CLASSIFICATION:	UNCLASSIFIED						
EXHIBIT R-2, RDT&E BUDGET ITEM JUSTIFICATION						DATE February 2008	
APPROPRIATION/BUDGET ACTIVITY **RDTEN/BA 5**			R-1 ITEM NOMENCLATURE **0604300N/SC-21 TOTAL SHIP SYSTEM ENGINEERING**				
COST (In Millions)	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
Total PE Cost	797.040	629.323	678.936	822.728	896.962	664.315	519.199
2464 / "DD(X) Sys Design, Dev & Integration"	705.344	420.011	352.326	404.557	446.397	250.965	151.461
2735 / VSR - Volume Search Radar	4.906	0.000	0.000	0.000	0.000	0.000	0.000
3105 / BLK II Seeker Technology Development	0.000	0.981	0.000	0.000	0.000	0.000	0.000
3106 / Combat System Integration	8.974	29.708	57.701	80.220	91.409	93.210	95.055
3107 / CG(X) DEVELOPMENT	15.004	84.899	172.078	222.013	240.480	245.139	249.912
4009 / Advanced Gun System (AGS) on DD(X)	45.584	72.659	96.831	115.938	118.676	75.001	22.771
9999 / CONGRESSIONAL ADDS	17.228	21.065	0.000	0.000	0.000	0.000	0.000

A. MISSION DESCRIPTION:

Defense Emergency Response Funds (DERF) Funds: N/A

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

This Program Element (PE) provides funds for development of the DDG 1000 Class of U. S. Navy surface combatants, and CG(X), future cruiser development. The mission of the DDG 1000 class is to provide affordable and credible independent forward presence/deterrence and operate as an integral part of Naval, Joint or Combined Maritime Forces. DDG 1000 will provide advanced land attack capability in support of the ground campaign and contribute to Naval, Joint or Combined battlespace dominance in littoral operations. DDG 1000 will establish and maintain surface and sub-surface superiority, provide local air defense, and incorporate signature reduction to operate in all threat environments. DDG 1000 will have seamless Joint Interoperability to integrate all source information for battlespace awareness and weapons direction. CG(X) development efforts will mature the CG(X) design through Milestone B.

The following Congressional adds are contained in this Program Element:

FY07 Congressional Adds:

-Project 9999-Congressional Adds: $17.228 - This project consists of the following FY07 Congressional adds: Floating Area Network, Permanent Magnet Motor, Surface vessel electric actuator technology development, Wireless martime inspection system, Bio/Nano Micro Electro-Mechanical Systems (MEMS) Center for Defense Applications, and Micro Electro-Mechanical Systems (MEMS) Center for Defense Applications.

FY08 Congressional Adds:

-Project 9999-Congressional Adds: $21.065 - This project consists of the following FY08 Congressional adds: Floating Area Network, SmartLink Planar Scanner Antenna Mode,

Wireless Maritime Inspection System, Permanent Magnet Motor, Advanced Wireless Encryption Module, and Bio Nano Micro Electro-Mechanical Systems (MEMS) for Defense Applications.

B. PROGRAM CHANGE SUMMARY:

Funding:	FY 2007	FY 2008	FY 2009
Previous President's Budget (FY08 Pres Controls)	820.065	621.544	658.223
Current President's Budget (FY09 Pres Controls)	797.040	629.323	678.936
Total Adjustments	-23.025	7.779	20.713
Summary of Adjustments			
Congressional Program Reductions			
Congressional Rescissions			
Congressional Increases		21.200	
Reprogrammings	-1.011		
SBIR/STTR Transfer	-21.003		
Undistributed General Adjustments	- 1.011	-13.421	-4.268
Program Adjustments			24.981
Subtotal	-23.025	7.779	20.713

CLASSIFICATION:	UNCLASSIFIED						
EXHIBIT R-2a, RDT&E PROJECT JUSTIFICATION					DATE February 2008		
APPROPRIATION/BUDGET ACTIVITY **RDTEN/BA 5**	PROGRAM ELEMENT NUMBER AND NAME **0604300N/SC-21 TOTAL SHIP SYSTEM ENGINEERING**				PROJECT NUMBER AND NAME **2464/"DD(X) Sys Design, Dev & Integration"**		
COST (In Millions)	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
Project Cost	705.344	420.011	352.326	404.557	446.397	250.965	151.461
RDT&E Articles Qty	0	0	0	0	0	0	0

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

This project encompasses DDG 1000 development efforts required to deliver the Flight I DDG 1000 Class Ships. Major efforts include software requirements analysis, architectural and design code and unit testing, integration, qualification testing, and Independent Verification and Validation (IV&V) for software releases 4-6; hullform testing at NSWC-CD; conducting testing communication and sensor aperature cosite and electromagnetic interferance risk reductions testing for critical arrays; planning for IPS and ship control system testing and integration and tomahawk restrained firing test.

CLASSIFICATION:	UNCLASSIFIED	
EXHIBIT R-2a, RDT&E PROJECT JUSTIFICATION		DATE February 2008
APPROPRIATION/BUDGET ACTIVITY **RDTEN/BA 5**	PROGRAM ELEMENT NUMBER AND NAME **0604300N/SC-21 TOTAL SHIP SYSTEM ENGINEERING**	PROJECT NUMBER AND NAME **2464/"DD(X) Sys Design, Dev & Integration"**

B. ACCOMPLISHMENTS/PLANNED PROGRAM:

	FY 2007	FY 2008	FY 2009
Accomplishments/Effort/Subtotal Cost	591.017	386.786	313.807
RDT&E Articles Quantity	0	0	0

Development of the DDG 1000 Flight I software, COTS/GOTS software acquisition, code and unit testing, integration, qualification testing, and Independent Verification and Validation (IV&V). Development of a total system software architecture that defines the relationships and interfaces among the software segments, elements, components, and/or configuration items. Conduct the following events for the remaining software releases: Software Specification Review (S-SSR), Software Preliminary Design Review (S-PDR), Software Critical Design Review (S-CDR), Software Integration Readiness Review (SIRR), Test Readiness Review (TRR) and Software Certification Panel (SCP). Conduct all developmental software test planning, conduct, test data analysis and reporting in accordance with the DDG 1000 TEMP. Perform total ship system design analysis. Perform systems engineering, develop, and fully integrate into the DDG 1000 System an ES system for DDG 1000. Develop Next Generation Command and Control Processor (NGC2P) and Common Enterprise Display Systems (CEDS) Display Consoles.

	FY 2007	FY 2008	FY 2009
Accomplishments/Effort/Subtotal Cost	114.327	29.225	33.519
RDT&E Articles Quantity	0	0	0

Completion and testing of ship and warfare system engineering development models. Complete hullform testing at NSWC-Carderock. Planning for IPS and ship control system (SCS) testing and integration at NSWC-Philadelphia. Conduct communication and sense aperture cosite and electromagnetic interference risk reduction testing for critical arrays at the Wallops Island Test Facility. Conducted Tomahawk restrained firing test to verify Advanced Vertical Launching System (AVLS) protection measures. Conduct developmental testing and operation evaluation in accordance with TEMP. Conduct Live Fire Testing & vulnerability analysis in accordance with TEMP. Conduct signature range Non-Recurring Engineering (NRE) to upgrade ranges to support DDG 1000 test and evaluation.

	FY 2007	FY 2008	FY 2009
Accomplishments/Effort/Subtotal Cost	0.000	4.000	5.000
RDT&E Articles Quantity	0	0	0

This funding is to support DDG 1000 specific testing on the Self Defense Test Ship.

C. OTHER PROGRAM FUNDING SUMMARY:

Line Item No. and Name	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	To Complete	Total Cost
BLI 211900 / SCN	2,557.268	2,906.867	2,553.783	2,713.895	2,427.039	2,619.142	2,347.368	CONT	

D. ACQUISITION STRATEGY:

The funding in this program element supports the DDG 1000 dual lead ship acquitision strategy.

CLASSIFICATION:	UNCLASSIFIED	
EXHIBIT R-2a, RDT&E PROJECT JUSTIFICATION (CONTINUATION)		DATE February 2008
APPROPRIATION/BUDGET ACTIVITY **RDTEN/BA 5**	PROGRAM ELEMENT NUMBER AND NAME **0604300N/SC-21 TOTAL SHIP SYSTEM ENGINEERING**	PROJECT NUMBER AND NAME **2464/"DD(X) Sys Design, Dev & Integration"**

E. MAJOR PERFORMERS:

Major Contractors - Raytheon, Lockheed Martin, BAE, Northrop Grumman Ship Systems, BIW

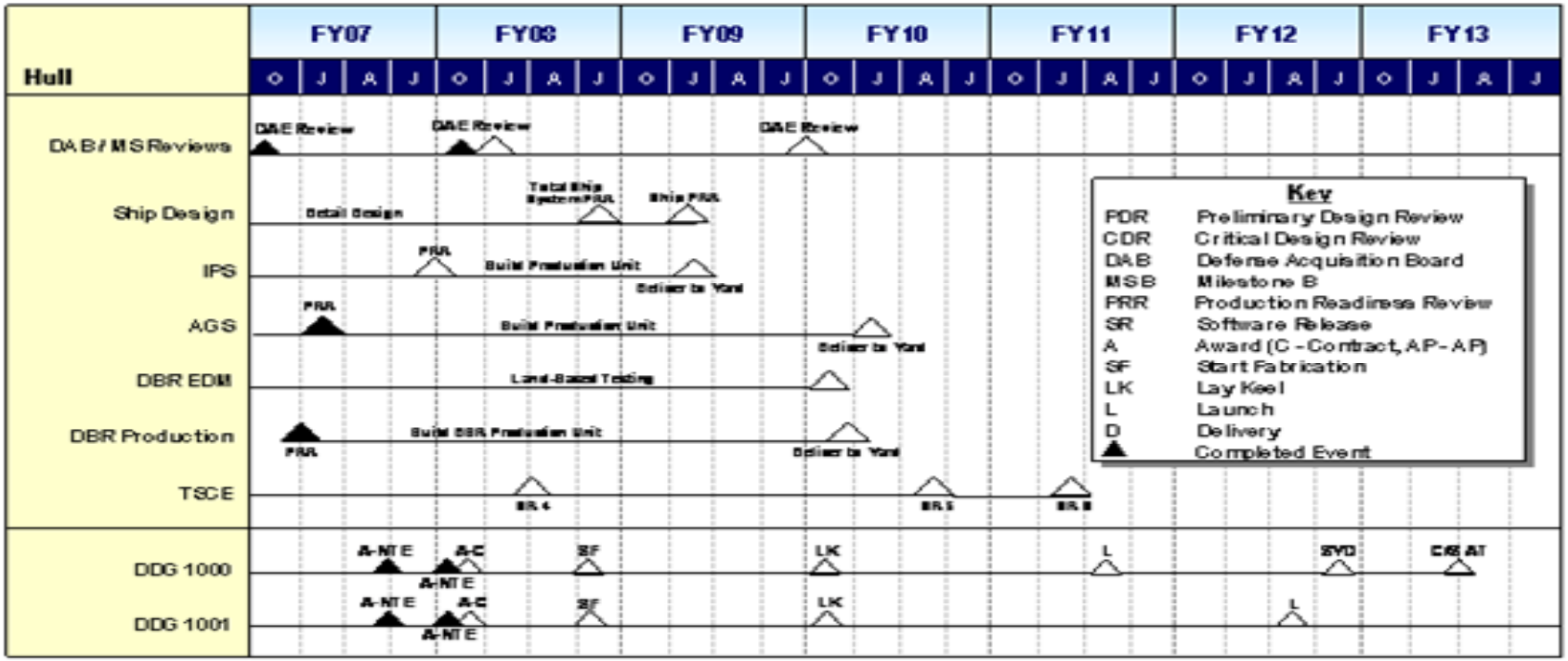
Government Field Activities - NSWC Carderock, NSWC Dahlgren, NSWC Port Hueneme

Universities - John Hopkins University, Applied Physics Lab (APL/JHU)

CLASSIFICATION:		UNCLASSIFIED										
EXHIBIT R-3, RDT&E PROJECT COST ANALYSIS									DATE February 2008			
APPROPRIATION/BUDGET ACTIVITY **RDTEN/BA 5**		PROGRAM ELEMENT NUMBER AND NAME **0604300N/SC-21 TOTAL SHIP SYSTEM ENGINEERING**					PROJECT NUMBER AND NAME **2464/"DD(X) Sys Design, Dev & Integration"**					
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY Cost ($000)	FY 2007 Cost ($000)	FY 2007 Award Date	FY 2008 Cost ($000)	FY 2008 Award Date	FY 2009 Cost ($000)	FY 2009 Award Date	Cost to Complete ($000)	Total Cost ($000)	Target Value of Contract
Initial System Concepts - Phase I	OTA	DD(X) Industry Team	54.800	0.000		0.000		0.000		0.000	54.800	54.800
Initial System Design - Phase II	OTA	DD(X) Industry Team	139.919	0.000		0.000		0.000		0.000	139.919	139.919
Primary H/W Development- Phase III	CPAF	DD(X) Design Agent (NGSS)	2,251.394	0.000		0.000		0.000		0.000	2,251.390	2,251.394
Ship Integration Development Phase IV	CPAF	DDG 1000 Dev & Test (Raytheon)	657.000	633.807	DEC-06	372.438	DEC-07	304.199	DEC-08	CONT	CONT	0.000
Subtotal Product Development			**3,103.113**	**633.807**		**372.438**		**304.199**		**CONT**	**CONT**	**2,446.113**
Remarks:												
Subtotal Support Costs			**0.000**	**0.000**		**0.000**		**0.000**		**0.000**	**0.000**	**0.000**
Remarks:												
Live Fire Test & Evaluation	OTA	DD(X) Industry Teams	4.875	0.000		0.000		0.000		0.000	4.875	4.875
Live Fire Test & Evaluation	CPAF	DD(X) Design Agent	45.800	0.000		0.000		0.000		0.000	45.800	45.800
Live Fire Test & Evaluation	CPAF	Raytheon	27.100	2.000	DEC-06	2.000	DEC-07	2.000	DEC-08	CONT	CONT	0.000
Live Fire Test & Evaluation	WR	NSWC CD Bethesda MD	22.733	0.000		0.000		0.000		0.000	22.733	22.733
Live Fire Test & Evaluation	WR	NSWC DD Dahlgren VA	3.400	0.000		0.000		0.000		0.000	3.400	3.400
Live Fire Test & Evaluation	Various	Various	32.376	0.000		4.000	DEC-07	5.068	DEC-08	CONT	CONT	0.000
Test & Evaluation	Various	Various	0.000	25.300	DEC-06	21.400	DEC-07	30.800	DEC-08	CONT	CONT	0.000
Subtotal Test and Evaluation			**136.284**	**27.300**		**27.400**		**37.868**		**CONT**	**CONT**	**76.808**
Remarks:												
Contractor Engineering Support	GSA/FFP	Anteon Arlington VA	25.397	0.000		0.000		0.000		0.000	25.397	25.397
Contractor Engineering Support	GSA	GRCI, Falls Church VA	8.361	0.000		0.000		0.000		0.000	8.361	8.361
Contractor Engineering Support	CPAF	Seaport, NAVSEA	25.580	6.462	DEC-06	0.000		0.000		CONT	CONT	0.000
Contractor Engineering Support	Misc	Various	22.964	0.000		0.000		0.000		0.000	22.964	22.964
Government Engineering Support	WR	NSWC DD Dahlgren VA	104.050	1.800	DEC-06	0.000		0.000		CONT	CONT	0.000
Government Engineering Support	WR	NSWC CD Bethesda MD	75.805	18.639	DEC-06	7.573	DEC-07	0.000		CONT	CONT	0.000
Government Engineering Support	WR	NSWC CR Crane IN	11.901	0.000		0.000		0.000		0.000	11.901	11.901
Government Engineering Support	WR	NSWC PHD Pt Hueneme CA	20.748	0.135	DEC-06	0.000		0.000		CONT	CONT	0.000
Government Engineering Support	WR	SSCSD San Diego CA	16.132	12.185	DEC-06	11.600	DEC-07	9.259	DEC-08	CONT	CONT	0.000

CLASSIFICATION:	UNCLASSIFIED											
EXHIBIT R-3, RDT&E PROJECT COST ANALYSIS									DATE February 2008			
APPROPRIATION/BUDGET ACTIVITY **RDTEN/BA 5**		PROGRAM ELEMENT NUMBER AND NAME **0604300N/SC-21 TOTAL SHIP SYSTEM ENGINEERING**					PROJECT NUMBER AND NAME **2464/"DD(X) Sys Design, Dev & Integration"**					
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY Cost ($000)	FY 2007 Cost ($000)	FY 2007 Award Date	FY 2008 Cost ($000)	FY 2008 Award Date	FY 2009 Cost ($000)	FY 2009 Award Date	Cost to Complete ($000)	Total Cost ($000)	Target Value of Contract
Government Engineering Support	WR	NUWC/N Newport RI	16.050	0.037	DEC-06	0.000		0.000		CONT	CONT	0.000
Government Engineering Support	WR	NSWC/PC Panama City, FL	13.627	0.000		0.000		0.000		0.000	13.627	13.627
Government Engineering Support	Various	Other Govt Activities	38.861	0.000		0.000		0.000		0.000	38.861	38.861
Program Managment Support	Various	Various	28.749	0.000		0.000		0.000		0.000	28.749	28.749
Travel	Various	Various	5.412	0.779	DEC-06	1.000	DEC-07	1.000	DEC-08	CONT	CONT	0.000
Labor (Research Personnel)	CPFF	APL/JHU Laurel MD	35.326	4.200	DEC-06	0.000		0.000		CONT	CONT	0.000
Subtotal Management Services			**448.963**	**44.237**		**20.173**		**10.259**		**CONT**	**CONT**	**149.860**
Remarks:												
Total Cost			**3,688.360**	**705.344**		**420.011**		**352.326**		**CONT**	**CONT**	**2,672.781**

CLASSIFICATION:	UNCLASSIFIED	
EXHIBIT R-4, SCHEDULE PROFILE		DATE February 2008
APPROPRIATION/BUDGET ACTIVITY **RDTEN/BA 5**	PROGRAM ELEMENT NUMBER AND NAME **0604300N/SC-21 TOTAL SHIP SYSTEM ENGINEERING**	PROJECT NUMBER AND NAME **2464/"DD(X) Sys Design, Dev & Integration"**



CLASSIFICATION:	UNCLASSIFIED						
EXHIBIT R-4a, SCHEDULE DETAIL					DATE February 2008		
APPROPRIATION/BUDGET ACTIVITY **RDTEN/BA 5**	PROGRAM ELEMENT NUMBER AND NAME **0604300N/SC-21 TOTAL SHIP SYSTEM ENGINEERING**			PROJECT NUMBER AND NAME **2464/"DD(X) Sys Design, Dev & Integration"**			
Schedule Profile	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
Software Release SR4		2Q					
Software Release SR5			2Q				
Software Release SR6				2Q			

CLASSIFICATION:	UNCLASSIFIED						
EXHIBIT R-2a, RDT&E PROJECT JUSTIFICATION					DATE February 2008		
APPROPRIATION/BUDGET ACTIVITY **RDTEN/BA 5**	PROGRAM ELEMENT NUMBER AND NAME **0604300N/SC-21 TOTAL SHIP SYSTEM ENGINEERING**				PROJECT NUMBER AND NAME **2735/VSR - Volume Search Radar**		
COST (In Millions)	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
Project Cost	4.906	0.000	0.000	0.000	0.000	0.000	0.000
RDT&E Articles Qty	0	0	0	0	0	0	0

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

This project provides funds for the development of the S-Band Volume Search Radar (VSR) in association with DDG 1000. This provides DDG 1000 and other applicable surface ships with an affordable, high performance air search radar. This system is based on solid state, active array radar technology and will provide search, detect, and track while dramatically reducing manning and life-cycle costs associated with multiple systems that perform these functions today. VSR provides long range above-the-horizon surveillance and timely cueing to Multi-Function Radar (MFR). A Test Article was available in FY 06 to support Developmental Test/Operational Assessment (DT/OA) land-based testing.

CLASSIFICATION:	UNCLASSIFIED	
EXHIBIT R-2a, RDT&E PROJECT JUSTIFICATION		DATE February 2008
APPROPRIATION/BUDGET ACTIVITY **RDTEN/BA 5**	PROGRAM ELEMENT NUMBER AND NAME **0604300N/SC-21 TOTAL SHIP SYSTEM ENGINEERING**	PROJECT NUMBER AND NAME **2735/VSR - Volume Search Radar**

B. ACCOMPLISHMENTS/PLANNED PROGRAM:

	FY 2007	FY 2008	FY 2009
Accomplishments/Effort/Subtotal Cost	4.906	0.000	0.000
RDT&E Articles Quantity	0	0	0

Government Technical Engineering Services for VSR Engineering and Manufacturing Development. Performed oversight and assessment of VSR Engineering and Manufacturing Development efforts including Test and Evaluation. Supported VSR Land Based Testing in FY07.

C. OTHER PROGRAM FUNDING SUMMARY:

Line Item No. and Name	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	To Complete	Total Cost
BLI 211900 / SCN	2,557.268	2,906.867	2,553.783	2,713.895	2,427.039	2,619.142	2,347.368	CONT	

D. ACQUISITION STRATEGY:

The funding in this program element supports the DDG 1000 dual lead ship acquitision strategy.

E. MAJOR PERFORMERS:

DDG1000 Design Agent - Northrop Grumman Ship Systems

Major Subcontractors - Raytheon, Lockheed Martin

Government Field Activities - NAWC China Lake, NAWC Pt Mugu, NAWC TSD, NSWC Carderock, NSWC Crane, NSWC Dahlgren, NSWC Newport, NSWC Panama City, NSWC Port Hueneme, Naval Research Laboratory, SPAWAR Systems Center

Universities - John Hopkins University / Applied Physics Laboratory, Applied Research Labs at University of Texas, University of Washington and Penn State University, Georgia Tech Research Institute

CLASSIFICATION:	UNCLASSIFIED						
EXHIBIT R-2a, RDT&E PROJECT JUSTIFICATION					DATE February 2008		
APPROPRIATION/BUDGET ACTIVITY **RDTEN/BA 5**	PROGRAM ELEMENT NUMBER AND NAME **0604300N/SC-21 TOTAL SHIP SYSTEM ENGINEERING**				PROJECT NUMBER AND NAME **3105/BLK II Seeker Technology Development**		
COST (In Millions)	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
Project Cost	0.000	0.981	0.000	0.000	0.000	0.000	0.000
RDT&E Articles Qty	0	0	0	0	0	0	0

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

CG(X), the future cruiser, will focus on providing the Air and Missile Defense capabilities as part of the 21st Century family of surface combatants. CG(X) is the follow-on to the aging CG-47 class as they reach the end of their 35 year service life. This project encompasses efforts for the missile seeker development and integration within the mission system computer programs into the CG(X) class mission system. These missile seeker development and missile and combat system integration efforts include systems engineering, analysis, programmatic support, computer program development/modification, interface design, technical documentation, test site development and system testing to ensure fully functional systems integration.

CLASSIFICATION:	UNCLASSIFIED	
EXHIBIT R-2a, RDT&E PROJECT JUSTIFICATION		DATE February 2008
APPROPRIATION/BUDGET ACTIVITY **RDTEN/BA 5**	PROGRAM ELEMENT NUMBER AND NAME **0604300N/SC-21 TOTAL SHIP SYSTEM ENGINEERING**	PROJECT NUMBER AND NAME **3105/BLK II Seeker Technology Development**

B. ACCOMPLISHMENTS/PLANNED PROGRAM:

	FY 2007	FY 2008	FY 2009
Accomplishments/Effort/Subtotal Cost	0.000	0.981	0.000
RDT&E Articles Quantity	0	0	0

FY08: Initiate CG(X) Missile Seeker Preliminary Design studies and analysis to support missile and total ship system requirements documentation.

C. OTHER PROGRAM FUNDING SUMMARY:

Line Item No. and Name	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	To Complete	Total Cost
BLI 211400 / SCN	0.000	0.000	0.000	0.000	3,234.494	0.000	3,064.439	CONT	CONT

D. ACQUISITION STRATEGY:

TBD - The Acquisition Strategy is currently in development in accordance with concept resulting from Analysis of Alternative, and is scheduled to be completed following Milestone A, scheduled 2nd quarter FY08.

E. MAJOR PERFORMERS:

Contractors - TBD - Based on results of Analysis of alternatives developed for Milestone A, scheduled for 2nd quarter FY08, and the Acquisition Strategy, scheduled to be finalized in FY08.

Field Activities - NSWC Carderock, NSWC Dahlgren, NSWC Port Hueneme

Universities - JHUAPL

CLASSIFICATION:	UNCLASSIFIED						
EXHIBIT R-2a, RDT&E PROJECT JUSTIFICATION					DATE February 2008		
APPROPRIATION/BUDGET ACTIVITY **RDTEN/BA 5**	PROGRAM ELEMENT NUMBER AND NAME **0604300N/SC-21 TOTAL SHIP SYSTEM ENGINEERING**				PROJECT NUMBER AND NAME **3106/Combat System Integration**		
COST (In Millions)	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
Project Cost	8.974	29.708	57.701	80.220	91.409	93.210	95.055
RDT&E Articles Qty	0	0	0	0	0	0	0

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

CG(X), the future cruiser, will focus on providing the Air and Missile Defense capabilities as part of the 21st Century family of surface combatants. CG(X) is the follow-on to the aging CG-47 class as they reach the end of their 35 year service life. This project encompasses efforts for the integration of communications, electronics, command and control, weapons, surveillance, Engineering Development Models (EDMs) and shipboard systems and mission system computer programs into the CG(X) class mission system. These integration efforts include systems engineering, analysis, computer program development/modification, interface design, technical documentation, mission system test site development and system testing to ensure fully functional mission sytems integration.

CLASSIFICATION:	UNCLASSIFIED	
EXHIBIT R-2a, RDT&E PROJECT JUSTIFICATION		DATE February 2008
APPROPRIATION/BUDGET ACTIVITY **RDTEN/BA 5**	PROGRAM ELEMENT NUMBER AND NAME **0604300N/SC-21 TOTAL SHIP SYSTEM ENGINEERING**	PROJECT NUMBER AND NAME **3106/Combat System Integration**

B. ACCOMPLISHMENTS/PLANNED PROGRAM:

	FY 2007	FY 2008	FY 2009
Accomplishments/Effort/Subtotal Cost	0.817	21.291	43.201
RDT&E Articles Quantity	0	0	0

FY07: Commenced system integration requirements studies and assess DDG1000 mission system component applicability to CG(X). FY08: Conduct Total Ship Systems Engineering for CG(X) Ship Systems, ship integration, combat system, command and control, C4ISR integrated system design, open architecture, software development, and re-use and certification. FY09:Continue Total Ship Systems Engineering for CG(X) Ship Systems, ship integration, combat system, command and control, C4ISR integrated system design, open architecture, software development, and re-use and certification.

	FY 2007	FY 2008	FY 2009
Accomplishments/Effort/Subtotal Cost	1.192	2.030	3.499
RDT&E Articles Quantity	0	0	0

FY07: Established Technical Team responsible for participation, oversight and monitoring of system integration effort. FY08: Development of top level Total Ship System Requirements documents. Review and evaluation of total ship system requirements, preliminary designs and contract designs. FY09: Evaluation of contract design against top level requirements. Review of contract design allocation and analysis.

	FY 2007	FY 2008	FY 2009
Accomplishments/Effort/Subtotal Cost	6.965	6.387	11.001
RDT&E Articles Quantity	0	0	0

FY07: Conducted Milestone A preparations, to include contract solicitation development for systems integration efforts. FY08: Initiate development of program documentation based on results of Analysis of Alternatives and finalized acquisition strategy. Develop acquisition documentation for competitive evaluation and selection process. FY09: Conduct contract administration for Mission System Engineering and Integration contract. Initiate development of Ship Detailed Contract Design Contract source selection documentation.

C. OTHER PROGRAM FUNDING SUMMARY:

Line Item No. and Name	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	To Complete	Total Cost
BLI 211400 / SCN	0.000	0.000	0.000	0.000	3,234.494	0.000	3,064.439	CONT	CONT

D. ACQUISITION STRATEGY:

TBD - The Acquisition Strategy is currently in development in accordance with concept resulting from Analysis of Alternative, and is scheduled to be completed following Milestone A, scheduled for 2nd quarter FY08.

E. MAJOR PERFORMERS:

CLASSIFICATION:	UNCLASSIFIED	
EXHIBIT R-2a, RDT&E PROJECT JUSTIFICATION (CONTINUATION)		DATE February 2008
APPROPRIATION/BUDGET ACTIVITY **RDTEN/BA 5**	PROGRAM ELEMENT NUMBER AND NAME **0604300N/SC-21 TOTAL SHIP SYSTEM ENGINEERING**	PROJECT NUMBER AND NAME **3106/Combat System Integration**

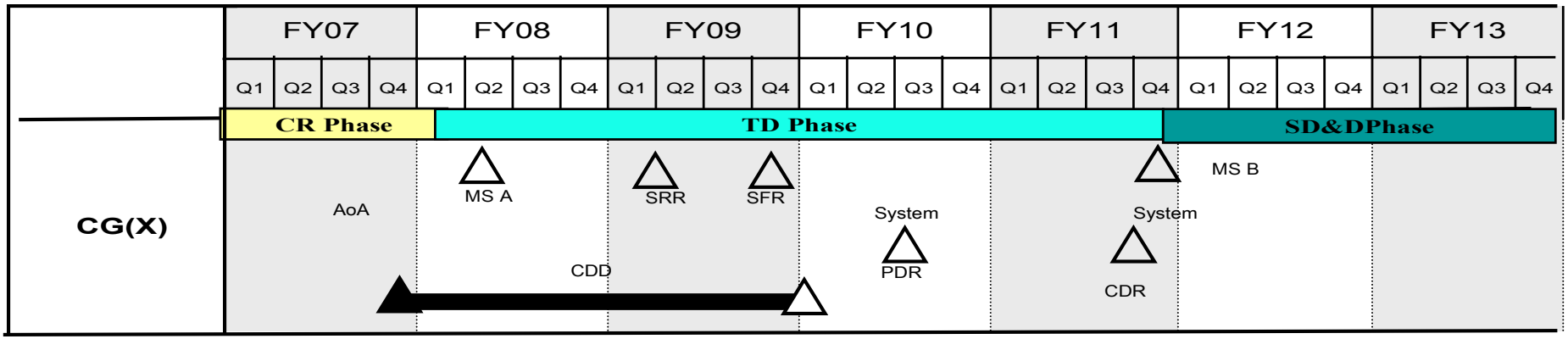
Contractors - TBD - Based on results of Analysis of alternatives developed for Milestone A, scheduled for 2nd quarter FY08, and the Acquisition Strategy, scheduled to be finalized in FY08.

Field Activities - NSWC Carderock, NSWC Dahlgren, NSWC Port Hueneme

Universities - JHUAPL

CLASSIFICATION:	UNCLASSIFIED											
EXHIBIT R-3, RDT&E PROJECT COST ANALYSIS									DATE February 2008			
APPROPRIATION/BUDGET ACTIVITY **RDTEN/BA 5**		PROGRAM ELEMENT NUMBER AND NAME **0604300N/SC-21 TOTAL SHIP SYSTEM ENGINEERING**					PROJECT NUMBER AND NAME **3106/Combat System Integration**					
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY Cost ($000)	FY 2007 Cost ($000)	FY 2007 Award Date	FY 2008 Cost ($000)	FY 2008 Award Date	FY 2009 Cost ($000)	FY 2009 Award Date	Cost to Complete ($000)	Total Cost ($000)	Target Value of Contract
Ship Integration	TBD	Various	0.000	0.000		21.291	JUN-08	43.201	JUN-09	CONT	CONT	0.000
Subtotal Product Development			**0.000**	**0.000**		**21.291**		**43.201**		**CONT**	**CONT**	**0.000**
Remarks:												
Subtotal Support Costs			**0.000**	**0.000**		**0.000**		**0.000**		**0.000**	**0.000**	**0.000**
Remarks:												
Subtotal Test and Evaluation			**0.000**	**0.000**		**0.000**		**0.000**		**0.000**	**0.000**	**0.000**
Remarks:												
Contractor Engineering Support	Various	Various	0.000	5.068	DEC-06	1.778	DEC-07	3.351	DEC-08	CONT	CONT	0.000
Government Engineering Support	Various	Various	0.000	3.906	DEC-06	6.639	DEC-07	11.149	DEC-08	CONT	CONT	0.000
Subtotal Management Services			**0.000**	**8.974**		**8.417**		**14.500**		**CONT**	**CONT**	**0.000**
Remarks:												
Total Cost			**0.000**	**8.974**		**29.708**		**57.701**		**CONT**	**CONT**	**0.000**

CLASSIFICATION:	UNCLASSIFIED	
EXHIBIT R-4, SCHEDULE PROFILE		DATE February 2008
APPROPRIATION/BUDGET ACTIVITY **RDTEN/BA 5**	PROGRAM ELEMENT NUMBER AND NAME **0604300N/SC-21 TOTAL SHIP SYSTEM ENGINEERING**	PROJECT NUMBER AND NAME **3106/Combat System Integration**



CLASSIFICATION:	UNCLASSIFIED						
EXHIBIT R-4a, SCHEDULE DETAIL					DATE February 2008		
APPROPRIATION/BUDGET ACTIVITY **RDTEN/BA 5**	PROGRAM ELEMENT NUMBER AND NAME **0604300N/SC-21 TOTAL SHIP SYSTEM ENGINEERING**			PROJECT NUMBER AND NAME **3106/Combat System Integration**			
Schedule Profile	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
Milestone A		2Q					
Preliminary Design Review				3Q			
Critical Design Review					3Q		
Milestone B					4Q		

CLASSIFICATION:	UNCLASSIFIED						
EXHIBIT R-2a, RDT&E PROJECT JUSTIFICATION					DATE February 2008		
APPROPRIATION/BUDGET ACTIVITY **RDTEN/BA 5**	PROGRAM ELEMENT NUMBER AND NAME **0604300N/SC-21 TOTAL SHIP SYSTEM ENGINEERING**				PROJECT NUMBER AND NAME **3107/CG(X) DEVELOPMENT**		
COST (In Millions)	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
Project Cost	15.004	84.899	172.078	222.013	240.480	245.139	249.912
RDT&E Articles Qty	0	0	0	0	0	0	0

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

CG(X), the future cruiser, will focus on providing the Air and Missile Defense capabilities as part of the 21st Century family of surface combatants. CG(X) is the follow-on to the aging CG-47 class as they reach the end of their 35 year service life. This project encompasses efforts for total ship system development and integration of Hull, Mechnical and Electrical (HM&E) and shipboard systems into the CG(X) class. These engineering development and integration efforts include systems engineering, analysis, computer program development, interface design, Engineering Development Models (EDMs), technical documentation and system testing to ensure a fully functional CG(X) system design. This project will mature the CG(X) design through several ship design cycles and baselines. Preparation and execution of a program level Preliminary Design Review (PDR) and Critical Design Reveiw (CDR) will occur through these efforts.

CLASSIFICATION:	UNCLASSIFIED	
EXHIBIT R-2a, RDT&E PROJECT JUSTIFICATION		DATE February 2008
APPROPRIATION/BUDGET ACTIVITY **RDTEN/BA 5**	PROGRAM ELEMENT NUMBER AND NAME **0604300N/SC-21 TOTAL SHIP SYSTEM ENGINEERING**	PROJECT NUMBER AND NAME **3107/CG(X) DEVELOPMENT**

B. ACCOMPLISHMENTS/PLANNED PROGRAM:

	FY 2007	FY 2008	FY 2009
Accomplishments/Effort/Subtotal Cost	2.000	62.894	128.739
RDT&E Articles Quantity	0	0	0

FY07: Completed the AoA and brief results to the Defense Acquisition Executive (DAE). FY08: Award Mission System Engineering and Integration Agent contract. Initiate Preliminary Design and System Integration for the CG(X) Total Ship System. Develop Ship Systems Baseline concepts. FY09: Initiate Total Ship Systems Integration requirements. Allocate requirements to functional baseline design. Develop ship system baseline system element requirements.

	FY 2007	FY 2008	FY 2009
Accomplishments/Effort/Subtotal Cost	7.222	5.817	11.238
RDT&E Articles Quantity	0	0	0

FY07: Conducted Concept Design model development and upgrades. Conducted CG(X) technology assessment. FY08: Development of top level Total Ship System Requirements documents. Review and evaluation of total ship system requirements, preliminary designs and contract designs. FY09: Evaluation of contract design against top level requirements. Review of contract design allocation and analysis.

	FY 2007	FY 2008	FY 2009
Accomplishments/Effort/Subtotal Cost	5.782	16.188	32.101
RDT&E Articles Quantity	0	0	0

FY07: Executed Milestone A preparation and acquisition strategy development. FY08: Initiate development of program documentation based on results of Analysis of Alternatives and finalized acquisition strategy. Develop acquisition documentation for competitive evaluation and selection process. FY09: Conduct contract administration for Mission System Engineering and Integration contract. Initiate development of Ship Detailed Contract Design Contract source selection documentation.

C. OTHER PROGRAM FUNDING SUMMARY:

Line Item No. and Name	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	To Complete	Total Cost
BLI 211400 / SCN	0.000	0.000	0.000	0.000	3,234.494	0.000	3,064.439	CONT	CONT

D. ACQUISITION STRATEGY:

TBD - The Acquisition Strategy is currently in development in accordance with concept resulting from Analysis of Alternative, and is scheduled to be completed following Milestone A, scheduled for 2nd quarter FY08.

E. MAJOR PERFORMERS:

Contractors - TBD - Based on results of Analysis of alternatives developed for Milestone A, scheduled for 2nd quarter FY08, and the Acquisition Strategy, scheduled to be finalized in FY08.

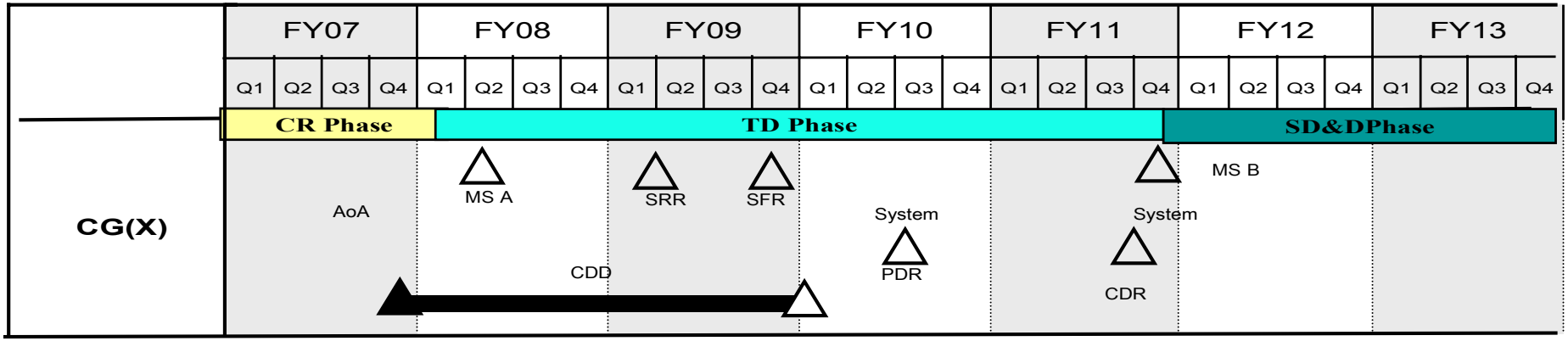
CLASSIFICATION:	UNCLASSIFIED	
EXHIBIT R-2a, RDT&E PROJECT JUSTIFICATION (CONTINUATION)		DATE February 2008
APPROPRIATION/BUDGET ACTIVITY **RDTEN/BA 5**	PROGRAM ELEMENT NUMBER AND NAME **0604300N/SC-21 TOTAL SHIP SYSTEM ENGINEERING**	PROJECT NUMBER AND NAME **3107/CG(X) DEVELOPMENT**

Field Activities - NSWC Dahlgren, NSWC Port Hueneme, NSWC Corona, NSWC Carderock

Universities - JHU/APL

CLASSIFICATION:	UNCLASSIFIED											
EXHIBIT R-3, RDT&E PROJECT COST ANALYSIS									DATE February 2008			
APPROPRIATION/BUDGET ACTIVITY **RDTEN/BA 5**		PROGRAM ELEMENT NUMBER AND NAME **0604300N/SC-21 TOTAL SHIP SYSTEM ENGINEERING**					PROJECT NUMBER AND NAME **3107/CG(X) DEVELOPMENT**					
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY Cost ($000)	FY 2007 Cost ($000)	FY 2007 Award Date	FY 2008 Cost ($000)	FY 2008 Award Date	FY 2009 Cost ($000)	FY 2009 Award Date	Cost to Complete ($000)	Total Cost ($000)	Target Value of Contract
Ship Integration	TBD	Various	0.000	0.000		62.894	JUN-08	128.739	JUN-09	CONT	CONT	0.000
Subtotal Product Development			**0.000**	**0.000**		**62.894**		**128.739**		**CONT**	**CONT**	**0.000**
Remarks:												
Subtotal Support Costs			**0.000**	**0.000**		**0.000**		**0.000**		**0.000**	**0.000**	**0.000**
Remarks:												
Subtotal Test and Evaluation			**0.000**	**0.000**		**0.000**		**0.000**		**0.000**	**0.000**	**0.000**
Remarks:												
Contractor Engineering Support	Various	Various	4.847	8.090	DEC-06	5.757	DEC-07	11.934	DEC-08	CONT	CONT	0.000
Government Engineering Support	Various	Various	14.541	6.914	DEC-06	16.248	DEC-07	31.405	DEC-08	CONT	CONT	0.000
Subtotal Management Services			**19.388**	**15.004**		**22.005**		**43.339**		**CONT**	**CONT**	**0.000**
Remarks:												
Total Cost			**19.388**	**15.004**		**84.899**		**172.078**		**CONT**	**CONT**	**0.000**

CLASSIFICATION:	UNCLASSIFIED	
EXHIBIT R-4, SCHEDULE PROFILE		DATE February 2008
APPROPRIATION/BUDGET ACTIVITY **RDTEN/BA 5**	PROGRAM ELEMENT NUMBER AND NAME **0604300N/SC-21 TOTAL SHIP SYSTEM ENGINEERING**	PROJECT NUMBER AND NAME **3107/CG(X) DEVELOPMENT**



CLASSIFICATION:	UNCLASSIFIED						
EXHIBIT R-4a, SCHEDULE DETAIL					DATE February 2008		
APPROPRIATION/BUDGET ACTIVITY **RDTEN/BA 5**	PROGRAM ELEMENT NUMBER AND NAME **0604300N/SC-21 TOTAL SHIP SYSTEM ENGINEERING**			PROJECT NUMBER AND NAME **3107/CG(X) DEVELOPMENT**			
Schedule Profile	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
Milestone A		2Q					
Preliminary Design Review				3Q			
Critical Design Review					3Q		
Milestone B					4Q		

CLASSIFICATION:	UNCLASSIFIED						
EXHIBIT R-2a, RDT&E PROJECT JUSTIFICATION					DATE February 2008		
APPROPRIATION/BUDGET ACTIVITY **RDTEN/BA 5**	PROGRAM ELEMENT NUMBER AND NAME **0604300N/SC-21 TOTAL SHIP SYSTEM ENGINEERING**				PROJECT NUMBER AND NAME **4009/Advanced Gun System (AGS) on DD(X)**		
COST (In Millions)	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
Project Cost	45.584	72.659	96.831	115.938	118.676	75.001	22.771
RDT&E Articles Qty	0	0	0	0	0	0	0

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

These funds provide for the development of the Advanced Gun System (AGS) and the development, qualification, transition to production and initial production of the Long Range Attack Projectile (LRLAP) associated with the development of DDG 1000. The AGS will consist of a major caliber gun, an automated ammunition handling system, and a family of munitions/propelling charges. The AGS will, at a minimum, meet the Land Attack and Surface Dominance Missions assigned to the gun system. The system will provide a high rate of fire (approximately 10 rounds per minute) with a magazine capacity sufficient in size for meeting USMC operational requirements. LRLAP will be stored throughout its life cycle in an 8 round pallet which is handled by the AGS magazine. By palletizing the munition AGS is able to significantly reduce manning and improve munition reliability, safety and resupply. The LRLAP EDM guided flight tests began in Dec 2004. System Design and Development began in FY06 with final land based qualification testing planned in FY09 and FY10. The Long Range Land Attack Projectile (LRLAP) will deliver a high explosive unitary payload with Global Positioning System (GPS) accuracy.

CLASSIFICATION:	UNCLASSIFIED		
EXHIBIT R-2a, RDT&E PROJECT JUSTIFICATION			DATE February 2008
APPROPRIATION/BUDGET ACTIVITY **RDTEN/BA 5**	PROGRAM ELEMENT NUMBER AND NAME **0604300N/SC-21 TOTAL SHIP SYSTEM ENGINEERING**	PROJECT NUMBER AND NAME **4009/Advanced Gun System (AGS) on DD(X)**	

B. ACCOMPLISHMENTS/PLANNED PROGRAM:

	FY 2007	FY 2008	FY 2009
Accomplishments/Effort/Subtotal Cost	2.388	0.000	0.000
RDT&E Articles Quantity	0	0	0

AGS Qualification

	FY 2007	FY 2008	FY 2009
Accomplishments/Effort/Subtotal Cost	43.196	47.846	48.384
RDT&E Articles Quantity	0	0	0

LRLAP System Design, Development and qualification testing.

	FY 2007	FY 2008	FY 2009
Accomplishments/Effort/Subtotal Cost	0.000	24.813	48.447
RDT&E Articles Quantity	0	0	0

Procurement of LRLAP rounds for qualification testing.

C. OTHER PROGRAM FUNDING SUMMARY:

Line Item No. and Name	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	To Complete	Total Cost
BLI 211900 / SCN	2,557.268	2,906.867	2,553.783	2,713.895	2,427.039	2,619.142	2,347.368	CONT	CONT

D. ACQUISITION STRATEGY:

The funding in this program element supports the DDG 1000 dual lead ship acquitision strategy.

E. MAJOR PERFORMERS:

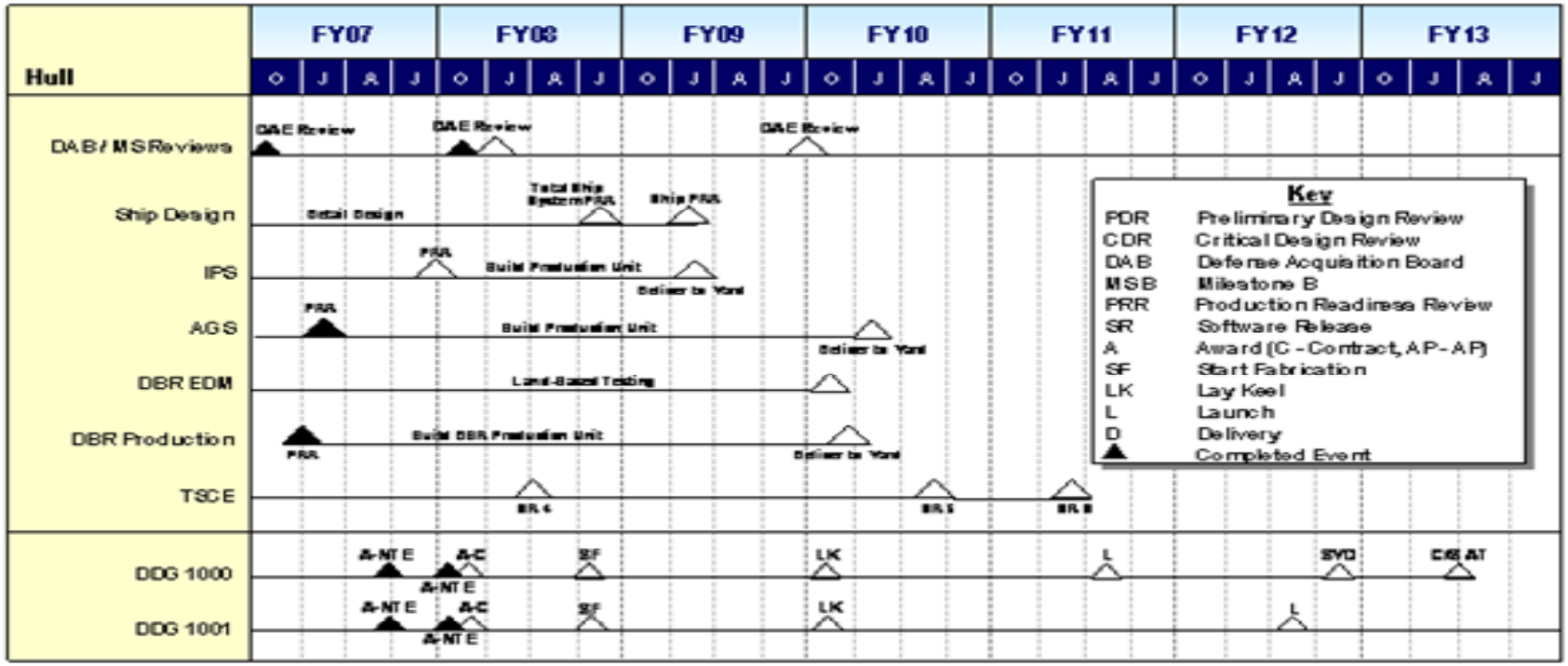
Major Contractors- BAE Systems, Lockheed Martin and Northrop Grumman Ship Systems

Field Activities - NSWC Carderock, NSWC Dahlgren, NSWC Port Hueneme, NSWC Port Hueneme Louisville detachment, NSWC Indian Head

Universities - N/A

CLASSIFICATION:	UNCLASSIFIED											
EXHIBIT R-3, RDT&E PROJECT COST ANALYSIS									DATE February 2008			
APPROPRIATION/BUDGET ACTIVITY **RDTEN/BA 5**		PROGRAM ELEMENT NUMBER AND NAME **0604300N/SC-21 TOTAL SHIP SYSTEM ENGINEERING**					PROJECT NUMBER AND NAME **4009/Advanced Gun System (AGS) on DD(X)**					
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY Cost ($000)	FY 2007 Cost ($000)	FY 2007 Award Date	FY 2008 Cost ($000)	FY 2008 Award Date	FY 2009 Cost ($000)	FY 2009 Award Date	Cost to Complete ($000)	Total Cost ($000)	Target Value of Contract
Primary Hardware Development	CPAF	DDG 1000 Design Agent	242.684	0.000		0.000		0.000		0.000	242.684	242.684
Primary Hardware Development	845/804	DDG 1000 Industry Teams	177.435	0.000		0.000		0.000		0.000	177.435	177.435
Primary Hardware Development	CPAF	BAE/Lockheed Martin	44.813	24.284	DEC-06	62.796	DEC-07	78.031	DEC-08	CONT	CONT	0.000
Subtotal Product Development			**464.932**	**24.284**		**62.796**		**78.031**		**CONT**	**CONT**	**420.119**
Remarks:												
Subtotal Support Costs			**0.000**	**0.000**		**0.000**		**0.000**		**0.000**	**0.000**	**0.000**
Remarks:												
Test & Evaluation	Various	Various	0.000	21.300	DEC-06	1.800	DEC-07	2.800	DEC-08	CONT	CONT	0.000
Subtotal Test and Evaluation			**0.000**	**21.300**		**1.800**		**2.800**		**CONT**	**CONT**	**0.000**
Remarks:												
Contractor Engineering Support	GSA/CPFF	Anteon Arlington VA	7.026	0.000		0.000		0.000		0.000	7.026	7.026
Contractor Engineering Support	Various	Other Contractors	15.577	0.000		0.497	JUN-08	3.850	JUN-09	CONT	CONT	0.000
Government Engineering Support	WX	NSWC DD Dahlgren VA	17.558	0.000		3.433	DEC-07	4.860	DEC-08	CONT	CONT	0.000
Government Engineering Support	WX	NSWC PHD Pt Hueneme CA	8.945	0.000		3.420	DEC-07	4.860	DEC-08	CONT	CONT	0.000
Government Engineering Support	WX	Other Gov't Activities	11.536	0.000		0.713	DEC-07	2.430	DEC-08	CONT	CONT	0.000
Subtotal Management Services			**60.642**	**0.000**		**8.063**		**16.000**		**CONT**	**CONT**	**7.026**
Remarks:												
Total Cost			**525.574**	**45.584**		**72.659**		**96.831**		**CONT**	**CONT**	**427.145**

CLASSIFICATION:	UNCLASSIFIED	
EXHIBIT R-4, SCHEDULE PROFILE		DATE February 2008
APPROPRIATION/BUDGET ACTIVITY **RDTEN/BA 5**	PROGRAM ELEMENT NUMBER AND NAME **0604300N/SC-21 TOTAL SHIP SYSTEM ENGINEERING**	PROJECT NUMBER AND NAME **4009/Advanced Gun System (AGS) on DD(X)**



CLASSIFICATION:	UNCLASSIFIED						
EXHIBIT R-4a, SCHEDULE DETAIL					DATE February 2008		
APPROPRIATION/BUDGET ACTIVITY **RDTEN/BA 5**	PROGRAM ELEMENT NUMBER AND NAME **0604300N/SC-21 TOTAL SHIP SYSTEM ENGINEERING**			PROJECT NUMBER AND NAME **4009/Advanced Gun System (AGS) on DD(X)**			
Schedule Profile	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
Production Design	1Q						
Production Readiness Review	2Q						
Build Production Unit	2Q-4Q	1Q-4Q	1Q-4Q	1Q			
Deliver to Yard				1Q			

CLASSIFICATION:	UNCLASSIFIED	
EXHIBIT R-2a, RDT&E PROJECT JUSTIFICATION		DATE February 2008
APPROPRIATION/BUDGET ACTIVITY **RDTEN/BA 5**	PROGRAM ELEMENT NUMBER AND NAME **0604300N/SC-21 TOTAL SHIP SYSTEM ENGINEERING**	PROJECT NUMBER AND NAME **9999/CONGRESSIONAL ADDS**

B. ACCOMPLISHMENTS/PLANNED PROGRAM:

	FY 2007	FY 2008	FY 2009
9999N SmartLink Planar Scanner Antenna Mode	0.000	1.590	0.000
RDT&E Articles Quantity	0	0	0

Congressional add funds the development, design, and implementation of low-cost, low-RCS, small planar scanner antenna for tactical SATCOM on Navy surface ships, aircraft and vehicles. Goals demonstrate planar scanner technology for war-fighter use.

	FY 2007	FY 2008	FY 2009
9999N Advanced Wireless Encryption Module	0.000	2.385	0.000
RDT&E Articles Quantity	0	0	0

Congressional add funds the development of a flexible module that can be used to upgrade the security of a wireless local area network (WLAN) currently being used by the Navy. The project will create an affordable and advanced encryption module that will allow the use of the WLAN for communications up to the SECRET level.

	FY 2007	FY 2008	FY 2009
9833N Floating Area Network	1.951	3.974	0.000
RDT&E Articles Quantity	0	0	0

Congressional add funds thedevelopment of a Floating Area Network (FAN) enabling a direct Line of Sight (LOS), wireless, Transmission Control Protocol/Internet Protocol (TCP/IP) network among intra-battle group ships.

	FY 2007	FY 2008	FY 2009
9834C Permanent Magnet Motor	10.693	8.943	0.000
RDT&E Articles Quantity	0	0	0

Congressional add funds the development and factory testing of specific technology solutions in the areas of motor and component thermal management, insulation design and breakdown mechanisms, and motor electrical component reliability.

	FY 2007	FY 2008	FY 2009
9835C Surface Vessel Electric Actuator Tech Dev	1.365	0.000	0.000
RDT&E Articles Quantity	0	0	0

Congressional add funded the development of the next generation linear electric actuators as a replacement for hydraulic systems. Actuators convert energy from hydraulic, air or electric power to achieve mechanical movement and control of heavy or remote devices.

	FY 2007	FY 2008	FY 2009
9836C Wireless Maritime Inspection System	0.976	0.993	0.000
RDT&E Articles Quantity	0	0	0

Congressional add funds the development of a wireless capability that aids Maritime Interdiction Operations (MIO) information exchange.

	FY 2007	FY 2008	FY 2009

CLASSIFICATION:	UNCLASSIFIED		
EXHIBIT R-2a, RDT&E PROJECT JUSTIFICATION (CONTINUATION)			DATE February 2008
APPROPRIATION/BUDGET ACTIVITY **RDTEN/BA 5**	PROGRAM ELEMENT NUMBER AND NAME **0604300N/SC-21 TOTAL SHIP SYSTEM ENGINEERING**	PROJECT NUMBER AND NAME **9999/CONGRESSIONAL ADDS**	

9A35N Bio/nano-MEMS Center for Defense Applications	1.267	3.180	0.000
RDT&E Articles Quantity	0	0	0

Congressional add funds the University of Louisville Bio/Nano-MEMS Center that will create a multi-disciplinary science and engineering team to carry out comprehensive research, design and testing directed toward insertion of advanced, reliable MEMS devices into fielded military systems.

	FY 2007	FY 2008	FY 2009
9A36N MEMS Center for Defense Applications	0.976	0.000	0.000
RDT&E Articles Quantity	0	0	0

Congressional add funded the University of Louisville MEMS Center to create a multidisciplinary science and engineering team that will carry out a comprehensive research, design and testing directed toward insertion of advanced, reliable MEMS devices into fielded military systems. The Bio/Nano-MEMS Center will interface with systems□ programs to identify MEMS solutions and technologies that address and satisfy performance requirements.