Agency (NSA Policy 3-9) and Joint Chiefs of Staff mandate (Chairman of the Joint Chiefs of Staff Instruction (CJCSI) Notice 6510.02), funding will provide for modernization of the cryptologic algorithm used in Link 16 terminals by initiating development of programmable crypto capability to load and store multiple cryptologic algorithms. Non-compliance will result in loss of Link 16 as crypto keys for non-compliant systems will no longer be available. Additionally, FR is required by Department of Transportation to be able to continue realistic training in the US. All Link 16 terminals are required to have this capability to support Link 16 interoperability.

Funds will provide for Increment III technology demonstration and development for additional stacked networks (formerly Multinetting Phase I), CM, FR, and ET.

Activities also include shore, shipboard, current Navy JTIDS airborne platforms integration studies, and analysis and efforts related to Federal Aviation Administration (FAA) spectrum certification requirements for Tactical Data Links.

EXHIBIT R-2, RDT&E Budget Item Justification		DATE: May 2009
APPROPRIATION/BUDGET ACTIVITY RESEARCH DEVELOPMENT TEST & EVALUATION, NAVY/BA-7	R-1 ITEM NOMENCLATURE 0205604N TACTICAL DATA LINKS	

B. PROGRAM CHANGE SUMMARY:

Funding:	FY 2008	FY 2009	FY 2010
FY09 President's Budget	5.408	4.247	4.827
FY10 President's Budget	5.109	4.226	25.003
Total Adjustments	-0.299	-0.021	20.176
Summary of Adjustments			
Program Adjustments	0.000	0.000	20.500
Congressional Adjustments	0.000	-0.009	0.000
Rate/Misc Adjustments	-0.299	-0.012	-0.324
Subtotal	-0.299	-0.021	20.176

Schedule:

ATDLS (project 2126) -

TSR RC IOC now included under INC 2 IOC and moved from Q1 FY09 to Q3 FY11.
TSR RC OT and Multinetting Phase I OT now included under INC 2 DT/OT and moved from Q4 FY08 to Q2 FY11.
Multinetting Phase II DT now included under INC 3 DT and moved from Q3 FY10 to Q4 FY14.
Multinetting Phase II OA now included under INC 3 DT/OA and moved from Q3 FY11 to Q2 FY15.

Technical:

ATDLS (project 2126) -

The National Security Agency (NSA Policy 3-9) and Joint Chiefs of Staff mandate (Chairman of the Joint Chiefs of Staff Instruction (CJCSI) Notice 6510.02), require modernization of the cryptologic algorithm used in Link 16 terminals. In FY10, development of programmable crypto capability will be initiated to load and store multiple cryptologic algorithms. Non-compliance will result in loss of Link 16 as crypto keys for non-compliant systems will no longer be available. Additionally, FR is required by Department of Transportation to be able to continue realistic training in the US. All Link 16 terminals are required to have this capability to support Link 16 interoperability.

EXHIBIT R-2a, RDT&E Project Justification									DATE: May 2009
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 2008	FY 2009	FY 2010						
Project Cost	5.109	4.226	25.003						

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

This Program Element (PE) develops and improves the Navy's Tactical Data Link (TDL) systems. It includes the Advanced Tactical Data Link Systems (ATDLS) Integration Programs.

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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.

Justification of FY10 Requirements:

Increment II - Funding will provide for the platform integration efforts of Increment II DNM, TSR RC and TSR CNPG, as well as conducting Developmental Testing and Operational Assessment.

Increment III - In support of National Security Agency (NSA Policy 3-9) and Joint Chiefs of Staff mandate (Chairman of the Joint Chiefs of Staff Instruction (CJCSI) Notice 6510.02), funding will provide for modernization of the cryptologic algorithm used in Link 16 terminals by initiating development of programmable crypto capability to load and store multiple cryptologic algorithms. Non-compliance will result in loss of Link 16 as crypto keys for non-compliant systems will no longer be available. Additionally, FR is required by Department of Transportation to be able to continue realistic training in the US. All Link 16 terminals are required to have this capability to support Link 16 interoperability.

Funds will provide for Increment III technology demonstration and development for additional stacked networks (formerly Multinetting Phase I), CM, FR, and ET.

Activities also include shore, shipboard, current Navy JTIDS airborne platforms integration studies, and analysis and efforts related to Federal Aviation Administration (FAA) spectrum certification requirements for Tactical Data Links.

EXHIBIT R-2a, RDT&E Project Justification		DATE: May 2009
APPROPRIATION/BUDGET ACTIVITY RDT&E,N/BA-7	**PROGRAM ELEMENT NUMBER AND NAME** 0205604N TACTICAL DATA LINKS	**PROJECT NUMBER AND NAME** 2126 ATDLS INTEGRATION

(U) B. Accomplishments/Planned Program

Link 16 Network (Formerly Dynamic Network Management (DNM))	FY 08	FY 09	FY 10	
Accomplishments/Effort/Subtotal Cost	5.109	4.226	25.003	

FY08 Accomplishments: Continued development of Dynamic Network Management (DNM) capabilities. Obtained Link 16 Network Acquisition Decision Memorandum (ADM). Conducted DNM platform integration and developmental testing. Developed DNM integrated logistics support products.

FY09 Plan: Continue development of DNM capabilities. Complete DNM integrated logistics support products. Test and evaluate DNM capabilities in the Next Generation Command & Control Processor (NGC2P), Multifunctional Information Distribution System (MIDS) on Ship (MOS), Joint Tactical Information Distribution System (JTIDS), and associated ship and air platforms. Conduct Link 16 Network Increment II DNM Critical Design Review (CDR). Develop Link 16 Network integrated logistics support products.

FY10 Plan: Conduct Increment II DNM Time Slot Reallocation (TSR) Receipt Compliance (RC) / Combined Network Participation Groups (CNPG) Developmental Test (DT). Conduct Increment II DT / Operational Assessment (DT/OA). Conduct Increment II platform integration efforts for DNM, TSR RC, and TSR CNPG. Conduct Increment III platform integration studies including shore, shipboard, and current Navy JTIDS airborne (E-2C and EP-3) platform integration studie and analysis. Conduct Increment III technology demonstration and development for additional stacked networks (formerly Multinetting Phase I), Crypto Modernization (CM), Frequency Remapping (FR), and Enhanced Throughput (ET). Begin development and technology demonstration preparation for Increment III, CM, FR, ET, additional stacked networks (formerly Multinetting Phase I), and concurrent multinetting (formerly Multinetting Phase II). Conduct analysis and efforts related to Federal Aviation Administration (FAA) spectrum certification requirements for Tactical Data Links. Develop Link 16 Network integrated logistics support products.

EXHIBIT R-2a, RDT&E Project Justification		DATE: May 2009
APPROPRIATION/BUDGET ACTIVITY RDT&E,N/BA-7	PROGRAM ELEMENT NUMBER AND NAME 0205604N TACTICAL DATA LINKS	PROJECT NUMBER AND NAME 2126 ATDLS INTEGRATION

C. OTHER PROGRAM FUNDING SUMMARY:

Line Item No. & Name	FY 2008	FY 2009	FY 2010	Total Cost
OPN LI 2614 ATDLS	3.835	14.164	7.314	25.313

SCN - Funding for ATDLS hardware is not separately identified in the SCN budget exhibits.
RELATED RDT&E:
Not applicable.

D. ACQUISITION STRATEGY:

The Dynamic Network Management (DNM) Time Slot Reallocation (TSR) Receipt Compliance (RC) (TSR RC) / Combined Network Participation Groups (CNPG) will be incorporated into NGC2P and will utilize the contract for NGC2P. Remaining DNM development efforts will utilize an existing development contract with BAE Systems, Data Link Solutions LLC and Warner Robins Consolidated Software Support Activity.

E: MAJOR PERFORMERS:

Data Link Solutions LLC (BAE Systems / Rockwell Collins), Wayne, NJ. Major performer for DNM development.
Space & Naval Warfare Systems Command Systems Center (SPAWARSYSCEN), San Diego, California. Performs as lead laboratory for DNM development, systems engineering, integration and test and evaluation.
Northrop Grumman DMS, Reston, VA / San Diego, CA for NGC2P integration.
Naval Air Systems Command (NAVAIRSYSCOM), Patuxent River, MD for air platform integration.
Warner Robins Consolidated Software Support Activity, Warner Robins, GA for Link 16 development.

F: METRICS:

Earned Value Management and Technical Performance Measures are used for metrics reporting and risk management.

Exhibit R-3 Cost Analysis											DATE: May 2009	
APPROPRIATION/BUDGET ACTIVITY RDT&E,N/BA-7			PROGRAM ELEMENT 0205604N TACTICAL DATA LINKS			PROJECT NUMBER AND NAME 2126 ATDLS INTEGRATION						
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 09 Cost	FY 09 Award Date	FY 10 Cost	FY 10 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	SPAWARSYSCEN, 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	SPAWARSYSCEN, 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	33.022								33	33
JSS Systems Engineering	CPFF	Galaxy Scientific, Arlington, VA	0.769								0.769	0.769
JSS Systems Engineering	WX	SPAWARSYSCEN, San Diego, CA	2.719								2.719	2.719
JSS Systems Engineering	Various	Various	0.383								0.383	0.383
CLIP Dev	WX	SPAWARSYSCEN, San Diego, CA	4.103								4.103	4.103
CLIP Dev	Various	Various	8.736								8.736	8.736
CLIP SW Dev	CPAF/IF	Northrop Grumman DMS, Reston, VA	30.361								30.361	30.361
CLIP Lead Platform Integration	CPFF	Lockheed Martin Corp, Moorestown, NJ	0.000								0.000	0.000
TDL Training SW Dev	WX	NAVAIR Training Sys Div, Orlando, FL	1.605								1.605	1.605
DNM System Engineering & Integration	WX	SPAWARSYSCEN, San Diego, CA	17.306	1.496	11/08	0.429	11/09			Continuing	Continuing	Continuing
DNM Development	CPFF	Northrop Grumman DMS, Reston, VA	3.747								3.747	3.747
DNM Development	MIPR	Warner Robbins AFB, GA	1.585	0.102	11/08	0.178	11/09			Continuing	Continuing	Continuing
DNM Development	CPIF	BAE Systems, Wayne, NJ (DLS)	3.927			0.355	11/09				4.282	4.282
DNM Host Platform Integration Sys Eng	CPFF	SeaPort-E	1.000	0.100	11/08						1.100	1.100
DNM Systems Engineering	Various	Various	4.475	0.250	Various	1.460	11/09			Continuing	Continuing	Continuing
Link 16 Network Development	Various	BAE Systems, Wayne, NJ (DLS)	0.000	0.000		2.300	11/09			Continuing	Continuing	Continuing
Link 16 Network Development	Various	SPAWAR, San Diego, CA	0.000	0.000		2.120	11/09				2.120	2.120
Link 16 Network Development	RX	NAVAIR, Patuxent River, MD	0.000	0.000		0.550	11/09			Continuing	Continuing	Continuing
Link 16 Network Development	MIPR	NSA, Fort Meade, MD	0.000	0.000		0.300	11/09			Continuing	Continuing	Continuing
Link 16 Network Development	WX	SPAWARSYSCEN, San Diego, CA	0.000	0.000		1.438	11/09			Continuing	Continuing	Continuing
Link 16 Network Development	MIPR	Warner Robbins AFB, GA	0.000	0.000		0.250	11/09			Continuing	Continuing	Continuing
Link 16 Network Development	Various	Various	0.000	0.000		4.750	11/09			Continuing	Continuing	Continuing
Link 16 Network Systems Engineering	CPFF	Various	0.000	0.000		3.018	11/09			Continuing	Continuing	Continuing
Link 16 Network Systems Engineering	WX	SPAWARSYSCEN, San Diego, CA	0.000	0.000		1.528	11/09			Continuing	Continuing	Continuing
Subtotal Product Development			395.198	1.948		18.676						

Remarks:

Exhibit R-3, Project Cost Analysis

Exhibit R-3 Cost Analysis											DATE: May 2009	
APPROPRIATION/BUDGET ACTIVITY RDT&E,N/BA-7			PROGRAM ELEMENT 0205604N TACTICAL DATA LINKS			PROJECT NUMBER AND NAME 2126 ATDLS INTEGRATION						
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 09 Cost	FY 09 Award Date	FY 10 Cost	FY 10 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								0.553	0.553
JSS T&E	WX	OPTEVFOR, Norfolk, VA	0.442								0.442	0.442
JSS T&E	WX	NCTSI, San Diego, CA	0.131								0.131	0.131
JSS Test Articles	CPAF/FFP	Northrop Grumman DMS, Reston, VA	3.536								3.536	3.536
JSS Test Articles	WX	SPAWARSYSCEN, San Diego, CA	0.553								0.553	0.553
CLIP T&E	WX	OPTEVFOR, Norfolk, VA	0.186								0.186	0.186
CLIP T&E	WX	SPAWARSYSCEN, San Diego, CA	6.314								6.314	6.314
CLIP T&E	CPFF	SAIC, Virginia Beach, VA	0.730								0.730	0.730
DNM T&E	WX	SPAWARSYSCEN, San Diego, CA	9.436	0.384	11/08	1.517	11/09			Continuing	Continuing	Continuing
DNM T&E	WX	OPTEVFOR, Norfolk, VA	0.214	0.100	11/08	0.250	11/09			Continuing	Continuing	Continuing
DNM T&E	WX	Various	2.210	0.261	Various						2.471	2.471
DNM T&E	CPFF	SAIC, Virginia Beach, VA	1.198								1.198	1.198
DNM T&E	CPAF/FFP	ViaSat, Carlsbad, CA	0.900								0.900	0.900
ATDLS T&E Support	CPFF	SAIC, Virginia Beach, VA	1.200	0.292	11/08						1.492	1.492
Link 16 Network T&E Support	WX	SPAWARSYSCEN, San Diego, CA	0.000	0.000		0.055	11/09			Continuing	Continuing	Continuing
Subtotal T&E			64.134	1.037		1.822						
Engineering Support and Travel	Various	Various	19.128	1.241	Various	4.505	Various			Continuing	Continuing	Continuing
Subtotal Management			19.128	1.241		4.505						
Remarks:												
Total Cost			478.460	4.226		25.003						

Exhibit R-3, Project Cost Analysis

EXHIBIT R4, Schedule Profile																																DATE: May 2009
APPROPRIATION/BUDGET ACTIVITY RDT&E,N/BA-7					PROGRAM ELEMENT NUMBER AND NAME 0205604N TACTICAL DATA LINKS																										PROJECT NUMBER AND NAME 2126 ATDLS INTEGRATION			
Fiscal Year	2007				2008				2009				2010																			
	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
Program Milestones Link 16 Network						ADM ▲																										
Engineering Milestones Link 16 Network										INC 2 SRR △	INC 2 PDR △	INC 2 CDR △																				
Test & Evaluation Milestones Link 16 Network		Platform Integ Test ▲			Platform Integ Test ▲	DT ▲	Platform Integ Test ▲							INC 2 OTRR △ INC 2 DT △ INC 2 DT/OA △																		

Exhibit R-4, Schedule Profile

Exhibit R-4a, Schedule Detail							**DATE:** May 2009		
APPROPRIATION/BUDGET ACTIVITY RDT&E,N/BA-7	**PROGRAM ELEMENT NUMBER AND NAME** 0205604N TACTICAL DATA LINKS						**PROJECT NUMBER AND NAME** 2126 ATDLS INTEGRATION		
Schedule Profile	FY 2007	FY 2008	FY 2009	FY 2010					
DNM Platform Integration Test	Q3								
DNM Platform Integration Test		Q1							
DNM DT		Q2							
DNM ADM		Q2							
DNM Platform Integration Test		Q3							
Link 16 Network Increment 2 System Requirements Review			Q2						
Link 16 Network Increment 2 Preliminary Design Review			Q3						
Link 16 Network Increment 2 Critical Design Review			Q4						
Link 16 Network Increment 2 Operational Test Readiness Review				Q3					
Link 16 Network Increment 2 Development Test				Q3					
Link 16 Network Increment 2 Development Test / Operational Assessment				Q4					