CLASSIFICATION:

UNCLASSIFIED

EXHIBIT R-2, RDT&E Budget Item Justification	DATE:						
						Februa	ry 2004
APPROPRIATION/BUDGET ACTIVITY				R-1 ITEM NOMEN	ICLATURE		
RESEARCH DEVELOPMENT TEST & EVALUATI	ON, NAVY/BA-4			PE 0603559N S	SGN DESIGN		
COST (\$ in Millions)	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009
Total PE Cost	82.522	69.405	19.970	22.020	22.197	0.000	0.000
SSGN Design/2413	82.522	68.218	19.970	22.020	22.197	0.000	0.000
Tactical Naval Fires Capabilities/9353	0.000	1.187	0.000	0.000	0.000	0.000	0.000

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: Covert striking power against targets ashore; the capability to establish covertly an expeditionary force on land. Working both independently and with a battle group/other ships, the OHIO Class SSGN will have the endurance and payload to prepare the battle space and to continue to project maritime power throughout a conflict.

Project 9353 supports integration of the Tactical Naval Fires Capabilities as part of the SSGN conversion. The primary focus of this effort is for the demonstration of a series of telemetered floating capsule release tests to confirm modeling and simulation. A supporting effort will provide a web-based collaboration tool for payload integration into the SSGN. A design effort will be conducted to look at the lowest cost and quickest path to getting encapsulated payloads onto the SSGN.

Project Unit 9353 Tactical Naval Fires Capabilities is congressional plus-up.

Defense Emergency Response Funds (DERF) Funds: Not Applicable

R-1 SHOPPING LIST - Item No. 45

UNCLASSIFIED

Exhibit R-2, RDTEN Budget Item Justification (Exhibit R-2, page 1 of 12)

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification	DATE:
	February 2004
APPROPRIATION/BUDGET ACTIVITY	PROJECT NUMBER AND NAME
RDT&E,N/BA-4	2413 SSGN Design

B. Accomplishments/Planned Program

	FY 03	FY 04	FY 05
Accomplishments/Effort/Subtotal Cost	5.323	7.468	0.404
RDT&E Articles Quantity			

U) FY02 - FY05 accomplishments and plans consist of conducting component and sub-system research and development activities, ship control algorithm development and Weapons Support Systems Land Based Evaluation Facility (WSSLBEF) modifications to support developmental testing.

	FY 03	FY 04	FY 05
Accomplishments/Effort/Subtotal Cost	47.709	31.748	0.000
RDT&E Articles Quantity			

(U) FY02 accomplishments consisted of conducting underwater missile launch, Multiple-All-Up Round Canister (MAC) risk reduction demonstration/validation preparations including computer modeling and validation and Attack Weapon Control System (AWCS) systems engineering and integration. FY03 plans are to complete underwater missile launch and Multiple-All-Up Round Canister (MAC) risk reduction including computer modeling and demonstration/validation preparations, and commence Multiple All Up Round Canister system development and demonstration (SDD). FY04 plans will complete Multiple All Up Round Canister system development and demonstration (SDD) activities.

	FY 03	FY 04	FY 05
Accomplishments/Effort/Subtotal Cost	21.441	24.160	17.758
RDT&E Articles Quantity			

(U) FY02 - FY 05 accomplishments and plans consist of program management, engineering management and support services, Live Fire Test and Evaluation, Test and Evaluation, safety program management, ship control system development, and hydrodynamic studies.

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification	DATE:
	February 2004
APPROPRIATION/BUDGET ACTIVITY	PROJECT NUMBER AND NAME
RDT&E,N/BA-4	2413 SSGN Design

B. Accomplishments/Planned Program (Cont.)

	FY 03	FY 04	FY 05
Accomplishments/Effort/Subtotal Cost	8.049	4.842	1.808
RDT&E Articles Quantity			

(U) FY02 - FY05 accomplishments and plans consist of Non-Propulsion Electronics System (NPES) development and non-recurring system development including Data Processing System (DPS), Global Command and Control System (GCCS-M), Tactical Integrated Digital System (TIDS), AN/BQN-17, NPES/AWS Wide Area Network, Common Submarine Radio Room (CSRR) and Interior Communications/Data Transfer System (IC/DTS).

CLASSIFICATION:

						February 2004
PROPRIATION/BUDGET ACTIVITY	PROGRAM EL	EMENT NUMBER	and name	PROJECT NUMBER AND	NAME	
T&E,N/BA-4	PE 0603559N	SSGN		2413 SSGN Design		
C. PROGRAM CHANGE SUMMARY:						
Funding:		FY 2003	FY 2004	FY 2005		
Previous President's Budget: (FY 04 Pres Controls)		89.743	68.988			
Current President's Budget: (FY05 Pres Controls)		82.522	68.218			
Total Adjustments		(7.221)	(0.770)	0.471		
Summary of Adjustments						
66876 Rephase SSGN Test and Evaluation				0.600		
66961 SPAWAR Service Cost Center Adjustment			(0.002)			
66544 FY03 Midyear Review Adjustment		(9.195)	, ,			
66556 SBIR		(1.791)				
66642 BSO Adjustments		(0.207)				
65943 FY03 Fed Tech Transfer		(0.027)				
65872 BTR to SSGN		3.999				
67769 NSWC Rates		0.000		(0.091)		
67770 NUWC Rates				(0.007)		
68041 Section 8094 Mgt. Improvements			(0.182)			
68066 Section 8126 Efficiencies/Revised Economic Assumptions			(0.586)			
69023 WCF - R&D- NUWC - PBD430			(0.000)	0.013		
69024 WCF - R&D - NUWC - PBD430				(0.002)		
69043 PBD 426 Rates - NSWC				0.021		
69044 PBD 426 Rates - NUWC				0.001		
69492 PBD 604 Inflation				(0.053)		
69512 PBD604 non purchase inflation				(0.011)		
Subtotal		(7.221)	(0.770)	0.471		
Schedule:						
Not applicable						
Technical:						
Not applicable						

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification								DATE:			
									Febru	ary 2004	
APPROPRIATION/BUDGET ACTIVITY		PROGRAM EL	EMENT NUM	BER AND NAM	ЛE	PROJECT NU	IMBER AND N	IAME			
RDT&E,N/BA-4	PE 0603559N SSGN 2413 SSGN Design				esign						
D. OTHER PROGRAM FUNDING SUMMARY:									To	Total	
<u>Line Item No. & Name</u> (LI)BLI 201700 /SSGN CONVERSION SCN	FY 2002 353 717	FY 2003 995 741	FY 2004 1158 129	FY 2005 517 226	FY 2006 255 000	FY 2007 0 000	FY 2008 0 000	FY 2009 0 000	Complete 0	Cost 3 279 813	

E. ACQUISITION STRATEGY:

(U) To refuel, overhaul, convert and deliver four (4) Trident Submarines into land attack strike and Special Operating Force platforms. The SSGN program will utilize a streamlined acquisition approach that was approved by USD (AT&L) January 2002. Due to the low technical risk of the SSGN program, the SSGN program proceeded directly to Milestone C which was approved on 5 December 2002.

F. MAJOR PERFORMERS:

Perot Systems Government Services, Alexandria, Virginia: Technical support and program management support.

Electric Boat, Groton, Connecticut: Conversion design studies.

NSWC Carderock, Bethesda, Maryland: Hydrodynamic studies, safety program management, ship control system development, T&E, Systems Integration Team (SIT) support, MAC design.

NUWC Newport, Newport, Rhode Island: Engineering support and NPES design

Northrup Grumman Marine Systems, Sunnyvale, CA.: MAC DEM/VAL General Dynamics Advanced Information Systems, Pittsfield, MA: AWCS Naval Warfare Assessment Station, Corona, CA.: MAC Launcher support

CLASSIFICATION:

Remarks:

									DATE:				
Exhibit R-3 Cost Analysis (pag	e 1)						February 2004						
APPROPRIATION/BUDGET ACTIVI			PROGRAM E	LEMENT			PROJECT NU	JMBER AND I	NAME				
RDT&E,N/BA-4			PE 0603559N	N SSGN			2413 SSGN Design						
Cost Categories		Performing		Total (1)		FY 03		FY 04		FY 05			
	Method	Activity &		PY s	FY 03	Award	FY 04	Award	FY 05	Award	Cost to	Total	Target Value
	& Type	Location		Cost	Cost	Date	Cost	Date	Cost	Date	Complete	Cost	of Contract
Primary Hardware Development				-				-				0.000	
Ancillary Hardware Development												0.000	
Design Studies		Electric Boat,		37.560	5.323	May-03	7.468		0.404		0.050	50.805	
Systems Engineering	WX	NSWC Carde	rock, MD	7.368	7.495	Oct-02	2.788	Oct-03	2.394	Oct-04	5.123	25.168	
Systems Engineering	WX	NUWC, Newp	ort, RI	8.708	6.833	Oct-02	4.214	Oct-03	3.071	Oct-04	4.705	27.531	N/
MAC Launcher	PD	SSP/Various		28.847	37.184	Various	24.605	Various	0.000	N/A	0.000	90.636	N/
Attack Weapon Control System	PD	SSP/Various		9.882	7.805	Various	2.100	Various	0.000	N/A	0.000	19.787	N/
Facilities/SE&I/Training/Procedures 8	PD	SSP/Various		10.391	1.262	Various	4.208	N/A	0.000	N/A	0.000	15.861	N/
MAC Launcher/AWCS/SE&I/Facilities	C/CPFF	JHU/APL, Lau	ıral, MD.	5.435	1.458	Dec-02	0.835	Dec-03	0.000	N/A	0.000	7.728	7.72
Systems Engineering	Various	Various		5.760	7.405	Various	10.145	Various	4.295	Various	5.827	33.431	N/
Misc.	Various	Various		0.228	0.286	Various	0.342	Various	0.298	Various	0.494	1.648	N/
													1
				†			1						
				+			1		1				
				+			1		1				
							1						
Subtotal Product Development				114.179	75.051		56.704		10.462)	16.199	272.596	3
Cabletai i Toddot Bevelopilletit	l .	l .		117.178	70.001	l	30.704	1	10.402	1	10.100	212.000	<u> </u>

CLASSIFICATION:

										DATE:				
Exhibit R-3 Cost Analysis (page	ge 2)											February 200)4	
APPROPRIATION/BUDGET ACTIV	'ITY	PROGRAM E							JMBER AND N	AME				
RDT&E,N/BA-4	10	PE 0603559N			1		= 1.4.0.0	2413 SSGN D			I=v / a=	ı	ı	
Cost Categories	Contract Method	Performing Activity &	Total PY s	(1)	FY 03		FY 03 Award		FY 04 Award	FY 05	FY 05 Award	Cost to	Total	Target Value
	& Type	Location	Cost		Cost		Awaru Date			Cost		Cost to	Cost	of Contract
Developmental Test & Evaluation	WX	NSWC, Carderock, MD	0000	0.000		.122	Oct-02	0.150				2.275		
Developmental Test & Evaluation	WX	NUWC, Newport, RI		0.342		.856	Oct-02	8.393				6.319		
Live Fire Test & Evaluation	RC/WR	NAVAIR Patuxent River, MD)	0.000		.000	N/A	0.080				9.550		1
Live Fire Test & Evaluation	WX	NSWC, Carderock, MD		0.400	0.	919	Oct-02	0.685		0.600				1
Operational Test & Evaluation	WX	COMOPTEVFOR		0.060	0.	122	Oct-02	0.153		0.217		3.665	4.217	N/A
Miscellaneous	Various	Various		0.048	0.	.057	Various	0.085	Various	0.100	Various	0.340	0.630	N/A
GFE													0.000	
Award Fees													0.000	
Subtotal T&E				0.850	5.	.075		9.546		7.195		23.989	46.655	
Contractor Engineering Support	C/MAC	Various		4.328	2.	.388	Nov-02	1.968	Feb-04	2.312	Nov-04	4.029	15.025	15.025
Government Engineering Support													0.000	
Program Management Support	Various	Various		1.192	0.	.008	N/A	0.000	N/A	0.000	N/A	0.000	1.200	1.200
Labor (Research Personnel)													0.000	
Overhead													0.000	
													0.000	1
Subtotal Management				5.520	2.	395		1.968		2.312		4.029	16.225	
Remarks:														

R-1 SHOPPING LIST - Item No. 45

(1) Total 2413 project cost for FY02 and FY03 is based on STARS authorized amounts vice 9 January NBTS controls which include DFAS 1002 Report obligation adjustments.

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification		DATE:
		February 2004
APPROPRIATION/BUDGET ACTIVITY	PROJECT NUMBER AND NAME	
RESEARCH DEVELOPMENT TEST & EVALUATION, NAVY / BA-4	9353 Tactical Naval Fires Capal	bility

B. (U) Accomplishments/Planned Program

	FY 03	FY 04	FY 05
Tactical Naval Fires Capability	0.0	1.2	0.0
RDT&E Articles Quantity			

(U) FY 2003 PLAN N/A

- (U) FY 2004 PLAN
 - (U) (\$1.2) Initiate Tactical Naval Fires Capabilities. Full obligation is projected by the 3rd quarter of the 1st year. FY 2004 efforts include:

 - Provide integration support for capsules and flexible payload modules into experiments planned for Oct 2004 (Silent Hammer). Provide SSGN web-based collaboration tools, such that 3D models of the SSGN missile tube and examples of other payload integration efforts are available for other payload providers. This will reduce costs for future experiments and payload integrators. Conduct competitive design efforts for a low-cost, stackable capsule suitable for SSGN implementation.
- (U) FY 2005 PLAN N/A

CLASSIFICATION:

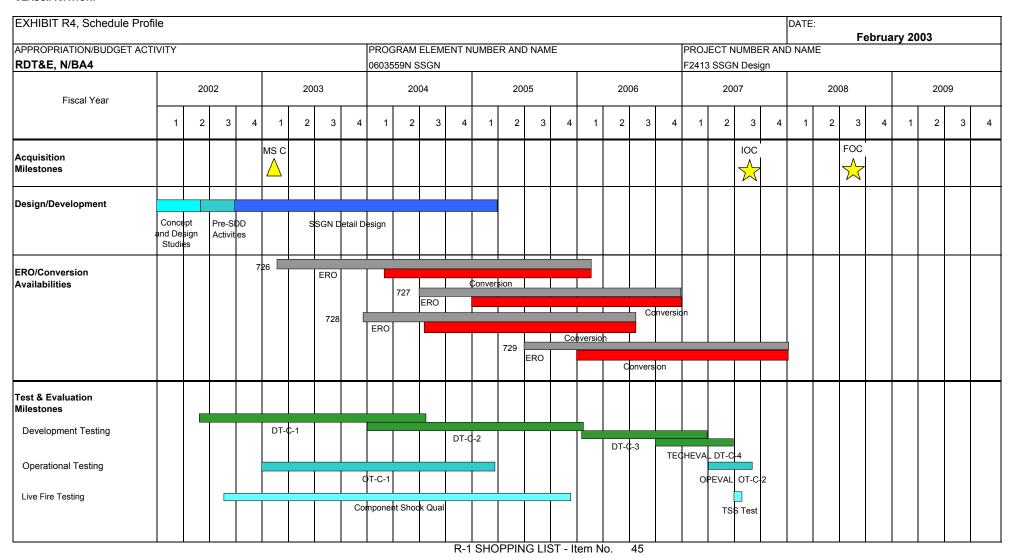
EXHIBIT R-2a, RDT&E Project Justification				DATE:		
				February 2004	ļ	
APPROPRIATION/BUDGET ACTIVITY		JECT NUMBER				
RESEARCH DEVELOPMENT TEST & EVALUATION, NAVY / BA-4	9353	3 Tactical Nava	I Fires Capab	ilities		
	2006	FY 2007	FY 2008	FY 2009	Total <u>Complete</u>	Total <u>Cost</u>
N/A N/A N/A	N/A	N/A	N/A	N/A	N/A	N/A
D. (U) Acquisition Strategy:						
Contracts will continue to be awarded to those sources who were engaged in the SSGN development and open competition will be conducted for the capsule design efforts.	opment ar	nd integration	ı as well as	collaborative to	ol efforts.	
E. (U) Major Performers:						
SSGN Integration: BAE SSGN Collaborative Tool: General Dynamics (Electric Boat) SSGN Capsule Design: Competition - TBD						

CLASSIFICATION:

DA Fybibit D 3 Cost Analysis							DATE:						
Exhibit R-3 Cost Ana APPROPRIATION/BUD	alysis								February 2004				
APPROPRIATION/BUD	GET ACTIVIT	Υ	PROGRAM EL										
RDT&E, N /	BA-4		PE 0603559N	SSGN Design			9353 Tactica	l Naval Fires	Capabilities				
Cost Categories	1,	Contract	Dorforming	Total	ı	FY 03		FY 04	ı	EV 05	1		
Cost Categories		Contract Method	Performing Activity &	PY s	FY 03	Award	FY 04	Award	EY 05	Δward	Cost to	Total	Target Value
		& Type			Cost	Date	Cost	Date	Cost		Complete	Cost	of Contract
Support & Management		7,									,		
SSGN Integration		CPFF	BAE				0.3	3 03-04			0.3	0.3	0.3
SSGN Collaborative Too	ol \	WR	General Dynamic (EB)				0.1	03-04			0.10	0.1	0.1
SSGN Capsule Design	٦	TBD	TBD (2 awards @ 400K each)	1			0.8	3 06-04			0.8	0.8	0.8
Subtotal Product Develop	oment			0.0	0.0		1.2	2	0.0		1.2	1.2	1.2
Remarks:													
						_							
								1					
								1					
								1	1				
Total Cost				0.0	0.0		1.2	2	0.0		Cont.	Cont.	
Remarks:													
				D 4 CHOD	DING LIST	Itam Na 4	-				Evhihit R-3	Project Cost Ar	alveie

(Exhibit R3, page 10 of 12)

CLASSIFICATION:



^{*} Not required for Budget Activities 1, 2, 3, and 6

CLASSIFICATION:

Exhibit R-4a, Schedule Detail	DATE: February 2003									
APPROPRIATION/BUDGET ACTIVITY PROGRAM ELEMENT PROJECT NU							JMBER AND NAME			
RDT&E, N/BA4	0603559N SS	GN	Design							
Schedule Profile	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009		
Concept and Design Studies	1Q-2Q									
Pre-SDD Activities	2Q-3Q									
Milestone C (MS C)		1Q								
SSGN Detail Design	4Q	1Q-4Q	1Q-4Q	1Q						
Developmental Testing (DT-C-1)	2Q-4Q	1Q-4Q	1Q-3Q							
726 ERO		1Q-4Q	1Q-4Q	1Q-4Q	1Q					
726 Conversion			1Q-4Q	1Q-4Q	1Q					
Operational Evaluation (OT-C-1)		1Q-4Q	1Q-4Q	1Q						
Developmental Testing (DT-C-2)			1Q-4Q	1Q-4Q	1Q					
Developmental Testing (DT-C-3)					1Q-4Q	1Q				
Component Shock Qualification Testing	3Q-4Q	1Q-4Q	1Q-4Q	1Q-4Q						
Technical Evaluation (DT-C-4) (TECHEVAL)					4Q	1Q-2Q				
Total Ship Survivability Test						3Q				
Operational Evaluation (OT-C-2) (OPEVAL)						2Q-3Q				
IOC						3Q				
727 ERO			3Q-4Q	1Q-4Q	1Q-4Q					
727 Conversion				1Q-4Q	1Q-4Q					
728 ERO		4Q	1Q-4Q	1Q-4Q	1Q-3Q					
728 Conversion			3Q-4Q	1Q-4Q	1Q-3Q					
729 ERO				3Q-4Q	1Q-4Q	1Q-4Q				
729 Conversion					1Q-4Q	1Q-4Q				
FOC							3Q			