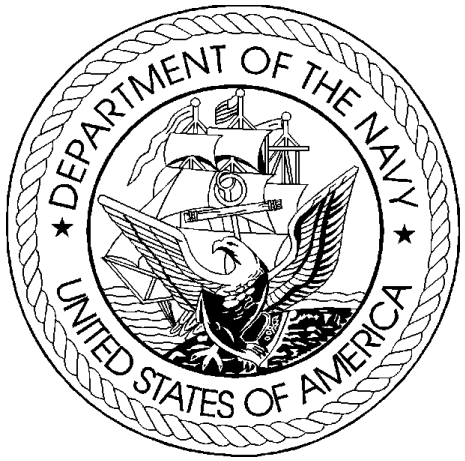
DEPARTMENT OF THE NAVY
FISCAL YEAR (FY) 2011
BUDGET ESTIMATES



JUSTIFICATION OF ESTIMATES
FEBRUARY 2010

SHIPBUILDING AND CONVERSION, NAVY

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Shipbuilding and Conversion, Navy

For expenses necessary for the construction, acquisition, or conversion of vessels as authorized by law, including armor and armament thereof, plant equipment, appliances, and machine tools and installation thereof in public and private plants; reserve plant and Government and contractor-owned equipment layaway; procurement of critical, long leadtime components and designs for vessels to be constructed or converted in the future; and expansion of public and private plants, including land necessary therefor, and such lands and interests therein, may be acquired, and construction prosecuted thereon prior to approval of title, as follows:

Carrier Replacement Program, $1,731,256,000;
Carrier Replacement Program (AP), $908,313,000;
Virginia Class Submarine, $3,441,452,000;
Virginia Class Submarine (AP), $1,691,236,000;
CVN Refueling, $1,255,799,000;
CVN Refueling (AP), $408,037,000;
DD(X), $186,312,000;
DDG-51, $2,922,190,000;
DDG-51 (AP), $47,984,000;
Littoral Combat Ship, (LCS), $1,230,984,000;
Littoral Combat Ship, (LCS) (AP), $278,351,000;
LHA Replacement, $949,897,000;
Joint High Speed Vessel (JHSV), $180,703,000;
Oceanographic Ships, $88,561,000;
Service Craft, $13,770,000;
LCAC Service Life Extension Program, $83,035,000; and
For outfitting, post delivery, conversions, and first destination transportation, $306,640,000.

In all: $15,724,520,000, to remain available for obligation until September 30, 2015: *Provided,* That additional obligations may be incurred after September 30, 2015, for engineering services, tests, evaluations, and other such budgeted work that must be performed in the final stage of ship construction: *Provided further,* That none of the funds provided under this heading for the construction or conversion of any naval vessel to be constructed in shipyards in the United States shall be expended in foreign facilities for the construction of major components of such vessel: *Provided further,* That none of the funds provided under this heading shall be used for the construction of any naval vessel in foreign shipyards.

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Department of the Navy
FY 2011 President's Budget
Exhibit P-1 FY 2011 Base and Overseas Contingency Operations (OCO) Request
Summary
(Dollars in Thousands)

26 Jan 2010

Appropriation	FY 2009 (Base & OCO)	FY 2010 Base & OCO Enacted	FY 2010 Supplemental Request	FY 2010 Total
Shipbuilding & Conversion, Navy	13,022,272	13,838,716		13,838,716
Total Department of the Navy	13,022,272	13,838,716		13,838,716

Department of the Navy
FY 2011 President's Budget
Exhibit P-1 FY 2011 Base and Overseas Contingency Operations (OCO) Request
Summary
(Dollars in Thousands)

26 Jan 2010

Appropriation	FY 2011 Base	FY 2011 OCO	FY 2011 Total Request
Shipbuilding & Conversion, Navy	15,724,520		15,724,520
Total Department of the Navy	15,724,520		15,724,520

Department of the Navy
FY 2011 President's Budget
Exhibit P-1 FY 2011 Base and Overseas Contingency Operations (OCO) Request
Summary
(Dollars in Thousands)

26 Jan 2010

Appropriation: Shipbuilding & Conversion, Navy

Budget Activity	FY 2009 (Base & OCO)	FY 2010 Base & OCO Enacted	FY 2010 Supplemental Request	FY 2010 Total
02. Other Warships	11,098,894	11,886,062		11,886,062
03. Amphibious Ships	1,336,348	1,499,605		1,499,605
05. Auxiliaries, Craft, and Prior-Year Program Costs	587,030	453,049		453,049
Total Shipbuilding & Conversion, Navy	13,022,272	13,838,716		13,838,716

Department of the Navy
FY 2011 President's Budget
Exhibit P-1 FY 2011 Base and Overseas Contingency Operations (OCO) Request
Summary
(Dollars in Thousands)

26 Jan 2010

Appropriation: Shipbuilding & Conversion, Navy

Budget Activity	FY 2011 Base	FY 2011 OCO	FY 2011 Total Request
02. Other Warships	14,101,914		14,101,914
03. Amphibious Ships	1,130,600		1,130,600
05. Auxiliaries, Craft, and Prior-Year Program Costs	492,006		492,006
Total Shipbuilding & Conversion, Navy	15,724,520		15,724,520

Exhibit P-1G: FY 2011 President's Budget (Published), as of January 26, 2010 at 12:08:09

Department of the Navy
FY 2011 President's Budget
Exhibit P-1 FY 2011 Base and Overseas Contingency Operations (OCO) Request
(Dollars in Thousands)

Appropriation: 1611N Shipbuilding & Conversion, Navy — Date: 26 Jan 2010

Line No	Item Nomenclature	Ident Code	FY 2009 (Base & OCO) Quantity	FY 2009 (Base & OCO) Cost	FY 2010 Base & OCO Enacted Quantity	FY 2010 Base & OCO Enacted Cost	FY 2010 Supplemental Request Quantity	FY 2010 Supplemental Request Cost	FY 2010 Total Quantity	FY 2010 Total Cost	Sec
	Budget Activity 02: Other Warships										
1	Carrier Replacement Program	A									
	Subsequent Full Funding (CY)			2,684,565		736,989				736,989	U
	Completion of Prior Year Shipbuilding (CY)			20,516							U
2	Carrier Replacement Program										
	Advance Procurement (CY)			1,210,561		482,938				482,938	U
	Other Warships										
3	Virginia Class Submarine	B	1	(2,856,721)	1	(2,750,502)			1	(2,750,502)	U
	Less: Advance Procurement (PY)			(-755,974)		(-792,382)				(-792,382)	U
				2,100,747		1,958,120				1,958,120	
	Completion of Prior Year Shipbuilding (CY)			81,000		45,608				45,608	U
4	Virginia Class Submarine										
	Advance Procurement (CY)			1,391,380		1,953,681				1,953,681	U
5	CVN Refueling Overhauls	A	1	(3,837,991)							U
	Less: Advance Procurement (PY)			(-431,652)							U
	Less: Subsequent Full Funding (FY)			(-2,814,578)							U
				591,761							
	Subsequent Full Funding (CY)					1,558,779				1,558,779	U
6	CVN Refueling Overhauls										
	Advance Procurement (CY)			21,325		211,167				211,167	U

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Department of the Navy
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(Dollars in Thousands)

Appropriation: 1611N Shipbuilding & Conversion, Navy

Date: 26 Jan 2010

Line No	Item Nomenclature	Ident Code	FY 2011 Base Quantity	FY 2011 Base Cost	FY 2011 OCO Quantity	FY 2011 OCO Cost	FY 2011 Total Request Quantity	FY 2011 Total Request Cost	Sec
	Budget Activity 02: Other Warships								
1	Carrier Replacement Program	A							
	Subsequent Full Funding (CY)			1,731,256				1,731,256	U
	Completion of Prior Year Shipbuilding (CY)								U
2	Carrier Replacement Program Advance Procurement (CY)			908,313				908,313	U
	Other Warships								
3	Virginia Class Submarine	B	2	(5,344,446)			2	(5,344,446)	U
	Less: Advance Procurement (PY)			(-1,902,994)				(-1,902,994)	U
				3,441,452				3,441,452	
	Completion of Prior Year Shipbuilding (CY)								U
4	Virginia Class Submarine Advance Procurement (CY)			1,691,236				1,691,236	U
5	CVN Refueling Overhauls	A							U
	Less: Advance Procurement (PY)								U
	Less: Subsequent Full Funding (FY)								U
	Subsequent Full Funding (CY)			1,255,799				1,255,799	U
6	CVN Refueling Overhauls Advance Procurement (CY)			408,037				408,037	U

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Department of the Navy
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(Dollars in Thousands)

Appropriation: 1611N Shipbuilding & Conversion, Navy — Date: 26 Jan 2010

Line No	Item Nomenclature	Ident Code	FY 2009 (Base & OCO) Quantity	FY 2009 (Base & OCO) Cost	FY 2010 Base & OCO Enacted Quantity	FY 2010 Base & OCO Enacted Cost	FY 2010 Supplemental Request Quantity	FY 2010 Supplemental Request Cost	FY 2010 Total Quantity	FY 2010 Total Cost	Sec
7	SSBN Ero		1	(263,009)		(39,742)				(39,742)	U
	Less: Advance Procurement (PY)			(-42,013)		(-39,742)				(-39,742)	U
				220,996							
	Completion of Prior Year Shipbuilding (CY)			16,146							U
8	SSBN Ero										
	Advance Procurement (CY)			39,245							U
9	DDG 1000	A	1	(2,734,944)		(297,715)				(297,715)	U
	Less: Advance Procurement (PY)			(-149,830)							U
	Less: Subsequent Full Funding (FY)			(-1,080,817)							U
				1,504,297		297,715				297,715	
	Subsequent Full Funding (CY)					1,080,817				1,080,817	U
10	DDG-51	A			1	(2,234,369)			1	(2,234,369)	U
	Less: Advance Procurement (PY)					(-328,000)				(-328,000)	U
						1,906,369				1,906,369	
11	DDG-51										
	Advance Procurement (CY)			199,403		577,210				577,210	U
12	Littoral Combat Ship	A	2	1,016,952	2	1,076,669			2	1,076,669	U
13	Littoral Combat Ship										
	Advance Procurement (CY)										U
Total Other Warships				11,098,894		11,886,062				11,886,062	

Exhibit P-1G: FY 2011 President's Budget (Published), as of January 26, 2010 at 12:08:09

Department of the Navy
FY 2011 President's Budget
Exhibit P-1 FY 2011 Base and Overseas Contingency Operations (OCO) Request
(Dollars in Thousands)

Appropriation: 1611N Shipbuilding & Conversion, Navy

Date: 26 Jan 2010

Line No	Item Nomenclature	Ident Code	FY 2011 Base Quantity	FY 2011 Base Cost	FY 2011 OCO Quantity	FY 2011 OCO Cost	FY 2011 Total Request Quantity	FY 2011 Total Request Cost	Sec
7	SSBN Ero			(5,221)				(5,221)	U
	Less: Advance Procurement (PY)			(-5,221)				(-5,221)	U
	Completion of Prior Year Shipbuilding (CY)								U
8	SSBN Ero								
	Advance Procurement (CY)								U
9	DDG 1000	A		(186,312)				(186,312)	U
	Less: Advance Procurement (PY)								U
	Less: Subsequent Full Funding (FY)								U
				186,312				186,312	
	Subsequent Full Funding (CY)								U
10	DDG-51	A	2	(3,499,400)			2	(3,499,400)	U
	Less: Advance Procurement (PY)			(-577,210)				(-577,210)	U
				2,922,190				2,922,190	
11	DDG-51								
	Advance Procurement (CY)			47,984				47,984	U
12	Littoral Combat Ship	A	2	1,230,984			2	1,230,984	U
13	Littoral Combat Ship								
	Advance Procurement (CY)			278,351				278,351	U
Total Other Warships				14,101,914				14,101,914	

Exhibit P-1G: FY 2011 President's Budget (Published), as of January 26, 2010 at 12:08:09

Department of the Navy
FY 2011 President's Budget
Exhibit P-1 FY 2011 Base and Overseas Contingency Operations (OCO) Request
(Dollars in Thousands)

Appropriation: 1611N Shipbuilding & Conversion, Navy — Date: 26 Jan 2010

Line No	Item Nomenclature	Ident Code	FY 2009 (Base & OCO) Quantity	FY 2009 (Base & OCO) Cost	FY 2010 Base & OCO Enacted Quantity	FY 2010 Base & OCO Enacted Cost	FY 2010 Supplemental Request Quantity	FY 2010 Supplemental Request Cost	FY 2010 Total Quantity	FY 2010 Total Cost	Sec
	Budget Activity 03: Amphibious Ships										
	Amphibious Ships										
14	LPD-17	A	1	(1,849,474)							U
	Less: Advance Procurement (PY)			(-49,651)							U
	Less: Subsequent Full Funding (FY)			(-869,394)							U
				930,429							
	Subsequent Full Funding (CY)					869,394				869,394	U
	Completion of Prior Year Shipbuilding (CY)			32,582		99,342				99,342	U
15	LPD-17										
	Advance Procurement (CY)					183,986				183,986	U
16	Lha Replacement	A									U
	Less: Advance Procurement (PY)										U
	Less: Subsequent Full Funding (FY)										U
	Completion of Prior Year Shipbuilding (CY)			14,310							U
17	Lha Replacement										
	Advance Procurement (CY)			177,767		169,476				169,476	U
18	Intratheater Connector	B	1	181,260	1	177,407			1	177,407	U
	Total Amphibious Ships			1,336,348		1,499,605				1,499,605	
	Budget Activity 05: Auxiliaries, Craft, and Prior-Year Program Costs										
	Auxiliaries, Craft And Prior Yr Program Cost										
19	Oceanographic Ships	A									U
20	Outfitting	A		428,305		385,706				385,706	U

Exhibit P-1G: FY 2011 President's Budget (Published), as of January 26, 2010 at 12:08:09

Department of the Navy
FY 2011 President's Budget
Exhibit P-1 FY 2011 Base and Overseas Contingency Operations (OCO) Request
(Dollars in Thousands)

Appropriation: 1611N Shipbuilding & Conversion, Navy — Date: 26 Jan 2010

Line No	Item Nomenclature	Ident Code	FY 2011 Base Quantity	FY 2011 Base Cost	FY 2011 OCO Quantity	FY 2011 OCO Cost	FY 2011 Total Request Quantity	FY 2011 Total Request Cost	Sec
	Budget Activity 03: Amphibious Ships								
	Amphibious Ships								
14	LPD-17	A							U
	Less: Advance Procurement (PY)								U
	Less: Subsequent Full Funding (FY)								U
				----------		----------		----------	
	Subsequent Full Funding (CY)								U
	Completion of Prior Year Shipbuilding (CY)								U
15	LPD-17								
	Advance Procurement (CY)								U
16	Lha Replacement	A	1	(3,397,892)			1	(3,397,892)	U
	Less: Advance Procurement (PY)			(-347,243)				(-347,243)	U
	Less: Subsequent Full Funding (FY)			(-2,100,752)				(-2,100,752)	U
				----------		----------		----------	
				949,897				949,897	
	Completion of Prior Year Shipbuilding (CY)								U
17	Lha Replacement								
	Advance Procurement (CY)								U
18	Intratheater Connector	B	1	180,703			1	180,703	U
				----------		----------		----------	
	Total Amphibious Ships			1,130,600				1,130,600	
	Budget Activity 05: Auxiliaries, Craft, and Prior-Year Program Costs								
	Auxiliaries, Craft And Prior Yr Program Cost								
19	Oceanographic Ships	A	1	88,561			1	88,561	U
20	Outfitting	A		306,640				306,640	U

Exhibit P-1G: FY 2011 President's Budget (Published), as of January 26, 2010 at 12:08:09

Department of the Navy
FY 2011 President's Budget
Exhibit P-1 FY 2011 Base and Overseas Contingency Operations (OCO) Request
(Dollars in Thousands)

Appropriation: 1611N Shipbuilding & Conversion, Navy

Date: 26 Jan 2010

Line No	Item Nomenclature	Ident Code	FY 2009 (Base & OCO) Quantity	FY 2009 (Base & OCO) Cost	FY 2010 Base & OCO Enacted Quantity	FY 2010 Base & OCO Enacted Cost	FY 2010 Supplemental Request Quantity	FY 2010 Supplemental Request Cost	FY 2010 Total Quantity	FY 2010 Total Cost	Sec
21	Service Craft	A		47,973		3,683				3,683	U
22	LCAC SLEP	A	6	110,587	3	63,660			3	63,660	U
23	Cancelled Account Adjustments	A		165							U
Total Auxiliaries, Craft, and Prior-Year Program Costs				587,030		453,049				453,049	
Total Shipbuilding & Conversion, Navy				13,022,272		13,838,716				13,838,716	

Exhibit P-1G: FY 2011 President's Budget (Published), as of January 26, 2010 at 12:08:09

Department of the Navy
FY 2011 President's Budget
Exhibit P-1 FY 2011 Base and Overseas Contingency Operations (OCO) Request
(Dollars in Thousands)

Appropriation: 1611N Shipbuilding & Conversion, Navy

Date: 26 Jan 2010

Line No	Item Nomenclature	Ident Code	FY 2011 Base Quantity	FY 2011 Base Cost	FY 2011 OCO Quantity	FY 2011 OCO Cost	FY 2011 Total Request Quantity	FY 2011 Total Request Cost	Sec
21	Service Craft	A		13,770				13,770	U
22	LCAC SLEP	A	4	83,035			4	83,035	U
23	Cancelled Account Adjustments	A							U
Total Auxiliaries, Craft, and Prior-Year Program Costs				492,006				492,006	
Total Shipbuilding & Conversion, Navy				15,724,520				15,724,520	

Exhibit P-1G: FY 2011 President's Budget (Published), as of January 26, 2010 at 12:08:09

CLASSIFICATION: UNCLASSIFIED

BUDGET ITEM JUSTIFICATION SHEET (P-40)
FY 2011 President's Budget

DATE: February 2010

APPROPRIATION/BUDGET ACTIVITY
SHIPBUILDING AND CONVERSION, NAVY/BA 2 Other Warships

P-1 LINE ITEM NOMENCLATURE
CARRIER REPLACEMENT PROGRAM
BLI: 2001 / SUBHEAD NO.

(Dollars in Millions)	PRIOR YR	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	TO COMP	TOTAL PROG
QUANTITY	10	0	0	0	0	1	0	0	1	12
End Cost	36,397.5	0.0	0.0	0.0	0.0	10,413.1	0.0	0.0	13,577.0	60,387.6
Less Advance Procurement	6,514.5	0.0	0.0	0.0	0.0	3,272.9	0.0	0.0	2,377.1	12,164.5
Less Subsequent Funds	5,152.8	0.0	0.0	0.0	0.0	4,721.9	0.0	0.0	6,141.3	16,016.0
Less Escalation	66.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	66.4
Plus Subsequent Funds	0.0	2,684.6	737.0	1,731.3	0.0	0.0	3,158.5	760.7	802.7	9,874.8
Full Funding TOA	24,663.8	2,684.6	737.0	1,731.3	0.0	2,418.3	3,158.5	760.7	10,250.7	46,404.9
Plus Advance Procurement	7,086.3	1,210.6	482.9	908.3	494.8	0.0	228.1	1,523.8	2,377.1	14,311.9
Plus Cost to Complete	1,933.5	20.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1,954.0
Total Obligational Authority	33,683.5	3,915.6	1,219.9	2,639.6	494.8	2,418.3	3,386.6	2,284.5	12,627.8	62,670.6
Plus Outfitting / Plus Post Delivery	83.7	43.6	0.0	0.0	0.0	27.2	30.2	33.7	622.6	841.0
Plus Escalation	66.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	66.4
Total	33,833.6	3,959.0	1,219.9	2,639.6	494.8	2,448.8	3,419.8	2,321.2	13,250.4	63,587.1
Unit Cost (Ave. End Cost)	3,639.8	0.0	0.0	0.0	0.0	10,413.1	0.0	0.0	13,577.0	5,032.3

MISSION:

To provide credible, sustainable, independent forward presence during peacetime without access to land bases; operate as the cornerstone of a joint and/or allied maritime expeditionary force in response to crisis; and carry the war to the enemy through joint multi-mission offensive operations.

Characteristics:	CVN 78
Hull:	Major Electronics/Ordnance:
Length overall: 1092'	Common C2 System
Beam: 134'	Electromagnetic Aircraft Launching
Displacement: 97,337 Tons	Dual Band Radar (DBR)
Draft: 38.7'	Advanced Arresting Gear (AAG)

Production Status:	**FY08**
Contract Award Date:	09/08
Months to Completion	
a) Contract Award to Delivery	87 months
b) Construction Start to Delivery	64 months
Delivery Date	09/15
Completion of Fitting Out	11/15
Obligation Work Limiting Date	10/16

CLASSIFICATION:
UNCLASSIFIED

WEAPON SYSTEM COST ANALYSIS (EXHIBIT P-5)
(Dollars in Thousands)

BUDGET ACTIVITY: 2	**P-1 LINE ITEM NOMENCLATURE**	**SUBHEAD NO. BLI: 2001**
Other Warships	**CARRIER REPLACEMENT PROGRAM**	

	FY 2008	
ELEMENT OF COST	**QTY**	**COST**
PLAN COSTS	1	2,870,762
BASIC CONST/CONVERSION		5,255,628
CHANGE ORDERS		230,106
ELECTRONICS		350,823
PROPULSION EQUIPMENT		1,515,612
HM&E		35,971
OTHER COST		78,791
ORDNANCE		1,193,302
TOTAL SHIP ESTIMATE		11,530,995
LESS ADVANCE PROCUREMENT FY01		21,668
LESS ADVANCE PROCUREMENT FY02		135,341
LESS ADVANCE PROCUREMENT FY03		395,493
LESS ADVANCE PROCUREMENT FY04		1,162,905
LESS ADVANCE PROCUREMENT FY05		623,073
LESS ADVANCE PROCUREMENT FY06		618,884
LESS ADVANCE PROCUREMENT FY07		735,800
LESS SUBSEQUENT FULL FUNDING FY09		2,684,565
LESS SUBSEQUENT FULL FUNDING FY10		736,989
LESS SUBSEQUENT FULL FUNDING FY11		1,731,256
NET P-1 LINE ITEM:		2,685,021

SHIPBUILDING AND CONVERSION, NAVY

Analysis of Ship Cost Estimate - Basic/Escalation

Ship Type: CARRIER REPLACEMENT PROGRAM

I.	Design/Schedule	Start/Issue	Complete /Response	Reissue	Complete /Response
	Issue date for TLR	APRIL 04			
	Issue date for TLS	SEPT 06			
	Preliminary Design	JAN 03	JUL 08		
	Contract Design	MAY 04	APR 08		
	Detail Design	JAN 04	SEP 09		
	Request for Proposals	JUL 07	OCT 07		
	Design Agent	NORTHROP GRUMMAN SHIP BUILDING - NEWPORT NEWS			
II.	Classification of Cost Estimate	C			
III.	Basic Construction/Conversion				
	A. Actual Award Date	SEP 08			
	B. Contract Type (and Share Line if applicable)	CPIF			
	C. RFP Response Date	OCT 07			
IV.	Escalation				
	Escalation Termination Date				
	Escalation Requirement				
	Labor/Material Split				
	Allowable Overhead Rate				
V.	Other Basic(Reserves/Miscellaneous)	Amount			

SHIPBUILDING AND CONVERSION, NAVY
SHIP PRODUCTION SCHEDULE

SHIP TYPE	HULL NUMBER	SHIPBUILDER	FISCAL YEAR AUTHORIZED	CONTRACT AWARD	START OF CONSTRUCTION	DELIVERY DATE
CVN	78	NORTHROP GRUMMAN NEWPORT NEWS	2008	SEP-08	AUG-05	SEP-15
CVN	79	NORTHROP GRUMMAN NEWPORT NEWS	2013	DEC-12	DEC-12	SEP-20

SHIPBUILDING AND CONVERSION, NAVY

Analysis of Ship Cost Estimates - Major Equipment

(Dollars in Thousands)

Ship Type: CARRIER REPLACEMENT PROGRAM

	FY 2008	
	QTY	COST
ELECTRONICS		
a. P-35 Items		
INTEGRATED STRIKE PLANNING & EXECUTION SYSTEMS (ISP&E)	1	14,006
AN/USQ-T46X(V)X, BATTLE FORCE TACTICAL TRAINING SYSTEM (BFTT)	1	6,621
AN/USQ-123(V) , COMMUNICATIONS DATA LINK-SYSTEM (CDL-S)	1	3,311
CANES	1	23,969
AN/USG-2, COOPERATIVE ENGAGEMENT CAPABILITY (CEC)	1	7,442
DIGITAL MODULAR RADIO (DMR) ULTRA HIGH FREQUENCY/VERY HIGH FREQUENCY LINE OF SIGHT (EHF/VHF LOS) SATCOM	1	11,508
HIGH FREQUENCY RADIO GROUP (HFRG)	1	3,562
AN/UPX-29(V), INTERROGATOR FRIEND OR FOE (IFF) W/MK XII	1	8,264
AN/SPN-41(V), INSTRUMENT LANDING SYSTEM (ILS)	1	3,345
SPN-46, AUTOMATIC CARRIER LANDING SYSTEM	1	10,991
COMMON C2 SYSTEM	1	87,733
SHIP SIGNAL EXPLOITATION SPACE (SSES/SI) COMMUNICATIONS	1	4,260
AN/TPX-42A(V)14, CARRIER AIR TRAFFIC CONTROL CENTER - DIRECT ALTITUDE AND IDENTIFY READOUT (CATCC-DAIR)	1	5,523
TURNKEY RADIO COMMUNICATIONS SYSTEM (RCS)	1	17,678
NAVY MULTI-BAND TERMINAL (NMT)	1	6,048
ELECTRONIC SURVEILLANCE SUITE, SEWIP BLOCK 2 (EWS)	1	27,810
Subtotal		242,071
b. Major Items		
AN/USQ-155(V)1 TACTICAL VARIANT SWITCH	1	2,492
INFORMATION ASSURANCE (IA)		2,619
MAST CLAMP CURRENT PROBE (MCCP) UPGRADE	1	2,289
AN/URC-141X(V), MULTI-FUNCTION INFORMATION DISTRIBUTION SYSTEM (MIDS)-ON-SHIP (MOS)	1	2,274
AN/SLQ-25A DUAL, SURFACE SHIP TORPEDO DEFENSE SYSTEM, NIXIE	1	2,316
AN/UYK-158 (V), NAVAL TACTICAL COMMAND SUPPORT SYSTEM (NTCSS)/WEB ENABLE NTCSS (ENTCSS) BLOCK UPGRADE	1	679
AN/SMQ-11, METEOROLOGICAL/OCEANOGRAPHIC (METOC) SATELLITE RECEIVER - RECORD SET	1	1,463
SHIPBOARD AIR TRAFFIC CONTROL COMMUNICATIONS (SATCC)	1	1,978
SHIP TEST AND INTEGRATION PROGRAMS		1,767
AN/USQ-162(V)3 ARC AUTOMATED RADIO COMMUNICATIONS SYSTEM	1	1,051

SHIPBUILDING AND CONVERSION, NAVY

Analysis of Ship Cost Estimates - Major Equipment

(Dollars in Thousands)

Ship Type: CARRIER REPLACEMENT PROGRAM	FY 2008	
	QTY	COST
AN/WSN-7(V)3, RING LASER GYRO NAVIGATOR (RLGN)	1	2,411
DISTRIBUTED SYSTEMS DESIGN INTEGRATION SERVICES	1	9,374
C4I INTEGRATION & COORDINATION		8,925
SEA-BASED JOINT PRECISION APPROACH & LANDING SYSTEM (JPALS)	1	7,037
DISTRIBUTED COMMON GROUND STATION - NAVY (DCGS-N)	1	1,631
AN/USQ-144K AUTOMATED DIGITAL NETWORK SYSTEM (ANDS)	1	1,461
AN/UYQ-86 CDLMS WITH NGC2P	1	1,787
OA-9277 UHF MULTICOUPLER	1	1,988
ARC-210 CATCC-PRIFLY-LSO SYSTEM	1	1,406
WARFARE SYSTEM INTEGRATION		30,204
NET-ENABLED COMMAND CAPABILITY (NECC)	1	1,545
COMMERCIAL BROADBAND SATELLITE PROGRAM (CBSP-FLV)	1	1,663
AN/SSN-6(V)X BLOCK 4, NAVIGATION SENSOR SYSTEM INTERFACE (NAVSSI)	1	3,308
AN/SPS-73(V)X LITE SYSTEM	2	3,661
Subtotal		95,329
c. Other ELECTRONICS		
		13,423
Subtotal		13,423
Total ELECTRONICS		350,823

SHIPBUILDING AND CONVERSION, NAVY

Analysis of Ship Cost Estimates - Major Equipment

(Dollars in Thousands)

Ship Type: CARRIER REPLACEMENT PROGRAM

	FY 2008	
	QTY	COST
ORDNANCE		
a. P-35 Items		
ELECTROMAGNETIC AIRCRAFT LAUNCHING SYSTEM (EMALS)	1	696,481
DUAL BAND RADAR (DBR) (SPY-3 AND VSR)	1	286,597
ADVANCED AIRCRAFT RECOVERY SYSTEM (AAG)	1	123,721
PHALANX BLOCK 1B MK 15 MOD 23, WEAPONS SYSTEM	3	18,301
AN/SQQ-34, CARRIER-TACTICAL SUPPORT CENTER	1	7,131
IMPROVED FRESNEL LENS OPTICAL LANDING SYSTEM (IFLOLS)	1	3,672
MK29 GUIDED MISSILE LAUNCHING SYSTEM (GMLS) EVOLVED SEA SPARROW MISSILE (ESSM)	2	13,575
AVIATION DATA MANAGEMENT AND CONTROL SYSTEM (ADMACS)	1	7,437
INTEGRATED LAUNCH AND RECOVERY TELEVISION SYSTEM (ILARTS)	1	6,000
MK 49 GUIDED MISSILE LAUNCHING SYSTEM (GMLS), P/O MK 31 ROLLING AIRFRAME MISSILE (RAM)	2	13,935
Subtotal		1,176,850
b. Major Items		
LANDING SIGNAL OFFICER DISPLAY SYSTEM (LSODS)	1	1,689
MORIAH BLOCK 2	1	1,445
SHIP TEST AND INTEGRATION PROGRAMS	1	3,163
JET BLAST DEFLECTORS (JBD)	1	969
JOINT STRIKE FIGHTER AUTONOMIC LOGISTICS INFORMATION SYSTEM (JSF ALIS)	1	1,441
Subtotal		8,707
c. Other ORDNANCE		
		7,745
Subtotal		7,745
Total ORDNANCE		1,193,302

SHIPBUILDING AND CONVERSION, NAVY

Analysis of Ship Cost Estimates - Major Equipment

(Dollars in Thousands)

Ship Type: CARRIER REPLACEMENT PROGRAM	**FY 2008**	
	QTY	**COST**
HM&E		
a. P-35 Items		
Subtotal		0
b. Major Items		
HM&E ENGINEERING SERVICES		19,080
INTEGRATED LOGISTICS SUPPORT		2,493
LIFE RAFTS		2,252
SUPSHIP MATERIAL AND GFE		2,438
TEST & INTEGRATION		6,901
TRUCKS (FORKLIFTS)		500
Subtotal		33,664
c. Other HM&E		
		2,307
Subtotal		2,307
Total HM&E		35,971

SHIPBUILDING AND CONVERSION, NAVY
MAJOR SHIP COMPONENT FACT SHEET
(Dollars in Thousands)

P-35 EXHIBIT
FY 2011 President's Budget
February 2010

Ship Type: **CARRIER REPLACEMENT PROGRAM**
Equipment Item: **INTEGRATED STRIKE PLANNING & EXECUTION SYSTEMS (ISP&E)**
PARM Code: **PMA 281**

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

Provides Carrier Air Wing Strike Planning, Tomahawk Planning, and Tomahawk Command and Control Systems as part of an Integrated Intelligence Center (CVIC). The ISP&E Programs of Record include the Tomahawk Command and Control System (TC2S), Joint Mission Planning System (JMPS) and Digital Camera Receiving System (DCRS).

II. CURRENT FUNDING:

P-35 Category	**FY 2008**	
	QTY	**COST**
Major Hardware	1	363
Spares		32
Tech Data Documentation		149
Systems Engineering		11,406
Technical Engineering Services		813
Other		1,243
Total		14,006

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY 08	CVN 78	VARIOUS	FFP CPFF	TBD		1	363

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY 08	CVN 78	SEP-15	48	15	JUN-10

V. COMPETITION/SECOND SOURCE INITIATIVES:

None

NOTE:

Integrated Strike Planning and Execution Systems (ISP&E) provides Strike planning, Tomahawk planning and control equipment as part of an integrated Carrier Intelligence Center (CVIC). Additional hardware includes the Joint Mission Planning System (JMPS), Tomahawk Command and Control Systems (TC2S), and Digital Camera receiving Station (DCRS). The ISP&E installation is planned as an alternate installation using Customer Contract Teams (CCT). The ISP&E GFE (hardware and software) is procured in advance of ship installation to permit system-of-system integration testing and operational verification testing in advance of the ship installation.

SHIPBUILDING AND CONVERSION, NAVY
MAJOR SHIP COMPONENT FACT SHEET
(Dollars in Thousands)

P-35 EXHIBIT
FY 2011 President's Budget
February 2010

Ship Type: **CARRIER REPLACEMENT PROGRAM**
Equipment Item: **AN/USQ-T46X(V)X, BATTLE FORCE TACTICAL TRAINING SYSTEM (BFTT)**
PARM Code: **CVN 78 IWS 7C**

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

BFTT is a highly flexible, interactive unit and group/force level tactical combat training system. The mission of the system is to provide training capabilities for fleet personnel to achieve and maintain combat readiness.

II. CURRENT FUNDING:

P-35 Category	**FY 2008**	
	QTY	**COST**
Major Hardware	1	4,053
Spares		129
Systems Engineering		662
Technical Engineering Services		474
Other Costs		1,303
Total		6,621

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY 08	CVN 78	TBD	TBD	TBD		1	4,053

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY 08	CVN 78	SEP-15	25	12	AUG-12

V. COMPETITION/SECOND SOURCE INITIATIVES:

None

NOTE:

SHIPBUILDING AND CONVERSION, NAVY
MAJOR SHIP COMPONENT FACT SHEET
(Dollars in Thousands)

P-35 EXHIBIT
FY 2011 President's Budget
February 2010

Ship Type: **CARRIER REPLACEMENT PROGRAM**
Equipment Item: **AN/USQ-123(V) , COMMUNICATIONS DATA LINK-SYSTEM (CDL-S)**
PARM Code: **PMW 750**

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

The CDL-S Blk 1 system is an enhanced capability and technology upgrade to the Common High Bandwidth Data Link-Surface Terminal (CHBDL-ST) system. It provides a full duplex, microwave digital data link between shipboard processors and airborne sensors. CVN 78 is for a single link system.

II. CURRENT FUNDING:

P-35 Category	**FY 2008**	
	QTY	**COST**
Major Hardware	1	2,500
Spares		161
Systems Engineering		300
Technical Engineering Services		130
Other Costs		220
Total		3,311

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY 08	CVN 78	TBD	TBD	TBD		1	2,500

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY 08	CVN 78	SEP-15	30	20	JUL-11

V. COMPETITION/SECOND SOURCE INITIATIVES:

None

NOTE:

SHIPBUILDING AND CONVERSION, NAVY
MAJOR SHIP COMPONENT FACT SHEET
(Dollars in Thousands)

P-35 EXHIBIT
FY 2011 President's Budget
February 2010

Ship Type: **CARRIER REPLACEMENT PROGRAM**
Equipment Item: **CANES**
PARM Code: **PMW 750**

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

CANES will provide the Navy tactical/non-tactical information environment and infrastructure necessary to enable hosting, extended services reach-back and reach-forward, and relay functions. These capabilities will support real time and non-real time tactical/non-tactical edge connected, connectionless, and ad-hoc voice, video and data information exchange requirements. CANES is the technology replacement for the following existing afloat networks: Combined Enterprise Regional Information Exchange System-Maritime (CENTRIXS-M), limited shipboard Internal Voice (IC), Integrated Shipboard Networking System (ISNS), Sensitive Compartmented Information (SCI) Networks, to include the Top Secret enclave, and Video Information eXchange System (VIXS). CANES will incrementally collapse Unclassified, Secret, Secret-Releasable, and SCI enclaves. CANES Increment 1 is the current POR for CVN 78.

II. CURRENT FUNDING:

P-35 Category	**FY 2008**	
	QTY	**COST**
Major Hardware	1	18,602
Spares		125
Tech Data Documentation		136
Systems Engineering		2,650
Technical Engineering Services		426
Other Costs		2,030
Total		23,969

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY 08	CVN 78	TBD	TBD	TBD		1	18,602

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY 08	CVN 78	SEP-15	TBD	9	TBD

V. COMPETITION/SECOND SOURCE INITIATIVES:

None

NOTE:

SHIPBUILDING AND CONVERSION, NAVY
MAJOR SHIP COMPONENT FACT SHEET
(Dollars in Thousands)

P-35 EXHIBIT
FY 2011 President's Budget
February 2010

Ship Type: **CARRIER REPLACEMENT PROGRAM**
Equipment Item: **AN/USG-2, COOPERATIVE ENGAGEMENT CAPABILITY (CEC)**
PARM Code: **CVN 78 IWS 6.0**

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

CEC significantly improves battle force air and missile defense capabilities by coordinating battle force air defense sensors into a single, near real-time, composite track picture capable of fire control quality. CEC is a sensor netting system which distributes sensor data from each CEC equipped ship, aircraft, and/or Cooperating Unit (CU), to all other CUs in the battle force through a real-time, line of sight, high data rate sensor and engagement data distribution network. CEC is highly resistant to jamming and provides accurate grid locking between CUs. Each CU independently employs high capacity parallel processing and advanced algorithms to combine all distributed sensor data into a high quality track picture that is the same for all CUs. CEC data is presented as a superset of the best sensor capabilities from each CU, all of which are integrated into a single input to each CU's combat weapons system. The software costs for CVN 78 are estimated on DDG 1000 leveraging and integration required for CVN 78. The CVN 78 will use version Alpha.

II. CURRENT FUNDING:

P-35 Category	**FY 2008**	
	QTY	**COST**
Major Hardware	1	4,957
Spares		390
Systems Engineering		672
Technical Engineering Services		314
Other Costs		1,109
Total		7,442

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY 08	CVN 78	RAYTHEON	FFP	TBD	OPTION	1	4,957

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY 08	CVN 78	SEP-15	30	18	SEP-11

V. COMPETITION/SECOND SOURCE INITIATIVES:

None

NOTE:

SHIPBUILDING AND CONVERSION, NAVY
MAJOR SHIP COMPONENT FACT SHEET
(Dollars in Thousands)

P-35 EXHIBIT
FY 2011 President's Budget
February 2010

Ship Type: **CARRIER REPLACEMENT PROGRAM**
Equipment Item: **DIGITAL MODULAR RADIO (DMR) ULTRA HIGH FREQUENCY/VERY HIGH FREQUENCY LINE OF SIGHT (EHF/VHF LOS) SATCOM**
PARM Code: **PMW 750**

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

DMR-VHF/UHF LOS/SATCOM is an open architecture system that allows transmission and reception of UHF and VHF RF signals. The DMR replaces many legacy systems, including some crypto, Line Of Sight (LOS) and Satellite Communications (SATCOM) components.

II. CURRENT FUNDING:

P-35 Category	**FY 2008**	
	QTY	**COST**
Major Hardware	1	9,930
Spares		50
Tech Data Documentation		31
Systems Engineering		555
Tech Engineering Services		345
Other Costs		597
Total		11,508

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY 08	CVN 78	VARIOUS	VARIOUS	TBD		1	9,930

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY 08	CVN 78	SEP-15	TBD	19	TBD

V. COMPETITION/SECOND SOURCE INITIATIVES:

None

NOTE:

SHIPBUILDING AND CONVERSION, NAVY
MAJOR SHIP COMPONENT FACT SHEET
(Dollars in Thousands)

P-35 EXHIBIT
FY 2011 President's Budget
February 2010

Ship Type: **CARRIER REPLACEMENT PROGRAM**
Equipment Item: **HIGH FREQUENCY RADIO GROUP (HFRG)**
PARM Code: **PMW 750**

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

HFRG provides broadband High Frequency Radio Frequency capability to transmit (2-30MHz) and receive (10KHz-30MHz).

II. CURRENT FUNDING:

P-35 Category	**FY 2008**	
	QTY	**COST**
Major Hardware	1	1,614
Spares		40
System Engineering		550
Tech Engineering Services		1,195
Other Costs		163
Total		3,562

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY 08	CVN 78	TBD	TBD	TBD		1	1,614

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY 08	CVN 78	SEP-15	TBD	12	TBD

V. COMPETITION/SECOND SOURCE INITIATIVES:

None

NOTE:

SHIPBUILDING AND CONVERSION, NAVY
MAJOR SHIP COMPONENT FACT SHEET
(Dollars in Thousands)

P-35 EXHIBIT
FY 2011 President's Budget
February 2010

Ship Type: **CARRIER REPLACEMENT PROGRAM**
Equipment Item: **AN/UPX-29(V), INTERROGATOR FRIEND OR FOE (IFF) W/MK XII**
PARM Code: **PMA 213**

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

IFF is an approved and fully supported centralized Mark XII Interrogator system. It uses one receiver transmitter that synchronizes video with up to four radar sweeps. It supplies synthetic video (symbology) to, and accepts requests from, as many as 22 remote locations. It provides digital target reporting to the combat systems/weapon systems computer via full scan, sectored, and/or pop-up interrogations. It provides instantaneous target reporting at requested range and azimuth through the use of an electronically-steered Antenna Group OE-120/UPX or OE-120A/UPX. It provides electronically evaluated Mode 4 target reporting directly to operators and over the combat systems/weapon system computer interface. It provides full redundancy so identification capabilities are retained in case of main processor, main antenna, or main receiver/transmitter failure.

II. CURRENT FUNDING:

P-35 Category	**FY 2008**	
	QTY	**COST**
Major Hardware	1	6,139
Spares		84
Systems Engineering		936
Other Costs		744
Ancillary Equipment		72
Technical Engineering Services		289
Total		8,264

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY 08	CVN 78	NORTHROP GRUMMAN-BAE SYSTEMS	SS / FP	VARIOUS		1	6,139

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY 08	CVN 78	SEP-15	15	24	JUN-12

V. COMPETITION/SECOND SOURCE INITIATIVES:

None

NOTE:

SHIPBUILDING AND CONVERSION, NAVY
MAJOR SHIP COMPONENT FACT SHEET
(Dollars in Thousands)

P-35 EXHIBIT
FY 2011 President's Budget
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Ship Type: **CARRIER REPLACEMENT PROGRAM**
Equipment Item: **AN/SPN-41(V), INSTRUMENT LANDING SYSTEM (ILS)**
PARM Code: **PMA 213**

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

The AN/SPN-41 Transmitting Set is used as the ship's Instrument Control Landing System (ICLS) to provide azimuth and elevation alignment information; thus, assisting the pilot with landing the aircraft. When the aircraft is within 0.75 miles of the ship, the Landing Signal Officer (LSO) directs the pilot for a safe landing.

II. CURRENT FUNDING:

P-35 Category	**FY 2008**	
	QTY	**COST**
Major Hardware	1	1,709
Ancillary Hardware		5
Systems Engineering		463
Technical Engineering Services		112
Other Costs		1,056
Total		3,345

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY 08	CVN 78	NAVAIR	VARIOUS	VARIOUS		1	1,709

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY 08	CVN 78	SEP-15	15	40	FEB-11

V. COMPETITION/SECOND SOURCE INITIATIVES:

None

NOTE:

SHIPBUILDING AND CONVERSION, NAVY
MAJOR SHIP COMPONENT FACT SHEET
(Dollars in Thousands)

P-35 EXHIBIT
FY 2011 President's Budget
February 2010

Ship Type: **CARRIER REPLACEMENT PROGRAM**
Equipment Item: **SPN-46, AUTOMATIC CARRIER LANDING SYSTEM**
PARM Code: **PMA 213**

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

AN/SPN-46 (V)3 provides Precision Approach Landing System (PALS) used for non-clear weather aircraft landings on board carriers.

II. CURRENT FUNDING:

P-35 Category	**FY 2008**	
	QTY	**COST**
Major Hardware	1	6,562
Systems Engineering		1,157
Other Costs		3,272
Total		10,991

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY 08	CVN 78	VARIOUS	VARIOUS	APR-08		1	6,562

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY 08	CVN 78	SEP-15	25	64	APR-08

V. COMPETITION/SECOND SOURCE INITIATIVES:

None

NOTE:

SHIPBUILDING AND CONVERSION, NAVY
MAJOR SHIP COMPONENT FACT SHEET
(Dollars in Thousands)

P-35 EXHIBIT
FY 2011 President's Budget
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Ship Type: **CARRIER REPLACEMENT PROGRAM**
Equipment Item: **COMMON C2 SYSTEM**
PARM Code: **PEO IWS 1FM4A**

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

The Common C2 system provides combat management capabilities for multi-mission requirements including Ship Protection against air, surface, and subsurface threats using both own-ship and remote data in support of capstone requirements.

II. CURRENT FUNDING:

P-35 Category	**FY 2008**	
	QTY	**COST**
Major Hardware	1	12,945
Spares		1,014
Tech Data Documentation		738
Technical Engineering Services		1,961
Systems Engineering		10,011
Other Costs		61,064
Total		87,733

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY 08	CVN 78	RAYTHEON / GENERAL DYNAMICS	FFP	SEP-08	NEW	1	12,945

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY 08	CVN 78	SEP-15	22	24	NOV-11

V. COMPETITION/SECOND SOURCE INITIATIVES:

None

NOTE:

SHIPBUILDING AND CONVERSION, NAVY
MAJOR SHIP COMPONENT FACT SHEET
(Dollars in Thousands)

P-35 EXHIBIT
FY 2011 President's Budget
February 2010

Ship Type: **CARRIER REPLACEMENT PROGRAM**
Equipment Item: **SHIP SIGNAL EXPLOITATION SPACE (SSES/SI) COMMUNICATIONS**
PARM Code: **PMW 750**

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

SSES/SI Comms supports the overall mission of the SSES Information Warfare System. Its capabilities include: SI Message Processing equipment, Navy Order Wire (NOW) system, HF Receiver suite equipped with a Frequency Shift Key (FSK) modification and various crypto-logical equipment.

II. CURRENT FUNDING:

P-35 Category	**FY 2008**	
	QTY	**COST**
Major Hardware	1	1,264
Systems Engineering		778
Technical Engineering Services		2,046
Other Costs		172
Total		4,260

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY 08	CVN 78	VARIOUS	VARIOUS	TBD		1	1,264

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY 08	CVN 78	SEP-15	29	18	OCT-11

V. COMPETITION/SECOND SOURCE INITIATIVES:

None

NOTE:

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MAJOR SHIP COMPONENT FACT SHEET
(Dollars in Thousands)

P-35 EXHIBIT
FY 2011 President's Budget
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Ship Type: **CARRIER REPLACEMENT PROGRAM**
Equipment Item: **AN/TPX-42A(V)14, CARRIER AIR TRAFFIC CONTROL CENTER - DIRECT ALTITUDE AND IDENTIFY READOUT (CATCC-DAIR**
PARM Code: **PMA 213**

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

CATCC-DAIR is an automatic beacon and radar that when integrated with an air traffic control radar, provides numeric and symbolic displays of position, identity, and altitude of aircraft in the terminal airspace on an operator's Plane Position Indicator (PPI) display.

II. CURRENT FUNDING:

P-35 Category	**FY 2008**	
	QTY	**COST**
Major Hardware	1	3,007
Spares		228
Systems Engineering		1,622
Technical Engineering Services		42
Other Costs		624
Total		5,523

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY 08	CVN 78	TBD	TBD	TBD		1	3,007

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY 08	CVN 78	SEP-15	37	24	AUG-10

V. COMPETITION/SECOND SOURCE INITIATIVES:

None

NOTE:

SHIPBUILDING AND CONVERSION, NAVY
MAJOR SHIP COMPONENT FACT SHEET
(Dollars in Thousands)

P-35 EXHIBIT
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Ship Type: **CARRIER REPLACEMENT PROGRAM**
Equipment Item: **TURNKEY RADIO COMMUNICATIONS SYSTEM (RCS)**
PARM Code: **PMW 750**

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

Turnkey RCS includes the integration of SPAWAR Radio Communication Systems (RCS) at the SPAWAR System Center Charleston Test and Integration Facility. SSC Charleston will provide program planning, management and technical services, and detailed C4I ship design and integration. The RCS will undergo total integration and testing prior to delivery to the shipbuilder.

II. CURRENT FUNDING:

P-35 Category	**FY 2008**	
	QTY	**COST**
Major Hardware	1	3,113
Tech Data Documentation		1,020
Systems Engineering		7,139
Technical Engineering Services		4,382
Other Costs		2,024
Total		17,678

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY 08	CVN 78	VARIOUS	VARIOUS	TBD		1	3,113

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY 08	CVN 78	SEP-15	28	0	MAY-13

V. COMPETITION/SECOND SOURCE INITIATIVES:

None

NOTE:

Hardware includes only Non-2Z Cog items to support integration efforts.

SHIPBUILDING AND CONVERSION, NAVY
MAJOR SHIP COMPONENT FACT SHEET
(Dollars in Thousands)

P-35 EXHIBIT
FY 2011 President's Budget
February 2010

Ship Type: **CARRIER REPLACEMENT PROGRAM**
Equipment Item: **NAVY MULTI-BAND TERMINAL (NMT)**
PARM Code: **PMW 750**

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

The Advanced Extremely High Frequency (AEHF) Navy Multi-band Terminal (NMT) will be used to receive signals from the Advanced EHF satellites which is a follow-on to the DoD's highly secure, highly protected MILSTAR communications satellite system.

II. CURRENT FUNDING:

P-35 Category	**FY 2008**	
	QTY	**COST**
Major Hardware	1	4,896
Spares		329
Tech Data Documentation		55
Systems Engineering		170
Technical Engineering Services		220
Other		378
Total		6,048

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY 08	CVN 78	RAYTHEON	FFP	TBD		1	4,896

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY 08	CVN 78	SEP-15	28	18	NOV-11

V. COMPETITION/SECOND SOURCE INITIATIVES:

None

NOTE:

SHIPBUILDING AND CONVERSION, NAVY
MAJOR SHIP COMPONENT FACT SHEET
(Dollars in Thousands)

P-35 EXHIBIT
FY 2011 President's Budget
February 2010

Ship Type: **CARRIER REPLACEMENT PROGRAM**
Equipment Item: **ELECTRONIC SURVEILLANCE SUITE, SEWIP BLOCK 2 (EWS)**
PARM Code: **PEO IWS 2E**

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

EWS is the Navy's primary electronic warfare system used on all surface combatants, amphibs, auxiliaries, and carriers. It provides operational capability for early detection, analysis, threat warning, and protection from anti-ship missiles. The SEWIP Block 2 configuration installed on all CV/CVNs provide passive capability

II. CURRENT FUNDING:

P-35 Category	**FY 2008**	
	QTY	**COST**
Major Hardware	1	17,942
Ancillary Equipment		180
Spares		812
System Engineering		3,251
Technical Engineering Services		2,231
Other Costs		3,394
Total		27,810

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY 08	CVN 78	TBD	TBD	TBD		1	17,942

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY 08	CVN 78	SEP-15	21	18	JUN-12

V. COMPETITION/SECOND SOURCE INITIATIVES:

NOTE:

SHIPBUILDING AND CONVERSION, NAVY
MAJOR SHIP COMPONENT FACT SHEET
(Dollars in Thousands)

P-35 EXHIBIT
FY 2011 President's Budget
February 2010

Ship Type: **CARRIER REPLACEMENT PROGRAM**
Equipment Item: **ELECTROMAGNETIC AIRCRAFT LAUNCHING SYSTEM (EMALS)**
PARM Code: **PMA 251**

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

EMALS is an advanced technology electrically generated launching system that uses a moving electromagnetic field to propel aircraft to launch speed. EMALS is made up of four primary sub-systems: energy storage, power conditioning, launch engine, and control system. Benefits over the current C13 steam catapults include reduced weight and volume, greater launching flexibility for future aircraft, improved control, and reduced manning workload requirements.

II. CURRENT FUNDING:

P-35 Category	**FY 2008**	
	QTY	**COST**
Major Hardware	1	637,023
Tech Data Documentation		514
Systems Engineering		11,931
Technical Engineering Services		14,314
Other Costs		32,699
Total		696,481

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY 08	CVN 78	GENERAL ATOMICS	FFP	JUN-09		1	637,023

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY 08	CVN 78	SEP-15	52	TBD	JUL-09

V. COMPETITION/SECOND SOURCE INITIATIVES:

None

NOTE:

SHIPBUILDING AND CONVERSION, NAVY
MAJOR SHIP COMPONENT FACT SHEET
(Dollars in Thousands)

P-35 EXHIBIT
FY 2011 President's Budget
February 2010

Ship Type: **CARRIER REPLACEMENT PROGRAM**
Equipment Item: **DUAL BAND RADAR (DBR) (SPY-3 AND VSR)**
PARM Code: **IWS2RA**

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

The DBR suite performs horizon and volume search functions during which the system can detect stealthy targets in sea-land clutter, provide periscope detection, and counter battery functions. The dual band approach (wave form integration) has the ability to provide improved performance in adverse environments, demonstrate avoidance of multi-radar track-to-track correlation and provides for reduced software development and maintenance. The SPY-3 function provides an affordable, high-performance radar for the ship├s defense. SPY-3 greatly enhances ship defense capability against all surface and air threats envisioned in the littoral environment. VSR provides a solid state active phased array with low signature and a three-dimensional air search capability. The VSR function also provides long range above the horizon surveillance, detection, and tracking of high diving targets, and provides the SPY-3 with timely cueing and aircraft marshalling assistance.

II. CURRENT FUNDING:

P-35 Category	**FY 2008**	
	QTY	**COST**
Major Hardware	1	244,471
Spares		2,500
Systems Engineering		13,800
Technical Engineering Services		5,300
Other Costs		20,526
Total		286,597

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY 08	CVN 78	RAYTHEON	CPIF	VARIOUS		1	244,471

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY 08	CVN 78	SEP-15	53	18	OCT-09

V. COMPETITION/SECOND SOURCE INITIATIVES:

None

NOTE:

SHIPBUILDING AND CONVERSION, NAVY
MAJOR SHIP COMPONENT FACT SHEET
(Dollars in Thousands)

P-35 EXHIBIT
FY 2011 President's Budget
February 2010

Ship Type: **CARRIER REPLACEMENT PROGRAM**
Equipment Item: **ADVANCED AIRCRAFT RECOVERY SYSTEM (AAG)**
PARM Code: **PMA 251**

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

AAG provides an upgraded ability to recover all existing and projected aircraft carrier based air vehicles. The AAG system will replace the Mark 7 arresting gear system and consists of six primary systems; energy absorption subsystem, energy storage subsystem, dynamic control subsystem, thermal management subsystem, cross deck pendant, and the control subsystem.

II. CURRENT FUNDING:

P-35 Category	**FY 2008**	
	QTY	**COST**
Major Hardware	1	97,018
Spares		1,317
Tech Data Documentation		485
Systems Engineering		7,100
Technical Engineering Services		1,320
Other Costs		16,481
Total		123,721

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY 08	CVN 78	GENERAL ATOMICS	TBD	NOV-09		1	97,018

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY 08	CVN 78	SEP-15	37	33	NOV-09

V. COMPETITION/SECOND SOURCE INITIATIVES:

None

NOTE:

SHIPBUILDING AND CONVERSION, NAVY
MAJOR SHIP COMPONENT FACT SHEET
(Dollars in Thousands)

P-35 EXHIBIT
FY 2011 President's Budget
February 2010

Ship Type: **CARRIER REPLACEMENT PROGRAM**
Equipment Item: **PHALANX BLOCK 1B MK 15 MOD 23, WEAPONS SYSTEM**
PARM Code: **IWS 3B**

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

Phalanx is a high fire rate gun weapon system that automatically acquires, tracks and destroys anti-ship cruise missiles, helos, aircraft, and all types of surface threats.

II. CURRENT FUNDING:

P-35 Category	**FY 2008**	
	QTY	**COST**
Major Hardware	3	16,026
Spares		240
Ancillary Equipment		199
Systems Engineering		1,268
Technical Engineering Services		113
Other Costs		455
Total		18,301

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY 08	CVN 78	RAYTHEON	FFP	OCT-08		3	5,342

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY 08	CVN 78	SEP-15	20	22	MAR-12

V. COMPETITION/SECOND SOURCE INITIATIVES:

None

NOTE:

SHIPBUILDING AND CONVERSION, NAVY
MAJOR SHIP COMPONENT FACT SHEET
(Dollars in Thousands)

P-35 EXHIBIT
FY 2011 President's Budget
February 2010

Ship Type: **CARRIER REPLACEMENT PROGRAM**
Equipment Item: **AN/SQQ-34, CARRIER-TACTICAL SUPPORT CENTER**
PARM Code: **PEO IWS 5E**

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

CV-TSC provides for carrier organic Anti-submarine Warfare (ASW), Mine Warfare (MIW), Surface Warfare (SUW), and other composite warfare area sensor data processing, tactical command and control, and organic/battle-group aircraft mission support. CV-TSC supports both ship self defense and embarked Destroyer Squadron (DESRON) missions. This system is Open Architecture Computing Environment (OACE), Joint Fires Network (JFN), and FORCEnet compliant, and includes redesign to maximize introduction of expected transformational technologies such as Multi-Modal Watch-station (MMWS), Tactically Integrated Sensors (TIS), advanced sensors & sensor processing, high speed bandwidth network, Excomm systems, net-centric warfare components, etc. The CVN 78 system provides rollover CVN-70/CVN-77 CV-TSC system with required MH-60R upgrades required to meet ASW objectives and requirements across the peace time/crisis/war continuum.

II. CURRENT FUNDING:

P-35 Category	**FY 2008**	
	QTY	**COST**
Major Hardware	1	2,995
Spares		125
Systems Engineering		1,670
Technical Engineering Services		720
Other Costs		1,621
Total		7,131

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY 08	CVN 78	NUWC KEYPORT	VARIOUS	VARIOUS		1	2,995

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY 08	CVN 78	SEP-15	26	18	JAN-12

V. COMPETITION/SECOND SOURCE INITIATIVES:

None

NOTE:

SHIPBUILDING AND CONVERSION, NAVY
MAJOR SHIP COMPONENT FACT SHEET
(Dollars in Thousands)

P-35 EXHIBIT
FY 2011 President's Budget
February 2010

Ship Type: **CARRIER REPLACEMENT PROGRAM**
Equipment Item: **IMPROVED FRESNEL LENS OPTICAL LANDING SYSTEM (IFLOLS)**
PARM Code: **PMA 251**

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

The IFLOLS is the primary visual landing aide displaying glide path, and trend information to fixed wing pilots on final approach from 1.5 nautical miles to touchdown. It is centered between two fixed green datum reference bars. This stabilized "meatball" indicates to the pilot his position above, below, or on ideal glide slope by ball displacements above or below the datum reference.

II. CURRENT FUNDING:

P-35 Category	**FY 2008**	
	QTY	**COST**
Major Hardware	1	1,793
System Engineering		846
Technical Engineering Services		340
Other Costs		693
Total		3,672

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY 08	CVN 78	VARIOUS	VARIOUS	VARIOUS		1	1,793

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY 08	CVN 78	SEP-15	40	24	MAY-10

V. COMPETITION/SECOND SOURCE INITIATIVES:

None

NOTE:

SHIPBUILDING AND CONVERSION, NAVY
MAJOR SHIP COMPONENT FACT SHEET
(Dollars in Thousands)

P-35 EXHIBIT
FY 2011 President's Budget
February 2010

Ship Type: **CARRIER REPLACEMENT PROGRAM**
Equipment Item: **MK29 GUIDED MISSILE LAUNCHING SYSTEM (GMLS) EVOLVED SEA SPARROW MISSILE (ESSM)**
PARM Code: **PEO IWS 3**

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

The MK 29 Mod (GMLS) is a launcher only configuration integrated with the C2 system and will provide CVN 78 with a cost effective means of employing the initial ESSM capability. This configuration consists of a launching system and does not include operator workstations; all workstations and operator interactions necessary for system operation including but not limited to power application to the GMLS and control and safety/status monitoring of loaded cells is assumed to exist at the combat system level.

II. CURRENT FUNDING:

P-35 Category	**FY 2008**	
	QTY	**COST**
Major Hardware	2	6,785
Spares		530
Ancillary Equipment		327
Tech Data Documentation		56
Systems Engineering		1,503
Technical Engineering Services		515
Other Costs		3,859
Total		13,575

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY 08	CVN 78	RAYTHEON	FFP	TBD	NEW	2	3,393

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY 08	CVN 78	SEP-15	22	29	JUN-11

V. COMPETITION/SECOND SOURCE INITIATIVES:

None

NOTE:

SHIPBUILDING AND CONVERSION, NAVY
MAJOR SHIP COMPONENT FACT SHEET
(Dollars in Thousands)

P-35 EXHIBIT
FY 2011 President's Budget
February 2010

Ship Type: **CARRIER REPLACEMENT PROGRAM**
Equipment Item: **AVIATION DATA MANAGEMENT AND CONTROL SYSTEM (ADMACS)**
PARM Code: **PMA 251**

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

ADMACS is a virtual, seamless, data sharing, knowledge based data system that provides interface for all aviation data systems. It is a tactical real-time information management system maintaining data integrity throughout the ship spaces that manage aircraft launch and recovery operations on board the carrier. ADMACS includes data from launch and recovery equipment, air traffic control, aviation maintenance, landing signaling officer, etc. The CVN 78 version is ADMACS Block 3.

II. CURRENT FUNDING:

P-35 Category	**FY 2008**	
	QTY	**COST**
Major Hardware	1	4,802
Tech Data Documentation		209
Systems Engineering		563
Technical Engineering Services		1,012
Other		851
Total		7,437

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY 08	CVN 78	NAVAIR	VARIOUS	VARIOUS	NEW	1	4,802

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY 08	CVN 78	SEP-15	26	12	JUL-12

V. COMPETITION/SECOND SOURCE INITIATIVES:

NONE

NOTE:

SHIPBUILDING AND CONVERSION, NAVY
MAJOR SHIP COMPONENT FACT SHEET
(Dollars in Thousands)

P-35 EXHIBIT
FY 2011 President's Budget
February 2010

Ship Type: **CARRIER REPLACEMENT PROGRAM**
Equipment Item: **INTEGRATED LAUNCH AND RECOVERY TELEVISION SYSTEM (ILARTS)**
PARM Code: **PMA 251**

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

The primary purpose of the ILARTS system is to simultaneously monitor and record aircraft recoveries and launches aboard aircraft carriers during both day and night operations. This system also provides the LSO with information on aircraft lineup during recovery and is used both as a pilot debriefing medium and as a detailed accident analysis tool. ILARTS consists of six cameras in different locations aboard ship that are connected to a closed circuit television system.

II. CURRENT FUNDING:

P-35 Category	**FY 2008**	
	QTY	**COST**
Major Hardware	1	3,501
Systems Engineering		1,371
Technical Engineering Services		191
Other		937
Total		6,000

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY 08	CVN 78	NAVAIR	VARIOUS	VARIOUS	NEW	1	3,501

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY 08	CVN 78	SEP-15	19	36	FEB-11

V. COMPETITION/SECOND SOURCE INITIATIVES:

None

NOTE:

SHIPBUILDING AND CONVERSION, NAVY
MAJOR SHIP COMPONENT FACT SHEET
(Dollars in Thousands)

P-35 EXHIBIT
FY 2011 President's Budget
February 2010

Ship Type: **CARRIER REPLACEMENT PROGRAM**
Equipment Item: **MK 49 GUIDED MISSILE LAUNCHING SYSTEM (GMLS), P/O MK 31 ROLLING AIRFRAME MISSILE (RAM)**
PARM Code: **PEO IWS 3B**

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

The MK 49 Rolling Airframe Missile Weapon System is a lightweight, low cost, high power system for anti-ship missile defense against current and evolving threats. The Block 1 upgrade adds the capability of infrared, all-the-way missile guidance while maintaining the original dual-mode (RF/IR) capability. The Helos, Aircraft, and Surface (HAS) upgrade enables the engagement of asymmetric threats. The CVN 78 system provides refurbished MK 49 Guided Missile Launching Systems upgraded to MK 49 Mod 3.

II. CURRENT FUNDING:

P-35 Category	**FY 2008**	
	QTY	**COST**
Major Hardware	2	6,816
Spares		121
Ancillary Equipment		1,591
Tech Data Documentation		30
Systems Engineering		1,897
Technical Engineering Services		332
Other Costs		3,148
Total		13,935

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY 08	CVN 78	RAYTHEON	FFP	NOV-08		2	3,408

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY 08	CVN 78	SEP-15	20	21	APR-12

V. COMPETITION/SECOND SOURCE INITIATIVES:

None

NOTE:

CLASSIFICATION:	UNCLASSIFIED											
Exhibit P-10, Advance Procurement Requirements Analysis (Funding)										Date: **February 2010**		
Appropriation (Treasury)Code/CC/BA/BSA/Item Control Number **SHIPBUILDING AND CONVERSION, NAVY / 2 / Other Warships / BLI 2001**							P-1 Line Item Nomenclature **CARRIER REPLACEMENT PROGRAM**					
Weapon System **CVN 79**			First System (BY1) Award Date and Completion Date **DEC-12 SEP-20**						Interval Between Systems			
BLI	PLT	When Req'd	Prior Years	FY09	FY10	FY11	FY12	FY13	FY14	FY15	To Complete	Total
P-5 Categories			176.3	1210.6	482.9	908.3	494.8	0.0	0.0	0.0	0.0	3272.9
Plans (Detailed)	Up to 36		0.0	54.9	76.8	59.0	139.6	0.0	0.0	0.0	0.0	330.3
Nuc Prop Equip	36-96		176.3	945.3	355.0	533.0	19.0	0.0	0.0	0.0	0.0	2028.6
Basic	36-66		0.0	210.4	46.1	311.3	331.2	0.0	0.0	0.0	0.0	899.0
HM&E	Up to 36		0.0	0.0	5.0	5.0	5.0	0.0	0.0	0.0	0.0	15.0
Total AP			176.3	1210.6	482.9	908.3	494.8	0.0	0.0	0.0	0.0	3272.9

Description:

P-5 Categories Plans funding is required to support the CVN 79 integrated design and construction schedule. Funding is required to efficiently and effectively complete design integration efforts, detailed design, and construction planning by taking advantage of integrated product and process development to insert transformational technologies while reducing both construction costs and potential costly construction rework.

Nuclear Propulsion Equipment (GFE) funding is required to fund a shipset of reactor plant components. The complexity, size and early shipyard need dates for reactor plant equipment make them among the longest lead items for CVN 79.

Basic funding is required for both procurement of the longest lead non-reactor plant propulsion and electric plant contractor furnished equipment necessary to support an efficient CVN 79 construction schedule.

Basic funding also includes advance construction for the construction of small assemblies and modules. These units are low in the ship and are among the first needed. Advance construction efforts for CVN 79 begin in FY11 and are critical to supporting the planned construction timeline.

Hull, Mechanical, & Electrical (HM&E) funding is required for government furnished engineering services support.

Note: Advance Procurement is compliant with sections 010107.2 and 010202.B.3 of the DoD FMR which limits advance procurement funding to "components whose long lead times require purchase early in order to reduce the overall procurement lead-time of the major end item"

CLASSIFICATION:	UNCLASSIFIED					
Exhibit P-10, Advance Procurement Requirements Analysis (Budget Justification)						Date: **February 2010**
Appropriation (Treasury)Code/CC/BA/BSA/Item Control Number **SHIPBUILDING AND CONVERSION, NAVY / 2 / Other Warships / BLI 2001**				Weapon System		P-1 Line Item Nomenclature **CARRIER REPLACEMENT PROGRAM**

(TOA $ in Millions)				FY11		
	PLT	QPA	Unit Cost	Qty	Contract Forecast Date	Total Cost Request
Plans (Detailed)	Up to 36				OCT-10	59.0
Nuc Prop Equip	36-96				OCT-10	533.0
Basic	36-66				OCT-10	311.3
HM&E	Up to 36				OCT-10	5.0

Description:

Plans (Detailed) Funding is required to support the CVN 79 integrated design and construction schedule. Funding is required to efficiently and effectively complete design integration efforts, detailed design, and construction planning by taking advantage of integrated product and process development to insert transformational technologies while reducing both construction costs and potential costly construction rework.

Nuc Prop Equip Nuclear Propulsion Equipment (GFE) funding is required to fund a shipset of reactor plant components. The complexity, size and early shipyard need dates for reactor plant equipment make them among the longest lead items for CVN 79.

HM&E Funding is required for government furnished engineering services support.

Basic Funding is required for both procurement of the longest lead non-reactor plant propulsion and electric plant contractor furnished equipment necessary to support an efficient CVN 79 construction schedule. Basic funding also includes advance construction for the construction of small assemblies and modules. These units are low in the ship and are among the first needed. Advance construction efforts for CVN 79 begin in FY11 and are critical to supporting the planned construction timeline.

CLASSIFICATION: UNCLASSIFIED

BUDGET ITEM JUSTIFICATION SHEET (P-40) — FY2011 Presidents Budget Submission — DATE: February 2010

APPROPRIATION/BUDGET ACTIVITY: Ship and Conversion, Navy/BA#2 OTHER WARSHIPS

P-1 ITEM NOMENCLATURE: Virginia Class Submarine

BLI: 2013

	PRIOR YEARS	FY2009	FY2010	FY2011	FY2012	FY2013	FY2014	FY2015	TO COMPLETE	TOTAL PROGRAM
QUANTITY	10	1	1	2	2	2	2	2	8	30
End Cost	25336.6	2856.7	2750.5	5344.4	5186.5	5236.3	5464.2	5565.9	25198.2	82939.4
Less Advance Procurement	7004.9	756.0	710.5	1509.3	1418.8	1458.8	1457.2	1368.1	6794.3	22477.8
Less Transfer / Cost to Complete	1617.7									1617.7
Less EOQ	586.1		81.9	393.7	491.7	487.0		176.4	1524.1	3740.9
Full Funding	16128.0	2100.7	1958.1	3441.5	3275.9	3290.6	4006.9	4021.5	16879.8	55103.0
Plus Advance Procurement	8749.5	798.8	1346.4	1436.8	1454.5	1487.5	1404.1	1595.9	4204.4	22477.8
Plus Transfer / Cost to Complete	1491.1	81.0	45.6							1617.7
Plus EOQ	586.1	592.6	607.3	254.4			716.4	684.1	300.0	3740.9
Total Obligational Authority	26954.6	3573.1	3957.4	5132.7	4730.4	4778.0	6127.5	6301.4	21384.2	82939.4
Plus Cost to Complete Planned										.0
Plus Outfitting and Post Delivery	243.1	101.8	75.6	63.1	67.3	72.2	80.0	90.5	801.0	1594.5
Total	27197.7	3674.9	4033.0	5195.8	4797.7	4850.3	6207.5	6391.9	22185.2	84533.9
Unit Cost (Ave. End Cost)	2533.7	2856.7	2750.5	2672.2	2593.2	2618.2	2732.1	2782.9	3149.8	2764.6

MISSION: To seek out and destroy enemy ships across a wide spectrum of tactical scenarios, working both independently and in consort with a battle group/other ships, providing Joint Commanders with early, accurate knowledge of the battlefield on which power may be projected from sea; covert striking power against targets ashore; the capability to establish covertly an expeditionary force on land; and the maritime strength to destroy enemy naval forces and interdict seaborne commerce.

NOTE: These VA Class Exhibits reflect a FY04-08 Multi-Year Procurement (MYP) strategy with Economic Order Quantity (EOQ) in FY04-FY06, a FY09 - FY13 MYP strategy with EOQ in FY09-FY11 and a FY14-FY18 MYP strategy with EOQ in FY14-FY16.

Characteristics:		**Armament:**	**Major Electronics:**
Hull		Torpedo Tubes	Command, Control, Communications and Intelligence System
Length overall	377'	Vertical Launch Tubes	- Open System Architecture
Beam	34'		- Twenty-three Subsystems
Displacement	7830 Tons		
Draft	32'		

Production Status:	**FY09**	**FY10**	**FY11**	**FY11**
Multi Year Procurement Contract	SSN 784	SSN 785	SSN 786	SSN 787
Contract Award Date	12/08	12/08	12/08	12/08
Months to Completion				
a)Option Award Date to Delivery	68 months	67 months	67 months	67 months
b) Construction Start to Delivery	65 months	64 months	64 months	64 months
Option Award Date	12/08	12/09	12/10	12/10
Start of Construction Date	03/09	03/10	03/11	09/11
Delivery Date	08/14	08/15	08/16	02/17
Completion of Fitting Out	08/14	08/15	08/16	02/17
Obligation Work Limiting Date	07/15	07/16	07/17	01/18

APPROPRIATION: SHIPBUILDING AND CONVERSION, NAVY

WEAPON SYSTEM COST ANALYSIS (EXHIBIT P-5)

BUDGET ACTIVITY: 2 P-1 ITEM NOMENCLATURE: Virginia Class Submarine
OTHER WARSHIPS

	FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011	
ELEMENTS OF COST	QTY	TOTAL COST	QTY	TOTAL COST	QTY	TOTAL COST	QTY	TOTAL COST	QTY	TOTAL COST	QTY	TOTAL COST	QTY	TOTAL COST	QTY	TOTAL COST
PLAN COSTS	1	55,084	1	63,710	1	65,112	1	68,296	1	72,903	1	114,805	1	98,882	2	184,659
BASIC CONST/CONVERSION		1,447,569		1,455,472		1,529,768		1,692,622		1,656,089		1,775,064		1,699,521		3,403,109
CHANGE ORDERS		37,057		44,680		45,893		51,000		50,240		49,102		50,675		101,444
TECHNOLOGY INSERTION								47,206		89,700		111,267		81,323		80,000
ELECTRONICS		211,483		211,320		219,091		226,582		238,695		263,351		262,829		536,442
PROPULSION EQUIPMENT		430,600		431,337		435,000		445,000		456,000		462,931		474,000		887,000
HM&E		52,598		24,849		55,561		44,699		46,752		48,901		51,557		103,622
OTHER COST		20,232		24,907		27,994		29,033		30,713		31,300		31,715		48,170
ORDNANCE																
ESCALATION																
TOTAL SHIP ESTIMATE		2,254,623		2,256,275		2,378,419		2,604,438		2,641,092		2,856,721		2,750,502		5,344,446
LESS ADVANCE PROCUREMENT FY02		431,109														
LESS ADVANCE PROCUREMENT FY03		200,751		431,337												
LESS ADVANCE PROCUREMENT FY04				169,184		435,000										
LESS ADVANCE PROCUREMENT FY05						186,864		445,000								
LESS ADVANCE PROCUREMENT FY06								200,874		456,520						
LESS ADVANCE PROCUREMENT FY07										210,795		462,931				
LESS ADVANCE PROCUREMENT FY08												293,043		474,749		513,884
LESS ADVANCE PROCUREMENT FY09														235,776		563,000
LESS ADVANCE PROCUREMENT FY10																432,400
LESS ADVANCE PROCUREMENT FY11																
LESS EOQ FY04				63,551		63,551		63,294		63,294						
LESS EOQ FY05						78,234		77,876		79,676						
LESS EOQ FY06								49,418		47,192						
LESS EOQ FY09														81,857		186,488
LESS EOQ FY10																207,222
LESS EOQ FY11																
LESS COST TO COMPLETE FY08		24,000														
LESS COST TO COMPLETE FY09		60,000														
LESS PLANNED COST TO COMPLETE FY10		26,906		18,702												
NET P-1 LINE ITEM		1,511,857		1,573,501		1,614,770		1,767,976		1,783,615		2,100,747		1,958,120		3,441,452

SHIPBUILDING AND CONVERSION, NAVY
Analysis of Ship Cost Estimate - Basic/Escalation

Fiscal Year: 2010/2011 Ship Type: VIRGINIA CLASS

I.	Design Schedule:	Start/Issue		Complete/Response	Reissue Complete/Response
	Issue Date for TLR	N/A		N/A	
	Issue Date for TLS	N/A		N/A	
	Preliminary Design	Oct-93		Sep-95	
	Contract Design	Oct-94		Sep-96	
	Detail Design	Jan-96		Jun-04	
	Request for Proposals	N/A		N/A	
	Design Agent	Electric Boat			
II.	Classification of Cost Estimate		C		
III.	Basic Construction/Conversion		FY2010	FY2011	
	A. Award Date		Dec-08	Dec-08	
	B. Contract Type and Share Line		FPI	FPI	Multi Year Procurement with EOQ.
	C. Request for Proposals:				
	Start/Issue:		Feb-08	Feb-08	
	Complete/Response:		May-08	May-08	
IV.	Escalation				
	Base Date		N/A	N/A	
	Escalation Target Date		N/A	N/A	
	Escalation Termination Date		N/A	N/A	
	Escalation Requirement ($K)		N/A	N/A	
	Labor/Material Split		N/A	N/A	
	Allowable Overhead Rate		N/A	N/A	
V.	Other Basic (Reserves/Miscellaneous)		Amount	Amount	
	Item		N/A	N/A	

SHIPBUILDING AND CONVERSION, NAVY
SHIP PRODUCTION SCHEDULE

EXHIBIT P-27
February 2010
FY2011 Presidents Budget Submission
BLI: 2013

SHIP TYPE	SHIPBUILDER	FISCAL YEAR AUTHORIZED	CONTRACT AWARD	START OF CONSTRUCTION	DELIVERY DATE	
SSN779	EB/NNS	04	Jan-04	Mar-04	Dec-09	
SSN780	EB/NNS	05	Jan-04	Feb-05	Apr-11	*
SSN781	EB/NNS	06	Jan-04	Feb-06	Apr-12	*
SSN782	EB/NNS	07	Jan-04	Feb-07	Apr-13	*
SSN783	EB/NNS	08	Jan-04	Feb-08	Apr-14	*
SSN784	EB/NNS	09	Dec-08	Mar-09	Aug-14	
SSN785	EB/NNS	10	Dec-08	Mar-10	Aug-15	
SSN786	EB/NNS	11	Dec-08	Mar-11	Aug-16	
SSN787	EB/NNS	11	Dec-08	Sep-11	Feb-17	
SSN788	EB/NNS	12	Dec-08	Mar-12	Aug-17	
SSN789	EB/NNS	12	Dec-08	Sep-12	Feb-18	
SSN790	EB/NNS	13	Dec-08	Mar-13	Aug-18	
SSN791	EB/NNS	13	Dec-08	Sep-13	Feb-19	
SSN792	TBD	14	TBD	TBD	TBD	
SSN793	TBD	14	TBD	TBD	TBD	
SSN794	TBD	15	TBD	TBD	TBD	
SSN795	TBD	15	TBD	TBD	TBD	

*Note: The Delivery Dates shown above for the SSN780 - 791 reflect the Construction Contract Delivery Dates. The shipbuilder has formally transmitted and the Program Manager has concurred in the following revised dates:

SSN 780	Apr-10
SSN 781	Jun-11
SSN 782	Feb-12
SSN 783	Apr-13

Note: The start of construction dates reflect when Electric Boat starts construction of Section 7 Hull Cylinder (KE70021).

CLASSIFICATION: UNCLASSIFIED

SHIPBUILDING AND CONVERSION, NAVY
Analysis of Ship Cost Estimates - Major Equipment
(Dollars in Thousands)

Ship Type:
VIRGINIA CLASS

	FY09		FY10		FY11	
	QTY	TOTAL COST	QTY	TOTAL COST	QTY	TOTAL COST
	1		1		2	
ELECTRONICS EQUIPMENT						
a. P-35 Items						
1. Sonar, Combat Control & Architecture		$100,696		$96,842		$200,325
2. ESM		$28,045		$28,206		$57,952
3. Photonics Masts		$18,538		$18,678		$38,978
4. UMMs		$10,553		$10,664		$21,947
5. ECS Recurring		$22,825		$23,519		$48,998
Subtotal		$180,657		$177,909		$368,200
b. Major Items						
1. SRWS		Note 1		Note 1		Note 1
2. System Level Activities		$31,669		$31,898		$68,061
3. AN/BPS-16		$5,524		$5,584		$11,494
4. Navigation		$3,258		$3,262		$6,714
5. AN/UYQ-70		Note 2		Note 2		Note 2
6. ECS Non-Recurring		$7,897		$7,955		$8,051
7. CWITT		$18,635		$20,342		$40,904
8. NPES SE&I		$15,087		$15,197		$31,626
Subtotal		$82,070		$84,238		$166,850
c. Other Electronics						
1. Misc Electronics		$624		$682		$1,392
Subtotal		$624		$682		$1,392
TOTAL ELECTRONICS		$263,351		$262,829		$536,442

Notes:

(1) In FY09 and beyond, SRWS will be integrated into the Sonar subsystem and is included in Sonar, Combat Control & Architecture.

(2) In FY09 and beyond, AN/UYQ-70 displays will be procured by VIRGINIA Class PARMs instead of the SHAPM and are included in Sonar, Comba Control & Architecture, ESM, Photonics Masts and ECS Recurring.

SHIPBUILDING AND CONVERSION, NAVY
MAJOR SHIP COMPONENT FACT SHEET

P-35
ITEM: SONAR, COMBAT, CONTROL & ARCHITECTURE

EXHIBIT P-35
FY2011 Presidents Budget Submission
February 2010

BLI: 2013

I. DESCRIPTION/CHARACTERISTICS/PURPOSE

The VIRGINIA Class Command, Control, Communications and Intelligence (C3I) System is the electronics suite which will provide required operational and warfighting capability for the Navy's newest attack submarine. The C3I System includes 15 subsystems (23 if all electronically interfaced subsystems are included) integrated by an overarching Architecture Subsystem. This P-35 covers the procurement requirements for the following: C3I Prime Contractor Furnished Equipment (Sonar, Combat Control and Architecture subsystems) and associated Government Furnished Equipment; technical data documentation; spares; technical engineering services; design engineering services; field engineering services; management support services; and shipboard certification efforts.

Quantity of 1 per hull

II. CURRENT FUNDING:

SHIP:	FY09	FY10	FY11
MAJOR HARDWARE	$80,988	$78,002	$164,139
TECH ENGINEERING SERVICES	$2,652	$2,701	$2,863
OTHER COSTS	$17,056	$16,139	$33,323
TOTAL	$100,696	$96,842	$200,325

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	CONTRACTOR	QTY	HARDWARE UNIT COST	CONTRACT AWARD DATE	CONTRACT TYPE	NEW / OPTION
09	SSN784	LMNESS	1 Shipset	$42,646	Aug-09	SS/CPIF	New
10	SSN785	LMNESS	1 Shipset	$43,294	Oct-09	SS/CPIF	Option
11	SSN786 / 787	LMNESS	2 Shipsets	$43,946	Oct-10	SS/CPIF	Option

IV. DELIVERY DATA:

FY	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEAD TIME	REQUIRED AWARD DATE
09	SSN784	Aug-14	28	32	Aug-09
10	SSN785	Aug-15	28	32	Aug-10
11	SSN786 / 787	Aug-16 / Feb-17	28	32	Aug-11 / Feb-12

V. COMPETITION/SECOND SOURCE INITIATIVES:
N/A

SHIPBUILDING AND CONVERSION, NAVY
MAJOR SHIP COMPONENT FACT SHEET

P-35 EXHIBIT P-35
ITEM: ELECTRONIC SUPPORT MEASURES SUBSYSTEM FY2011 Presidents Budget Submission
February 2010
I. DESCRIPTION/CHARACTERISTICS/PURPOSE BLI: 2013

The VIRGINIA Class Command, Control, Communications and Intelligence (C3I) System is the electronics suite which will provide required operational and warfighting capability for the Navy's newest attack submarine. The C3I System includes 15 subsystems (23 if all electronically interfaced subsystems are included) integrated by an overarching Architecture Subsystem. This P-35 covers the procurement requirements for the following: Electronic Support Measures subsystem Prime Contractor Furnished Equipment, and associated Government Furnished Equipment; technical data documentation; spares; systems engineering; technical engineering services; computer program support; system test & evaluation; field engineering services; management support services; shipboard certification efforts; quality assurance and reliability/maintainability assurance; maintenance of technical data; and contractor support services efforts. This system provides the capability to process a variety of electromagnetic signal types over a wide frequency range in support of all applicable submarine mission areas.

Quantity of 1 per hull

II. CURRENT FUNDING:

SHIP:	FY09	FY10	FY11
MAJOR HARDWARE	$21,266	$21,388	$43,944
TECH ENGINEERING SERVICES	$1,192	$1,199	$2,463
OTHER COSTS	$5,587	$5,619	$11,545
TOTAL	$28,045	$28,206	$57,952

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	CONTRACTOR	QTY	HARDWARE UNIT COST	CONTRACT AWARD DATE	CONTRACT TYPE	NEW / OPTION
09	SSN784	LM, Syracuse	1 Shipset	$21,266	Feb-10	SS / FFP	New
10	SSN785	LM, Syracuse	1 Shipset	$21,388	Feb-10	SS / FFP	Option
11	SSN786 / 787	LM, Syracuse	2 Shipsets	$21,972	Nov-11	SS / FFP	Option

IV. DELIVERY DATA:

FY	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEAD TIME	REQUIRED AWARD DATE
09	SSN784	Aug-14	28	24	Apr-10
10	SSN785	Aug-15	28	24	Apr-11
11	SSN786 / 787	Aug-16 / Feb-17	28	24	Apr-12 / Oct-12

V. COMPETITION/SECOND SOURCE INITIATIVES:

N/A

SHIPBUILDING AND CONVERSION, NAVY
MAJOR SHIP COMPONENT FACT SHEET

P-35 EXHIBIT P-35
ITEM: PHOTONICS MAST FY2011 Presidents Budget Submission
February 2010

I. DESCRIPTION/CHARACTERISTICS/PURPOSE BLI: 2013

The VIRGINIA Class Command, Control, Communications and Intelligence (C3I) System is the electronics suite which will provide required operational and warfighting capability for the Navy's newest attack submarine. The C3I System includes 15 subsystems (23 if all electronically interfaced subsystems are included) integrated by an overarching Architecture Subsystem. This P-35 covers the procurement requirements for the following: Photonics subsystem Prime Contractor Furnished Equipment; spares; systems engineering; technical engineering services; computer program support; field engineering services; management support services; shipboard certification; maintenance of technical data; and contractor support services efforts. This system consists of two outboard mast/antenna/camera assemblies and the associated inboard processing and display equipment. This system supports visual and infrared (IR) imaging, RF signal communications, early warning and contact direction finding capability.

Quantity of 1 per hull

II. CURRENT FUNDING:

SHIP:	FY09	FY10	FY11
MAJOR HARDWARE	$12,813	$12,910	$26,941
TECH ENGINEERING SERVICES	$577	$581	$1,212
OTHER COSTS	$5,148	$5,187	$10,825
TOTAL	$18,538	$18,678	$38,978

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	CONTRACTOR	QTY	HARDWARE UNIT COST	CONTRACT AWARD DATE	CONTRACT TYPE	NEW / OPTION
09	SSN784	Kollmorgen	1 Shipset	$12,813	Jul-09	SS / FFP	New
10	SSN785	Kollmorgen	1 Shipset	$12,910	Dec-10	SS / FFP	Option
11	SSN786 / 787	Kollmorgen	2 Shipsets	$13,471	Dec-11	SS / FFP	Option

IV. DELIVERY DATA:

FY	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEAD TIME	REQUIRED AWARD DATE
09	SSN784	Aug-14	28	24	Apr-10
10	SSN785	Aug-15	28	24	Apr-11
11	SSN786 / 787	Aug-16 / Feb-17	28	24	Apr-12 / Oct-12

V. COMPETITION/SECOND SOURCE INITIATIVES:

N/A

SHIPBUILDING AND CONVERSION, NAVY
MAJOR SHIP COMPONENT FACT SHEET

P-35 EXHIBIT P-35
ITEM: UNIVERSAL MODULAR MAST FY2011 Presidents Budget Submission

February 2010
BLI: 2013

I. DESCRIPTION/CHARACTERISTICS/PURPOSE

The VIRGINIA Class Command, Control, Communications and Intelligence (C3I) System is the electronics suite which will provide required operational and warfighting capability for the Navy's newest attack submarine. The C3I System includes 15 subsystems (23 if all electronically interfaced subsystems are included) integrated by an overarching Architecture Subsystem. This P-35 covers the procurement requirements for the following: Modular Mast Prime Contractor Furnished Equipment; technical data documentation; spares; systems engineering; technical engineering services; management support services; shipboard certification; and maintenance of technical data efforts. This system consists of eight common masts for purposes of housing, raising and lowering antenna and other sensor units.

Quantity of 1 per hull

II. CURRENT FUNDING:

SHIP:	FY09	FY10	FY11
MAJOR HARDWARE	$7,048	$7,352	$16,354
TECH ENGINEERING SERVICES	$1,825	$1,866	$2,715
OTHER COSTS	$1,680	$1,446	$2,878
TOTAL	$10,553	$10,664	$21,947

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	CONTRACTOR	QTY	HARDWARE UNIT COST	CONTRACT AWARD DATE	CONTRACT TYPE	NEW / OPTION
09	SSN784	Kollmorgen	1 Shipset	$7,048	Oct-08	SS / FP	Option
10	SSN785	Kollmorgen	1 Shipset	$7,352	Oct-09	SS / FP	Option
11	SSN786 / 787	Kollmorgen	2 Shipsets	$8,177	Oct-10	SS / FP	Option / New

IV. DELIVERY DATA:

FY	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEAD TIME	REQUIRED AWARD DATE
09	SSN784	Aug-14	42	27	Nov-08
10	SSN785	Aug-15	42	27	Nov-09
11	SSN786 / 787	Aug-16 / Feb-17	42	27	Nov-10 / May-11

V. COMPETITION/SECOND SOURCE INITIATIVES:

N/A

SHIPBUILDING AND CONVERSION, NAVY
MAJOR SHIP COMPONENT FACT SHEET

P-35 EXHIBIT P-35
ITEM: EXTERIOR COMMUNICATION SYSTEM RECURRING FY2011 Presidents Budget Submission
February 2010
I. DESCRIPTION/CHARACTERISTICS/PURPOSE BLI: 2013

The VIRGINIA Class Command, Control, Communications and Intelligence (C3I) System is the electronics suite which will provide required operational and warfighting capability for the Navy's newest attack submarine. The C3I System includes 15 subsystems (23 all electronically interfaced subsystems are included) integrated by an overarching Architecture Subsystem. Exterior Communications Systems (ECS) is an integration effort with multiple Government-Off-The-Shelf (GOTS) components providing the core ECS capability. The GOTS components of ECS will be provided using existing contracts. For the ECS integration effort, Stanley Associates (North Charleston, SC) is prime for fabrication and production. This P-35 covers the procurement requirements for the followin ECS GOTS equipment; fabrication/production; systems engineering; system test & evaluation; training; data; technical engineering services; spares and repair parts; and program management. This system provides the capability for seamless, transparent, secure connectivity for information exchange between submarine users and the Global Command and Communications System (GCCS).

Quantity of 1 per hull

II. CURRENT FUNDING:

SHIP:	FY09	FY10	FY11
MAJOR HARDWARE	$15,257	$15,696	$32,204
TECH ENGINEERING SERVICES	$2,575	$2,653	$5,461
OTHER COSTS	$4,993	$5,170	$11,333
TOTAL	$22,825	$23,519	$48,998

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	CONTRACTOR	QTY	HARDWARE UNIT COST	CONTRACT AWARD DATE	CONTRACT TYPE	NEW / OPTION
09	SSN784	Stanley Associates, North Charleston	1 Shipset	$15,257	Apr-09	Competitive/IDIQ	Option
10	SSN785	Stanley Associates, North Charleston	1 Shipset	$15,696	Apr-10	Competitive/IDIQ	Option
11	SSN786 / 787	Stanley Associates, North Charleston	2 Shipsets	$16,102	Apr-11	Competitive/IDIQ	Option

IV. DELIVERY DATA:

FY	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEAD TIME	REQUIRED AWARD DATE
09	SSN784	Aug-14	28	9	Jul-11
10	SSN785	Aug-15	28	9	Jul-12
11	SSN786 / 787	Aug-16 / Feb-17	28	9	Jul-13 / Jan-14

V. COMPETITION/SECOND SOURCE INITIATIVES:

N/A

CLASSIFICATION: UNCLASSIFIED

SHIPBUILDING AND CONVERSION, NAVY
Analysis of Ship Cost Estimates - Major Equipment
(Dollars in Thousands)

Ship Type: VIRGINIA CLASS	FY09		FY10		FY11	
HM&E EQUIPMENT	QTY 1	TOTAL COST	QTY 1	TOTAL COST	QTY 2	TOTAL COST
a. P-35 Items						
1. Propulsor		$31,657		$33,582		$71,210
b. Major Items						
1. CSA MK2		$1,360		$1,420		$2,960
c. Other						
1. HM&E Installation and testing		$8,444		$8,825		$18,398
2. T&E		$6,440		$6,730		$8,970
3. SUPSHIP responsible material		$1,000		$1,000		$2,084
Subtotal		$15,884		$16,555		$29,452
TOTAL HM&E		$48,901		$51,557		$103,622

SHIPBUILDING AND CONVERSION, NAVY
MAJOR SHIP COMPONENT FACT SHEET

P-35
ITEM: PROPULSOR

EXHIBIT P-35
FY2011 Presidents Budget Submission
February 2010
BLI: 2013

I. DESCRIPTION/CHARACTERISTICS/PURPOSE

The propulsor consists of Ni-Al-bronze blades and a large steel and income fabrication piece. The purpose of the propulsor is to generate proper thrust to propel the ship at a rated speed within the approved limits of torque and shaft RPM, while at the same time meeting acoustic and structural requirements. This design is unique to the VIRGINIA Class. The propulsor consists of a large quantity of government supplied material and a contract for the fixed portion construction and assembly.

II. CURRENT FUNDING:

Quantity of 1 per hull

SHIP:	FY09	FY10	FY11
MAJOR HARDWARE	26,527	28,237	61,206
TECH ENGINEERING SERVICES	5,130	5,345	10,004
OTHER COSTS			
TOTAL	31,657	33,582	71,210

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	CONTRACTOR	QTY	HARDWARE UNIT COST	CONTRACT AWARD DATE	CONTRACT TYPE	NEW / OPTION
09	SSN784	BAE Systems	1 Shipset	15,200	May-08	FP	New
10	SSN785	BAE Systems	1 Shipset	15,840	Jun-09	FP	New
11	SSN786 / 787	BAE Systems	2 Shipset	16,550	Jan-10	FP	Option

IV. DELIVERY DATA:

FY	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEAD TIME	REQUIRED AWARD DATE
09	SSN784	Aug-14	36	36	Aug-08
10	SSN785	Aug-15	36	36	Aug-09
11	SSN786 / 787	Aug-16 / Feb-17	36	36	Aug-10 / Dec-10

V. COMPETITION/SECOND SOURCE INITIATIVES:

N/A

Exhibit P-10, Advance Procurement Requirements Analysis (Page 1 - Funding)												FY2011 Presidents Budget Submission February 2010
Appropriation (Treasury)Code/CC/BA/BSA/Item Control Number 1711 Shipbuilding and Conversion, Navy / BA 02 / BLI 2013 FY2011 Presidents Budget Submission								P-1 Line Item Nomenclature VIRGINIA CLASS SUBMARINE				
Weapon System VIRGINIA Class Submarines				First System (BY1) Award Date Various				First System (BY1) Completion Date Various				
($ in Millions)												
BLI: 201300	PLT	When Req'd	Prior Years	FY09	FY10	FY11	FY12	FY13	FY14	FY15	To Complete	Total
NUCLEAR PROPULSION PLANT EQUIPMENT (1)	30-72	Various	5,699.2	484.0	878.0	896.0	927.0	958.0	994.0	1,028.0	2,167.0	14,031.2
ELECTRONICS EQUIPMENT (2)	37-43	Various	138.8	11.9	24.3	24.4	24.9	26.0	26.6	27.2	85.3	389.4
NON-NUCLEAR PROPULSION PLANT EQUIPMENT			641.5	15.5	30.9	32.0	34.1	38.0	40.8	41.3	134.5	1,008.5
*Heat Exchanger	18	Various	17.7									17.7
Propulsor (3)	36	Various	160.4	15.5	30.9	32.0	34.1	38.0	40.8	41.3	134.5	527.4
*Main Condensers	66	Various	33.0									33.0
*Switchboards Elec	18	Various	20.8									20.8
Main Propulsion Complex (4)	46	Various	355.7									355.7
Pumps & Valves	18	Various	53.9									53.9
LONG LEAD-TIME CFE (5)	24 - 42	Various	1,637.8	208.4	413.2	484.5	468.4	465.5	342.7	499.4	1,817.6	6,337.5
DETAIL DESIGN/DESIGN TRANSFER/SHIPBUILDER INTEGRATION			480.6								.0	480.6
ADVANCE CONSTRUCTION (6)			148.3	79.0							.0	227.3
OTHER (7)			3.2								.0	3.2
EOQ (8)			586.1	592.6	607.3	254.4			716.4	684.1	300.0	3,740.9
Total AP			9,335.6	1,391.4	1,953.7	1,691.2	1,454.5	1,487.5	2,120.5	2,279.9	4,504.4	26,218.7

*Funded as CFE verses GFE beginning with the FY01 ship.

Note: The VA Class Advance Procurement and EOQ funding is compliant with sections 010107.2 and 010202.B.3 of the DOD FMR which limits advance procurement funding to, "components whose long-lead-times require purchase early in order to reduce the overall procurement lead-time of the major end item".

Description:

(1) Nuclear Propulsion Plant Equipment AP is required to fund long-lead time propulsion plant equipment, which is the longest lead-time equipment required for construction of nuclear attack submarines, and ensure production capability that supports projected production quantities. To support the VIRGINIA Class' innovative and more efficient modular construction method, reactor plant components must be delivered earlier in the construction process than previous submarine classes. Under the new method, the VIRGINIA Class reactor plant will be assembled and tested before being mounted in the hull.

(2) Electronics Equipment AP is required to fund the long lead time material for the Command and Control System Module (CCSM). In order to keep the CCSM out of the critical path to ship delivery and minimize the most risk to ship construction, selected electronics and associated pre cable kits will be installed in this module to support construction of the CCSM.

(3) Propulsor AP is required to satisfy in-yard need dates for ship delivery.

(4) Main Propulsion Complex AP was funded with AP as a GFE procurement to satisfy in-yard need dates for the FY02 and prior SSNs. Beginning with the FY03 / SSN778 the Main Propulsion Complex (MPC) have been negotiated as CFE in the Construction Contract.

(5) Long Lead-Time CFE AP is required to fund long lead time contractor furnished material including the Weapons Handling Module and the Reactor Plant Module in addition to the MPC beginning with the FY03/SSN778. These components are required early in the construction phase to meet the delivery schedule.

(6) Advance Construction $79M FY09 Congressional Plus up for the FY11 SSNs for more efficient transition from low rate production to increased production (2 ships/year). Funding provided for long lead time material, economic order quantity quantity material purchases and advance construction activity at the shipyards or their manufacturing facilities to support an efficient and affordable construction schedule.

(7) Other is for VIRGINIA Class curriculum development.

(8) EOQ is for Economic Order Quantity for large lot procurements of shipbuilder material and major Government Furnished Equipment to achieve savings under the MYP contract.

Exhibit P-10, Advance Procurement Requirements Analysis (Page 2 - Budget Justification)								FY2011 Presidents Budget Submission February 2010
Appropriation (Treasury)Code/CC/BA/SBA/Item Control Number 1711 Shipbuilding and Conversion, Navy / BA 02 / BLI 2013					Weapon System VIRGINIA Class Submarines			P-1 Line Item Nomenclature VIRGINIA CLASS
(TOA, $ in Millions)			FY10			FY11		
	PLT	QPA	Qty	Contract Forecast Date	Total Cost Request	Qty	Contract Forecast Date	Total Cost Request
BLI: 201300 End Item								
NUCLEAR PROPULSION PLANT EQUIPMENT (1)	30-72	2 Shipset	2 Shipsets	1st Qtr	878.0	2 Shipset	1st Qtr	896.0
ELECTRONICS EQUIPMENT (2)	37-43	2 Shipset	2 Shipset	various	24.3	2 Shipset	various	24.4
PROPULSOR (3)	36	2 Shipset	2 Shipset	various	30.9	2 Shipset	various	32.0
LONG LEAD-TIME CFE (4)	24 - 42	2 Shipset	2 Shipset	various	413.2	2 Shipset	various	484.5
EOQ (5)		various	various	various	607.3	various	various	254.4
Total AP					1,953.7			1,691.2

Description:

(1) **Nuclear Propulsion Plant Equipment AP** is required to fund long-lead time propulsion plant equipment, which is the longest lead-time equipment required for construction of nuclear attack submarines.

(2) **Electronics Equipment AP** is required to fund long lead time material for the Command and Control System Module (CCSM). In order to keep the CCSM out of the critical path to ship delivery and minimize the most risk to ship construction, selected electronics and associated pre cable kits will be installed in this module to support construction of the CCSM.

(3) **Propulsor AP** is required to satisfy in-yard need dates for ship delivery.

(4) **Long Lead-Time CFE AP** is required to fund long lead time contractor furnished material including the Weapons Handling Module and the Reactor Plant Module in addition to the MPC beginning with the FY03/SSN778. These components are required early in the construction phase to meet the delivery schedule.

(5) **Economic Order Quantity** is for Economic Order Quantity for large lot procurements of shipbuilder material and major Government Furnished Equipment to achieve savings under the MYP contract. This funding schedule reflects the planned MYP contract requirement for the FY10-13 hulls, thereby rendering Multi-year savings.

BUDGET ITEM JUSTIFICATION SHEET (P-40)
FY 2011 President's Budget

DATE: February 2010

APPROPRIATION/BUDGET ACTIVITY
SHIPBUILDING AND CONVERSION, NAVY/BA 2 Other Warships

P-1 LINE ITEM NOMENCLATURE
CVN REFUELING OVERHAULS
BLI: 2086

(Dollars in Millions)	PRIOR YR	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	TO COMP	TOTAL PROG
QUANTITY	3	1	0	0	0	1	0	0	2	7
End Cost	9,626.1	3,838.0	0.0	0.0	0.0	4,480.4	0.0	0.0	9,173.8	27,118.3
Less Advance Procurement	2,886.3	431.7	0.0	0.0	0.0	1,183.5	0.0	0.0	1,377.7	5,879.2
Less Transfer	128.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	128.1
Less Subsequent Year FF	2,203.2	2,814.6	0.0	0.0	0.0	1,664.8	0.0	0.0	0.0	6,682.6
Full Funding TOA	4,536.6	591.8	0.0	0.0	0.0	1,632.2	0.0	0.0	7,796.1	14,556.7
Plus Subsequent Year FF	950.5	0.0	1,558.8	1,255.8	0.0	0.0	1,664.8	0.0	7,796.1	13,226.0
Plus Advance Procurement	2,456.6	21.3	211.2	408.0	557.2	245.2	395.8	584.7	1,377.7	6,257.7
Total Obligational Authority	7,943.6	613.1	1,769.9	1,663.8	557.2	1,877.4	2,060.6	584.7	16,969.9	34,040.2
Plus Outfitting / Plus Post Delivery	225.3	47.7	15.3	32.7	17.0	46.7	42.9	31.9	74.1	533.6
Total	8,168.9	662.5	1,785.8	1,706.7	577.4	1,934.6	2,086.9	620.1	17,038.1	34,581.0
Unit Cost (Ave. End Cost)	3,208.7	3,838.0	0.0	0.0	0.0	4,480.4	0.0	0.0	4,586.9	3,874.0

MISSION:

To support and operate aircraft to engage in attacks on targets afloat and ashore which threaten our use of the sea and to engage in sustained operations in support of other forces. The refueling of the reactors and repair and upgrading the main propulsion equipment will provide for reliable operations during its remaining 23 plus years of ship life using only the normal maintenance cycle.

Characteristics:		Armament	Major Electronics:
Hull	CVN68 Class		
Overall Length	1092'	FY09 CVN 71:	
Max Beam	134'	NSSMS MK 57 Mods ESSM	Ship Self Defense System MK2
Displacement	91,878 TONS	AN/SPS-48G(V)1 ROAR	Cooperative Engagement Capability
Draft	38.7'	AN/SPS-49A(V)1 Radar	Naval Warfare Strike Planning Center
		AN/SPQ-9B Radar	C4ISR
Production Status	FY09		
Contract Plans	11/06		
Award Planned (Month)	08/09		
Months to Complete			
a) Award to Delivery	41		
b) Construction Start to Delivery	41		
Delivery Date	02/13		
Completion of Fitting Out	04/13		

WEAPON SYSTEM COST ANALYSIS (EXHIBIT P-5)
(Dollars in Thousands)

BUDGET ACTIVITY: 2	**P-1 LINE ITEM NOMENCLATURE**	**BLI: 2086**
Other Warships	**CVN REFUELING OVERHAULS**	

	FY 2009	
ELEMENT OF COST	**QTY**	**COST**
PLAN COSTS	1	36,294
BASIC CONST/CONVERSION		3,236,986
ELECTRONICS		222,618
PROPULSION EQUIPMENT		113,986
HM&E		55,346
OTHER COST		74,976
ORDNANCE		97,785
TOTAL SHIP ESTIMATE		3,837,991
LESS ADVANCE PROCUREMENT FY06		19,744
LESS ADVANCE PROCUREMENT FY07		116,645
LESS ADVANCE PROCUREMENT FY08		295,263
LESS SUBSEQUENT FULL FUNDING FY10		1,558,779
LESS SUBSEQUENT FULL FUNDING FY11		1,255,799
NET P-1 LINE ITEM:		591,761

SHIPBUILDING AND CONVERSION, NAVY
SHIP PRODUCTION SCHEDULE

EXHIBIT P-27
FY 2011 President's Budget
DATE:
February 2010

SHIP TYPE	HULL NUMBER	SHIPBUILDER	FISCAL YEAR AUTHORIZED	CONTRACT AWARD	START OF CONSTRUCTION	DELIVERY DATE
CVN 71	RCOH	NGSB	09	AUG-09	AUG-09	FEB-13
CVN 72	RCOH	NGSB	13	FEB-13	FEB-13	MAY-16
CVN 73	RCOH	NGSB	16	JUN-16	JUN-16	SEP-19

SHIPBUILDING AND CONVERSION, NAVY
Analysis of Ship Cost Estimates - Major Equipment
(Dollars in Thousands)

Ship Type: CVN-68 CLASS NUCLEAR REFUELING COMPLEX OVERHAUL (RCOH)	FY 2009	
	QTY	COST
ELECTRONICS		
a. P-35 Items		
C4ISR	1	68,688
INTEGRATED COMMUNICATION NETWORK (ICAN / DDCN & IVCN)	1	51,475
SSDS MK2	1	44,686
COOPERATIVE ENGAGEMENT CAPABILITY (CEC)	1	10,811
NAVAL STRIKE WARFARE PLANNING CENTER (NSWPC)	1	10,021
AN/SPN46 OVERHAUL/UPGRADE	1	7,497
IFF INTERROGATOR SET (AN/UPX-29)	1	5,492
BATTLE FORCE TACTICAL TRAINER (BFTT)	1	5,087
AN/TPX-42(V)14 UPGRADE	1	4,491
Subtotal		208,248
b. Major Items		
READY ROOM MODIFICATION	1	2,989
AN/SPN-43C	1	2,023
AN/SPN-41	1	1,313
Subtotal		6,325
c. Other ELECTRONICS		
MISCELLANEOUS ELECTRONICS, TEST & CERTIFICATIONS		8,045
Subtotal		8,045
Total ELECTRONICS		222,618

SHIPBUILDING AND CONVERSION, NAVY
Analysis of Ship Cost Estimates - Major Equipment
(Dollars in Thousands)

Ship Type: CVN-68 CLASS NUCLEAR REFUELING COMPLEX OVERHAUL (RCOH)	**FY 2009**	
	QTY	**COST**
ORDNANCE		
a. P-35 Items		
AVIATION EQUIPMENT & SUPPORT	1	33,509
NATO SEASPARROW MISSILE SYSTEM	1	29,633
AN/SPS-48G (V1) ROAR	1	9,995
AN/SPS-49(V)5 UPGRADE/REPAIR	1	7,630
AN/SPQ-9B RADAR	1	7,386
ADVANCED SENSOR DISTRIBUTION SYSTEM (ASDS)	1	3,095
Subtotal		91,248
b. Major Items		
AN/SPS-73 (V12) SURFACE NAVIGATION RADAR	1	1,917
Subtotal		1,917
c. Other ORDNANCE		
MISCELLANEOUS ORDNANCE, TEST & CERTIFICATIONS		4,620
Subtotal		4,620
Total ORDNANCE		97,785

SHIPBUILDING AND CONVERSION, NAVY
Analysis of Ship Cost Estimates - Major Equipment
(Dollars in Thousands)

Ship Type: CVN-68 CLASS NUCLEAR REFUELING COMPLEX OVERHAUL (RCOH)	FY 2009	
	QTY	COST
HM&E		
a. P-35 Items		
AIRCRAFT ELECTRICAL SERVICING SYSTEM	1	7,929
02N2 SYSTEM	1	4,095
TG AUTOMATIC VOLTAGE REGULATOR	1	3,393
JP-5 ELECTRIC VALVE OPERATOR ASSEMBLY	1	3,292
Subtotal		18,709
b. Major Items		
JP-5 ELECTRIC VALVE OPERATOR UPGRADE	1	1,811
LESLIE PILOT REPLACEMENT	1	1,302
JP-5 IN-LINE SAMPLER	1	1,269
CIRCUIT 27 TV	1	1,162
Subtotal		5,544
c. Other HM&E		
MISCELLANEOUS HM&E, ENGINEERING, TEST & CERTIFICATIONS		31,093
Subtotal		31,093
Total HM&E		55,346

SHIPBUILDING AND CONVERSION, NAVY
MAJOR SHIP COMPONENT FACT SHEET
(Dollars in Thousands)

P-35 EXHIBIT
FY 2011 President's Budget
February 2010

Ship Type: **CVN-68 CLASS NUCLEAR REFUELING COMPLEX OVERHAUL (RCOH)**
Equipment Item: **C4ISR**
PARM Code: **SPAWAR PMW 750**

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

Provides an integrated communications infrastructure to support both tactical and non-tactical applications in all warfare and support areas, an improved shipboard RF distribution system and multiband antennas, and capabilities for the control and monitoring of RF assets introducing network automation and provide interoperable communications for joint operations. It will interconnect forces of the Battle Group (BG)/Amphibious Readiness Group (ARG) and connects the BG/ARG with expeditionary forces and the Commander-in-Chief Command Complex (CCC) ashore crossing all available media including Ultra High Frequency (UHF), Super High Frequency (SHF), Extremely High Frequency (EHF), commercial satellite links, and new medium-to-high data rate HF and UHF line of sight (LOS) links. C4ISR includes RCS, weather, navigational, signal exploitation, and command and control equipments.

II. CURRENT FUNDING:

P-35 Category	**FY 2009**	
	QTY	**COST**
Major Hardware	1	29,929
Software		822
Systems Engineering		12,650
ILS		857
Systems Test & Evaluation		3,096
Training		168
Data		1,327
Technical Engineering Services / Ship Installation		17,478
Initial Spares and Repair Parts		913
Program Management		1,448
Total		68,688

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY-09	CVN 71 RCOH	VARIOUS	VARIOUS	VARIOUS	VARIOUS	1 SHIPSET	29,929

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY-09	CVN 71 RCOH	FEB-13	VARIOUS	VARIOUS	

V. COMPETITION/SECOND SOURCE INITIATIVES:

NONE

NOTE:

SHIPBUILDING AND CONVERSION, NAVY
MAJOR SHIP COMPONENT FACT SHEET
(Dollars in Thousands)

P-35 EXHIBIT
FY 2011 President's Budget
February 2010

Ship Type: **CVN-68 CLASS NUCLEAR REFUELING COMPLEX OVERHAUL (RCOH)**
Equipment Item: **INTEGRATED COMMUNICATION NETWORK (ICAN / DDCN & IVCN)**
PARM Code: **NAVSEA 05Z5, NAVSEA 062R6**

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

The ICAN (Integrated Communication and Audio Network) System consisting of four (4) subsystems under the ICAN Header: IVN (Integrated Voice Network), MCMS (Machinery Control Monitoring System), Navigation Critical Distribution System (NAVCRIT) Network, and Announcing Systems.
IVN: An Integrated Communications System that provides the ship's Internal Command and Control Communications. In addition, IVN provides connectivity to other onboard systems such as Announcing Systems, Sound Powered Circuits, Secure / Non-Secure off-ship Communications, SATCC and HYDRA.
MCMS: Machinery Control Monitoring System: Control and monitoring of approximately 3500 machinery signals for various HM&E auxiliary systems (e.g. JP5, firemain, IC/SM panels) for aircraft carriers. Utilizes the Machinery Control Network for signals.
Machinery Control Network: The core network that provides communication services and transport for the MCMS system and part of the backbone that rides over the FOCP. It consists of five network switches, associated racks, and cabling.
FOCP: Fiber Optic Cable Plant is an integrated optical fiber distribution system that provides fiber interconnections.
NAVCRIT Network: The Navigation Critical Distribution System is a switched network providing communication services and transport for the NAV Standard Message, which is originated in the NAVSSI (Naval Sensor System Interface) system. The NAVCRIT Distribution consists of three backbone switches and eight I/0 controllers to convert digital NAV data for analog outputs. It will use the FOCP to the maximum extent for connectivity.
SCS: Ship Control System provides control and display of rudder position, Engine and Propeller Order Telegraph functions. The SCS provides data for heading, speed, and rudder angles through NAVCRIT Network from NAVSSI. The SCS interfaces to an Electronic Chart Display Information System.

II. CURRENT FUNDING:

P-35 Category	**FY 2009**	
	QTY	**COST**
Major Hardware	1	22,069
Software		2,780
Systems Engineering		8,528
ILS		3,668
Systems Test & Evaluation		6,257
Training		543
Data		1,363
Technical Engineering Services / Ship Installation		4,989
Initial Spares and Repair Parts		1,174
Program Management		104
Total		51,475

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY-09	CVN 71 RCOH	VARIOUS	VARIOUS	VARIOUS		1 SHIPSET	22,069

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
	CVN 71 RCOH	FEB-13	28	24	OCT-08

V. COMPETITION/SECOND SOURCE INITIATIVES:

NONE
NOTE:

SHIPBUILDING AND CONVERSION, NAVY
MAJOR SHIP COMPONENT FACT SHEET
(Dollars in Thousands)

P-35 EXHIBIT
FY 2011 President's Budget
February 2010

Ship Type: **CVN-68 CLASS NUCLEAR REFUELING COMPLEX OVERHAUL (RCOH)**
Equipment Item: **SSDS MK2**
PARM Code: **PEO IWS - 1A1C**

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

SSDS MK2 provides primary support for force/ownship combat systems control and enhanced self-defense capabilities. The SSDS MK2 integrates sensors, weapons systems, data links, and command and control elements into a unified combat system.

II. CURRENT FUNDING:

P-35 Category	**FY 2009**	
	QTY	**COST**
Major Hardware	1	9,716
Software		12,461
Systems Engineering		6,564
ILS		1,523
Systems Test & Evaluation		6,017
Training		398
Data		2,913
Technical Engineering Services / Ship Installation		2,037
Initial Spares and Repair Parts		745
Program Management		2,312
Total		44,686

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY-09	CVN 71 RCOH	YTHEON/LOCKHEED MART	CPFF/FFP	SEP-08		1 SHIPSET	9,716

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY-09	CVN 71 RCOH	FEB-13	26	26	OCT-08

V. COMPETITION/SECOND SOURCE INITIATIVES:

NONE

NOTE:

CVN 71 FY09 RCOH is moving to the "Open Architecture" SSDS Suite.

SHIPBUILDING AND CONVERSION, NAVY
MAJOR SHIP COMPONENT FACT SHEET
(Dollars in Thousands)

P-35 EXHIBIT
FY 2011 President's Budget
February 2010

Ship Type: **CVN-68 CLASS NUCLEAR REFUELING COMPLEX OVERHAUL (RCOH)**
Equipment Item: **COOPERATIVE ENGAGEMENT CAPABILITY (CEC)**
PARM Code: **PEO IWS - 6NA**

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

Significantly improve Battle Force Anti-Air Warfare (AAW) capability by coordinating all force AAW sensors into a single real time, fire control quality composite track picture. CEC will distribute sensor measurement data from each Cooperating Unit (CU) to all other CUs. Each CU consists of a Data Distribution System (DDS) and a Cooperative Engagement Processor (CEP). The DDS encodes and distributes ownship sensor and engagement data to other CUs, and receives and decodes the remotes data. The CEP processes ownship data and DDS supplied remote sensor and weapon data needed to provide the common air picture.

II. CURRENT FUNDING:

P-35 Category	**FY 2009**	
	QTY	**COST**
Major Hardware	1	4,500
Systems Engineering		841
Systems Test & Evaluation		3,359
Training		416
Technical Engineering Services / Ship Installation		732
Initial Spares and Repair Parts		450
Program Management		146
Other Cost		367
Total		10,811

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY-09	CVN 71 RCOH	RAYTHEON	FFP	JUL-08	NEW	1 SHIPSET	4,500

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY-09	CVN 71 RCOH	FEB-13	34	18	OCT-08

V. COMPETITION/SECOND SOURCE INITIATIVES:

NONE

NOTE:

SHIPBUILDING AND CONVERSION, NAVY
MAJOR SHIP COMPONENT FACT SHEET
(Dollars in Thousands)

P-35 EXHIBIT
FY 2011 President's Budget
February 2010

Ship Type: **CVN-68 CLASS NUCLEAR REFUELING COMPLEX OVERHAUL (RCOH)**
Equipment Item: **NAVAL STRIKE WARFARE PLANNING CENTER (NSWPC)**
PARM Code: **NAVAIR PMA 281**

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

The NSWPC improves Carrier Air Wing capability for mission planning, targeting and rehearsal using the next generation of Precision Guided Munitions (PGMs) by integrating mission planning, imagery processing and targeting systems within the Carrier Intelligence Center (CVIC).

II. CURRENT FUNDING:

P-35 Category	**FY 2009**	
	QTY	**COST**
Major Hardware	1	719
Systems Engineering		7,132
ILS		149
Systems Test & Evaluation		941
Technical Engineering Services/ Ship Installation		1,062
Program Management		18
Total		10,021

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY-09	CVN 71 RCOH	VARIOUS	FFP CPFF	JAN-10	OPTION	1 SHIPSET	719

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY-09	CVN 71 RCOH	FEB-13	20	12	JUN-10

V. COMPETITION/SECOND SOURCE INITIATIVES:

NONE

NOTE:

SHIPBUILDING AND CONVERSION, NAVY
MAJOR SHIP COMPONENT FACT SHEET
(Dollars in Thousands)

P-35 EXHIBIT
FY 2011 President's Budget
February 2010

Ship Type: **CVN-68 CLASS NUCLEAR REFUELING COMPLEX OVERHAUL (RCOH)**
Equipment Item: **AN/SPN46 OVERHAUL/UPGRADE**
PARM Code: **PMA 2131**

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:
Precision approach landing system used for non-clear weather aircraft landings on carriers. Provides electronic guidance to aircraft and allows them to land in all weather conditions with no limitations due to low ceiling or visibility.

II. CURRENT FUNDING:

P-35 Category	**FY 2009**	
	QTY	**COST**
Major Hardware	1	4,832
Systems Engineering		601
ILS		226
Technical Engineering Services / Ship Installation		1,710
Program Management		99
Other Support		29
Total		7,497

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY-09	CVN 71 RCOH	SIERRA NEVADA CORP.	FFP	NOV-07	NEW	1 SHIPSET	4,832

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY-09	CVN 71 RCOH	FEB-13	26	36	DEC-07

V. COMPETITION/SECOND SOURCE INITIATIVES:
NONE
NOTE:

SHIPBUILDING AND CONVERSION, NAVY
MAJOR SHIP COMPONENT FACT SHEET
(Dollars in Thousands)

P-35 EXHIBIT
FY 2011 President's Budget
February 2010

Ship Type: **CVN-68 CLASS NUCLEAR REFUELING COMPLEX OVERHAUL (RCOH)**
Equipment Item: **IFF INTERROGATOR SET (AN/UPX-29)**
PARM Code: **PMA 2133**

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:
The Interrogator System AN/UPX-29(V) is deployed on high capability, state of the art platforms that require Identification Friend or Foe (IFF) operational performance beyond that provided by a standard MK XII System for combat identification. The transponder set receives interrogation signals from air, surface and land IFF-equipped units and automatically replies with a coded response signal that provides ownership position and identification.

II. CURRENT FUNDING:

P-35 Category	**FY 2009**	
	QTY	**COST**
Major Hardware	1	4,352
Software		170
Systems Engineering		486
ILS		104
Technical Engineering Services / Ship Installation		205
Initial Spares and Repair Parts		45
Program Management		75
Other Costs		55
Total		5,492

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY-09	CVN 71 RCOH	LITTON & BAE	SS / FP	DEC-07	NEW	1 SHIPSET	4,352

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY-09	CVN 71 RCOH	FEB-13	31	30	JAN-08

V. COMPETITION/SECOND SOURCE INITIATIVES:

NOTE:

SHIPBUILDING AND CONVERSION, NAVY
MAJOR SHIP COMPONENT FACT SHEET
(Dollars in Thousands)

P-35 EXHIBIT
FY 2011 President's Budget
February 2010

Ship Type: **CVN-68 CLASS NUCLEAR REFUELING COMPLEX OVERHAUL (RCOH)**
Equipment Item: **BATTLE FORCE TACTICAL TRAINER (BFTT)**
PARM Code: **IWS 7C**

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:
System provides capability for coordinated shipboard combat system team & Battle Group / Battle Force training.

II. CURRENT FUNDING:

P-35 Category	**FY 2009**	
	QTY	**COST**
Major Hardware	1	1,239
Software		235
ILS		204
System Test & Evaluation		2,248
Training		109
Data		144
Technical Engineering Services		797
Initial Spares and Repair Parts		11
Program Management		100
Total		5,087

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY-09	CVN 71 RCOH	AAI CORP	CPFF	FEB-07		1 SHIPSET	1,239

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY-09	CVN 71 RCOH	FEB-13	32	24	JUN-08

V. COMPETITION/SECOND SOURCE INITIATIVES:

NOTE:

SHIPBUILDING AND CONVERSION, NAVY
MAJOR SHIP COMPONENT FACT SHEET
(Dollars in Thousands)

P-35 EXHIBIT
FY 2011 President's Budget
February 2010

Ship Type: **CVN-68 CLASS NUCLEAR REFUELING COMPLEX OVERHAUL (RCOH)**
Equipment Item: **AN/TPX-42(V)14 UPGRADE**
PARM Code: **PMA 2133**

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:
Carrier Air Traffic Control Center Direct Altitude and Identity Readout System.

II. CURRENT FUNDING:

P-35 Category	**FY 2009**	
	QTY	**COST**
Major Hardware	1	3,217
Software		152
System Engineering		282
ILS		265
Systems Test & Evaluation		244
Technical Engineering Services		90
Initial Spares and Repair Parts		171
Program Management		54
Other Costs		16
Total		4,491

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY-09	CVN 71 RCOH	NAWCAD	IDIQ	NOV-07		1 SHIPSET	3,217

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY-09	CVN 71 RCOH	FEB-13	38	24	DEC-07

V. COMPETITION/SECOND SOURCE INITIATIVES:

NOTE:

SHIPBUILDING AND CONVERSION, NAVY
MAJOR SHIP COMPONENT FACT SHEET
(Dollars in Thousands)

P-35 EXHIBIT
FY 2011 President's Budget
February 2010

Ship Type: **CVN-68 CLASS NUCLEAR REFUELING COMPLEX OVERHAUL (RCOH)**
Equipment Item: **AVIATION EQUIPMENT & SUPPORT**
PARM Code: **NAVAIR PMA 251**

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:
Provides procurement and engineering support for launch and recovery equipment, ISIS/ADMACS, Moriah, ILARTS, mission pods, jet blast deflectors, MAPA-C, crosscheck, aviation maintenance facility, weapons compatibility, aircraft spotting, aviation servicing facilities, visual, and marking and lighting.

II. CURRENT FUNDING:

P-35 Category	**FY 2009**	
	QTY	**COST**
Major Hardware	1	20,976
Software		752
Systems Engineering		3,167
ILS		397
Systems Test & Evaluation		172
Training		117
Data		362
Technical Engineering Services / Ship Installation		6,761
Initial Spares and Repair Parts		31
Other Costs		774
Total		33,509

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY-09	CVN 71 RCOH	VARIOUS	VARIOUS	VARIOUS	VARIOUS	1 SHIPSET	20,976

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY-09	CVN 71 RCOH	FEB-13	23	39	DEC-07

V. COMPETITION/SECOND SOURCE INITIATIVES:
NONE
NOTE:

SHIPBUILDING AND CONVERSION, NAVY
MAJOR SHIP COMPONENT FACT SHEET
(Dollars in Thousands)

P-35 EXHIBIT
FY 2011 President's Budget
February 2010

Ship Type: **CVN-68 CLASS NUCLEAR REFUELING COMPLEX OVERHAUL (RCOH)**
Equipment Item: **NATO SEASPARROW MISSILE SYSTEM**
PARM Code: **PEO IWS - 3D**

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

The NSSMS Mk 57 Mod 13 is a COTS upgrade of the legacy systems originally installed on CVN 71, consisting of new procurement computers/displays, refurbish / overhaul of legacy equipment (Radars/launchers), and an upgrade to the GMLS for ESSM compatibility. The NSSMS Is a medium range self defense missile system capable of defeating near/mid-term air/surface threats.

II. CURRENT FUNDING:

P-35 Category	**FY 2009**	
	QTY	**COST**
Major Hardware	1	24,865
Software		555
Systems Engineering		1,243
ILS		250
Data		166
Technical Engineering Services / Ship Installation		1,405
Initial Spares and Repair Parts		1,149
Total		29,633

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY-09	CVN 71 RCOH	RAYTHEON	FFP	JAN-08		1 SHIPSET	24,865

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY-09	CVN 71 RCOH	FEB-13	26	24	DEC-08

V. COMPETITION/SECOND SOURCE INITIATIVES:

NONE

NOTE:

SHIPBUILDING AND CONVERSION, NAVY
MAJOR SHIP COMPONENT FACT SHEET
(Dollars in Thousands)

P-35 EXHIBIT
FY 2011 President's Budget
February 2010

Ship Type: **CVN-68 CLASS NUCLEAR REFUELING COMPLEX OVERHAUL (RCOH)**
Equipment Item: **AN/SPS-48G (V1) ROAR**
PARM Code: **PEO IWS 2RI11**

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:
Long range three dimensional (3D) radar used to search, detect and provide space-stabilized, three-coordinate (range, bearing, height) data. Funding provides for procurement of an Antenna and ROAR Kit (SCD 2498) for the AN/SPS-48G(V)1 upgrade.

II. CURRENT FUNDING:

P-35 Category	**FY 2009**	
	QTY	**COST**
Major Hardware	1	7,700
Software		300
Systems Engineering		800
ILS		100
Systems Test & Evaluation		10
Data		100
Technical Engineering Services / Ship Installation		300
Initial Spares and Repair Parts		485
Program Management		200
Total		9,995

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY-09	CVN 71 RCOH	ITT GILFILLAN	CPFF / FFP	SEP-08		1 SHIPSET	7,700

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY-09	CVN 71 RCOH	FEB-13	26	24	DEC-08

V. COMPETITION/SECOND SOURCE INITIATIVES:
NONE
NOTE:

SHIPBUILDING AND CONVERSION, NAVY
MAJOR SHIP COMPONENT FACT SHEET
(Dollars in Thousands)

P-35 EXHIBIT
FY 2011 President's Budget
February 2010

Ship Type: **CVN-68 CLASS NUCLEAR REFUELING COMPLEX OVERHAUL (RCOH)**
Equipment Item: **AN/SPS-49(V)5 UPGRADE/REPAIR**
PARM Code: **PEO IWS 2R1**

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

The AN/SPS-49 Radar is a narrow beam, very long range, two dimensional air search radar. This is the primary air search radar for the ship. The AN/SPS-49 offers greatly improved operational performance (range, bearing, and altitude), reliability, and maintainability.

II. CURRENT FUNDING:

P-35 Category	**FY 2009**	
	QTY	**COST**
Major Hardware	1	5,734
Systems Engineering		631
ILS		240
Data		180
Technical Engineering Services / Ship Installation		95
Initial Spares and Repair Parts		500
Program Management		250
Total		7,630

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY-09	CVN 71 RCOH	NSWC CRANE	N/A	MAY-08		1 SHIPSET	5,734

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY-09	CVN 71 RCOH	FEB-13	26	30	JUN-08

V. COMPETITION/SECOND SOURCE INITIATIVES:

n/a

NOTE:

SHIPBUILDING AND CONVERSION, NAVY
MAJOR SHIP COMPONENT FACT SHEET
(Dollars in Thousands)

P-35 EXHIBIT
FY 2011 President's Budget
February 2010

Ship Type: **CVN-68 CLASS NUCLEAR REFUELING COMPLEX OVERHAUL (RCOH)**
Equipment Item: **AN/SPQ-9B RADAR**
PARM Code: **IWS 2RI**

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

The AN/SPQ-9B is a high resolution X-band narrow beam radar that provides both air and surface tracking information to standard plan position indicator (PPI) consoles.

II. CURRENT FUNDING:

P-35 Category	**FY 2009**	
	QTY	**COST**
Major Hardware	1	5,677
Software		118
Systems Engineering		188
ILS		232
Systems Test and Evaluation		139
Data		115
Technical Engineering Services / Ship Installation		448
Initial Spares and Repair Parts		350
Program Management		119
Total		7,386

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY-09	CVN 71 RCOH	NORTHRUP GRUMMAN	FFP	AUG-08		1 SHIPSET	5,677

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY-09	CVN 71 RCOH	FEB-13	26	24	DEC-08

V. COMPETITION/SECOND SOURCE INITIATIVES:

NOTE:

SHIPBUILDING AND CONVERSION, NAVY
MAJOR SHIP COMPONENT FACT SHEET
(Dollars in Thousands)

P-35 EXHIBIT
FY 2011 President's Budget
February 2010

Ship Type: **CVN-68 CLASS NUCLEAR REFUELING COMPLEX OVERHAUL (RCOH)**
Equipment Item: **ADVANCED SENSOR DISTRIBUTION SYSTEM (ASDS)**
PARM Code: **IWS 2R1**

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:
ASDS provides the distribution of RADAR sensor data and video to RADAR displays on board the Ship.

II. CURRENT FUNDING:

P-35 Category	**FY 2009**	
	QTY	**COST**
Major Hardware	1	1,303
Software		146
System Engineering		407
ILS		174
Systems Test & Evaluation		152
Data		24
Technical Engineering Services		654
Initial Spares and Repair Parts		35
Program Management		200
Total		3,095

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY-09	CVN 71 RCOH	RONTIER ELECTRONIC SY	IDIQ	AUG-09	NEW	1 SHIPSET	1,303

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY-09	CVN 71 RCOH	FEB-13	26	12	DEC-09

V. COMPETITION/SECOND SOURCE INITIATIVES:

NOTE:

SHIPBUILDING AND CONVERSION, NAVY
MAJOR SHIP COMPONENT FACT SHEET
(Dollars in Thousands)

P-35 EXHIBIT
FY 2011 President's Budget
February 2010

Ship Type: **CVN-68 CLASS NUCLEAR REFUELING COMPLEX OVERHAUL (RCOH)**
Equipment Item: **AIRCRAFT ELECTRICAL SERVICING SYSTEM**
PARM Code: **NSWC CARDEROCK - SESS 9344**

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

The Joint Strike Fighter (JSF) requires 270VDC electrical power for maintenance and pre-flight operations. This type of power is not currently available on CVN-68 class aircraft carriers. This SCD will equip CVN 68 class ships with 270VDC Aircraft Electrical Servicing System (AESS) Power. In addition the obsolete components now part of the AESS will be replaced with new equipment. This upgrade will allow the CVN 68 class to support JSF and Legacy aircraft with new equipment without excessive space and weight requirements.

II. CURRENT FUNDING:

P-35 Category	**FY 2009**	
	QTY	**COST**
Major Hardware	1	6,904
Systems Engineering		385
Data		290
Technical Engineering Services / Ship Installation		200
Initial Spares and Repair Parts		150
Total		7,929

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY-09	CVN 71 RCOH	VARIOUS	FP	AUG-09		1 SHIPSET	6,904

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY-09	CVN 71 RCOH	FEB-13	32	9	SEP-09

V. COMPETITION/SECOND SOURCE INITIATIVES:

NONE

NOTE:

SHIPBUILDING AND CONVERSION, NAVY
MAJOR SHIP COMPONENT FACT SHEET
(Dollars in Thousands)

P-35 EXHIBIT
FY 2011 President's Budget
February 2010

Ship Type: **CVN-68 CLASS NUCLEAR REFUELING COMPLEX OVERHAUL (RCOH)**
Equipment Item: **02N2 SYSTEM**
PARM Code: **NSWC CARDEROCK (SSES)**

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:
Replace one Cryogenic O2N2 plant with Gaseous Membrane Nitrogen Generator & Vacuum Swing Absorber 02 generator

II. CURRENT FUNDING:

P-35 Category	**FY 2009**	
	QTY	**COST**
Major Hardware	1	3,045
System Engineering		145
ILS		60
System T & E		60
Data		50
Technical Engineering Services / Ship Installation		155
Initial Spares and Repair Parts		455
Program Management		125
Total		4,095

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY-09	CVN 71 RCOH	VARIOUS	FFP	NOV-07	OPTION	1 SHIPSET	3,045

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY-09	CVN 71 RCOH	FEB-13	38	24	DEC-07

V. COMPETITION/SECOND SOURCE INITIATIVES:
NONE
NOTE:

SHIPBUILDING AND CONVERSION, NAVY
MAJOR SHIP COMPONENT FACT SHEET
(Dollars in Thousands)

P-35 EXHIBIT
FY 2011 President's Budget
February 2010

Ship Type: **CVN-68 CLASS NUCLEAR REFUELING COMPLEX OVERHAUL (RCOH)**
Equipment Item: **TG AUTOMATIC VOLTAGE REGULATOR**
PARM Code: **NAVSSES**

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:
Digital, variable frequency voltage regulator (replacement for analog static voltage regulator for power generators - SSTG and CTG).

II. CURRENT FUNDING:

P-35 Category	**FY 2009**	
	QTY	**COST**
Major Hardware	1	3,212
Spares		25
Technical Engineering Services		156
Total		3,393

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY-09	CVN 71 RCOH	P GRUMMAN ELECTRONIC	CPFF	MAY-04	NEW OPTION	1 SHIPSET	3,212

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY-09	CVN 71 RCOH	FEB-13	41	18	MAR-08

V. COMPETITION/SECOND SOURCE INITIATIVES:

NOTE:

SHIPBUILDING AND CONVERSION, NAVY
MAJOR SHIP COMPONENT FACT SHEET
(Dollars in Thousands)

P-35 EXHIBIT
FY 2011 President's Budget
February 2010

Ship Type: **CVN-68 CLASS NUCLEAR REFUELING COMPLEX OVERHAUL (RCOH)**
Equipment Item: **JP-5 ELECTRIC VALVE OPERATOR ASSEMBLY**
PARM Code: **NSWC CARDEROCK**

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:
JP-5 manifold actuators that distribute and control the flow of aircraft fuel to the JP-5 fueling stations.

II. CURRENT FUNDING:

P-35 Category	**FY 2009**	
	QTY	**COST**
Major Hardware	1	2,510
System Engineering		564
ILS		46
Systems Test & Evaluation		80
Technical Engineering Services		6
Initial Spares and Repair Parts		86
Total		3,292

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY-09	CVN 71 RCOH	TARGET ROCK	FFP	AUG-03	OPTIONS	1 SHIPSET	2,510

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY-09	CVN 71 RCOH	FEB-13	36	9	MAY-09

V. COMPETITION/SECOND SOURCE INITIATIVES:
NONE
NOTE:

CLASSIFICATION:	UNCLASSIFIED											
Exhibit P-10, Advance Procurement Requirements Analysis (Funding)								Date: **February 2010**				
Appropriation (Treasury)Code/CC/BA/BSA/Item Control Number **SHIPBUILDING AND CONVERSION, NAVY / 2 / Other Warships / BLI 2086**						P-1 Line Item Nomenclature **CVN REFUELING OVERHAULS**						
Weapon System **CVN 72 RCOH**			First System (BY1) Award Date and Completion Date **FEBRUARY 2013 - MAY 2016**					Interval Between Systems				
BLI	PLT	When Req'd	Prior Years	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16	To Complete	Total
CVN 72 RCOH			0	21.3	211.2	408.1	542.9	0	0	0	0	0	1183.5
Plans			0	1.7	12	11.6	17.6	0	0	0	0	0	42.9
Basic			0	4	134.2	277.6	335.9	0	0	0	0	0	751.7
Other			0	0.3	6	6	7.9	0	0	0	0	0	20.2
Propulsion Equipment			0	14.6	54	5.9	36.5	0	0	0	0	0	111
HM&E			0	0.2	0.5	9	8.5	0	0	0	0	0	18.2
Electronics			0	0.2	2.5	30	67	0	0	0	0	0	99.7
Ordnance			0	0.3	2	68	69.5	0	0	0	0	0	139.8
			0	0	0	0	0	0	0	0	0	0	0
			0	0	0	0	0	0	0	0	0	0	0
Total AP			0	21.3	211.2	408.1	542.9	0	0	0	0	0	1183.5

Description:

CVN 72 RCOH Funding is required to procure long lead items and fund long lead efforts critical to supporting the contract award. Efforts will include work package planning, integration, shipchecks, drawings, GFE engineering & hardware procurements. The advance planning contracts are funded under Basic in each fiscal year.

Note: The CVN RCOH Advance Procurement is compliant with sections 010107.2 and 010202.B.3 of the DOD FMR which limits advance procurement funding to, "components whose long lead times require purchase early in order to reduce the overall procurement lead-time of the major end item."

CLASSIFICATION:	UNCLASSIFIED								
Exhibit P-10, Advance Procurement Requirements Analysis (Budget Justification)								Date: **February 2010**	
Appropriation (Treasury)Code/CC/BA/BSA/Item Control Number **SHIPBUILDING AND CONVERSION, NAVY / 2 / Other Warships / BLI 2086**					Weapon System **CVN 72 RCOH**			P-1 Line Item Nomenclature **CVN REFUELING OVERHAULS**	
(TOA $ in Millions)				**FY11**					
	PLT	QPA	Unit Cost	Qty	Contract Forecast Date	Total Cost Request			
Plans						11.6			
Basic		1 Shipset			February 2011	277.6			
Other						6.0			
Propulsion Equipment						5.9			
HM&E						9.0			
Electronics						30.0			
Ordnance						68.0			

Description:

Plans Advance Planning Support & Authorized Work Package (AWP) development, Shipcheck & Shipcheck Oversight, Government Furnished Information (GFI)Development, Technical Oversight/Authority

Basic Prime Contractor (Advance Planning & Execution), Misc. Onload-Offload Costs, Ship's Force Work Package Material Procurement, Customer Contracted Teams (CCTs), Government Furnished Equipment (GFE) FARMOUT, and Technical Support

Other Program Management Plans, Budget Development, Work Package Review, Crew Berthing, Integrated Data Environment (IDE), Logistic Plans & Review, Cost Estimating, & Studies

Propulsion Equipment Nuclear Component Procurement & Technical Support Services

HM&E HM&E GFI / GFE & Technical Support Services

Electronics Electronics GFI / GFE & Technical Support Services

Ordnance Ordnance GFI / GFE & Technical Support Services

CLASSIFICATION: UNCLASSIFIED

BUDGET ITEM JUSTIFICATION SHEET (P-40)
FY 2011 President's Budget

DATE: February 2010

APPROPRIATION/BUDGET ACTIVITY
SHIPBUILDING AND CONVERSION, NAVY/BA 2 Other Warships

P-1 LINE ITEM NOMENCLATURE
SSBN ERO
BLI: 2113 / SUBHEAD NO.

(Dollars in Millions)	PRIOR YR	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	TO COMP	TOTAL PROG
QUANTITY	4	1	0	0	0	0	0	0	0	5
End Cost	1,178.3	263.0	39.7	5.2	0.0	0.0	0.0	0.0	0.0	1,486.2
Less Advance Procurement	261.6	42.1	39.7	5.2	0.0	0.0	0.0	0.0	0.0	348.6
Less Cost to Complete	16.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.1
Full Funding TOA	900.5	221.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1,121.5
Plus Advance Procurement	309.3	39.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	348.5
Plus Cost to Complete	0.0	16.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.1
Total Obligational Authority	1,209.9	276.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1,486.3
Plus Outfitting / Plus Post Delivery	5.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.8
Total	1,215.7	276.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1,492.1
Unit Cost (Ave. End Cost)	294.6	263.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	297.2

MISSION:

SSBN ERO: This funding provides for Engineered Refueling Overhauls of OHIO Class (TRIDENT, SSBN 726) Strategic Missile Submarines. This is a major overhaul performed near the mid-point of the submarine's service life to re-capitalize the vessel and extend the useful life to maintain the required SSBN force level. Work performed includes: refueling of the reactor; major propulsion plant and ship equipments are repaired or upgraded; obsolete equipments are replaced; Ballistic missile systems are repaired or upgraded; limited alterations to provide for reliable operations during the remaining operational life of the submarines and the ship is re-certified for Unrestricted Operations (SUBSAFE URO). The unit cost reflects the refueling, repair and alterations mandays with the appropriate shipyard rate and material. All SSBN ERO funding transferred to OMN/OPN accounts starting in FY10.

NOTES:
FY04 Congressional direction created a new SSBN Engineered Refueling Overhaul (ERO) budget line.

Characteristics:		**Armament:**	**Major Electronics:**
Length Overall	560'	D-5 Missles	PBS-15H Radar
Displacement	18,750 TONS	Torpedo Tubes	BQQ-6 Passive Sonar
Beam	42'		BQS-13 Active Sonar
Draft	36.25'		CCS Mk2 Combat Data System

Production Status:	**FY08 SSBN 733**	**FY09 SSBN 734**
Award Planned (Month)	2/06	2/07
Months to Complete		
a) Award to Delivery	50	50
b) Project Start to Delivery	27	27
Completion of Fitting Out	5/10	4/11
Obligation Work Limiting Data (OWLD)	4/11	3/12

CLASSIFICATION:
UNCLASSIFIED

WEAPON SYSTEM COST ANALYSIS (EXHIBIT P-5)
(Dollars in Thousands)

BUDGET ACTIVITY: 2	**P-1 LINE ITEM NOMENCLATURE**	**SUBHEAD NO. BLI: 2113**
Other Warships	**SSBN ERO**	

	FY 2007		**FY 2008**		**FY 2009**		**FY 2010**		**FY 2011**	
ELEMENT OF COST	**QTY**	**COST**	**QTY**	**COST**	**QTY**	**COST**	**QTY**	**COST**	**QTY**	**COST**
PLAN COSTS	1	32,868	1	30,754	1	34,197		32,288		4,004
BASIC CONST/CONVERSION		179,182		167,705		183,241				
OTHER COST		3,301								
ORDNANCE		71,835		40,217		45,571		7,454		1,217
TOTAL SHIP ESTIMATE		287,186		238,676		263,009		39,742		5,221
LESS Advanced Procurement FY05		3,985								
LESS Advanced Procurement FY06		56,976		4,475						
LESS Advanced Procurement FY07				31,716		5,282				
LESS Advanced Procurement FY08						36,731		5,718		
LESS Advanced Procurement FY09								34,024		5,221
LESS Cost to Complete FY09				16,146						
NET P-1 LINE ITEM:		226,225		186,339		220,996				

SHIPBUILDING AND CONVERSION, NAVY

Analysis of Ship Cost Estimate - Basic/Escalation

Ship Type: SSBN ERO

I. Design/Schedule	Start/Issue	Complete /Response	Reissue	Complete /Response
Issue date for TLR				
Issue date for TLS				
Preliminary Design				
Contract Design				
Detail Design				
Request for Proposals				
Design Agent				

II.	Classification of Cost Estimate	CLASS D - BUDGET QUALITY ESTIMATE (CONVERSION/MODERNIZATION/ERO)				
III.	Basic Construction/Conversion	SSBN 732	SSBN 733	SSBN 734	SSBN 735	SSBN 736
	A. Actual Award Date	FEB-05	FEB-06	FEB-07	MAY-08	MAY-09
	B. Contract Type (and Share Line if applicable)	N/A	N/A	N/A	N/A	N/A
IV.	Escalation					
	Escalation Termination Date					
	Escalation Requirement					
	Labor/Material Split					
	Allowable Overhead Rate					

V. Other Basic(Reserves/Miscellaneous)	Amount

SHIPBUILDING AND CONVERSION, NAVY
SHIP PRODUCTION SCHEDULE

SHIP TYPE	HULL NUMBER	SHIPBUILDER	FISCAL YEAR AUTHORIZED	CONTRACT AWARD	START OF CONSTRUCTION	DELIVERY DATE
SSBN	732	NORFOLK NAVAL SHIPYARD	07	FEB-05	NOV-06	FEB-09
SSBN	733	IGET SOUND NAVAL SHIPYAI	08	FEB-06	FEB-08	MAY-10
SSBN	734	NORFOLK NAVAL SHIPYARD	09	FEB-07	JAN-09	APR-11
SSBN	735	IGET SOUND NAVAL SHIPYAI	10	MAY-08	JAN-10	APR-12
SSBN	736	NORFOLK NAVAL SHIPYARD	11	MAY-09	JAN-11	APR-13

SHIPBUILDING AND CONVERSION, NAVY

Analysis of Ship Cost Estimates - Major Equipment

(Dollars in Thousands)

Ship Type: TRIDENT SSBN	FY 2007		FY 2008		FY 2009		FY 2010		FY 2011	
	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
ORDNANCE										
a. P-35 Items										
LAUNCHER & HANDLING										
FIRE CONTROL										
NAVIGATION										
INSTRUMENTATION & MISSILE CHECKOUT										
Subtotal		0		0		0		0		0
b. Major Items										
Subtotal		0		0		0		0		0
c. Other ORDNANCE										
SYSTEM INTEGRATION/ERO SITP	1	29,526	1	24,213	1	29,037	1	6,466	1	979
ADVANCE PLANNING		1,635		596		1,090		988		238
SHIPYARD INSTALLATION	1	14,852	1	9,589	1	11,544				
DASO SUPPORT	1	3,392	1	5,350	1	3,600				
ERO EQUIPMENT	1	22,430	1	469	1	300				
Subtotal		71,835		40,217		45,571		7,454		1,217
Total ORDNANCE		71,835		40,217		45,571		7,454		1,217

Exhibit P-10, Advance Procurement Requirements Analysis (Funding)							Date: February 2010						
Appropriation (Treasury)Code/CC/BA/BSA/Item Control Number 1711 Shipbuilding and Conversion, Navy/BA 01/Other Warships/BLI 2113							P-1 Line Item Nomenclature SSBN EROs						
OHIO (SSBN 726) Class Submarines Submarine Refueling Overhauls (ERO): SSBN 734 (FY09), SSBN 735 (FY10), SSBN 736 (FY11				First System Award Date Mar-03			First System Completion Date Mar-07						
($ in Millions)		When	Prior										
	PLT	Req'd	Years	FY09									
End Item Qty													
PLANS - FY07 ERO (1)		Various	32.9										
PLANS - FY08 ERO (1)		Various	30.8										
PLANS - FY09 ERO (1)		Various	34.2										
PLANS - FY10 ERO (1)		Various	4.7	27.6									
PLANS - FY11 ERO (1)		Various		4.0									
EQUIPMENT PROCUREMENT - FY07 ERO (2)		Various	28.1										
EQUIPMENT PROCUREMENT - FY08 ERO (2)		Various	5.4										
EQUIPMENT PROCUREMENT - FY09 ERO (2)		Various	7.8										
EQUIPMENT PROCUREMENT - FY10 ERO (2)		Various	1.0	6.4									
EQUIPMENT PROCUREMENT - FY11 ERO (2)		Various		1.2									
TOTAL AP			144.9	39.2									

(1) **PLANS AP:** Submarine Engineered Refueling Overhauls (EROs) are complex, short duration availabilities performed to extend the useful life of the vessel. Average duration of an ERO is 27 months with a production period of less than 15 months. Unlike ships under construction EROs are preformed on assembled hulls with limited access. The unique sensitive and safety (SUBSAFE) nature of submarine repair and refueling efforts dictates that the availability must be thoroughly and carefully integrated in advance to minimize disruptions and delays. The production period at the beginning of the ERO is extraordinarily labor intensive. Advance Procurement (AP) is essential for timely & cost-efficient execution.

(2) **Equipment Procurement:** Required to provide Norfolk Naval Shipyard with handling, installation and checkout support equipment and also provide long-lead TRIDENT II (D5) Strategic Weapons Systems (SWS) subsystem replacement shipboard equipment essential to ensuring the operability and maintainability of the TRIDENT II SWS and, by implementing necessary modifications to existing SWS hardware, guaranteeing the homogeneity of all D5 subsystems aboard all 14 TRIDENT II SSBNs.

Note: Starting in FY10, SSBN ERO funding was transferred from SCN to OMN and OPN accounts.

CLASSIFICATION: UNCLASSIFIED

BUDGET ITEM JUSTIFICATION SHEET (P-40)
FY 2011 President's Budget

DATE: February 2010

APPROPRIATION/BUDGET ACTIVITY
SHIPBUILDING AND CONVERSION, NAVY/BA 2 Other Warships

P-1 LINE ITEM NOMENCLATURE
DDG 1000
BLI: 2119

(Dollars in Millions)	PRIOR YR	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	TO COMP	TOTAL PROG
QUANTITY	2	1	0	0	0	0	0	0	0	3
End Cost (1)	6,324.6	2,723.0	309.6	186.3	139.4	133.2	126.3	50.9	0.0	9,993.3
Less Advance Procurement	1,010.3	149.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1,160.1
Less Subsequent Year FF	0.0	1,068.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1,068.9
Plus Subsequent Year FF	0.0	0.0	1,068.9	0.0	0.0	0.0	0.0	0.0	0.0	1,068.9
Full Funding TOA	5,314.3	1,504.3	1,378.5	186.3	139.4	133.2	126.3	50.9	0.0	8,833.2
Plus Advance Procurement	1,160.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1,160.1
Total Obligational Authority	6,474.4	1,504.3	1,378.5	186.3	139.4	133.2	126.3	50.9	0.0	9,993.3
Plus Outfitting / Plus Post Delivery	0.0	0.0	0.0	20.2	47.9	106.5	65.1	56.9	42.7	339.3
Total	6,474.4	1,504.3	1,378.5	206.6	187.2	239.7	191.4	107.8	42.7	10,332.6
Unit Cost (Ave. End Cost)	3,162.3	2,723.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3,331.1

MISSION:

This Budget Submission is based on the DDG 1000 Baseline 5.3 design for a DDG 1000 of 14,564 tons displacement with two Advanced Gun Systems (AGS) including a total magazine capacity of 600 rounds. DDG 1000, a multi-mission surface combatant, will serve as a versatile asset in the context of future Naval Strategy. Armed with an array of weapons, DDG 1000 will provide the Joint Force Commander with precision strike and volume fires. Designed with sustainable payload, multi-spectral stealth and optimal manning, DDG 1000 will take the fight to the enemy with unprecedented striking power, sustainability, survivability and information dominance.

Note: (1) FY10-FY15 End Cost reflects cost associated with the completion of the program.

Characteristics:		Weapons:	Sensors:	Integrated Power System:	Aviation:
Hull		2 Advanced Gun Systems 155mm	Dual Band Radar System	2 Main Gas Turbine Generators	MH60R (Capacity for 2)
Length Overall	610'	80 Mk 57 Vertical Launch cells	Acoustic Sensor Suite	2 Auxiliary Gas Turbine Generators	3 VTUAVs
Beam	80.7'	2 57mm Close-In Gun Systems	EO / IR System	2 Propulsion Motors	
Displacement (LT)	14,564				Boats:
Draft (Navigation)	27.6'				2 7m RHIBs
Speed	30 kts				(Sized for 2 11m RHIBs)
Installed Power	78.4 MW				
Crew Size	148				
Hull	Wave-piercing tumblehome				
Superstructure	Composite structure				

	FY07	FY07	FY09
Production Status:	DDG 1000	DDG 1001	DDG 1002
Contract Award Date	02/08	02/08	TBD
Months to Completion			
a) Award to Delivery	62	TBD	TBD
b) Construction Start to Delivery	50	TBD	TBD
Delivery Date	09/13	TBD	TBD
Completion of Fitting Out	TBD	TBD	TBD
Obligation Work Limit Date	11/14	TBD	TBD

CLASSIFICATION:
UNCLASSIFIED

WEAPON SYSTEM COST ANALYSIS (EXHIBIT P-5)
(Dollars in Thousands)

BUDGET ACTIVITY: 2	**P-1 LINE ITEM NOMENCLATURE**	**SUBHEAD NO. BLI: 2119**
Other Warships	**DDG 1000**	

	FY 2007		**FY 2009**		**FY 2010**		**FY 2011**	
ELEMENT OF COST	**QTY**	**COST**	**QTY**	**COST**	**QTY**	**COST**	**QTY**	**COST**
PLAN COSTS	2	952,974	1	175,004		119,672		78,580
BASIC CONST/CONVERSION		2,699,390		1,214,827				
CHANGE ORDERS		195,795		54,957				
ELECTRONICS		1,670,084		773,120		189,964		48,966
HM&E		82,437		43,467				
OTHER COST		113,630		131,558				58,766
ORDNANCE		610,283		330,090				
TOTAL SHIP ESTIMATE		6,324,593		2,723,023		309,636		186,312
LESS: ADVANCE PROCUREMENT FY05		304,048						
LESS: ADVANCE PROCUREMENT FY06		706,240						
LESS: SUBSEQUENT YEAR FULL FUNDING FY08		2,757,037						
LESS: ADVANCE PROCUREMENT FY08				149,830				
LESS: SUBSEQUENT YEAR FULL FUNDING FY10				1,068,896				
NET P-1 LINE ITEM:		2,557,268		1,504,297		309,636		186,312

SHIPBUILDING AND CONVERSION, NAVY

Analysis of Ship Cost Estimate - Basic/Escalation

Ship Type: DDG 1000

I.	Design/Schedule	Start/Issue	Complete /Response	Reissue	Complete /Response
	Issue date for TLR				
	Issue date for TLS				
	Preliminary Design				
	Contract Design				
	Detail Design				
	Request for Proposals				
	Design Agent				
	ISSUE DATE FOR ORD	11/97 (DD-21)	5/04 (DD(X))		
	PRELIMINARY DESIGN REVIEW (PDR)	1/04	3/04		
	CRITICAL DESIGN REVIEW (CDR)	6/05	9/05		
	MILESTONE B	11/05	11/05		
	REQUEST FOR PROPOSALS (LEAD SHIPS)	1/06	4/06		
	DAB REVIEW (LEAD SHIP CONSTRUCTION)	10/06	10/06		
II.	**Classification of Cost Estimate**	CLASS C BUDGET ESTIMATE			
III.	**Basic Construction/Conversion**	**0701**	**0702**	**0901**	
	A. Actual Award Date	FEB-08	FEB-08	TBD	
	B. Contract Type (and Share Line if applicable)	CPAF/IF	CPAF/IF*	TBD	
	* DDG1002 CONTRACT IN NEGOTIATIONS				
IV.	**Escalation**	N/A FORWARD PRICED			
	Escalation Termination Date				
	Escalation Requirement				
	Labor/Material Split				
	Allowable Overhead Rate				
V.	**Other Basic(Reserves/Miscellaneous)**	**Amount**			
	N/A				

SHIPBUILDING AND CONVERSION, NAVY
SHIP PRODUCTION SCHEDULE

SHIP TYPE	HULL NUMBER	SHIPBUILDER	FISCAL YEAR AUTHORIZED	CONTRACT AWARD	START OF CONSTRUCTION	DELIVERY DATE
DDG 1000	1000	BIW	07	FEB-08	FEB-09	SEP-13
DDG 1000	1001	NGSB	07	FEB-08	TBD	TBD
DDG 1000	1002	TBD	09	TBD	TBD	TBD

Note: The DDG 1000/1001 information reflects the original construction contract award (Feb 08) dates for both the DDG 1000 and DDG 1001 contracts. The start of construction and delivery dates for the DDG 1001 and DDG 1002 will be re-evaluated as part of the contract negotiations resulting from the Memorandum of Agreement (MOA) between the Navy, GD/BIW and NGSB which was signed on 7 April 2009.

SHIPBUILDING AND CONVERSION, NAVY

Analysis of Ship Cost Estimates - Major Equipment

(Dollars in Thousands)

Ship Type: DDG 1000	FY 2007		FY 2009		FY 2011	
	QTY	COST	QTY	COST	QTY	COST
ELECTRONICS						
a. P-35 Items						
EXCOMMS (SHIPSET)	2	272,313	1	115,720		
INTEGRATED UNDERSEA WARFARE (IUSW) SYSTEM	2	97,165	1	37,041		
DUAL BAND RADAR (DBR)	2	539,452	1	230,509		
COMMON ARRAY POWER SYSTEM (CAPS)	2	85,931	1	37,400		
TOTAL SHIP COMPUTING ENVIRONMENT (TSCE)	2	214,085	1	86,044		
ELECTRO-OPTICAL / INFRARED (EO/IR)	2	55,713	1	15,836		
IDENTIFICATION FRIEND OR FOE (IFF)	2	21,944	1	8,357		
COMMON ARRAY COOLING SYSTEM (CACS)	2	16,022	1	6,949		
SHIP CONTROL SYSTEM (SCS)	2	100,626	1	44,790		
COOPERATIVE ENGAGEMENT CAPABILITY (CEC)	2	13,025	1	7,504		
Subtotal		1,416,276		590,150		0
b. Major Items						
Subtotal		0		0		0
c. Other ELECTRONICS						
MISSION SYSTEM ENGR INTEGR & TEST (MSEIT)		443,772		182,970		48,966
Subtotal		443,772		182,970		48,966
Total ELECTRONICS		1,860,048		773,120		48,966

SHIPBUILDING AND CONVERSION, NAVY

Analysis of Ship Cost Estimates - Major Equipment

(Dollars in Thousands)

Ship Type: DDG 1000	FY 2007		FY 2009	
	QTY	COST	QTY	COST
ORDNANCE				
a. P-35 Items				
ADVANCED GUN SYSTEM (AGS)	4	384,590	2	232,807
VERTICAL LAUNCHING SYSTEM (VLS) MK 57 4-CELL MODULES	40	154,655	20	65,915
CLOSE-IN GUN SYSTEM (CIGS)	4	64,037	2	31,368
Subtotal		603,282		330,090
b. Major Items				
Subtotal		0		0
c. Other ORDNANCE				
		7,001		
Subtotal		7,001		0
Total ORDNANCE		610,283		330,090

SHIPBUILDING AND CONVERSION, NAVY

Analysis of Ship Cost Estimates - Major Equipment

(Dollars in Thousands)

Ship Type: DDG 1000	FY 2007		FY 2009	
	QTY	COST	QTY	COST
HM&E				
a. P-35 Items				
MAIN TURBINE GENERATOR (MTG)	4	78,125	2	42,367
Subtotal		78,125		42,367
b. Major Items				
RIGID HULL INFLATABLE BOAT (RHIB)	4	2,200	2	1,100
Subtotal		2,200		1,100
c. Other HM&E				
		2,112		
Subtotal		2,112		0
Total HM&E		82,437		43,467

SHIPBUILDING AND CONVERSION, NAVY
MAJOR SHIP COMPONENT FACT SHEET
(Dollars in Thousands)

P-35 EXHIBIT
FY 2011 President's Budget
February 2010

Ship Type: **DDG 1000**
Equipment Item: **EXCOMMS (SHIPSET)**
PARM Code:

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

EXCOMMs are part of the DDG-1000 C3I Segment and consists of a set of seven (7) external communications elements. The EXCOMM Elements support the DDG-1000 system in achieving its mission by providing communications between DDG-1000 and other land, air, and sea based platforms as well as pier-side communications. These EXCOMM elements provide the voice, data, and video communications between DDG-1000 and the external world at sea as well as when in port. The 7 elements are: Satellite Communications (SATCOMs), Line of Sight (LOS), Common Data Link-Navy (CDL-N), Information Security (INFOSEC), Common Array Element (CAE), Cooperative Engagement Capability (CEC) and Integrated Communications Controller Software (ICCS). *Government legacy systems include: Distributed Common Ground System, Navy (DCGS-N), Cooperative Engagement Capability (CEC), Communication Terminals, AN/WSC-6(V)9 Shipboard Terminal, Common Link Integrated Processor (CLIP), Automated Digital Network System (ADNS), Global Broadcast Service (GBS), Communications Data Link System (CDLS), & Naval Modular Automated Communications System (NAVMACS).

II. CURRENT FUNDING:

P-35 Category	**FY 2007**		**FY 2009**	
	QTY	**COST**	**QTY**	**COST**
Major Hardware	2	82,458	1	43,639
Technical Support Services		20,606		10,752
Government Legacy Systems* (POR)		41,844		21,834
Other Costs (NRE)		127,405		39,495
Total		272,313		115,720

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY07	DDG-1000	Raytheon	CPAF/IF	MAY-08		2	41,229
FY09	DDG-1000	Raytheon	CPAF/IF	TBD		1	43,639

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY07	DDG-1000	SEP-13	33	26	OCT-08
FY09	DDG-1000	TBD	TBD	TBD	TBD

V. COMPETITION/SECOND SOURCE INITIATIVES:

N/A

NOTE:

SHIPBUILDING AND CONVERSION, NAVY
MAJOR SHIP COMPONENT FACT SHEET
(Dollars in Thousands)

P-35 EXHIBIT
FY 2011 President's Budget
February 2010

Ship Type: **DDG 1000**
Equipment Item: **COOPERATIVE ENGAGEMENT CAPABILITY (CEC)**
PARM Code:

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

Cooperative Engagement Capability (CEC) is a sensor network with Integrated Fire Control capability that significantly improves Battle Force air and missile defense capabilities by coordinating measurement data from Battle Force air search sensors on CEC-equipped units into a single, real-time, composite cooperating unit (CU), to all other CUs in the Battle Force through a real-time, line of sight, high data rate sensor and engagement data distribution network. CEC is highly resistant to jamming and provides accurate grid locking (relative spatial positioning) between CUs. Each CU independently employs high capacity, parallel processing and advanced algorithms to combine all distributed sensor data into a high quality track picture which is the same for all CUs. CEC data is presented as a superset of the best air and missile defense sensor capabilities from each CU, all of which are integrated into a single input to each CU's combat weapon system. CEC significantly improves Battle Force defense in depth, including both local and area defense capabilities against current and future air missile threats.

II. CURRENT FUNDING:

P-35 Category	**FY 2007**		**FY 2009**	
	QTY	**COST**	**QTY**	**COST**
Major Hardware	2	9,000	1	4,561
System Engineering		0		415
Technical Engineering Services		885		0
Software		1,400		1,400
Logistics Support		300		164
Technical Support Services		1,440		964
Total		13,025		7,504

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY07	DDG 1000	RAYTHEON	CPAF/IF	MAY-08		2	4,500
FY09	DDG 1000	RAYTHEON	CPAF/IF	TBD		1	4,561

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY07	DDG 1000	SEP-13	24	18	MAR-10
FY09	DDG 1000	TBD	TBD	TBD	TBD

V. COMPETITION/SECOND SOURCE INITIATIVES:

N/A

NOTE:

SHIPBUILDING AND CONVERSION, NAVY
MAJOR SHIP COMPONENT FACT SHEET
(Dollars in Thousands)

P-35 EXHIBIT
FY 2011 President's Budget
February 2010

Ship Type: **DDG 1000**
Equipment Item: **INTEGRATED UNDERSEA WARFARE (IUSW) SYSTEM**
PARM Code:

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

The IUSW suite supports DDG-1000 in achieving Undersea and Surface Dominance with the capability to detect and track hostile surface vessels, submarines, and moored volume mines. It supports the Sensor Systems Segment in accomplishing its Integrated Air and Surface Dominance (IASD) and Integrated Undersea Dominance (IUSD) objectives by providing the capability to conduct Anti-Submarine Warfare (ASW), Torpedo Defense (TD) and Mine Warfare (MIW) missions. Military Operations Other than War (MOOTW) objectives, such as Search and Rescue (SAR) (locating downed aircraft and vessels in the ocean) are also supported. There are four major subcomponents: Bow Array Component, Towed Array Component, Towed Torpedo Countermeasures Component, and Software.

II. CURRENT FUNDING:

P-35 Category	**FY 2007**		**FY 2009**	
	QTY	**COST**	**QTY**	**COST**
Major Hardware	2	49,034	1	24,090
Technical Support Services		3,878		2,024
Other Costs (NRE)		44,253		10,927
Total		97,165		37,041

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY07	DDG-1000	Raytheon	CPAF/IF	MAY-08		2	24,517
FY09	DDG-1000	Raytheon	CPAF/IF	TBD		1	24,090

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY07	DDG-1000	SEP-13	37	24	AUG-08
FY09	DDG-1000	TBD	TBD	TBD	TBD

V. COMPETITION/SECOND SOURCE INITIATIVES:

N/A

NOTE:

SHIPBUILDING AND CONVERSION, NAVY
MAJOR SHIP COMPONENT FACT SHEET
(Dollars in Thousands)

P-35 EXHIBIT
FY 2011 President's Budget
February 2010

Ship Type: **DDG 1000**
Equipment Item: **DUAL BAND RADAR (DBR)**
PARM Code:

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

The Dual Band Radar element supports the DDG-1000 system in achieving Integrated Air and Surface Dominance with the capability to neutralize hostile surface vessels and aircraft at short ranges. The DBR is comprised of X-Band (AN/SPY-3) and S-Band Radar arrays integrated through a common signal data processor offering surface and horizon search capabilities and 3-D air search radar capabilities in both bands. The X-Band portion also has two navigation modes (high power and lower power) for use in piloting and marine navigation.

II. CURRENT FUNDING:

P-35 Category	FY 2007 QTY	FY 2007 COST	FY 2009 QTY	FY 2009 COST
Major Hardware	2	362,942	1	174,150
Technical Support Services		30,468		17,894
Other Costs (NRE)		146,042		38,465
Total		539,452		230,509

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY07	DDG-1000	Raytheon	CPAF/IF	MAY-08		2	181,471
FY09	DDG-1000	Raytheon	CPAF/IF	TBD		1	174,150

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY07	DDG-1000	SEP-13	35	24	OCT-08
FY09	DDG-1000	TBD	TBD	TBD	TBD

V. COMPETITION/SECOND SOURCE INITIATIVES:

N/A

NOTE:

SHIPBUILDING AND CONVERSION, NAVY
MAJOR SHIP COMPONENT FACT SHEET
(Dollars in Thousands)

P-35 EXHIBIT
FY 2011 President's Budget
February 2010

Ship Type: **DDG 1000**
Equipment Item: **COMMON ARRAY POWER SYSTEM (CAPS)**
PARM Code:

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

The Common Array Power System (CAPS) provides electrical power for the Dual Band Radar (DBR), Identification of Friend or Foe (IFF), EW/Cryptology and External Communications (EXCOMMs) Elements. The CAPS is a distributed power system designed to operate from the ship-supplied medium voltage distribution Integrated Power System's (IPS) 13.8 kV AC power source. The CAPS consists of two Power Distribution Units (PDUs) and six Power Conversion Units (PCUs).

II. CURRENT FUNDING:

P-35 Category	**FY 2007**		**FY 2009**	
	QTY	**COST**	**QTY**	**COST**
Major Hardware	2	52,898	1	28,090
Technical Support Services		4,700		2,300
Other Costs (NRE)		28,333		7,010
Total		85,931		37,400

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY07	DDG-1000	Raytheon	CPAF/IF	MAY-08		2	26,449
FY09	DDG-1000	Raytheon	CPAF/IF	TBD		1	28,090

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY07	DDG-1000	SEP-13	38	21	OCT-08
FY09	DDG-1000	TBD	TBD	TBD	TBD

V. COMPETITION/SECOND SOURCE INITIATIVES:

N/A

NOTE:

SHIPBUILDING AND CONVERSION, NAVY
MAJOR SHIP COMPONENT FACT SHEET
(Dollars in Thousands)

P-35 EXHIBIT
FY 2011 President's Budget
February 2010

Ship Type: **DDG 1000**
Equipment Item: **TOTAL SHIP COMPUTING ENVIRONMENT (TSCE)**
PARM Code:

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

The Total Ship Computing Environment (TSCE) Segment provides all computing resources and associated software to the DDG-1000 System. It is a single computing environment for Ship, Combat and Support Systems. The TSCE provides a common middleware platform upon which all application/functional software can build and execute. The segment applications software, combined with TSCE hardware and software infrastructure represent the majority of the computing resources and associated software for the DDG-1000 System.

II. CURRENT FUNDING:

P-35 Category	**FY 2007**		**FY 2009**	
	QTY	**COST**	**QTY**	**COST**
Major Hardware	2	156,458	1	75,627
Technical Support Services		17,604		8,488
Other Costs (NRE)		40,023		1,929
Total		214,085		86,044

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY07	DDG-1000	Raytheon	CPAF/IF	MAY-08		2	78,229
FY09	DDG-1000	Raytheon	CPAF/IF	TBD		1	75,627

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY07	DDG-1000	SEP-13	38	21	OCT-08
FY09	DDG-1000	TBD	TBD	TBD	TBD

V. COMPETITION/SECOND SOURCE INITIATIVES:

N/A

NOTE:

SHIPBUILDING AND CONVERSION, NAVY
MAJOR SHIP COMPONENT FACT SHEET
(Dollars in Thousands)

P-35 EXHIBIT
FY 2011 President's Budget
February 2010

Ship Type: **DDG 1000**
Equipment Item: **ELECTRO-OPTICAL / INFRARED (EO/IR)**
PARM Code:

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

The Electro-Optical / Infrared (EO/IR) Sensor Suite Element is composed of both the hardware and software components required to detect and range on specified targets and report track data to C2. The EO / IR sensor suite consists of five (5) gimbaled EO sensors located on the cardinal faces of the deckhouse and associated electronics in Electronic Modular Enclosures (EMEs). Also included are Detect and Tracking Software components that provide embedded control and generate tracks for the C2 system and Mine Like Object (MLO) Detection algorithm.

II. CURRENT FUNDING:

P-35 Category	**FY 2007**		**FY 2009**	
	QTY	**COST**	**QTY**	**COST**
Major Hardware	2	24,408	1	11,830
Technical Support Services		2,023		1,032
Other Costs (NRE)		29,282		2,974
Total		55,713		15,836

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY07	DDG-1000	Raytheon	CPAF/IF	MAY-08		2	12,204
FY09	DDG-1000	Raytheon	CPAF/IF	TBD		1	11,830

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY07	DDG-1000	SEP-13	37	22	OCT-08
FY09	DDG-1000	TBD	TBD	TBD	TBD

V. COMPETITION/SECOND SOURCE INITIATIVES:

N/A

NOTE:

SHIPBUILDING AND CONVERSION, NAVY
MAJOR SHIP COMPONENT FACT SHEET
(Dollars in Thousands)

P-35 EXHIBIT
FY 2011 President's Budget
February 2010

Ship Type: **DDG 1000**
Equipment Item: **IDENTIFICATION FRIEND OR FOE (IFF)**
PARM Code:

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

Identification Friend or Foe (IFF) sensor element supports the DDG-1000 Ship System segment in accomplishing Anti-Air Warfare (AAW) and Anti-Surface Warfare (ASUW) missions. The IFF Sensor Element is a cooperative "challenge and reply" system that assists in the rapid identification, tracking and control of friendly platforms. IFF is comprised of three hardware components to include the Interrogator component, the Transponder component and the Electronically Scanned Antenna (ESA) component, as well as software.

II. CURRENT FUNDING:

P-35 Category	**FY 2007**		**FY 2009**	
	QTY	**COST**	**QTY**	**COST**
Major Hardware	2	12,358	1	5,989
Technical Support Services		1,470		462
Other Costs (NRE)		8,116		1,906
Total		21,944		8,357

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY07	DDG-1000	Raytheon	CPAF/IF	MAY-08		2	6,179
FY09	DDG-1000	Raytheon	CPAF/IF	TBD		1	5,989

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY07	DDG-1000	SEP-13	30	29	OCT-08
FY09	DDG-1000	TBD	TBD	TBD	TBD

V. COMPETITION/SECOND SOURCE INITIATIVES:

N/A

NOTE:

SHIPBUILDING AND CONVERSION, NAVY
MAJOR SHIP COMPONENT FACT SHEET
(Dollars in Thousands)

P-35 EXHIBIT
FY 2011 President's Budget
February 2010

Ship Type: **DDG 1000**
Equipment Item: **COMMON ARRAY COOLING SYSTEM (CACS)**
PARM Code:

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

The Common Array Cooling System (CACS) provides liquid cooling for the Dual Band Radar (DBR) and External Communications (EXCOMMs) arrays. CACS is a distributed cooling system consisting of three Cooling Equipment Units (CEUs). Each CEU operates an independent coolant loop used to transport, monitor and control coolant flow to the DBR and EXCOMMs Equipment. CEUs consist of redundant pumps, a heat exchanger and filtration system. It is designed to provide liquid coolant to the DBR and EXCOMM equipment and dissipate heat to the ship-supplied chilled water.

II. CURRENT FUNDING:

P-35 Category	**FY 2007**		**FY 2009**	
	QTY	**COST**	**QTY**	**COST**
Major Hardware	2	10,524	1	5,589
Other Costs (NRE)		5,498		1,360
Total		16,022		6,949

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY07	DDG-1000	Raytheon	CPAF/IF	MAY-08		2	5,262
FY09	DDG-1000	Raytheon	CPAF/IF	TBD		1	5,589

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY07	DDG-1000	SEP-13	39	20	OCT-08
FY09	DDG-1000	TBD	TBD	TBD	TBD

V. COMPETITION/SECOND SOURCE INITIATIVES:

N/A

NOTE:

CACS Technical Services are incorporated into DBR Technical Services.

SHIPBUILDING AND CONVERSION, NAVY
MAJOR SHIP COMPONENT FACT SHEET
(Dollars in Thousands)

P-35 EXHIBIT
FY 2011 President's Budget
February 2010

Ship Type: **DDG 1000**
Equipment Item: **SHIP CONTROL SYSTEM (SCS)**
PARM Code:

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

The Flight 1 Ship Controls System (SCS) element is a system of hardware and software items that provide hierarchical and integrated ship control by the DDG-1000 crew. The SCS software architecture allows for various levels of automation for monitoring, control, reporting and configuration of SCS equipment and operations to support mission and low manning concepts. From workstation positions on the ship bridge or in the ship mission centers, the SCS coordinates, controls and monitors the navigation, hull, electric plant, machinery plant and damage control functions on the DDG-1000.

II. CURRENT FUNDING:

P-35 Category	**FY 2007**		**FY 2009**	
	QTY	**COST**	**QTY**	**COST**
Major Hardware	2	78,174	1	37,229
Technical Support Services		6,254		2,979
Other Costs (NRE)		16,198		4,582
Total		100,626		44,790

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY07	DDG-1000	Raytheon	CPAF/IF	MAY-08		2	39,087
FY09	DDG-1000	Raytheon	CPAF/IF	TBD		1	37,229

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY07	DDG-1000	SEP-13	28	31	OCT-08
FY09	DDG-1000	TBD	TBD	TBD	TBD

V. COMPETITION/SECOND SOURCE INITIATIVES:

N/A

NOTE:

SHIPBUILDING AND CONVERSION, NAVY
MAJOR SHIP COMPONENT FACT SHEET
(Dollars in Thousands)

P-35 EXHIBIT
FY 2011 President's Budget
February 2010

Ship Type: **DDG 1000**
Equipment Item: **ADVANCED GUN SYSTEM (AGS)**
PARM Code:

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

The Advanced Gun System is a fully automated, single barrel, 155mm, vertically loaded, stabilized gun mount that is capable of storing, initializing/programming, loading and firing projectiles and propelling charges. Its primary mission is Land Attack Warfare in support of ground and expeditionary forces beyond the Line of Sight in the DDG-1000 system's littoral engagement area where precise, rapid-response, high-volume, long-range fire support is required. Each DDG-1000 will carry two complete AGS systems - Mount 61 and 62. The above deck configurations are identical but each has a slightly different below deck configuration. Presently, the only projectile used in AGS is the Long Range Land Attack Projectile (LRLAP). It is a long-range, GPS guided round that delivers a unitary High Explosive (HE) payload at a controlled burst height above a target or during contact with a range of 20 to 83nm.

II. CURRENT FUNDING:

P-35 Category	**FY 2007**		**FY 2009**	
	QTY	**COST**	**QTY**	**COST**
Major Hardware	4	176,390	2	152,050
Technical Support Services		8,934		6,143
Other Costs (NRE)		199,266		74,614
Total		384,590		232,807

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY07	DDG-1000	BAE	CPAF/IF	APR-08		4	44,098
FY09	DDG-1000	BAE	TBD	TBD		2	76,025

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY07	DDG-1000	SEP-13	21	39	SEP-08
FY09	DDG-1000	TBD	TBD	TBD	TBD

V. COMPETITION/SECOND SOURCE INITIATIVES:

N/A

NOTE:

SHIPBUILDING AND CONVERSION, NAVY
MAJOR SHIP COMPONENT FACT SHEET
(Dollars in Thousands)

P-35 EXHIBIT
FY 2011 President's Budget
February 2010

Ship Type: **DDG 1000**
Equipment Item: **VERTICAL LAUNCHING SYSTEM (VLS) MK 57 4-CELL MODULES**
PARM Code:

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

The MK 57 VLS is a general purpose, operationally unmanned launching system capable of stowing, preparing, and launching missiles in support of DDG-1000 mission areas including: land attack warfare, integrated air and surface dominance, and integrated undersea dominance. The MK57 VLS provides the capability for rapid launch of missiles into a 360-degree hemispherical volume above and about the ship. The encanistered missiles are stowed within the launching systems below-deck cells. DDG-1000 will have 80 total cells grouped into 20 four cell modules. Flight 1 missiles to be carried include: Enhanced SeaSparrow Missile (ESSM), Standard Missile-2 (SM-2) Blk III, Tomahawk Land Attack Missile (TLAM) Blk III/IV, and Vertical Launch Anti-Submarine Rocket (VLA).

II. CURRENT FUNDING:

P-35 Category	**FY 2007**		**FY 2009**	
	QTY	**COST**	**QTY**	**COST**
Major Hardware	40	87,052	20	57,595
Technical Support Services		11,204		8,320
Other Costs (NRE)		56,399		0
Total		154,655		65,915

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY07	DDG-1000	Raytheon	CPAF/IF	MAY-08		40	2,176
FY09	DDG-1000	Raytheon	CPAF/IF	TBD		20	2,880

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY07	DDG-1000	SEP-13	30	29	OCT-08
FY09	DDG-1000	TBD	TBD	TBD	TBD

V. COMPETITION/SECOND SOURCE INITIATIVES:

N/A

NOTE:

SHIPBUILDING AND CONVERSION, NAVY
MAJOR SHIP COMPONENT FACT SHEET
(Dollars in Thousands)

P-35 EXHIBIT
FY 2011 President's Budget
February 2010

Ship Type: **DDG 1000**
Equipment Item: **CLOSE-IN GUN SYSTEM (CIGS)**
PARM Code:

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

The Close-In Gun System (CIGS) is a modification of a fully developed system fielded in Foreign Navys and selected through comprehensive trade study process. The CIGS supports the DDG-1000 system in achieving Integrated Air and Surface Dominance with the capability to neutralize hostile surface vessels and aircraft at short ranges. CIGS also supports the Military Operations Other than War (MOOTW) missions, such as performing maritime interdiction, conducting maritime law enforcement, and supporting hostage rescue. Two (2) CIGS will be mounted on the aft end of the hanger. The MK 110 57mm gun fires salvos at 220 rounds/minute from a dual compartment magazine. The standard ammunition is the Bofors 6-mode Prefragmented, Programmable, Proximity fuzed (3P) ammunition which provides range of up to 14.9km with fuzing options allowing three proximity modes as well as settings for time, impact, and armor piercing modes.

II. CURRENT FUNDING:

P-35 Category	**FY 2007**		**FY 2009**	
	QTY	**COST**	**QTY**	**COST**
Major Hardware	4	48,331	2	23,179
Technical Support Services		5,142		2,454
Other Costs (NRE)		10,564		5,735
Total		64,037		31,368

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY07	DDG-1000	BAE	CPAF/IF	APR-08		4	12,083
FY09	DDG-1000	BAE	TBD	TBD		2	11,590

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY07	DDG-1000	SEP-13	30	30	SEP-08
FY09	DDG-1000	TBD	TBD	TBD	TBD

V. COMPETITION/SECOND SOURCE INITIATIVES:

N/A

NOTE:

SHIPBUILDING AND CONVERSION, NAVY
MAJOR SHIP COMPONENT FACT SHEET
(Dollars in Thousands)

P-35 EXHIBIT
FY 2011 President's Budget
February 2010

Ship Type: **DDG 1000**
Equipment Item: **MAIN TURBINE GENERATOR (MTG)**
PARM Code:

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

The Main Turbine Generator Set (MTG) shall be capable of being utilized as the prime power source on the DDG-1000 Destroyer for electrical power applications (propulsion, ship services, and combat systems loads). The DDG-1000 baseline includes two MTGs. The minimum output power from each MTG shall be 35.25MWm, at 3600 rpm power turbine speed at the standard rating conditions defined in the American Bureau of Shipbuilding (ABS) Naval Vessel Rules (NVR).

II. CURRENT FUNDING:

P-35 Category	**FY 2007**		**FY 2009**	
	QTY	**COST**	**QTY**	**COST**
Major Hardware	4	73,262	2	37,500
Technical Support Services		1,485		1,440
Other Costs (NRE)		3,378		3,427
Total		78,125		42,367

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY07	DDG-1000	Rolls-Royce	FFP	MAR-07	New	4	18,316
FY09	DDG-1000	Rolls-Royce	FFP	TBD	Option	2	18,750

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY07	DDG-1000	SEP-13	24	24	SEP-09
FY09	DDG-1000	TBD	TBD	TBD	TBD

V. COMPETITION/SECOND SOURCE INITIATIVES:

N/A

NOTE:

CLASSIFICATION: UNCLASSIFIED

BUDGET ITEM JUSTIFICATION SHEET (P-40)
FY 2011 President's Budget

DATE: February 2010

APPROPRIATION/BUDGET ACTIVITY
SHIPBUILDING AND CONVERSION, NAVY/BA 2 Other Warships

P-1 LINE ITEM NOMENCLATURE
DDG-51
BLI: 2122

(Dollars in Millions)	PRIOR YR	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	TO COMP	TOTAL PROG
QUANTITY	62	0	1	2	1	2	1	2	CONT	71
End Cost	57,061.4	0.0	2,234.4	3,499.4	2,123.3	3,462.6	2,012.2	3,848.4	CONT	74,241.7
Less Advance Procurement	1,324.7	0.0	328.0	577.2	48.0	96.3	48.4	95.7	CONT	2,518.3
Less FY96 Funding for MYP	99.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	99.4
Less FY97 Funding for MYP	63.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	63.0
Less Cost to Complete	731.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	731.4
Less Escalation	48.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	48.2
Less FY00 Transfer	32.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	32.5
Less FY01 Supplemental	151.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	151.0
Less FY02 Transfer Funds (Sec. 8130)	17.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	17.5
Less FY03 Transfer	13.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.3
Less FY06 Hurricane Supplemental	227.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	227.2
Less FY06 Transfer	4.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.2
Full Funding TOA	54,349.0	0.0	1,906.4	2,922.2	2,075.3	3,366.3	1,963.9	3,752.7	CONT	70,335.8
Plus Advance Procurement	1,453.3	199.4	577.2	48.0	96.3	48.4	95.7	49.5	CONT	2,567.8
Plus Full Funding For MYP	162.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	162.4
Plus Cost to Complete	731.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	731.4
Plus FY00 Transfer	32.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	32.5
Plus FY01 Supplemental	151.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	151.0
Plus FY02 Transfer Funds (Sec. 8130)	17.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	17.5
Plus FY03 Transfer	13.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.3
Plus FY06 Hurricane Supplemental	227.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	227.2
Plus FY06 Transfer	4.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.2
Plus Escalation	48.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	48.2
Total Obligational Authority	57,190.0	199.4	2,483.6	2,970.2	2,171.6	3,414.7	2,059.6	3,802.2	CONT	74,291.3
Plus Outfitting / Plus Post Delivery	1,831.7	130.8	165.8	80.3	37.1	0.4	10.6	53.3	CONT	2,310.00
Plus FY06 Outfitting Hurricane Supplemental	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4
Total	59,023.2	330.2	2,649.4	3,050.4	2,208.7	3,415.1	2,070.2	3,855.5	CONT	76,602.7.7
Unit Cost (Ave. End Cost)	920.3	0.0	2,234.4	1,749.7	2,123.3	1,731.3	2,012.2	1,924.2	0.0	1,045.7

MISSION:

DDG 51 will be able to operate offensively and defensively, independently or as units of Carrier Strike Groups and Surface Action Groups, in support of Marine Amphibious Task Forces in multithreat environments that include air, surface and subsurface threats. These ships will respond to Low Intensity Conflict/Coastal and Littoral Offshore Warfare (LIC/CALOW) scenarios as well as open ocean conflict providing or augmenting power projection and forward presence requirements, and escort operations at Sea.

(1) Transferred six Class Standard Equipment (CSE) subsystems from Basic Construction to HM&E.

Characteristics:				Ordnance:	Electronics:
Hull	FLIGHT IIA			AEGIS WEAPON SYSTEM (SPY-1D(V))	AN/SQQ-89 (V) 15
Length overall	471'			VLS MK41/SM-2	AN/SLQ-32
Beam	59'			5" 62 MK 45 Gun	AN/USQ-82 (GEDMS)
Displacement	9217 TONS			Tomahawk (TTWCS)	EXCOMM
				CIWS	MK 12 IFF
Production Status:	DDG 113	DDG 114	DDG 115	MK 32 MOD 7 Torpedo Tubes	SSEE
Contract Plans					MIDS
Award Planned (Month)	JUN 2010	APR 2011	APR 2011		
Months to Complete					
a) Award to Delivery	64	64	64		
b) Construction Start to Delivery	43	TBD	TBD		
Commissioning Date	TBD	TBD	TBD		
Commpletion of Fitting-Out	TBD	TBD	TBD		

CLASSIFICATION:
UNCLASSIFIED

WEAPON SYSTEM COST ANALYSIS (EXHIBIT P-5)
(Dollars in Thousands)

BUDGET ACTIVITY: 2	**P-1 LINE ITEM NOMENCLATURE**	**BLI: 2122**
Other Warships	**DDG-51**	

	FY 2004		**FY 2005**		**FY 2006**		**FY 2007**		**FY 2008**	
ELEMENT OF COST	**QTY**	**COST**	**QTY**	**COST**	**QTY**	**COST**	**QTY**	**COST**	**QTY**	**COST**
PLAN COSTS	3	71,253	3	79,165		27,843		40,349		38,192
BASIC CONST/CONVERSION		1,623,348		1,720,427				1,274		
CHANGE ORDERS		79,948		83,156						
ELECTRONICS		476,850		494,563						
HM&E		47,990		48,714						
OTHER COST		56,066		57,064		22,914		54,827		4,988
ORDNANCE		984,749		1,041,779		96,690		129,300		4,562
TOTAL SHIP ESTIMATE		3,340,204		3,524,868		147,447		225,750		47,742
LESS HURRICANE KATRINA SUPPLEMENTAL FY06		27,323		36,584						
LESS ADVANCE PROCUREMENT FY99		2,708								
LESS ADVANCE PROCUREMENT FY01		77,000		60,000						
LESS ADVANCE PROCUREMENT FY02		50,000								
NET P-1 LINE ITEM:		3,183,173		3,428,284		147,447		225,750		47,742

WEAPON SYSTEM COST ANALYSIS (EXHIBIT P-5)
(Dollars in Thousands)

BUDGET ACTIVITY: 2	**P-1 LINE ITEM NOMENCLATURE**	**BLI: 2122**
Other Warships	**DDG-51**	

	FY 2009		**FY 2010**		**FY 2011**	
ELEMENT OF COST	**QTY**	**COST**	**QTY**	**COST**	**QTY**	**COST**
PLAN COSTS			1	95,355	2	97,174
BASIC CONST/CONVERSION				830,569		1,633,553
CHANGE ORDERS				41,528		81,678
ELECTRONICS				223,352		381,069
HM&E				137,282		206,420
OTHER COST				70,558		76,081
ORDNANCE				835,725		1,023,425
TOTAL SHIP ESTIMATE				2,234,369		3,499,400
LESS ADVANCE PROCUREMENT FY07				128,597		
LESS ADVANCE PROCUREMENT FY09				199,403		
LESS ADVANCE PROCUREMENT FY10						577,210
NET P-1 LINE ITEM:				1,906,369		2,922,190

SHIPBUILDING AND CONVERSION, NAVY

Analysis of Ship Cost Estimate - Basic/Escalation

Ship Type: DDG 51

I.	**Design/Schedule**	**Start/Issue**	**Complete /Response**	**Reissue**	**Complete /Response**
	Issue date for TLR	6/83			
	Issue date for TLS				
	Preliminary Design	3/82	12/82		
	Contract Design	5/83	6/84		
	Detail Design				
	Request for Proposals				
	Design Agent	BIW			
II.	**Classification of Cost Estimate**	CLASS C BUDGET ESTIMATE			
III.	**Basic Construction/Conversion**	FY 2002-2005	**FY 2008**	**FY 2009**	**FY2010**
	A. Actual Award Date	09/02	N/A	N/A	TBD
	B. Contract Type (and Share Line if applicable)	MULTIYEAR PROCUREMENT /FIXED PRICE INCENTIVE	N/A	N/A	ANNUAL WITH OPTION/FPI
	C. RFP Response Date				TBD
IV.	**Escalation**				
	Escalation Termination Date				
	Escalation Requirement	SHIPBUILDING CONTRACTS ARE FORWARD PRICED			
	Labor/Material Split				
	Allowable Overhead Rate				
	BASE DATE				
V.	**Other Basic(Reserves/Miscellaneous)**	**Amount**			
	N/A				

SHIPBUILDING AND CONVERSION, NAVY
SHIP PRODUCTION SCHEDULE

SHIP TYPE	HULL NUMBER	SHIPBUILDER	FISCAL YEAR AUTHORIZED	CONTRACT AWARD	START OF CONSTRUCTION	DELIVERY DATE
DDG	107	NGSB	04	SEP-02	FEB-06	JUL-10
DDG	108	BIW	04	SEP-02	DEC-05	JUL-09
DDG	109	BIW	04	SEP-02	JUL-06	JUN-10
DDG	110	NGSB	05	SEP-02	MAY-07	OCT-10
DDG	111	BIW	05	SEP-02	APR-07	MAR-11
DDG	112	BIW	05	SEP-02	FEB-08	NOV-11
DDG	113	NGSB	10	JUN-10	MAR-12	OCT-15
DDG	114	NGSB	11	APR-11	TBD	AUG-16
DDG	115	BIW	11	APR-11	TBD	AUG-16
DDG	116	TBD	12	TBD	TBD	TBD
DDG	117	TBD	13	TBD	TBD	TBD
DDG	118	TBD	13	TBD	TBD	TBD
DDG	119	TBD	14	TBD	TBD	TBD
DDG	120	TBD	15	TBD	TBD	TBD
DDG	121	TBD	15	TBD	TBD	TBD

SHIPBUILDING AND CONVERSION, NAVY

Analysis of Ship Cost Estimates - Major Equipment

(Dollars in Thousands)

Ship Type: DDG-51 AEGIS DESTROYERS	FY 2010		FY 2011	
	QTY	COST	QTY	COST
ELECTRONICS				
a. P-35 Items				
SQQ 89 ASW	1	56,236	2	82,285
SLQ-32B(V)2/MK 53 NULKA	1	11,348	2	22,221
USQ 82 GEDMS	1	17,450	2	24,924
EXCOMM	1	53,157	2	93,120
Subtotal		138,191		222,550
b. Major Items				
NAVIGATION SYSTEM	1	2,428	2	3,889
MK-12 IFF	1	5,546	2	16,244
SLQ 25 NIXIE	1	2,409	2	3,118
SRQ 4 LAMPS III	1	2,735	2	5,968
SSEE	1	16,389	2	31,346
MIDS	1	3,801	2	7,032
CEC BLK II	1	7,567	2	10,486
Subtotal		40,875		78,083
c. Other ELECTRONICS				
MISC. ELECTRONICS	1	44,286	2	80,436
Subtotal		44,286		80,436
Total ELECTRONICS		223,352		381,069

SHIPBUILDING AND CONVERSION, NAVY

Analysis of Ship Cost Estimates - Major Equipment

(Dollars in Thousands)

Ship Type: DDG-51 AEGIS DESTROYERS	FY 2010		FY 2011	
	QTY	COST	QTY	COST
HM&E				
a. P-35 Items				
STC 2 IVCS	1	7,856	2	14,360
MAIN REDUCTION GEAR	1	70,440	2	123,046
Subtotal		78,296		137,406
b. Major Items				
MACHINERY CONTROL SYSTEM	1	13,026	2	12,669
INTEGRATED BRIDGE NAVIGATION SYSTEM	1	10,444	2	13,198
Subtotal		23,470		25,867
c. Other HM&E				
MISC. HM&E	1	35,516	2	43,147
Subtotal		35,516		43,147
Total HM&E		137,282		206,420

SHIPBUILDING AND CONVERSION, NAVY

Analysis of Ship Cost Estimates - Major Equipment

(Dollars in Thousands)

Ship Type: DDG-51 AEGIS DESTROYERS	FY 2010		FY 2011	
	QTY	COST	QTY	COST
ORDNANCE				
a. P-35 Items				
AEGIS WEAPON SYSTEM (MK-7)	1	382,774	2	511,258
VLS MK 41	1	94,628	2	140,106
MK 45 LWG	1	27,334	2	51,232
MK 37 TOMAHAWK	1	43,406	2	28,905
PHALANX CIWS BLK 1B	1	6,755	2	15,968
Subtotal		554,897		747,469
b. Major Items				
MK 32 SVTT	1	2,626	2	5,387
ELECTRO-OPTICAL SYSTEM	1	3,429	2	6,868
MK 160 GFCS	1	9,932	2	6,799
SPS 67 RADAR	1	14,920	2	15,785
ESSM(BUDGETED IN AWS/VLS)	1			
Subtotal		30,907		34,839
c. Other ORDNANCE				
MISC. ORDNANCE	1	249,921	2	241,117
Subtotal		249,921		241,117
Total ORDNANCE		835,725		1,023,425

SHIPBUILDING AND CONVERSION, NAVY
MAJOR SHIP COMPONENT FACT SHEET
(Dollars in Thousands)

P-35 EXHIBIT
FY 2011 President's Budget
February 2010

Ship Type: **DDG-51 AEGIS DESTROYERS**
Equipment Item: **SQQ 89 ASW**
PARM Code:

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

Detect, classify, localize and track submerged submarines under all environmental conditions at long range from ASW ships, using bottom reflected and convergence zone acoustic paths.

II. CURRENT FUNDING:

P-35 Category	**FY 2010**		**FY 2011**	
	QTY	**COST**	**QTY**	**COST**
Major Hardware	1	34,758	2	49,272
Spares		462		894
System Engineering		4,540		7,501
Technical Engineering Services		2,296		4,356
Other Costs		14,180		20,262
Total		56,236		82,285

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY10	DDG 51	LOCKHEED MARTIN	FFP	JAN-11		1	34,758
FY11	DDG 51	LOCKHEED MARTIN	FFP	JAN-11		2	24,636

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY10	DDG 51	OCT-15	14	24	AUG-12
FY11	DDG 51	AUG-16	14	24	JUL-13

V. COMPETITION/SECOND SOURCE INITIATIVES:

Competitive

NOTE:

SHIPBUILDING AND CONVERSION, NAVY
MAJOR SHIP COMPONENT FACT SHEET
(Dollars in Thousands)

P-35 EXHIBIT
FY 2011 President's Budget
February 2010

Ship Type: **DDG-51 AEGIS DESTROYERS**
Equipment Item: **SLQ-32B(V)2/MK 53 NULKA**
PARM Code:

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

SLQ-32B(V)2 with SEWIP Block 1B 2 provides the DDG 51 Class Destroyers with the electronic warfare capability of automatically detecting, sorting, classifying, tracking, engaging and continually displaying emitter and platform densities. Included in the ship's electronic warfare suite is the MK 53 Decoy Launching System, which is an automated rapid response Decoy Deploying System for use in countering Anti-Ship Missiles (ASMs).

II. CURRENT FUNDING:

P-35 Category	**FY 2010**		**FY 2011**	
	QTY	**COST**	**QTY**	**COST**
Major Hardware	1	8,522	2	17,466
Spares		733		1,393
System Engineering		507		725
Technical Engineering Services		328		591
Other Costs		1,258		2,046
Total		11,348		22,221

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY10	DDG 51	RAYTHEON/CRANE	FFP	MAR-11		1	8,522
FY11	DDG 51	RAYTHEON/CRANE	FFP	MAR-11		2	8,733

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY10	DDG 51	OCT-15	16	24	JUN-12
FY11	DDG 51	AUG-16	16	24	APR-13

V. COMPETITION/SECOND SOURCE INITIATIVES:

Sole Source

NOTE:

AN/SLQ-32 shared restoration between Raytheon and NSWC/Crane

SHIPBUILDING AND CONVERSION, NAVY
MAJOR SHIP COMPONENT FACT SHEET
(Dollars in Thousands)

P-35 EXHIBIT
FY 2011 President's Budget
February 2010

Ship Type: **DDG-51 AEGIS DESTROYERS**
Equipment Item: **USQ 82 GEDMS**
PARM Code:

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

A general purpose, modular, shipboard data transfer system that provides high speed, reliable and survivable data from source systems to user systems automatically or on demand. In comparison to AN/USQ-82 (FODMS) (on DDG 79 - DDG 110), Gig-E Data Multiplex System (GEDMS), introduced on DDG 111, provides 10 times the bandwidth, approximately one-half the latency, increased data rate, and added ability for fast Ethernet type interfaces.

II. CURRENT FUNDING:

P-35 Category	**FY 2010**		**FY 2011**	
	QTY	**COST**	**QTY**	**COST**
Major Hardware	1	6,800	2	12,920
Technical Data and Documentation		1,150		1,190
System Engineering		2,800		2,885
Technical Engineering Services		350		485
Other Costs		6,350		7,444
Total		17,450		24,924

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY10	DDG 51	COMPETITIVE	FFP	JUN-11		1	6,800
FY11	DDG 51	COMPETITIVE	FFP	JUN-12		2	6,460

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY10	DDG 51	OCT-15	25	18	MAR-12
FY11	DDG 51	AUG-16	25	18	JAN-13

V. COMPETITION/SECOND SOURCE INITIATIVES:

Competitive

NOTE:

SHIPBUILDING AND CONVERSION, NAVY
MAJOR SHIP COMPONENT FACT SHEET
(Dollars in Thousands)

P-35 EXHIBIT
FY 2011 President's Budget
February 2010

Ship Type: **DDG-51 AEGIS DESTROYERS**
Equipment Item: **EXCOMM**
PARM Code:

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

The Exterior Communication System (EXCOMM) provides voice, data, teletypewriter (TTY), continuous wave (CW), and other communication services on designated frequencies from VLF to UHF for tactical and record requirements. It includes all external radio communication devices aboard the ship.

II. CURRENT FUNDING:

P-35 Category	FY 2010 QTY	FY 2010 COST	FY 2011 QTY	FY 2011 COST
Major Hardware	1	18,348	2	43,680
Technical Data and Documentation		120		212
Spares		467		396
System Engineering		5,675		6,023
Technical Engineering Services		1,612		3,134
Assembly & Integration		17,516		28,544
Other Costs		9,419		11,131
Total		53,157		93,120

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY10	DDG 51	VARIOUS	VAR	VAR		1	18,348
FY11	DDG 51	VARIOUS	VAR	VAR		2	21,840

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY10	DDG 51	OCT-15	15	9	OCT-13
FY11	DDG 51	AUG-16	15	9	AUG-14

V. COMPETITION/SECOND SOURCE INITIATIVES:

Numerous contract arrangements (sole source/competitive)

NOTE:

Contract Data note: There are numerous components and contracts resulting in various award dates.

SHIPBUILDING AND CONVERSION, NAVY
MAJOR SHIP COMPONENT FACT SHEET
(Dollars in Thousands)

P-35 EXHIBIT
FY 2011 President's Budget
February 2010

Ship Type: **DDG-51 AEGIS DESTROYERS**
Equipment Item: **MAIN REDUCTION GEAR**
PARM Code:

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

The contractor will engineer, manufacture, test and deliver a fully operational DDG 51 Main Reduction Gear (MRG). A DDG 51 Class MRG shipset consists of two gear assemblies. Each reduction gear combines the input of two LM2500 engines to convert the high speed, low torque of the engine to low speed, high torque output suitable to drive the propulsion shafting, and the related support systems and equipment.

II. CURRENT FUNDING:

P-35 Category	**FY 2010**		**FY 2011**	
	QTY	**COST**	**QTY**	**COST**
Major Hardware	1	52,400	2	84,400
Spares		3,660		7,320
System Engineering		6,590		20,200
Technical Engineering Services		4,875		8,196
Other Costs		2,915		2,930
Total		70,440		123,046

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY10	DDG 51	TBD	FFP	FEB-10		1	52,400
FY11	DDG 51	TBD	FFP	APR-11		2	42,200

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY10	DDG 51	OCT-15	32	36	FEB-10
FY11	DDG 51	AUG-16	32	32	APR-11

V. COMPETITION/SECOND SOURCE INITIATIVES:

COMPETITIVE

NOTE:

SHIPBUILDING AND CONVERSION, NAVY
MAJOR SHIP COMPONENT FACT SHEET
(Dollars in Thousands)

P-35 EXHIBIT
FY 2011 President's Budget
February 2010

Ship Type: **DDG-51 AEGIS DESTROYERS**
Equipment Item: **STC 2 IVCS**
PARM Code:

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

A solid state integrated voice communication system (IVCS) for application with the AEGIS combat system.

II. CURRENT FUNDING:

P-35 Category	**FY 2010**		**FY 2011**	
	QTY	**COST**	**QTY**	**COST**
Major Hardware	1	4,642	2	9,562
Spares		229		471
System Engineering		1,075		1,632
Technical Engineering Services		270		416
Other Costs		1,640		2,279
Total		7,856		14,360

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY10	DDG 51	DRS	FFP	AUG-10		1	4,642
FY11	DDG 51	DRS	FFP	AUG-11		2	4,781

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY10	DDG 51	OCT-15	30	16	DEC-11
FY11	DDG 51	AUG-16	30	16	OCT-12

V. COMPETITION/SECOND SOURCE INITIATIVES:

Sole Source

NOTE:

SHIPBUILDING AND CONVERSION, NAVY
MAJOR SHIP COMPONENT FACT SHEET
(Dollars in Thousands)

P-35 EXHIBIT
FY 2011 President's Budget
February 2010

Ship Type: **DDG-51 AEGIS DESTROYERS**
Equipment Item: **AEGIS WEAPON SYSTEM (MK-7)**
PARM Code:

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

AEGIS is a fast reaction, high firepower, all weather weapon system incorporating a high degree of system availability and effectiveness. It consists of a multi-function phase/plane array radar, high powered illuminators, advanced missile guidance and fully digitizalized and integrated combat ship control for radar, weapons and command and decision. An Operational Readiness Test System performs continuous on-line assessment and fault detection.

II. CURRENT FUNDING:

P-35 Category	**FY 2010**		**FY 2011**	
	QTY	**COST**	**QTY**	**COST**
Major Hardware	1	223,664	2	326,702
System Integration		57,120		84,230
Logistics Support		34,540		35,919
Technical Engineering Services		16,800		15,114
Technical Support Services		0		0
System Engineering		5,965		5,140
Other		44,685		44,153
Total		382,774		511,258

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY10	DDG 51	LOCKHEED MARTIN/RAYTHE	FPI	SEP-09		1	223,664
FY11	DDG 51	LOCKHEED MARTIN/RAYTHE	FPI	MAY-10		2	163,351

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY10	DDG 51	OCT-15	16	54	DEC-09
FY11	DDG 51	AUG-16	15	36	MAY-12

V. COMPETITION/SECOND SOURCE INITIATIVES:

Sole Source

NOTE:

Contract Data Notes:

Antenna and Signal Processors - Contractor: Lockheed Martin

Spy Transmitter and Fire Control System Transmitter - Contractor: Raytheon

Director/Director Controller - Competitive

SHIPBUILDING AND CONVERSION, NAVY
MAJOR SHIP COMPONENT FACT SHEET
(Dollars in Thousands)

P-35 EXHIBIT
FY 2011 President's Budget
February 2010

Ship Type: **DDG-51 AEGIS DESTROYERS**
Equipment Item: **VLS MK 41**
PARM Code:

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

The VLS is a Missile Launching System which provides Surface Combatants with a launcher to carry, prepare for launch and fire, Anti-Air Warfare, Strike/Surface Warfare, and Anti-Submarine Warfare weapons. The Flight IIA MK-41 VLS Launchers consist of twelve modules comprised of eight cells each.

II. CURRENT FUNDING:

P-35 Category	**FY 2010**		**FY 2011**	
	QTY	**COST**	**QTY**	**COST**
Major Hardware	1	64,045	2	106,276
Ancillary Equip.		1,390		2,830
Tech Data/Doc		490		500
Technical Engineering Services		9,365		11,600
System Engineering		13,203		12,580
Other Costs		6,135		6,320
Total		94,628		140,106

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY10	DDG 51	LOCKHEED MARTIN/BAE	TBD	AUG-10		1	64,045
FY11	DDG 51	LOCKHEED MARTIN/BAE	TBD	AUG-10		2	53,138

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY10	DDG 51	OCT-15	18	24	APR-12
FY11	DDG 51	AUG-16	18	24	FEB-13

V. COMPETITION/SECOND SOURCE INITIATIVES:

Sole Source

NOTE:

SHIPBUILDING AND CONVERSION, NAVY
MAJOR SHIP COMPONENT FACT SHEET
(Dollars in Thousands)

P-35 EXHIBIT
FY 2011 President's Budget
February 2010

Ship Type: **DDG-51 AEGIS DESTROYERS**
Equipment Item: **MK 45 LWG**
PARM Code:

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

The 5" 62 caliber MK 45 Mod 4 Gun is a digitized high energy system with the capability to automatically select, load and fire different types of 5"/62 caliber projectiles.

II. CURRENT FUNDING:

P-35 Category	**FY 2010**		**FY 2011**	
	QTY	**COST**	**QTY**	**COST**
Major Hardware	1	18,715	2	34,996
Spares		979		1,162
System Engineering		2,587		5,317
Technical Engineering Services		1,389		2,855
Other Costs		3,664		6,902
Total		27,334		51,232

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY10	DDG 51	BAE AD/MCNALLY	FFP	SEP-10		1	18,715
FY11	DDG 51	BAE AD/MCNALLY	FFP	SEP-11		2	17,498

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY10	DDG 51	OCT-15	18	24	APR-12
FY11	DDG 51	AUG-16	18	24	FEB-13

V. COMPETITION/SECOND SOURCE INITIATIVES:

NOTE:

Contract Data notes:

Gun Mount contract: BAE Armament Division - Sole Source

Lower Hoist contract: McNally - Sole Source

SHIPBUILDING AND CONVERSION, NAVY
MAJOR SHIP COMPONENT FACT SHEET
(Dollars in Thousands)

P-35 EXHIBIT
FY 2011 President's Budget
February 2010

Ship Type: **DDG-51 AEGIS DESTROYERS**
Equipment Item: **MK 37 TOMAHAWK**
PARM Code:

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

The Tactical Tomahawk Weapon Control System (TTWCS) is an open system architecture of work stations, processors, printers, fiber optic Local Area Network (LAN) and the Navy Standard Mass Measurement storage device which provides target data management, engagement planning, weapon selection and initiation and launch functions for the TOMAHAWK cruise missile.

II. CURRENT FUNDING:

P-35 Category	**FY 2010**		**FY 2011**	
	QTY	**COST**	**QTY**	**COST**
Major Hardware	1	21,656	2	7,925
Spares		5,179		1,288
System Engineering		4,747		4,977
Technical Engineering Services		2,918		3,808
Other Costs		8,906		10,907
Total		43,406		28,905

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY10	DDG 51	NSWC PT HUENEME	FFP	APR-11		1	21,656
FY11	DDG 51	COMPETITIVE	FFP	SEP-12		2	3,963

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY10	DDG 51	OCT-15	19	8	JUL-13
FY11	DDG 51	AUG-16	19	8	MAY-14

V. COMPETITION/SECOND SOURCE INITIATIVES:

Competitive

NOTE:

SHIPBUILDING AND CONVERSION, NAVY
MAJOR SHIP COMPONENT FACT SHEET
(Dollars in Thousands)

P-35 EXHIBIT
FY 2011 President's Budget
February 2010

Ship Type: **DDG-51 AEGIS DESTROYERS**
Equipment Item: **PHALANX CIWS BLK 1B**
PARM Code:

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

A fast reaction terminal defense against both low-flying, high speed, anti-ship missiles and high speed maneuvering surface targets. The system is an automatic, self-contained unit consisting of search and track radar, digitalized fire control and a 20 mm M61A1 gun all mounted in a single above deck structure requiring a minimum of interference with other ship systems.

II. CURRENT FUNDING:

P-35 Category	**FY 2010**		**FY 2011**	
	QTY	**COST**	**QTY**	**COST**
Major Hardware	1	5,143	2	12,158
System Engineering		318		750
Technical Engineering Services		567		1,340
Other Costs		727		1,720
Total		6,755		15,968

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY10	DDG 51	RAYTHEON	FFP	FEB-10		1	5,143
FY11	DDG 51	RAYTHEON	FFP	DEC-10		2	6,079

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY10	DDG 51	OCT-15	25	22	NOV-11
FY11	DDG 51	AUG-16	25	22	SEP-12

V. COMPETITION/SECOND SOURCE INITIATIVES:

Sole Source

NOTE:

CLASSIFICATION:	UNCLASSIFIED											
Exhibit P-10, Advance Procurement Requirements Analysis (Funding)									Date: **February 2010**			
Appropriation (Treasury)Code/CC/BA/BSA/Item Control Number **SHIPBUILDING AND CONVERSION, NAVY / 2 / Other Warships / BLI 2122**							P-1 Line Item Nomenclature **DDG-51**					
Weapon System **DDG 51 CLASS**			First System (BY1) Award Date and Completion Date **VARIOUS**						Interval Between Systems **VARIOUS**			
BLI	PLT	When Req'd	Prior Years	FY09	FY10	FY11	FY12	FY13	FY14	FY15	To Complete	Total
ADVANCE PLANNING (1)	various	Apr-09	**15.5**	**9.8**		**3.0**						**28.3**
PRODUCTION ENGINEERING (2)		Aug-09	**32.8**	**4.7**								**37.5**
SHIPBUILDER CLASS STANDARD EQUIPMENT (3)			**66.9**	**67.3**	**220.6**	**40.4**	**80.5**	**41.8**	**83.4**	**43.2**		**644.1**
CRP Propeller (3)	various	Dec-09	3.1	3.2	12.6	6.2	12.3	6.4	12.7	6.6		63.1
400HZ Frequency Changers (3)	various	Dec-09	4.6	4.6	16.0							25.2
Ship Service Gas Turbine Generators (SSGTG) (3)	various	Dec-09	13.9	13.9	55.6	26.1	51.8	27.0	53.6	27.9		269.8
Propulsion Shafting (3)	various	Dec-09	3.9	4.0	15.8	8.1	16.4	8.4	17.1	8.7		82.4
Commodities (Steel, Iron, Pipe) (3)	various	Dec-09	7.8	7.8	23.6							39.2
Steering System (3)	various	Dec-09	6.9	6.9	23.8							37.6
LM 2500 (3)	various	Dec-09	18.3	18.3	73.2							109.8
Non-CFC A/C Plants (3)	various	Dec-09	5.0	5.1								10.1
60HZ Main Switchboard (3)	various	Dec-09	3.4	3.5								6.9
OTHER SHIPBUILDING MATERIAL (4)	various	Dec-09	**13.4**	**23.1**	**7.4**	**2.4**	**12.0**	**4.2**	**8.2**	**3.7**		**74.4**
GFE - ELECTRONICS (5)				**4.7**	**13.8**							**18.5**
IFF (OE-120A Antenna) (5)	various	Jul-09		1.4								1.4
EXCOMM Equipment (5)	various	Feb-09		3.3	13.8							17.1
GFE - ORDNANCE (6)				**73.8**	**230.2**							**304.0**
AEGIS Weapon System (6)	various	Sep-09		72.7	151.5							224.2
Tomahawk (6)	various	Aug-09		1.1								1.1
Vertical Launch System (VLS) (6)	various	Aug-10			78.7							78.7
COMBAT SYSTEM ENGINEERING (7)	various	Sep-09		**16.0**								**16.0**
GFE - Hull, Mechanical and Electrical (H,M,&E) (8)					**105.2**	**2.2**	**3.8**	**2.4**	**4.1**	**2.6**		**120.3**
Main Reduction Gear (8)	various	Feb-10			99.2							99.2
Machinery Control System (8)	various	various				2.2	3.8	2.4	4.1	2.6		15.1
Integrated Bridge Navigation System (8)	various	Mar-10			6.0							6.0
Total AP			**128.6**	**199.4**	**577.2**	**48.0**	**96.3**	**48.4**	**95.7**	**49.5**		**1,243.1**

Description:

(1) Advance Planning Advance Planning AP is required to fund production planning and procurement management for the continuation of the DDG 51 Program.

(2) Production Engineering Production Engineering AP is required to fund NGSB to demonstrate that DDG 51 cost savings can be realized through efficient production techniques as agreed upon in the DDG 1000 and DDG 51 MOA.

(3) Shipbuilder Class Standard Equipment Shipbuilder CSE AP is required to satisfy in-yard need dates for ship production.

(4) Other Shipbuilding Material Other Shipbuilding Material AP is required to satisfy in-yard need dates for ship production.

(5) GFE - Electronics GFE Electronics AP is required to satisfy in-yard need dates for ship production and to avoid costs associated with production line shutdown in FY10.

(6) GFE - Ordnance GFE Ordnance AP is required to satisfy in-yard need dates for ship production and to avoid costs associated with production line shutdown in FY10.

(7) Combat System Engineering Combat System Engineering AP is required to fund ship integration engineering for continuation of the Program in FY10.

(8) GFE Hull, Mechanical and Electrical (H,M,&E) GFE Hull, Mechanical and Electrical (H,M,&E) AP is required to satisfy in-yard need dates for ship production and to avoid costs associated with production line shutdown in FY10.

Complies with sections 010107.2 and 010202.B.3 of the DOD FMR which limits advance procurement funding to, "components whose long-lead-times require purchase early in order to reduce the overall procurement lead-time of the major end item".

CLASSIFICATION:	UNCLASSIFIED								
Exhibit P-10, Advance Procurement Requirements Analysis (Budget Justification)								Date: **February 2010**	
Appropriation (Treasury)Code/CC/BA/BSA/Item Control Number **SHIPBUILDING AND CONVERSION, NAVY / 2 / Other Warships / BLI 2122**					Weapon System **DDG 51 CLASS**			P-1 Line Item Nomenclature **DDG-51**	
(TOA $ in Millions)				**FY11**					
	PLT	QPA	Unit Cost	Qty	Contract Forecast Date	Total Cost Request			
ADVANCE PLANNING (1)	various	1 shipset			second qtr	**3.0**			
SHIPBUILDER CLASS STANDARD EQUIPMENT (2)						**40.4**			
CRP Propeller (2)	various	1 shipset		1 shipset	second qtr	6.2			
Ship Service Gas Turbine Generators (SSGTG) (2)	various	1 shipset		1 shipset	second qtr	26.1			
Propulsion Shafting (2)	various	1 shipset		1 shipset	second qtr	8.1			
OTHER SHIPBUILDING MATERIAL (3)	various	1 shipset		1 shipset	second qtr	**2.4**			
GFE - Hull, Mechanical and Electrical (H,M,&E) (4)						**2.2**			
Machinery Control System (4)	various	1 shipset		1 shipset	second qtr	2.2			
Total Advance Procurement						**48.0**			

Description:

(1) Advance Planning Advance Planning AP is required to fund production planning and procurement management for the continuation of the DDG-51 Program.

(2) Shipbuilder Class Standard Equipment Shipbuilder CSE AP is required to satisfy in-yard need dates for ship production.

(3) Other Shipbuilding Material Other Shipbuilding Material AP is required to satisfy in-yard need dates for ship production.

(4) GFE H,M,&E GFE H,M,&E AP is required to satisfy in-yard need dates for ship production.

Complies with sections 010107.2 and 010202.B.3 of the DOD FMR which limits advance procurement funding to, "components whose long-lead-times require purchase early in order to reduce the overall procurement lead-time of the major end item".

CLASSIFICATION:	UNCLASSIFIED												
Exhibit P-10, Advance Procurement Requirements Analysis (Budget Justification)												Date: **February 2010**	
Appropriation (Treasury)Code/CC/BA/BSA/Item Control Number **SHIPBUILDING AND CONVERSION, NAVY / 2 / Other Warships / BLI 2122**								Weapon System **DDG 51 CLASS**				P-1 Line Item Nomenclature **DDG-51**	
(TOA $ in Millions)		**Prior Years**		**FY09 Advance Procurement Data**				**FY10 Advance Procurement Data**			**FY11 Advance Procurement Data**		
(TOA $ in Millions)	PLT	Qty	Total Cost Request	Qty	Contract Forecast Date	Actual Contract Date	Total Cost Request	Qty	Contract Forecast Date	Total Cost Request	Qty	Contract Forecast Date	Total Cost Request
ADVANCE PLANNING (1)	various		**15.5**			Apr-09	**9.8**						
PRODUCTION ENGINEERING (2)			**32.8**			Aug-09	**4.7**					second qtr	**3.0**
SHIPBUILDER CLASS STANDARD EQUIPMENT (3)			**66.9**				**67.3**			**220.6**			**40.4**
CRP Propeller (3)	various	1 shipset	3.1	1 shipset		Dec-09	3.2	2 shipset	Feb-10	12.6	1 shipset	second qtr	6.2
400HZ Frequency Changers (3)	various	1 shipset	4.6	1 shipset		Dec-09	4.6	2 shipset	Feb-10	16.0			
Ship Service Gas Turbine Generators (SSGTG) (3)	various	1 shipset	13.9	1 shipset		Dec-09	13.9	2 shipset	Feb-10	55.6	1 shipset	second qtr	26.1
Propulsion Shafting (3)	various	1 shipset	3.9	1 shipset		Dec-09	4.0	2 shipset	Feb-10	15.8	1 shipset	second qtr	8.1
Commodities (Steel, Iron, Pipe) (3)	various	1 shipset	7.8	1 shipset		Dec-09	7.8	2 shipset	Feb-10	23.6			
Steering System (3)	various	1 shipset	6.9	1 shipset		Dec-09	6.9	2 shipset	Feb-10	23.8			
LM 2500 (3)	various	1 shipset	18.3	1 shipset		Dec-09	18.3	2 shipset	Feb-10	73.2			
Non-CFC A/C Plants (3)	various	1 shipset	5.0	1 shipset		Dec-09	5.1						
60HZ Main Switchboard (3)	various	1 shipset	3.4	1 shipset		Dec-09	3.5						
OTHER SHIPBUILDING MATERIAL (4)	various	1 shipset	**13.4**	1 shipset		Dec-09	**23.1**	2 shipset	Feb-10	**7.4**	1 shipset	second qtr	**2.4**
GFE - ELECTRONICS (5)							**4.7**			**13.8**			
IFF (OE-120A Antenna) (5)	various			1 shipset		Jul-09	1.4						
EXCOMM Equipment (5)	various			1 shipset		Feb-09	3.3	2 shipset	Aug-10	13.8			
GFE - ORDNANCE (6)							**73.8**			**230.2**			
AEGIS Weapon System (6)	various			1 shipset		Sep-09	72.7	2 shipset	Aug-10	151.5			
Tomahawk (6)	various			1 shipset		Aug-09	1.1						
Vertical Launch System (VLS) (6)	various							2 shipset	Aug-10	78.7			
COMBAT SYSTEM ENGINEERING (7)	various					Sep-09	**16.0**						
GFE - Hull, Mechanical and Electrical (H,M,&E) (8)										**105.2**			**2.2**
Main Reduction Gear (8)	various							2 shipset	Feb-10	99.2			
Machinery Control System (8)	various										1 shipset	second qtr	2.2
Integrated Bridge Navigation System (8)	various							2 shipset	Mar-10	6.0			
Total AP			**128.6**				**199.4**			**577.2**			**48.0**

Description:

(1) Advance Planning Advance Planning AP is required to fund production planning and procurement management for the continuation of the DDG 51 Program.

(2) Production Engineering Production Engineering AP is required to fund NGSB to demonstrate that DDG 51 cost savings can be realized through efficient production techniques as agreed upon in the DDG 1000 and DDG 51 MOA.

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(5) GFE - Electronics GFE Electronics AP is required to satisfy in-yard need dates for ship production and to avoid costs associated with production line shutdown in FY10.

(6) GFE - Ordnance GFE Ordnance AP is required to satisfy in-yard need dates for ship production and to avoid costs associated with production line shutdown in FY10.

(7) Combat System Engineering Combat System Engineering AP is required to fund ship integration engineering for continuation of the Program in FY10.

(8) GFE H,M,&E GFE H,M,&E AP is required to satisfy in-yard need dates for ship production and to avoid costs associated with production line shutdown in FY10.

Complies with sections 010107.2 and 010202.B.3 of the DOD FMR which limits advance procurement funding to, "components whose long-lead-times require purchase early in order to reduce the overall procurement lead-time of the major end item".

CLASSIFICATION: UNCLASSIFIED

BUDGET ITEM JUSTIFICATION SHEET (P-40)
FY 2011 President's Budget

DATE: February 2010

APPROPRIATION/BUDGET ACTIVITY
SHIPBUILDING AND CONVERSION, NAVY/BA 2 Other Warships

P-1 LINE ITEM NOMENCLATURE
LITTORAL COMBAT SHIP (LCS)
LI: 2127

(Dollars in Millions)	PRIOR YR	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	TO COMP	TOTAL PROG
QUANTITY	0	2	2	2	3	4	4	4	32	53
End Cost (1)	159.4	1,357.7	1,146.7	1,231.0	1,808.2	2,473.0	2,555.7	2,510.0	9,350.0	22,591.7
Less Advance Procurement	0.0	0.0	0.0	0.0	119.3	139.1	139.1	0.0	0.0	397.5
Less Termination Funds/Materials (2)	0.0	340.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	340.7
Full Funding TOA	159.4	1,017.0	1,146.7	1,231.0	1,688.9	2,333.8	2,416.6	2,510.0	9,350.0	21,853.4
Plus Advance Procurement	0.0	0.0	0.0	278.4	119.2	0.0	0.0	237.9	0.0	635.5
Plus Termination Funds/Materials (2)	340.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	340.7
Total Obligational Authority	500.1	1,017.0	1,146.7	1,509.3	1,808.1	2,333.8	2,416.6	2,747.9	9,350.0	22,829.5
Plus Outfitting / Plus Post Delivery	0.0	0.0	0.0	2.8	68.8	75.7	104.5	91.0	452.3	795.1
Total	500.1	1,017.0	1,146.7	1,512.1	1,876.9	2,409.5	2,521.1	2,838.9	9,802.3	23,624.6
Unit Cost (Ave. End Cost)	0.0	678.8	573.3	615.5	602.7	618.2	638.9	627.5		

MISSION:

Provides for the design, construction, integration and testing of the Littoral Combat Ship (LCS), including Ordnance, Government Furnished Equipment (GFE), Program Office and Change Order Costs. LCS will be a fast, agile, and networked surface combatant with capabilities optimized to defeat asymmetric threats, and assure naval and joint force access into contested littoral regions. It will use open-systems-architecture design, modular weapons, and sensor systems, and a variety of manned and unmanned vehicles to expand the battle space and project offensive power into the littoral. LCS will operate with focused-mission packages that deploy manned and unmanned vehicles to execute a variety of missions, including littoral anti-submarine warfare (ASW), anti-surface warfare (SUW), and mine countermeasures (MCM). LCS will also possess inherent capabilities, regardless of mission package installed, including Intelligence Surveillance Reconnaissance (ISR), homeland defense, Maritime Interdiction/Interception Operations (MIO), anti-terrorism/force protection (AT/FP), air self-defense, joint littoral mobility, and Special Operating Forces (SOF) and logistic support for movement of personnel and supplies. This relatively small, high-speed surface combatant will complement the U.S. Navy's AEGIS fleet, by operating in environments where it is less desirable to employ larger, multi-mission ships. It will have the capability to deploy independently to overseas littoral regions, remain on station for extended periods of time either with a battle group or through a forward-basing arrangement and will be capable of underway replenishment. It will operate with Carrier Strike Groups, Surface Action Groups, in groups of other similar ships, or independently for diplomatic and presence missions. Additionally, it will have the capability to operate cooperatively with the U.S. Coast Guard and Allies.

NOTES: (1) FY 2010 reflects the Navy's plan to request a $70M reprogramming/transfer for the FY2010 ships.
(2) The FY2009 value includes the FY2006 funds and materials used to complete the FY2009 ships.

Characteristics	LM	GD
Overall Length:	115m	127m
Max Beam:	18m	30m
Displacement	3089 mt	2842 mt

	FY09	FY09	FY10	FY10	FY11	FY11
Production Status:	LCS 3	LCS 4	LCS 5	LCS 6	LCS 7	LCS 8
Contract Award Date	3/09	5/09	05/10	05/10	11/10	11/10
Months to Completion						
a) Contract Award to Delivery	41 months	41 months	41 months	41 months	41 months	41 months
b) Construction Start to Delivery	32 months	32 months	32 months	32 months	32 months	32 months
Delivery Date	2/12	4/12	10/13	12/13	04/14	06/14
Completion of Fitting Out	4/12	7/12	01/14	03/14	07/14	09/14
Obligation Work Limiting Date	6/13	7/13	12/14	02/15	06/15	08/15

WEAPON SYSTEM COST ANALYSIS (EXHIBIT P-5)
(Dollars in Thousands)

BUDGET ACTIVITY: 2	**P-1 LINE ITEM NOMENCLATURE**	**LI: 2127**
Other Warships	**LITTORAL COMBAT SHIP (LCS)**	

	FY 2009		**FY 2010**		**FY 2011**	
ELEMENT OF COST	**QTY**	**COST**	**QTY**	**COST**	**QTY**	**COST**
PLAN COSTS	2	55,800	2	30,000	2	47,000
BASIC CONST/CONVERSION (1)		818,366		954,898		994,119
CHANGE ORDERS		46,610		50,258		52,322
ELECTRONICS		21,400		26,929		27,467
HM&E		4,595		4,840		4,937
OTHER COST		60,000		60,000		85,000
ORDNANCE		10,181		19,744		20,139
FY06 TERMINATION FUNDS/MATERIALS (2)		340,700				
TOTAL SHIP ESTIMATE		1,357,652		1,146,669		1,230,984
LESS SCN Materials/Funding from FY 2006 terminations		340,700				
LESS Pending Reprogramming/Transfer				70,000		
NET P-1 LINE ITEM:		1,016,952		1,076,669		1,230,984

NOTE: (1) FY 2010 reflects the Navy's plan to request a $70M reprogramming/transfer for the FY2010 ships.
(2) The FY2009 value includes the FY2006 funds and materials used to complete the FY2009 ships.

SHIPBUILDING AND CONVERSION, NAVY

Analysis of Ship Cost Estimate - Basic/Escalation

Ship Type: LITTORAL COMBAT SHIP

FY 2011 President's Budget

DATE:

February 2010

I.	Design/Schedule	Start/Issue	Complete /Response	Reissue	Complete /Response
	Issue date for TLR	N/A	N/A	N/A	N/A
	Issue date for TLS	N/A	N/A	N/A	N/A
	Preliminary Design	7/03	12/03	N/A	N/A
	Contract Design	5/04	12/04	N/A	N/A
	Detail Design	DEC 04/OCT 05	JUN 07/OCT 07	N/A	N/A
	Request for Proposals	N/A	01/10 FOR FY10 SHIPS	N/A	N/A
	Design Agent	LOCKHEED MARTIN - GENERAL DYNAMICS	LOCKHEED MARTIN - GENERAL DYNAMICS	N/A	N/A
II.	**Classification of Cost Estimate**	C			
III.	**Basic Construction/Conversion**	**2009**	**2010**	**2011**	
	A. Actual Award Date	03/09, 05/09	05/10	11/10	
	B. Contract Type (and Share Line if applicable)	FPI	FPI	FPI	
IV.	**Escalation**				
	Escalation Termination Date				
	Escalation Requirement				
	Labor/Material Split				
	Allowable Overhead Rate				
V.	**Other Basic(Reserves/Miscellaneous)**	**Amount**			

SHIPBUILDING AND CONVERSION, NAVY
SHIP PRODUCTION SCHEDULE

SHIP TYPE	HULL NUMBER	SHIPBUILDER	FISCAL YEAR AUTHORIZED	CONTRACT AWARD	START OF CONSTRUCTION	DELIVERY DATE
LCS 3	901	LOCKHEED MARTIN	09	MAR-09	MAR-09	FEB-12
LCS 4	902	GENERAL DYNAMICS	09	MAY-09	JUL-09	APR-12
LCS 5	1001	TBD	10	MAY-10	FEB-11	OCT-13
LCS 6	1002	TBD	10	MAY-10	APR-11	DEC-13
LCS 7	1101	TBD	11	NOV-10	AUG-11	APR-14
LCS 8	1102	TBD	11	NOV-10	OCT-11	JUN-14
LCS 9	1201	TBD	12	NOV-11	AUG-12	APR-15
LCS 10	1202	TBD	12	NOV-11	OCT-12	JUN-15
LCS 11	1203	TBD	12	NOV-11	DEC-12	AUG-15
LCS 12	1301	TBD	13	NOV-12	AUG-13	APR-16
LCS 13	1302	TBD	13	NOV-12	OCT-13	JUN-16
LCS 14	1303	TBD	13	NOV-12	DEC-13	AUG-16
LCS 15	1304	TBD	13	NOV-12	FEB-14	OCT-16
LCS 16	1401	TBD	14	NOV-13	AUG-14	APR-17
LCS 17	1402	TBD	14	NOV-13	OCT-14	JUN-17
LCS 18	1403	TBD	14	NOV-13	DEC-14	AUG-17
LCS 19	1404	TBD	14	NOV-13	FEB-15	OCT-17
LCS 20	1501	TBD	15	NOV-14	AUG-15	APR-18
LCS 21	1502	TBD	15	NOV-14	OCT-15	JUN-18
LCS 22	1503	TBD	15	NOV-14	DEC-15	AUG-18
LCS 23	1504	TBD	15	NOV-14	FEB-16	OCT-18

SHIPBUILDING AND CONVERSION, NAVY

Analysis of Ship Cost Estimates - Major Equipment

(Dollars in Thousands)

Ship Type: LITTORAL COMBAT SHIP	**FY 2009**		**FY 2010**		**FY 2011**	
	QTY	**COST**	**QTY**	**COST**	**QTY**	**COST**
ELECTRONICS						
a. P-35 Items						
AN/WSC-6E(V)9 SUPER HIGH FREQUENCY (SHF) DUAL TERMINAL	2	4,257	2	5,912	2	6,030
Subtotal		4,257		5,912		6,030
b. Major Items						
ELECTRONIC KEY MANAGEMENT SYSTEM (EKMS)/CRYPTO SYSTEM	2	879	2	918	2	936
COMMON DATA LINK MANAGEMENT SYSTEM (CDLMS)	2	663	2	1,402	2	1,430
AN/URC-141 (C) MIDS ON SHIP (MOS)	2	2,772	2	3,938	2	4,017
AN/USQ-172(V)5 GLOBAL COMMAND AND CONTROL SYSTEM - MARITIME (GCCS-M)	2	875	2	1,120	2	1,142
DS- LOGISTICS MAINTENANCE AUTOMATED INFORMATION SYSTEM (LMAIS) BAR CODE SUPPLY (BCS) NAVY	2	533	2	635	2	648
MULTI-VEHICLE COMMUNICATION SYSTEM (MVCS)	2	2,714	2	2,714	2	2,768
AN/USQ-144J(V)2 AUTOMATED DIGITAL NETWORK SYSTEM (ADNS)	2	670	2	2,686	2	2,740
HIGH FREQUENCY DIGITAL MODULAR RADIO	2	938	2	2,210	2	2,254
Subtotal		10,044		15,623		15,935
c. Other ELECTRONICS						
OTHER ELECTRONICS	2	7,099	2	5,394	2	5,502
Subtotal		7,099		5,394		5,502
Total ELECTRONICS		21,400		26,929		27,467

SHIPBUILDING AND CONVERSION, NAVY

Analysis of Ship Cost Estimates - Major Equipment

(Dollars in Thousands)

Ship Type: LITTORAL COMBAT SHIP	FY 2009		FY 2010		FY 2011	
	QTY	COST	QTY	COST	QTY	COST
ORDNANCE						
a. P-35 Items						
SEARAM	1	9,497	2	18,994	2	19,374
Subtotal		9,497		18,994		19,374
b. Major Items						
ORDNANCE HANDLING EQPT	2	684	2	750	2	765
Subtotal		684		750		765
c. Other ORDNANCE						
MISCELLANEOUS ORDNANCE						
Subtotal		0		0		0
Total ORDNANCE		10,181		19,744		20,139

SHIPBUILDING AND CONVERSION, NAVY

Analysis of Ship Cost Estimates - Major Equipment

(Dollars in Thousands)

Ship Type: LITTORAL COMBAT SHIP	FY 2009		FY 2010		FY 2011	
	QTY	COST	QTY	COST	QTY	COST
HM&E						
a. P-35 Items						
Subtotal		0		0		0
b. Major Items						
JOINT BIOLOGICAL POINT DETECTION SYSTEM (JBPDS)	2	137	2	275	2	280
AN/SRC-59 SHIPWIDE INTERIOR WIRELESS COMMUNICATION SYSTEM (SIWCS)	2	762	2	762	2	777
TRASH DISPOSAL - SMALL PULPER	2	136	2	242	2	247
VISUAL LANDING AIDS (VLA)	2	2,334	2	2,948	2	3,007
Subtotal		3,369		4,227		4,311
c. Other HM&E						
MEDICAL EQPT AND ENGINEERING SUPPORT INTEGRATION		1,226		613		626
Subtotal		1,226		613		626
Total HM&E		4,595		4,840		4,937

SHIPBUILDING AND CONVERSION, NAVY
MAJOR SHIP COMPONENT FACT SHEET
(Dollars in Thousands)

P-35 EXHIBIT
FY 2011 President's Budget
February 2010

Ship Type: **LITTORAL COMBAT SHIP**
Equipment Item: **AN/WSC-6E(V)9 SUPER HIGH FREQUENCY (SHF) DUAL TERMINAL**
PARM Code: **3Z**

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

The AN/WSC-6E(V)9 Super High Frequency (SHF) radio provides joint interoperable high capability voice, data, and video communications for combatants and Flag-capable ships. It provides the required global connectivity among Fleet units, joint forces, allied and NATO forces, and Naval C4I commands.

II. CURRENT FUNDING:

P-35 Category	**FY 2009**		**FY 2010**		**FY 2011**	
	QTY	**COST**	**QTY**	**COST**	**QTY**	**COST**
Major Hardware	1	3,877	2	5,616	2	5,729
Technical Support Services		310		186		189
Schedule B Services		70		110		112
Total		4,257		5,912		6,030

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY09	LCS 3 901	HARRIS	FFP		OPTION	1	
FY09	LCS 4 902	HARRIS	FFP	MAR-10	OPTION	1	3,877
FY10	LCS 5/6	HARRIS	FFP	JUN-10	OPTION	2	1,939
FY11	LCS 7/8	HARRIS	FFP	JUN-11	OPTION	2	2,808

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY09	LCS 3 901	FEB-12	10	14	FEB-10
FY09	LCS 4 902	APR-12	10	14	APR-10
FY10	LCS 5/6	OCT-13	10	14	OCT-11
FY11	LCS 7/8	APR-14	10	14	APR-12

V. COMPETITION/SECOND SOURCE INITIATIVES:

Current sole-source contracts

NOTE:

LCS 3 SHF unit was procured for the FY 06 terminations and transferred as a GFE available asset included in basic construction costs (rather then electronics).

SHIPBUILDING AND CONVERSION, NAVY
MAJOR SHIP COMPONENT FACT SHEET
(Dollars in Thousands)

P-35 EXHIBIT
FY 2011 President's Budget
February 2010

Ship Type: **LITTORAL COMBAT SHIP**
Equipment Item: **SEARAM**
PARM Code: **3P**

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

SEARAM is a ship self defense system for protection against anti-ship cruise missiles (ASCMs).

II. CURRENT FUNDING:

P-35 Category	FY 2009 QTY	FY 2009 COST	FY 2010 QTY	FY 2010 COST	FY 2011 QTY	FY 2011 COST
Major Hardware	1	8,138	2	16,277	2	16,602
Software		44		88		89
System Engineering		551		621		634
System Test & Evaluation		167		333		340
Technical Data and Documentation		42		83		85
Technical Engineering Services		555		1,592		1,624
Total		9,497		18,994		19,374

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY09	LCS 4 902	RAYTHEON	SS/FFP	MAY-09	OPTION	1	8,138
FY10	LCS 5/6	RAYTHEON	SS/FFP	APR-10	NEW	2	8,139
FY11	LCS 7/8	RAYTHEON	SS/FFP	NOV-10	OPTION	2	8,139

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY09	LCS 4 902	APR-12	10	22	AUG-09
FY10	LCS 5/6	OCT-13	10	22	FEB-11
FY11	LCS 7/8	APR-14	10	22	AUG-11

V. COMPETITION/SECOND SOURCE INITIATIVES:

N/A. SEARAM IS A SS/FFP PROCUREMENT

NOTE:

CLASSIFICATION:	UNCLASSIFIED												
Exhibit P-10, Advance Procurement Requirements Analysis (Funding)									Date: **February 2010**				
Appropriation (Treasury)Code/CC/BA/BSA/Item Control Number **SHIPBUILDING AND CONVERSION, NAVY / 2 / Other Warships / BLI 2127**							P-1 Line Item Nomenclature **LITTORAL COMBAT SHIP (LCS)**						
Weapon System **LCS**			First System (BY1) Award Date and Completion Date **MARCH 11/APRIL 14**						Interval Between Systems				
BLI	PLT	When Req'd	Prior Years	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16	To Complete	Total
Advance Procurement for 2012						119.3							119.3
Advance Procurement for 2013						79.5							79.5
Advance Procurement for 2014						79.5							79.5
Advance Procurement for 2016							59.6			119.0			178.6
Advance Procurement for 2017							59.6			119.0			178.6
Total AP						278.3	119.2			238.0			635.5

Description:

Advance Procurement for 2012 FY11 Advance procurement of Long Lead Time Contractor Furnished Equipment for Basic Construction. 3 ship sets of major HM&E end items including engines, motors, and waterjets.

Advance Procurement for 2013 FY11 Advance procurement of Long Lead Time Contractor Furnished Equipment for Basic Construction. 2 ship sets of major HM&E end items including engines, motors, and waterjets.

Advance Procurement for 2014 FY11 Advance procurement of Long Lead Time Contractor Furnished Equipment for Basic Construction. 2 ship sets of major HM&E end items including engines, motors, and waterjets.

Advance Procurement for 2016 FY12 Advance procurement of Long Lead Time Contractor Furnished Equipment for Basic Construction. 4 ship sets of major HM&E end items including engines, motors, and waterjets.

Advance Procurement for 2017 FY12 Advance procurement of Long Lead Time Contractor Furnished Equipment for Basic Construction. 4 ship sets of major HM&E end items including engines, motors, and waterjets.

CLASSIFICATION: UNCLASSIFIED

BUDGET ITEM JUSTIFICATION SHEET (P-40)
FY 11 President's Budget

DATE:
February 2010

APPROPRIATION/BUDGET ACTIVITY
SHIPBUILDING AND CONVERSION, NAVY/BA 3 Amphibious Ships

P-1 LINE ITEM NOMENCLATURE
LPD-17
BLI: 3036

(Dollars in Millions)	PRIOR YR	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	TO COMP	TOTAL PROG
QUANTITY	9	1	0	0	1	0	0	0	0	11.0
End Cost	13,707.4	1,849.5	0.0	0.0	2,040.6	0.0	0.0	0.0	0.0	17,597.5
Less Advance Procurement	1,161.0	49.7	0.0	0.0	184.0	0.0	0.0	0.0	0.0	1,394.7
Less Cost to Complete	1,908.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1,908.8
Less Transfer/Supplemental	251.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	251.0
Less Hurricane Supplemental	1,630.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1,630.9
Less Subsequent Year FF	0.0	869.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	869.4
Full Funding TOA	8,755.7	930.4	0.0	0.0	1,856.6	0.0	0.0	0.0	0.0	11,542.7
Plus Advance Procurement	1,210.7	0.0	184.0	0.0	0.0	0.0	0.0	0.0	0.0	1,394.7
Plus Cost to Complete	1,603.9	32.6	99.3	0.0	94.0	79.0	0.0	0.0	0.0	1,908.8
Plus Transfer/Supplemental	251.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	251.0
Plus Hurricane Supplemental	1,630.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1,630.9
Plus Subsequent Year FF	0.0	0.0	869.4	0.0	0.0	0.0	0.0	0.0	0.0	869.4
Total Obligational Authority	13,452.2	963.0	1,152.7	0.0	1,950.6	79.0	0.0	0.0	0.0	17,597.5
Plus Outfitting / Plus Post Delivery	424.6	67.1	76.2	79.1	66.7	57.0	23.7	28.0	90.5	912.9
Plus Hurricane Supplemental (OF & PD)	28.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	28.4
Total	13,905.2	1,030.1	1,228.9	79.1	2,017.3	136.0	23.7	28.0	90.5	18,538.8
Unit Cost (Ave. End Cost)	1,523.0	1,849.5	0.0	0.0	2,040.6	0.0	0.0	0.0	0.0	1,599.8

MISSION:
Functional replacement for LKA 113, LPD 4, LSD 36, and LST 1179 classes of Amphibious Ships in embarking, transporting, and landing elements of a Marine landing force in an assault by helicopters, landing craft, amphibious vehicles, and by a combination of these methods to conduct primary amphibious warfare missions.

Characteristics:		**Armament**	**Electronics**
Hull		RAM Missile System	C4ISR
Length overall	208.5M (684')	SPQ-9B	SSDS
Beam	31.9M (105')	AN/SPS-48E	CEC
Displacement	25.3L MT (24.9KLT)	30 mm Mark 46 Gun System	MK12AIMS IFF
Draft	7M (23')	50 cal Machine Gun	AN/SLQ-32
			BFTT

	FY09
PRODUCTION STATUS	LPD 26
Contract Award Date	4/10
Months to Completion	
a) Contract Award to Delivery	59 months
b) Construction Start to Delivery	47 months
Delivery Date	03/15
Completion of Fitting Out	08/15
Obligation Work Limiting Date	07/16

UNCLASSIFIED

WEAPON SYSTEM COST ANALYSIS (EXHIBIT P-5)
(Dollars in Thousands)

BUDGET ACTIVITY: 3	**P-1 LINE ITEM NOMENCLATURE**	**BLI: 3036**
Amphibious Ships	**LPD-17**	

	FY 2004		**FY 2005**		**FY 2006**		**FY 2008**		**FY 2009**	
ELEMENT OF COST	**QTY**	**COST**	**QTY**	**COST**	**QTY**	**COST**	**QTY**	**COST**	**QTY**	**COST**
PLAN COSTS	1		1		1		1		1	
BASIC CONST/CONVERSION		1,276,154		1,290,266		1,308,452		1,473,082		1,414,364
CHANGE ORDERS		16,530		16,409		28,640		45,566		45,012
ELECTRONICS		129,734		103,955		140,437		225,755		239,162
HM&E		36,239		5,685		44,020		51,951		55,138
OTHER COST		5,065		5,000		5,000		9,963		9,963
ORDNANCE		39,400		43,849		47,428		77,418		85,835
TOTAL SHIP ESTIMATE		1,503,122		1,465,164		1,573,977		1,883,735		1,849,474
LESS HURRICANE KATRINA SUPPLEMENTAL FY06		225,460		237,610		210,950				
LESS ADVANCED PROCUREMENT FY01		63,749		7,184		6,865				
LESS ADVANCED PROCUREMENT FY04				133,939						
LESS ADVANCED PROCUREMENT FY07								296,236		
LESS ADVANCED PROCUREMENT FY08										49,651
LESS SUBSEQUENT FULL FUNDING FY10										869,394
LESS COST TO COMPLETE FY07				17,400						
LESS COST TO COMPLETE FY08				65,999						
LESS COST TO COMPLETE FY10		16,844		16,498				66,000		
LESS COST TO COMPLETE FY12				18,627		23,437		51,929		
LESS COST TO COMPLETE FY13								78,994		
NET P-1 LINE ITEM		1,197,069		967,907		1,332,725		1,390,576		930,429

SHIPBUILDING AND CONVERSION, NAVY
Analysis of Ship Cost Estimate - Basic/Escalation
Ship Type: LPD 17

I.	Design/Schedule	Start/Issue	Complete /Response	Reissue	Complete /Response	
	Issue date for TLR		SEP 1988			
	Issue date for TLS					
	Preliminary Design	JAN 1993	NOV 1993			
	Contract Design	DEC 1993	MAR 1996			
	Detail Design	DEC 1996	JUL 2002			
	Request for Proposals					
	Design Agent					
II.	Classification of Cost Estimate	CLASS C				
III.	Basic Construction/Conversion	FY04 (001)	FY05 (001)	FY06 (001)	FY08 (001)	FY 09 (001)
	A. Actual Award Date	JUN 2006	JUN 2006	NOV 2006	DEC 2007	APR 2010
	B. Contract Type (and Share Line if applicable)	FPIF/AF	FPIF/AF	FPIF/AF	FPIF/AF	FPIF/AF
	C. RFP Response Date	MAY 2004	MAY 2004	JUN 2005	JUN 2006	JAN 2010
IV.	Escalation					
	Escalation Termination Date					
	Escalation Requirement					
	Labor/Material Split					
	Allowable Overhead Rate	FORWARD	FORWARD	FORWARD	FORWARD	FORWARD
	BASE DATE	PRICED	PRICED	PRICED	PRICED	PRICED
V.	Other Basic(Reserves/Miscellaneous)	Amount				

SHIPBUILDING AND CONVERSION, NAVY
SHIP PRODUCTION SCHEDULE

SHIP TYPE	HULL NUMBER	SHIPBUILDER	FISCAL YEAR AUTHORIZED	CONTRACT AWARD	START OF CONSTRUCTION	DELIVERY DATE
LPD	22	NGSB	04	JUN-06	JUL-06	MAY-11
LPD	23	NGSB	05	JUN-06	MAR-07	MAY-12
LPD	24	NGSB	06	NOV-06	AUG-07	DEC-11
LPD	25	NGSB	08	DEC-07	APR-08	DEC-12
LPD	26	NGSB	09	APR-10	APR-11	MAR-15
LPD	27	NGSB	12	DEC-11	DEC-12	NOV-16

SHIPBUILDING AND CONVERSION, NAVY
Analysis of Ship Cost Estimates - Major Equipment
(Dollars in Thousands)

Ship Type: LPD 17

	FY 2009 QTY	FY 2009 COST
ELECTRONICS		
a. P-35 Items		
C4ISR	1	83,471
SSDS MARK 2	1	29,372
CEC (FY 96-00 INCLUDED IN SSDS MK2)	1	8,170
MK 12 AIMS IFF	1	8,427
AN/SLQ-32(V)2 (REFURB)	1	6,794
BATTLE FORCE TACTICAL TRAINER	1	3,454
Subtotal		139,688
b. Major Items		
NULKA	1	2,393
AMPHIB ASSAULT DIR SYSTEM	1	3,480
NIXIE	1	1,364
RADIAC	1	70
SIGNAL INTELLIGENCE	1	0
AN/SPQ-14	1	1,383
AN/UQN-4(FATHOMETER)	1	238
AN/WSN-7(RLGN)	1	5,120
DCAMS	0	255
AN/WSN-8A DEML	0	281
		14,584
c. Other ELECTRONICS		
MISCELLANEOUS ELECTRONICS		84,890
Subtotal		84,890
Total ELECTRONICS		239,162

SHIPBUILDING AND CONVERSION, NAVY
Analysis of Ship Cost Estimates - Major Equipment
(Dollars in Thousands)

Ship Type: LPD 17	**FY 2009**	
	QTY	**COST**
HM&E		
a. P-35 Items		
Subtotal		0
b. Major Items		
BOATS	3	1,121
CCTV, SITE 400	3	442
TRUCK, FORKLIFT	14	1,184
CHEMICAL WARFARE DETECTOR	1	299
MILITARY PAYROLL SYSTEM (NAVY CASH SYSTEM & NSIPS)	1	714
INTEGRATED CONDITION ASSESSMENT SYSTEM (ICAS)	1	460
OILY WATER SEPARATOR	1	252
PLASTIC WASTE PROCESSING EQP	1	256
Subtotal		4,728
c. Other HM&E		
MISCELLANEOUS HM&E		50,410
Subtotal		50,410
Total HM&E		55,138

SHIPBUILDING AND CONVERSION, NAVY
Analysis of Ship Cost Estimates - Major Equipment
(Dollars in Thousands)

Ship Type: LPD 17	FY 2009 QTY	FY 2009 COST
ORDNANCE		
a. P-35 Items		
RAM MISSLE SYSTEM	2	32,220
AN/SPS--48E	1	18,453
SPQ-9B	1	9,369
Subtotal		60,042
b. Major Items		
50 CAL MACHINE GUN		74
OPERATIONS SURVEILLANCE SYS AND DYNAMIC INTERFACE TEST	1	2,222
MK46 GUN BARRELS	1	899
ORDNANCE HANDLING EQUIPMENT		473
AN/SPS-73	1	3,258
Subtotal		6,926
c. Other ORDNANCE		
MISCELLANEOUS ORDNANCE		18,867
Subtotal		18,867
Total ORDNANCE		85,835

SHIPBUILDING AND CONVERSION, NAVY
MAJOR SHIP COMPONENT FACT SHEET
(Dollars in Thousands)

P-35 EXHIBIT
FY 2011 President's Budget
February 2010

Ship Type: **LPD 17**
Equipment Item: **C4ISR**
PARM Code:

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

To prove the link between the ship, the command hierarchy and other units of the operating forces.

II. CURRENT FUNDING:

P-35 Category	**FY 2009**	
	QTY	**COST**
Major Hardware	1	41,973
Spares		1,265
Ancillary Equipment		590
Documentation and Systems Engineering		3,415
Software		1,344
Techincal Engineering		3,841
Other Appropriate Costs		6,408
Turnkey		24,635
Total		83,471

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY 09	LPD 26	VAR	VAR	VAR	VAR	1	41,973

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY 09	LPD 26	MAR-15	VAR	VAR	VAR

V. COMPETITION/SECOND SOURCE INITIATIVES:

NOTE:

SHIPBUILDING AND CONVERSION, NAVY
MAJOR SHIP COMPONENT FACT SHEET
(Dollars in Thousands)

P-35 EXHIBIT
FY 2011 President's Budget
February 2010

Ship Type: **LPD 17**
Equipment Item: **SSDS MARK 2**
PARM Code:

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

Ship Self Defense System Mark 2 is microcomputer-based, self-defense coordination system that integrates and automates multiple sensors, self defense weapons, and softkill systems to provide quick reaction combat capability against anti-ship cruise missile threats. Cooperative Engagement Capability (CEC) coordinates all anti-air warfare sensors into single, real time, fire control quality composite track which improves battle force air defense.

II. CURRENT FUNDING:

P-35 Category	**FY 2009**	
	QTY	**COST**
Major Hardware	1	12,443
Systems Engineering		701
Technical Data and Documentation		0
Technical Engineering		470
Spares		686
Other Appropriate Costs		15,072
Total		29,372

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY 09	LPD 26	RAYTHEON	CP	TBD	4 OPTION YEARS	1	12,443

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY 09	LPD 26	MAR-15	17	13	SEP-12

V. COMPETITION/SECOND SOURCE INITIATIVES:

NOTE:

SHIPBUILDING AND CONVERSION, NAVY
MAJOR SHIP COMPONENT FACT SHEET
(Dollars in Thousands)

P-35 EXHIBIT
FY 2011 President's Budget
February 2010

Ship Type: **LPD 17**
Equipment Item: **CEC**
PARM Code:

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

Cooperative Engagement Capability (CEC) coordinates all anti-warfare sensors into single, real time, fire control quality composite track which improves battle force air defense.

II. CURRENT FUNDING:

P-35 Category	**FY 2009**	
	QTY	**COST**
Major Hardware	1	5,773
Systems Engineering		590
Technical Data and Documentation		0
Technical Engineering		354
Spares		466
Other Appropriate Costs		987
Total		8,170

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY 09	LPD 26	RAYTHEON	FFP	JUL-08	TBD	1	5,773

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY 09	LPD 26	MAR-15	24	18	SEP-11

V. COMPETITION/SECOND SOURCE INITIATIVES:

NOTE:

SHIPBUILDING AND CONVERSION, NAVY
MAJOR SHIP COMPONENT FACT SHEET
(Dollars in Thousands)

P-35 EXHIBIT
FY 2011 President's Budget
February 2010

Ship Type: **LPD 17**
Equipment Item: **MK 12 AIMS IFF**
PARM Code:

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

The Transponder Set is an Automatic Identification and Monitoring System (AIMS) Identification Friend or Foe (IFF) system that receives interrogation signals from air, surface and land IFF - equipped units and automatically replies with a coded response signal that provides ownship position and identification.

II. CURRENT FUNDING:

P-35 Category	**FY 2009**	
	QTY	**COST**
Major Hardware	1	6,397
Ancillary Equipment		156
Systems Engineering		707
Technical Data and Documentation		0
Technical Engineering		342
Spares		77
Other Appropriate Costs		748
Total		8,427

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY 09	LPD 26	BAE AND NG	FFP	TBD	NEW	1	6,397

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY 09	LPD 26	MAR-15	6	30	MAR-12

V. COMPETITION/SECOND SOURCE INITIATIVES:

NOTE:

SHIPBUILDING AND CONVERSION, NAVY
MAJOR SHIP COMPONENT FACT SHEET
(Dollars in Thousands)

P-35 EXHIBIT
FY 2011 President's Budget
February 2010

Ship Type: **LPD 17**
Equipment Item: **AN/SLQ-32(V)2 (REFURB)**
PARM Code:

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

The AN/SLQ-32(V)2 is a passive electronics countermeasure system.

II. CURRENT FUNDING:

P-35 Category	**FY 2009**	
	QTY	**COST**
Major Hardware	1	5,294
Ancillary Equipment		201
Systems Engineering		0
Technical Data and Documentation		8
Technical Engineering		20
Spares		168
Other Appropriate Costs		1,103
Total		6,794

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY 09	LPD 26	RAYTHEON	BOA-FFP	NOV-04	TBD	1	5,294

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY 09	LPD 26	MAR-15	18	24	SEP-11

V. COMPETITION/SECOND SOURCE INITIATIVES:

NOTE:

SHIPBUILDING AND CONVERSION, NAVY
MAJOR SHIP COMPONENT FACT SHEET
(Dollars in Thousands)

P-35 EXHIBIT
FY 2011 President's Budget
February 2010

Ship Type: **LPD 17**
Equipment Item: **BATTLE FORCE TACTICAL TRAINER**
PARM Code:

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

The AN/USQ-t46(V) BFTT system provides standardized combat system team proficiency training for the Surface Fleet in accordance with the Afloat Training Str. BFTT interfaces to and/or provides integrated training capability for the primary combat system elements onboard LPD 17 Class ships.

II. CURRENT FUNDING:

P-35 Category	**FY 2009**	
	QTY	**COST**
Major Hardware	1	2,676
Systems Engineering		71
Technical Data and Documentation		0
Technical Engineering		300
Spares		31
Other Appropriate Costs		376
Total		3,454

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY09	LPD 26	AP LABS	FFP	AUG-08	TBD	1	2,676

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY09	LPD 26	MAR-15	18	7	FEB-13

V. COMPETITION/SECOND SOURCE INITIATIVES:

NOTE:

SHIPBUILDING AND CONVERSION, NAVY
MAJOR SHIP COMPONENT FACT SHEET
(Dollars in Thousands)

P-35 EXHIBIT
FY 2011 President's Budget
February 2010

Ship Type: **LPD 17**
Equipment Item: **ROLLING AIRFRAME MISSILE SYSTEM**
PARM Code:

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

The Rolling Airframe Missile system is a short-range, fast-reaction, high-firepower, lightweight weapon designed to destroy incoming anti-ship cruise missiles.

II. CURRENT FUNDING:

P-35 Category	**FY 2009**	
	QTY	**COST**
Major Hardware	2	18,018
Ancillary Equipment		1,363
Systems Engineering		6,975
Technical Engineering		29
Spares		138
Other Appropriate Costs		5,697
Total		32,220

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY 09	LPD 26	RAYTHEON	FFP	TBD	OPTION	2	9,009

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY 09	LPD 26	MAR-15	22	24	MAY-11

V. COMPETITION/SECOND SOURCE INITIATIVES:

SHIPBUILDING AND CONVERSION, NAVY
MAJOR SHIP COMPONENT FACT SHEET
(Dollars in Thousands)

P-35 EXHIBIT
FY 2011 President's Budget
February 2010

Ship Type: **LPD 17**
Equipment Item: **AN/SPS-48E**
PARM Code:

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

The AN/SPS-48E is a long-range, three dimensional, air-search radar system that provides contact range, bearing, and height information.

II. CURRENT FUNDING:

P-35 Category	**FY 2009**	
	QTY	**COST**
Major Hardware	1	12,816
Ancillary Equipment		146
Systems Engineering		573
Technical Data and Documentation		46
Technical Engineering		782
Spares		243
Other Appropriate Costs		3,847
Total		18,453

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY 09	LPD 26	ITT/G	FFP/CPFF	TBD	TBD	1	12,816

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY 09	LPD 26	MAR-15	18	27	JUN-11

V. COMPETITION/SECOND SOURCE INITIATIVES:

NOTE:

SHIPBUILDING AND CONVERSION, NAVY
MAJOR SHIP COMPONENT FACT SHEET
(Dollars in Thousands)

P-35 EXHIBIT
FY 2011 President's Budget
February 2010

Ship Type: **LPD 17**
Equipment Item: **SPQ-9B**
PARM Code:

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:
The AN/SPQ-9B is a high resolution, X-band, narrow beam radar that provides both air and surface tracking information.

II. CURRENT FUNDING:

P-35 Category	**FY 2009**	
	QTY	**COST**
Major Hardware	1	6,811
Systems Engineering		313
Technical Data and Documentation		115
Technical Engineering		582
Spares		127
Other Appropriate Costs		1,421
Total		9,369

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY 09	LPD 26	NORTHROP GRUMMAN	FFP	FEB-09	TBD	1	6,811

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY 09	LPD 26	MAR-15	18	24	JUL-12

V. COMPETITION/SECOND SOURCE INITIATIVES:

NOTE:

CLASSIFICATION:	UNCLASSIFIED												
Exhibit P-10, Advance Procurement Requirements Analysis (Funding)									Date: **February 2010**				
Appropriation (Treasury)Code/CC/BA/BSA/Item Control Number **SHIPBUILDING AND CONVERSION, NAVY / 3 / Amphibious Ships / BLI 3036**							P-1 Line Item Nomenclature **LPD-17**						
Weapon System			First System (BY1) Award Date and Completion Date						Interval Between Systems				
BLI	PLT	When Req'd	Prior Years	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16	To Complete	Total
Basic Construction			49.7	0.0	184.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	233.7
Total AP			49.7	0.0	184.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	233.7

Description:

Basic Construction

FY 2010 Basic Construction Long Lead Time Material (LLTM) for LPD-27.

CLASSIFICATION: UNCLASSIFIED

BUDGET ITEM JUSTIFICATION SHEET (P-40)
FY 2011 President's Budget

DATE: February 2010

APPROPRIATION/BUDGET ACTIVITY
SHIPBUILDING AND CONVERSION, NAVY/BA 3 Amphibious Ships

P-1 LINE ITEM NOMENCLATURE
LHA REPLACEMENT
BLI: 3041

(Dollars in Millions)	PRIOR YR	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	TO COMP	TOTAL PROG
QUANTITY	1	0	0	1	0	0	0	0	0	2
End Cost	3,077.0	0.0	0.0	3,397.9	0.0	0.0	0.0	0.0	0.0	6,474.9
Less Advance Procurement	297.7	0.0	0.0	347.2	0.0	0.0	0.0	0.0	0.0	644.9
Less Cost to Complete	80.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	80.4
Less Hurricane Supplemental	202.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	202.0
Less Subsequent Year Full Funding	1365.8	0.0	0.0	2,100.8	0.0	0.0	0.0	0.0	0.0	3466.6
Full Funding TOA	1131.1	0.0	0.0	949.9	0.0	0.0	0.0	0.0	0.0	2081
Plus Subsequent Year Full Funding	1365.8	0.0	0.0	0.0	2,100.8	0.0	0.0	0.0	0.0	3466.6
Plus Advance Procurement	297.7	177.8	169.5	0.0	0.0	0.0	0.0	0.0	0.0	645.0
Plus Cost to Complete	0.0	14.3	0.0	0.0	66.1	0.0	0.0	0.0	0.0	80.4
Plus Hurricane Supplemental	202.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	202.0
Total Obligational Authority	2,996.6	192.1	169.5	949.9	2,166.9	0.0	0.0	0.0	0.0	6,474.9
Plus Outfitting / Plus Post Delivery	0.0	0.0	0.0	8.7	30.9	10.6	20.5	15.5	59.5	145.7
Total	2,996.6	192.1	169.5	958.6	2,197.8	10.6	20.5	15.5	59.5	6,620.7
Unit Cost (Ave. End Cost)	3,077.0	0.0	0.0	3,397.9	0.0	0.0	0.0	0.0	0.0	3,237.5

MISSION:

Provide functional replacement for the LHA 1 Class ships which are reaching the end of their extended service lives. Ensure that the Amphibious Fleet remains capable of Expeditionary Warfare well into the 21st Century and provide for an affordable and sustainable amphibious ship development program. Provide forward presence and power projection as an integral part of Joint, interagency, and multinational maritime expeditionary forces. Operate for sustained periods in transit to and operations in an Amphibious Objective Area to include the embarkation, deployment, and landing of a Marine Landing Force in an assault by helicopters and tilt rotors, supported by Joint Strike Fighters.

Characteristics			Armament:	Electronics:
Hull	LHA 6	LHA 7	Rolling Airframe Missile (RAM)	C41SR
Length overall	844'	844'	AN/SPS-49	BFTT
Beam	106'	106'	AN/SPS-48	CEC P3I
Displacement	45,594T	45,594T	CIWS	SSDS MK II 4B
Draft	29'1	29'1	NATO Sea Sparrow Missile	AN/SLQ-32(V)2

	FY07	FY11
PRODUCTION STATUS	LHA 6	LHA 7
Contract Award Date	06/07	11/10
Months to Completion		
a) Contract Award to Delivery	70 months	70 months
b) Construction Start to Delivery	63 months	52 months
Delivery Date	04/13	09/16
Completion of Fitting Out	11/13	04/17
Obligation Work Limiting Date	10/14	03/18

CLASSIFICATION:
UNCLASSIFIED

WEAPON SYSTEM COST ANALYSIS (EXHIBIT P-5)
(Dollars in Thousands)

BUDGET ACTIVITY: 3	**P-1 LINE ITEM NOMENCLATURE**	**BLI: 3041**
Amphibious Ships	**LHA REPLACEMENT**	

	FY 2007		**FY 2011**	
ELEMENT OF COST	**QTY**	**COST**	**QTY**	**COST**
PLAN COSTS	1	191,000	1	40,283
BASIC CONST/CONVERSION		2,233,247		2,658,751
CHANGE ORDERS		130,000		121,628
ELECTRONICS		256,062		286,884
HM&E		56,632		56,141
OTHER COST		92,787		103,178
ORDNANCE		117,249		131,027
TOTAL SHIP ESTIMATE		3,076,977		3,397,892
LESS ADVANCE PROCUREMENT FY05		149,278		
LESS ADVANCE PROCUREMENT FY06		148,398		
LESS ADVANCE PROCUREMENT FY09				177,767
LESS ADVANCE PROCUREMENT FY10				169,476
LESS SUBSEQUENT FUNDING FY08		1,365,785		
LESS SUBSEQUENT FUNDING FY12				2,100,752
LESS COST TO COMPLETE FY09		14,310		
LESS COST TO COMPLETE FY12		66,085		
LESS HURRICANE SUPPLEMENTAL FY06		202,000		
NET P-1 LINE ITEM:		1,131,121		949,897

SHIPBUILDING AND CONVERSION, NAVY

Analysis of Ship Cost Estimate - Basic/Escalation

Ship Type: LHA REPLACEMENT

I.	Design/Schedule	Start/Issue	Complete /Response	Reissue	Complete /Response
	Issue date for TLR				
	Issue date for TLS				
	Preliminary Design	MAY 2004	AUG 2005		
	Contract Design	MAY 2004	AUG 2005		
	Detail Design	FEB 2006	APR 2009		
	Request for Proposals				
	Design Agent				
II.	Classification of Cost Estimate	CLASS C			
III.	Basic Construction/Conversion	FY07	FY11		
	A. Actual Award Date	JUNE 2007	NOV 2010		
	B. Contract Type (and Share Line if applicable)	FPI (50/50 O/R)	TBD		
	C. RFP Response Date	MARCH 2006	AUG 2010		
IV.	Escalation	FORWARD PRICED	FORWARD PRICED		
	Escalation Termination Date				
	Escalation Requirement				
	Labor/Material Split				
	Allowable Overhead Rate				
V.	Other Basic(Reserves/Miscellaneous)	Amount			

SHIPBUILDING AND CONVERSION, NAVY
SHIP PRODUCTION SCHEDULE

SHIP TYPE	HULL NUMBER	SHIPBUILDER	FISCAL YEAR AUTHORIZED	CONTRACT AWARD	START OF CONSTRUCTION	DELIVERY DATE
LHA (R)	6	NGSB	07	JUN-07	JAN-08	APR-13
LHA (R)	7	NGSB	11	NOV-10	MAY-12	SEP-16

SHIPBUILDING AND CONVERSION, NAVY

Analysis of Ship Cost Estimates - Major Equipment

(Dollars in Thousands)

Ship Type: LHA REPLACEMENT

	FY 2011	
	QTY	COST
ELECTRONICS		
a. P-35 Items		
AN/SLQ-32	1	12,748
C4ISR	1	139,363
CEC	1	6,520
SSDS	1	42,455
BFTT	1	11,721
IVN	1	15,980
MK-12 IFF	1	7,912
AN/SRC-55	1	5,105
AN/TPX-42 ATC	1	4,774
AN/SPN-35C	1	4,805
AN/WSN-7 RLGN	1	4,645
Subtotal		256,028
b. Major Items		
AN/SLQ-25	2	2,376
AN/SPN-43C	1	2,952
AN/SPN-41A	1	2,958
MK70 SWBD W/ MK443 SWBD	1	1,591
ANNOUNCING SYSTEMS	1	2,156
DIGITAL PHOTO LAB	1	1,642
CADRT	1	2,088
MK 53 NULKA MOD 3	1	2,751
Subtotal		18,514
c. Other ELECTRONICS		
MISCELLANEOUS ELECTRONICS		12,342
Subtotal		12,342
Total ELECTRONICS		286,884

SHIPBUILDING AND CONVERSION, NAVY

Analysis of Ship Cost Estimates - Major Equipment

(Dollars in Thousands)

Ship Type: LHA REPLACEMENT

	FY 2011	
	QTY	COST
ORDNANCE		
a. P-35 Items		
AN/SPS-48	1	16,762
AN/SPS-49A(V)1	1	12,417
CIWS MK15 MOD22	2	12,535
AN/SPQ-9B	1	9,846
NATO SEASPARROW	2	28,553
RAM	2	27,776
Subtotal		107,889
b. Major Items		
AN/SPQ-14 (LHA6)/LRADDS (LHA 7)	1	2,962
AN/SPS-73(V)12 DUAL	2	2,280
Subtotal		5,242
c. Other ORDNANCE		
AVIATION SUPPORT		6,299
MISC ORDNANCE		3,935
TOTAL SHIP TEST PROGRAM		7,662
Subtotal		17,896
Total ORDNANCE		131,027

SHIPBUILDING AND CONVERSION, NAVY

Analysis of Ship Cost Estimates - Major Equipment

(Dollars in Thousands)

Ship Type: LHA REPLACEMENT

	FY 2011	
	QTY	COST
HM&E		
a. P-35 Items		
Subtotal		0
b. Major Items		
EQUIPMENT & ENGINEERING		44,991
SUPSHIP MATERIAL/SERVICES		3,558
TEST & INSTRUMENTATION		7,592
Subtotal		56,141
c. Other HM&E		
Subtotal		0
Total HM&E		56,141

SHIPBUILDING AND CONVERSION, NAVY
MAJOR SHIP COMPONENT FACT SHEET
(Dollars in Thousands)

P-35 EXHIBIT
FY 2011 President's Budget
February 2010

Ship Type: **LHA REPLACEMENT**
Equipment Item: **AN/SLQ-32**
PARM Code: **3P (PEO IWS)**

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

The AN/SLQ-32A(V)2 is the Anti-Ship Missile Defense (ASMD) electronic warfare system that provides a family of modular shipborne electronic warfare equipments. The Electronic Support Measures (ESM) part of the system automatically detects, sorts, classifies, and continuously displays signals within their frequency band.

II. CURRENT FUNDING:

P-35 Category	FY 2011 QTY	FY 2011 COST
Major Hardware	1	10,521
Spares		139
Engr/ILS/Mgmt Spt		429
Software & Programming		719
Other Costs		940
Total		12,748

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY11	LHA (R)	TBD	TBD	TBD	TBD	1	10,521

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY11	LHA (R)	SEP-16	37	30	FEB-11

V. COMPETITION/SECOND SOURCE INITIATIVES:

N/A

NOTE:

SHIPBUILDING AND CONVERSION, NAVY
MAJOR SHIP COMPONENT FACT SHEET
(Dollars in Thousands)

P-35 EXHIBIT
FY 2011 President's Budget
February 2010

Ship Type: **LHA REPLACEMENT**
Equipment Item: **C4ISR**
PARM Code: **3Z (SPAWAR)**

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

The Command, Control, Communication, Computer, Intelligence, Surveillance, and Reconnaissance (C4ISR) system provides the link between the ship, the command hierarchy and other units of the operation force. C49SR consist of NTCSS, TBMCS, GCCS-M, MOS, CDLMS, SVDS, IA, SCI NETWORKS, ISNS, CENTRIXS, TCS, NAVMACS, ADNS, NAVSSI, DMR, CDL-S, SHF, EHF, GBS, DWTS, EPLRS, HFIP(BFEM), HFRG, HF SAR, HSFB, MCCP, UHF SATCOM, SINCGARS, SMQ-11, TVS, TSS, TV-DTS, NITES, UASS, SSEE INC E, JTT, ARC-210, SI COMMS, RCS Integration, C4I Design Integration, Distributed Systems Integration, DCGS-N.

II. CURRENT FUNDING:

P-35 Category	**FY 2011**	
	QTY	**COST**
Major Hardware	1	94,460
Spares		3,781
Engr/ILS/Mgmt Spt		26,355
Engineering Spt		2,871
Test & Cert		4,232
Other Costs		7,664
Total		139,363

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY11	LHA (R)	VARIOUS	VARIOUS	VAR	VARIOUS	1	94,460

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY11	LHA (R)	SEP-16	VARIOUS	VARIOUS	VARIOUS

V. COMPETITION/SECOND SOURCE INITIATIVES:

NOTE:
There are multiple systems under C4ISR with varying delivery dates and leadtimes.

SHIPBUILDING AND CONVERSION, NAVY
MAJOR SHIP COMPONENT FACT SHEET
(Dollars in Thousands)

P-35 EXHIBIT
FY 2011 President's Budget
February 2010

Ship Type: **LHA REPLACEMENT**
Equipment Item: **CEC**
PARM Code: **3P (PEO IWS 2E)**

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

The AN/USG-2 Cooperative Engagement Capability (CEC) significantly improves Battle Force Anti-Air Warfare (AAW) capability (CEC) by coordinating all Battle Force AAW sensors into a single, real-time, composite track picture capable of fire control quality. CEC distributes sensor data from each ship and aircraft, or cooperating unit (CU), to all other CU's in the battle force through a real-time, line of sight, high data rate sensor and engagement data distribution network. CEC data is presented as a superset of the best AAW sensor capabilities from each CU, all of which are integrated into a single input to each CU's combat weapons system. Moreover, CEC will provide critical connectivity and integration of over-land air defense systems capable of countering emerging air threats, including land attack cruise missiles, in a complex littoral environment. CEC consists of the DATA Distribution System (DDS), the Cooperative Engagement Processor (CEP), and Combat System modifications. The DDS encodes and distributes ownship sensor and providing a precision gridlocking and high throughput of data. The CEP is a high capacity distributed processor that is able to process force levels of data in a timely manner, allowing its output to be considered real-time fire control data.

II. CURRENT FUNDING:

P-35 Category	FY 2011 QTY	FY 2011 COST
Major Hardware	1	4,719
Spares		284
Engr/ILS/Mgmt Spt		436
Software & Programming		59
Engineering Spt		1,022
Total		6,520

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY11	LHA (R)	TBD	TBD	TBD	NEW	1	4,719

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY11	LHA (R)	SEP-16	37	18	FEB-12

V. COMPETITION/SECOND SOURCE INITIATIVES:

N/A

NOTE:

SHIPBUILDING AND CONVERSION, NAVY
MAJOR SHIP COMPONENT FACT SHEET
(Dollars in Thousands)

P-35 EXHIBIT
FY 2011 President's Budget
February 2010

Ship Type: **LHA REPLACEMENT**
Equipment Item: **SSDS**
PARM Code: **3X - PEO IWS 1A5**

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

The SSDS MK2 provides selected ships with greater capability to defend themselves against Anti-Ship Cruise Missile (ASCM) attacks.

II. CURRENT FUNDING:

P-35 Category	FY 2011 QTY	FY 2011 COST
Major Hardware	1	9,851
Spares		733
Engr/ILS/Mgmt Spt		3,521
Technical Support Services		12,662
Schedule B Services		525
Software & Programming		14,219
Test & Cert		944
Total		42,455

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY11	LHA (R)	RAYTHEON/LM	CP/FFP	FEB-10	NEW	1	9,851

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY11	LHA (R)	SEP-16	37	18	FEB-12

V. COMPETITION/SECOND SOURCE INITIATIVES:

N/A

NOTE:

SHIPBUILDING AND CONVERSION, NAVY
MAJOR SHIP COMPONENT FACT SHEET
(Dollars in Thousands)

P-35 EXHIBIT
FY 2011 President's Budget
February 2010

Ship Type: **LHA REPLACEMENT**
Equipment Item: **BFTT**
PARM Code: **3V (PEO IWS 1B)**

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

The AN/USQ-T46(V)BFTT System provides standardized combat system team proficiency training for the Surface Fleet in accordance with the Afloat Training Strategy. BFTT interfaces to and/or provides an integrated training capability for the primary combat system elements.

II. CURRENT FUNDING:

P-35 Category	**FY 2011**	
	QTY	**COST**
Major Hardware	1	6,496
Spares		284
Engr/ILS/Mgmt Spt		1,406
Software & Programming		1,173
Other Costs		2,362
Total		11,721

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY11	LHA (R)	VARIOUS	VARIOUS	TBD	BOTH	1	6,496

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY11	LHA (R)	SEP-16	37	12	AUG-12

V. COMPETITION/SECOND SOURCE INITIATIVES:

NOTE:
MULTIPLE CONTRACTS WITH MULTIPLE AWARD DATES

SHIPBUILDING AND CONVERSION, NAVY
MAJOR SHIP COMPONENT FACT SHEET
(Dollars in Thousands)

P-35 EXHIBIT
FY 2011 President's Budget
February 2010

Ship Type: **LHA REPLACEMENT**
Equipment Item: **IVN**
PARM Code: **WC (SEA 05W)**

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

The Integrated Voice Network (IVN) system provides replacement of current unsupportable, labor intensive shipboard tactical interior communication systems. IVN provides increased video, voice and data communications capability, and decreases the number of handsets and terminals in confined operational spaces onboard ship. IVN provides all interfaces to C41 installations onboard ship.

II. CURRENT FUNDING:

P-35 Category	**FY 2011**	
	QTY	**COST**
Major Hardware	1	13,414
Engr/ILS/Mgmt Spt		1,018
Other Costs		1,439
Tech Data & Doc		109
Total		15,980

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY11	LHA (R)	TBD	TBD	TBD	OPTION	1	13,414

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY11	LHA (R)	SEP-16	9	7	MAY-15

V. COMPETITION/SECOND SOURCE INITIATIVES:

NOTE:

SHIPBUILDING AND CONVERSION, NAVY
MAJOR SHIP COMPONENT FACT SHEET
(Dollars in Thousands)

P-35 EXHIBIT
FY 2011 President's Budget
February 2010

Ship Type: **LHA REPLACEMENT**
Equipment Item: **MK-12 IFF**
PARM Code: **WA (NAVAIR PMA -213)**

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

The Interrogator System AN/UPX-29 (V) is deployed on high capability, state of the art surface platforms that require Identification Friend or Foe (IFF) operational performance beyond that provided by a standard Mark XII system for combat identification.

II. CURRENT FUNDING:

P-35 Category	FY 2011 QTY	FY 2011 COST
Major Hardware	1	4,966
Spares		790
Engr/ILS/Mgmt Spt		1,121
Software & Programming		216
Other Costs		819
Total		7,912

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY11	LHA (R)	VARIOUS	VARIOUS	TBD	NEW	1	4,966

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY11	LHA (R)	SEP-16	37	24	VARIOUS

V. COMPETITION/SECOND SOURCE INITIATIVES:

N/A

NOTE:

SHIPBUILDING AND CONVERSION, NAVY
MAJOR SHIP COMPONENT FACT SHEET
(Dollars in Thousands)

P-35 EXHIBIT
FY 2011 President's Budget
February 2010

Ship Type: **LHA REPLACEMENT**
Equipment Item: **AN/SRC-55**
PARM Code: **WC (SEA 05W)**

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

Provides critical wireless voice communication nets in support of shipboard operations.

II. CURRENT FUNDING:

P-35 Category	**FY 2011**	
	QTY	**COST**
Major Hardware	1	2,877
Spares		77
Engr/ILS/Mgmt Spt		1,493
Technical Support Services		658
Total		5,105

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY11	LHA (R)	TBD	TBD	TBD	NEW	1	2,877

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY11	LHA (R)	SEP-16	23	6	APR-14

V. COMPETITION/SECOND SOURCE INITIATIVES:

N/A

NOTE:

SHIPBUILDING AND CONVERSION, NAVY
MAJOR SHIP COMPONENT FACT SHEET
(Dollars in Thousands)

P-35 EXHIBIT
FY 2011 President's Budget
February 2010

Ship Type: **LHA REPLACEMENT**
Equipment Item: **AN/TPX-42 ATC**
PARM Code: **WA (NAVAIR PMA-213)**

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

The AN/TPX42A(V)14 system is designed to provide improved flight data processing, tracking and display capabilities for Air Traffic Control centers. They provide air traffic controllers with identity, altitude and current status on aircraft within 50 NMI of the aviation capable platform. IFF and radar targets are automatically tracked by the system and can be electronically handed off Ship Self Defense System.

II. CURRENT FUNDING:

P-35 Category	FY 2011 QTY	FY 2011 COST
Major Hardware	1	3,428
Spares		177
Engr/ILS/Mgmt Spt		726
Software & Programming		115
Other Costs		328
Total		4,774

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY11	LHA (R)	NAWC-AD	N/A	TBD	N/A	1	3,428

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY11	LHA (R)	SEP-16	37	24	AUG-11

V. COMPETITION/SECOND SOURCE INITIATIVES:

N/A

NOTE:

SHIPBUILDING AND CONVERSION, NAVY
MAJOR SHIP COMPONENT FACT SHEET
(Dollars in Thousands)

P-35 EXHIBIT
FY 2011 President's Budget
February 2010

Ship Type: **LHA REPLACEMENT**
Equipment Item: **AN/SPN-35C**
PARM Code: **WA (NAVAIR PMA-213)**

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

The AN/SPN-35C Aircraft Control Approach Central is a precision approach radar used for aircraft recovery during adverse weather conditions and night conditions.

II. CURRENT FUNDING:

P-35 Category	**FY 2011**	
	QTY	**COST**
Major Hardware	1	3,153
Engr/ILS/Mgmt Spt		906
Other Costs		746
Total		4,805

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY11	LHA (R)	NAWC-AD	N/A	TBD	N/A	1	3,153

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY11	LHA (R)	SEP-16	37	24	FEB-11

V. COMPETITION/SECOND SOURCE INITIATIVES:

N/A

NOTE:

SHIPBUILDING AND CONVERSION, NAVY
MAJOR SHIP COMPONENT FACT SHEET
(Dollars in Thousands)

P-35 EXHIBIT
FY 2011 President's Budget
February 2010

Ship Type: **LHA REPLACEMENT**
Equipment Item: **AN/WSN-7 RLGN**
PARM Code: **4L (PEO IWS 6)**

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

Provides realtime navigation data for use by navigation and combat systems.

II. CURRENT FUNDING:

P-35 Category	FY 2011 QTY	FY 2011 COST
Major Hardware	1	2,179
Spares		715
Engr/ILS/Mgmt Spt		951
Software & Programming		109
Other Costs		691
Total		4,645

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY11	LHA (R)	TBD	TBD	TBD	NEW	1	2,179

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY11	LHA (R)	SEP-16	37	24	AUG-11

V. COMPETITION/SECOND SOURCE INITIATIVES:

N/A

NOTE:

SHIPBUILDING AND CONVERSION, NAVY
MAJOR SHIP COMPONENT FACT SHEET
(Dollars in Thousands)

P-35 EXHIBIT
FY 2011 President's Budget
February 2010

Ship Type: **LHA REPLACEMENT**
Equipment Item: **AN/SPS-48**
PARM Code: **WX (PEO IWS 2.B)**

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

The AN/SPS-48 Radar is a three-coordinate air search radar whose primary function is to provide target position data to a weapon system. Collateral functions include air traffic and intercept control.

II. CURRENT FUNDING:

P-35 Category	FY 2011 QTY	FY 2011 COST
Major Hardware	1	12,258
Spares		243
Engr/ILS/Mgmt Spt		993
Software & Programming		718
Other Costs		2,550
Total		16,762

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY11	LHA (R)	ITT/GILFILLAN	FFP/CPFF	TBD	OPTION	1	12,258

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY11	LHA (R)	SEP-16	37	30	FEB-11

V. COMPETITION/SECOND SOURCE INITIATIVES:

N/A

NOTE:

Refurbished Item

SHIPBUILDING AND CONVERSION, NAVY
MAJOR SHIP COMPONENT FACT SHEET
(Dollars in Thousands)

P-35 EXHIBIT
FY 2011 President's Budget
February 2010

Ship Type: **LHA REPLACEMENT**
Equipment Item: **AN/SPS-49A(V)1**
PARM Code: **WX (PEO IWS 2B)**

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

The AN/SPS-49 Radar is a narrow beam, very long range, two dimensional air search radar. In replacing some older radars which are nearing end-of-life, the AN/SPS-49 offers greatly improved operational performance, reliability and maintainability.

II. CURRENT FUNDING:

P-35 Category	FY 2011 QTY	FY 2011 COST
Major Hardware	1	7,884
Spares		512
Engr/ILS/Mgmt Spt		505
Other Costs		3,516
Total		12,417

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY11	LHA (R)	NWSC CRANE	N/A	TBD	N/A	1	7,884

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY11	LHA (R)	SEP-16	37	30	FEB-11

V. COMPETITION/SECOND SOURCE INITIATIVES:

N/A

NOTE:

Refurbished Item;

SHIPBUILDING AND CONVERSION, NAVY
MAJOR SHIP COMPONENT FACT SHEET
(Dollars in Thousands)

P-35 EXHIBIT
FY 2011 President's Budget
February 2010

Ship Type: **LHA REPLACEMENT**
Equipment Item: **CIWS MK15 MOD22**
PARM Code: **3D (PEO IWS 3)**

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

A fast reaction terminal defense against low-flying high speed, anti-ship missile penetrating other fleet defensive envelopes. The system is an automatic, self contained unit consisting of search and track radar, digitalized fire control and a 20 MM gun on CIWS all mounted in a single above deck structure requiring a minimum of interference with other ship systems.

II. CURRENT FUNDING:

P-35 Category	**FY 2011**	
	QTY	**COST**
Major Hardware	2	10,219
Spares		793
Engr/ILS/Mgmt Spt		909
Other Costs		614
Total		12,535

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY11	LHA (R)	RAYTHEON	FFP	FEB-10	OPTION	2	5,110

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY11	LHA (R)	SEP-16	19	22	APR-13

V. COMPETITION/SECOND SOURCE INITIATIVES:

N/A

NOTE:

SHIPBUILDING AND CONVERSION, NAVY
MAJOR SHIP COMPONENT FACT SHEET
(Dollars in Thousands)

P-35 EXHIBIT
FY 2011 President's Budget
February 2010

Ship Type: **LHA REPLACEMENT**
Equipment Item: **AN/SPQ-9B**
PARM Code: **WX (PEO IWS 2.B)**

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

The AN/SPQ-9B is a multimode, X-Band, narrow beam, pulse doppler radar that detects all known projected sea skimming missiles at the horizon in heavy clutter, while simultaneously providing detection and tracking of surface targets and beacon responses.

II. CURRENT FUNDING:

P-35 Category	**FY 2011**	
	QTY	**COST**
Major Hardware	1	7,336
Spares		461
Engr/ILS/Mgmt Spt		1,171
Software & Programming		145
Other Costs		733
Total		9,846

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY11	LHA (R)	NGES	SS/FFP	TBD	OPTION	1	7,336

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY11	LHA (R)	SEP-16	37	18	FEB-12

V. COMPETITION/SECOND SOURCE INITIATIVES:

NOTE:

SHIPBUILDING AND CONVERSION, NAVY
MAJOR SHIP COMPONENT FACT SHEET
(Dollars in Thousands)

P-35 EXHIBIT
FY 2011 President's Budget
February 2010

Ship Type: **LHA REPLACEMENT**
Equipment Item: **NATO SEASPARROW**
PARM Code: **Y1 (NATO NSSMS)**

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

The NSSMS consists of a guided missile fire control system containing a power driven illuminator with bore sight television below deck control, digital computation, lightweight/low silhouette in an eight cell type launcher.

II. CURRENT FUNDING:

P-35 Category	**FY 2011**	
	QTY	**COST**
Major Hardware	2	15,415
Spares		935
Engr/ILS/Mgmt Spt		5,312
Software & Programming		2,368
Other Costs		4,523
Total		28,553

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY11	LHA (R)	RAYTHEON	FOP	TBD	OPTION	2	7,708

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY11	LHA (R)	SEP-16	37	24	AUG-11

V. COMPETITION/SECOND SOURCE INITIATIVES:

N/A

NOTE:

SHIPBUILDING AND CONVERSION, NAVY
MAJOR SHIP COMPONENT FACT SHEET
(Dollars in Thousands)

P-35 EXHIBIT
FY 2011 President's Budget
February 2010

Ship Type: **LHA REPLACEMENT**
Equipment Item: **RAM**
PARM Code: **3D (PEO IWS 3B)**

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

RAM is a lightweight, quick reaction high firepower missile system designed to provide anti-ship defense. The system is comprised of a MK44 Guided Missile Round Pack (GMRP) and the MK49 Guided Missile Launching System (GMLS) which holds 21 RAM missiles. This system is designed to counter high density anti-ship cruise missile raids and provides for ship survivability with accurate terminal guidance, proven lethality and no fire control channel dependence.

II. CURRENT FUNDING:

P-35 Category	FY 2011 QTY	FY 2011 COST
Major Hardware	2	16,722
Spares		129
Engr/ILS/Mgmt Spt		7,014
Other Costs		3,911
Total		27,776

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY11	LHA (R)	TBD	TBD	TBD	NEW	2	8,361

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY11	LHA (R)	SEP-16	37	24	AUG-11

V. COMPETITION/SECOND SOURCE INITIATIVES:

NOTE:

CLASSIFICATION:	UNCLASSIFIED											
Exhibit P-10, Advance Procurement Requirements Analysis (Funding)										Date: **February 2010**		
Appropriation (Treasury)Code/CC/BA/BSA/Item Control Number **SHIPBUILDING AND CONVERSION, NAVY / 3 / Amphibious Ships / BLI 3041**							P-1 Line Item Nomenclature **LHA REPLACEMENT**					
Weapon System **LHA 7**			First System (BY1) Award Date and Completion Date **MAR 2010/SEP 2016**						Interval Between Systems			
BLI	PLT	When Req'd	Prior Years	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16	To Complete	Total
Basic Construction			0.0	131.3	169.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	300.8
Other			0.0	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2
Electronics			0.0	25.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	25.7
Ordnance			0.0	18.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	18.6
Total AP			0.0	177.8	169.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	347.3

Description:

Basic Construction Procurement of Long Lead Time Contractor Furnished Equipment for LHA 7.

Other Program Office and ILS support

Electronics SSDS, CEC, IFF, SLQ-32

Ordnance NSSMS, CIWS, VSTOL OLS

CLASSIFICATION: UNCLASSIFIED

BUDGET ITEM JUSTIFICATION SHEET (P-40)
FY 2011 President's Budget

DATE: February 2010

APPROPRIATION/BUDGET ACTIVITY
SHIPBUILDING AND CONVERSION, NAVY/BA 3 Amphibious Ships

P-1 LINE ITEM NOMENCLATURE
JOINT HIGH SPEED VESSEL (JHSV)
BLI: 3043

(Dollars in Millions)	PRIOR YR	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	TO COMP	TOTAL PROG
QUANTITY	0	1	1	1	1	2	2	2	3	13
End Cost	0.0	181.3	177.4	180.7	206.9	377.8	390.1	399.3	605.2	2,518.7
Full Funding TOA	0.0	181.3	177.4	180.7	206.9	377.8	390.1	399.3	605.2	2,518.7
Total Obligational Authority	0.0	181.3	177.4	180.7	206.9	377.8	390.1	399.3	605.2	2,518.7
Plus Outfitting / Plus Post Delivery	0.0	0.0	0.0	3.4	15.3	14.8	18.8	18.4	143.1	213.8
Total	0.0	181.3	177.4	184.1	222.2	392.6	408.9	417.7	748.3	2,732.5
Unit Cost (Ave. End Cost)	0.0	181.3	177.4	180.7	206.9	188.9	195.1	199.7	201.7	193.7

MISSION:

Future joint forces will be responsive, deployable, agile, versatile, lethal, survivable, and sustainable. The nation will need lift assets that can provide for assured access, decrease predictability and dwell time, and have the capacity to quickly deliver troops and equipment together in a manner that provides for unit integrity. Joint High Speed Vessel (JHSV) will provide combatant commanders high-speed intra-theater sealift mobility with inherent cargo handling capability and the agility to achieve positional advantage over operational distances. Not limited to major ports, the JHSV will be able to operate in austere port environments. The Joint High Speed Vessel is one of three programs in the Department's "Capital Account Pilot Program."

Characteristics		Armament:	Major Electronics:
Hull	Aluminum Catamaran	N/A	C4ISR
Length overall	103m (338 ft)		
Beam	28.5m (93.5 ft)		
Displacement	2359 LT		
Draft	3.8M (12.5 ft)		
	FY09	FY10	FY11
Production Status	JHSV 0901	JHSV 1001	JHSV 1101
Award Planned (Month)	02/10*	09/10	06/11
Months to Completion			
a) Award to Delivery	43 months	40 months	43 months
b) Construction Start to Delivery	24 months	24 months	24 months
Delivery Date	01/13	01/14	01/15
Completion of Fitting Out	04/13	04/14	04/15
Obligation Work Limiting Date	03/14	03/15	03/16

* Long lead time material procured June 2009

WEAPON SYSTEM COST ANALYSIS (EXHIBIT P-5)
(Dollars in Thousands)

BUDGET ACTIVITY: 3	**P-1 LINE ITEM NOMENCLATURE**	**BLI: 3043**
Amphibious Ships	**JOINT HIGH SPEED VESSEL (JHSV)**	

	FY 2009		**FY 2010**		**FY 2011**	
ELEMENT OF COST	**QTY**	**COST**	**QTY**	**COST**	**QTY**	**COST**
PLAN COSTS	1		1		1	
BASIC CONST/CONVERSION		152,913		151,730		155,540
CHANGE ORDERS		7,650		4,550		4,666
ELECTRONICS		11,590		12,008		12,271
HM&E		5,107		4,941		3,929
OTHER COST		4,000		4,178		4,297
TOTAL SHIP ESTIMATE		181,260		177,407		180,703
NET P-1 LINE ITEM:		181,260		177,407		180,703

SHIPBUILDING AND CONVERSION, NAVY

Analysis of Ship Cost Estimate - Basic/Escalation

Ship Type: JHSV

I.	**Design/Schedule**	**Start/Issue**	**Complete /Response**	**Reissue**	**Complete /Response**
	Issue date for TLR				
	Issue date for TLS				
	Preliminary Design	JAN 2007			JUL 2008
	Contract Design	JAN 2007			JUL 2008
	Detail Design	NOV 2008			
	Request for Proposals				
	Design Agent				
II.	**Classification of Cost Estimate**	CLASS C			
III.	**Basic Construction/Conversion**	FY09 JHSV 0901	FY10 JHSV 1001	FY11 JHSV 1101	
	A. Actual Award Date	FEB 2010	SEP 2010	JUN 2011	
	B. Contract Type (and Share Line if applicable)	FPI (50/50)	FPI (50/50)	FPI (50/50)	
IV.	**Escalation**				
	Escalation Termination Date				
	Escalation Requirement	FWD PRICE	FWD PRICE	FWD PRICE	
	Labor/Material Split				
	Allowable Overhead Rate				
V.	**Other Basic(Reserves/Miscellaneous)**	**Amount**			

SHIPBUILDING AND CONVERSION, NAVY
SHIP PRODUCTION SCHEDULE

SHIP TYPE	HULL NUMBER	SHIPBUILDER	FISCAL YEAR AUTHORIZED	CONTRACT AWARD	START OF CONSTRUCTION	DELIVERY DATE
JHSV	0901	AUSTAL	2009	FEB-10	JAN-11	JAN-13
JHSV	1001	AUSTAL	2010	SEP-10	JAN-12	JAN-14
JHSV	1101	AUSTAL	2011	JUN-11	JAN-13	JAN-15
JHSV	1201	AUSTAL	2012	FEB-12	JAN-14	JAN-16
JHSV	1301	AUSTAL	2013	FEB-13	JAN-15	JAN-17
JHSV	1302	TBD	2013	TBD	TBD	TBD
JHSV	1401	TBD	2014	TBD	TBD	TBD
JHSV	1402	TBD	2014	TBD	TBD	TBD
JHSV	1501	TBD	2015	TBD	TBD	TBD
JHSV	1502	TBD	2015	TBD	TBD	TBD

SHIPBUILDING AND CONVERSION, NAVY

Analysis of Ship Cost Estimates - Major Equipment

(Dollars in Thousands)

Ship Type: JOINT HIGH SPEED VESSEL	FY 2009		FY 2010		FY 2011	
	QTY	COST	QTY	COST	QTY	COST
ELECTRONICS						
a. P-35 Items						
C4ISR	1	9,190	1	9,499	1	9,670
Subtotal		9,190		9,499		9,670
b. Major Items						
VISUAL LANDING AIDE SUITE	1	1,949	1	2,042		2,144
MISC ELECTRONICS		451		467		457
Subtotal		2,400		2,509		2,601
c. Other ELECTRONICS						
Subtotal		0		0		0
Total ELECTRONICS		11,590		12,008		12,271

SHIPBUILDING AND CONVERSION, NAVY

Analysis of Ship Cost Estimates - Major Equipment

(Dollars in Thousands)

Ship Type: JOINT HIGH SPEED VESSEL	FY 2009		FY 2010		FY 2011	
	QTY	COST	QTY	COST	QTY	COST
HM&E						
a. P-35 Items						
Subtotal		0		0		0
b. Major Items						
ENGINEERING SERVICES		3,457		3,160		2,232
SUPSHIP MATERIAL SERVICES		680		702		650
LOGISTICS SUPPORT SERVICES		352		432		411
TEST AND INSTRUMENTATION		618		647		636
Subtotal		5,107		4,941		3,929
c. Other HM&E						
Subtotal		0		0		0
Total HM&E		5,107		4,941		3,929

SHIPBUILDING AND CONVERSION, NAVY
MAJOR SHIP COMPONENT FACT SHEET
(Dollars in Thousands)

P-35 EXHIBIT
FY 2011 President's Budget
February 2010

Ship Type: **JOINT HIGH SPEED VESSEL**
Equipment Item: **C4ISR**
PARM Code: **3Z (SPAWAR)**

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

The Command, control, Communications, Computers, Intelligence, Surveillance and Reconnaissance (C4ISR) system provides the line between the ship, the command hierarchy and other units of operation force. The C4ISR Suite consists of a Network Suite (ISNS, ADNS and CENTRIXS-M), CBSP, Fleet Broadcast, UHF SATCOM Antenna, UHF/VHF LOS Suite and UHF SATCOM Radios, TVS-TVT, IA and RCS.

II. CURRENT FUNDING:

P-35 Category	FY 2009		FY 2010		FY 2011	
	QTY	COST	QTY	COST	QTY	COST
Major Hardware	1	5,437	1	5,611	1	5,685
Spares		589		613		638
System Engineering		2,072		2,105		2,065
Technical Engineering Services		433		348		431
Other Costs		659		822		851
Total		9,190		9,499		9,670

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
09	JHSV 0901	VARIOUS	VARIOUS	VAR	VARIOUS	1	5,437
10	JHSV 1001	VARIOUS	VARIOUS	VAR	VARIOUS	1	5,611
11	JHSV 1101	VARIOUS	VARIOUS	VAR	VARIOUS	1	5,685

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
09	JHSV 0901	JAN-13	VARIOUS	VARIOUS	VARIOUS
10	JHSV 1001	JAN-14	VARIOUS	VARIOUS	VARIOUS
11	JHSV 1101	JAN-15	VARIOUS	VARIOUS	VARIOUS

V. COMPETITION/SECOND SOURCE INITIATIVES:

NOTE:
Multiple systems comprise the C4ISR with varying delivery dates and leadtimes

CLASSIFICATION: UNCLASSIFIED

BUDGET ITEM JUSTIFICATION SHEET (P-40)
FY 2011 President's Budget

DATE: February 2010

APPROPRIATION/BUDGET ACTIVITY
SHIPBUILDING AND CONVERSION, NAVY/BA 5 Auxiliaries, Craft and Prior Year Program Costs

P-1 LINE ITEM NOMENCLATURE
AGOR OCEANOGRAPHIC CLASS
BLI: 5087

(Dollars in Millions)	PRIOR YR	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	TO COMP	TOTAL PROG
QUANTITY	1	0	0	1	1	0	0	0	0	3
End Cost	116.5	0.0	0.0	88.6	88.9	0.0	0.0	0.0	0.0	294.0
Full Funding TOA	116.5	0.0	0.0	88.6	88.9	0.0	0.0	0.0	0.0	294.0
Total Obligational Authority	116.5	0.0	0.0	88.6	88.9	0.0	0.0	0.0	0.0	294.0
Plus Outfitting / Plus Post Delivery	0.0	0.0	0.0	1.3	2.6	3.1	4.8	0.0	0.0	11.8
Total	116.5	0.0	0.0	89.8	91.4	3.1	4.8	0.0	0.0	305.6
Unit Cost (Ave. End Cost)	116.5	0.0	0.0	88.6	88.9	0.0	0.0	0.0	0.0	98.0

MISSION:

The T-AGS 66 will be capable of deep ocean and coastal surveys, oceanographic sampling and data collections of surface, midwater and ocean floor parameters, shipboard oceanographic data processing and sample analysis, and operation of remotely operated vehicles (AUVs) and hydrographic survey launches (HSLs). FY11 and FY12 funds a new class of general purpose research vessels designated AGOR Ocean. These vessels are designed for integrated, interdisciplinary research that will support science, educational, and engineering operations in all oceans.

Characteristics

		Notional	Armament	Electronics
HULL	T-AGS	AGOR	N/A	TBD
Length overall	353 ft	220 ft		
Beam	58 ft	46 ft		
Displacement	5,144 LT	2235 LT		
Draft	18 ft	15.9 ft		
	FY07	FY11		
PRODUCTION STATUS	TAGS-66	AGOR 1101		
Contract Award Date	12/09	02/11		
Months to Complete				
a) Contract Award to Delivery	40 months	36 months		
b) Construction Start to Delivery	32 months	27 months		
Delivery Date	04/13	02/14		
Completion of Fitting-Out	06/13	04/14		
Obligation Work Limiting Date	05/14	03/15		

WEAPON SYSTEM COST ANALYSIS (EXHIBIT P-5)
(Dollars in Thousands)

BUDGET ACTIVITY: 5	**P-1 LINE ITEM NOMENCLATURE**	**BLI: 5087**
Auxiliaries, Craft and Prior Year Program Costs	**AGOR OCEANOGRAPHIC CLASS**	

	FY 2007		**FY 2011**	
ELEMENT OF COST	**QTY**	**COST**	**QTY**	**COST**
PLAN COSTS	1	2,134	1	5,789
BASIC CONST/CONVERSION		88,000		61,169
CHANGE ORDERS		3,484		6,368
ELECTRONICS		13,856		10,131
HM&E		7,132		3,604
OTHER COST		1,900		1,500
NET P-1 LINE ITEM:		116,506		88,561

SHIPBUILDING AND CONVERSION, NAVY
SHIP PRODUCTION SCHEDULE

SHIP TYPE	HULL NUMBER	SHIPBUILDER	FISCAL YEAR AUTHORIZED	CONTRACT AWARD	START OF CONSTRUCTION	DELIVERY DATE
T-AGS	0066	VT HALTER	07	DEC-09	AUG-10	APR-13
AGOR	1101	TBD	11	FEB-11	NOV-11	FEB-14
AGOR	1201	TBD	12	FEB-12	AUG-12	AUG-14

CLASSIFICATION: UNCLASSIFIED

BUDGET ITEM JUSTIFICATION SHEET (P-40)	DATE: February 2010
FY 2011 President's Budget (PB)	

APPROPRIATION/BUDGET ACTIVITY	P-1 LINE ITEM NOMENCLATURE
SHIPBUILDING AND CONVERSION, NAVY/BA 5 Auxiliaries, Craft and Prior Year Program Costs	**OUTFITTING**
	BLI: 5110

(Dollars in Millions)	PRIOR YR	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	TO COMP	TOTAL PROG
Full Funding TOA-Outfitting	452.1	112.2	132.1	137.3	136.6	179.5	204.5	213.7	669.4	2,237.4
Full Funding TOA-Post Delivery	320.1	309.8	248.3	163.9	230.0	248.3	211.1	220.7	1,879.1	3,831.4
Full Funding TOA-First Destination	11.3	6.3	5.4	5.4	5.5	5.7	5.8	5.9	6.0	57.2
Total Obligational Authority	783.5	428.3	385.7	306.6	372.2	433.5	421.4	440.3	2,554.5	6,125.9

MISSION:

Outfitting funds are used to acquire on board repair parts, other secondary items, equipage, recreation items, precommissioning crew support and general use consumables furnished to the shipbuilder or the fitting-out activity to fill the ship's initial allowances as defined by the baseline Coordinated Shipboard Allowance List (COSAL). The program also budgets for contractor-furnished spares, a lead-time away from delivery. The program ensures operational readiness of ships undergoing new construction, conversion, ship life extension program, and nuclear refueling. It ensures these ships receive their full allowances of spare parts and equipment which are vitally required to support the shipboard maintenance process; ensures ships are equipped with operating space items (tools, test equipment, damage control), personnel safety and survivability commodities for successful completion of builder sea trials; supports shipboard maintenance and thereby achieving the OPNAV-directed Supply Readiness goals for material on board ship at delivery. SCN funding for the initial fill of allowance list items is limited to those items on the COSAL and authorized requirements through the Obligation Work Limiting Date (OWLD).

Post Delivery funding covers the fixing of government-responsible items which were believed to have been complete to standard and/or operable at delivery, as well as funding to conduct tests and trials after delivery. It is essential to deliver to the Fleet complete ships, free from both contractor and government responsible deficiencies, capable of supporting the Navy's mission from the first day of service. The Post Shakedown Availability (PSA) is a shipyard availability assigned to commence after delivery and to be completed prior to the expiration of the SCN OWLD. It is during this time that Acceptance and Final Contract Trials deficiencies will be corrected. The purpose of the PSA is to accomplish correction of new construction deficiencies found during the shakedown period which are authorized; correction of other contractor and government responsible deficiencies previously authorized; and accomplishment of other improvements or class items as authorized. Funding is used for corrections authorized by the Ship Program Manager as a result of builders' trials (pre-delivery), acceptance or underway trials, final contract trials, trial board items, and correction of production-related defects or deficiencies which develop during the Post Delivery period.

First Destination Transportation (FDT) finances the movement of newly procured equipment and materials from the contractor's plant to the initial point of receipt by the government.

BUDGET ITEM JUSTIFICATION SHEET(P-29)
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APPROPRIATION/BUDGET ACTIVITY
SHIPBUILDING AND CONVERSION, NAVY/BA 5

P-1 LINE ITEM NOMENCLATURE
OUTFITTING
BLI: 5110

Ship Type	HULL NO	PROG YEAR	Contract Award	Start of Constr.	DEL DATE	CFO DATE	PSA START	PSA FINISH	OWLD	PRIOR YEARS	FY 2009	FY 2010	FY 2011	TO COMP	TOTAL
CVN	77	01	JAN-01	SEP-98	MAY-09	MAY-09	JUN-09	JAN-10	APR-10	78,108	4,093	41	0	0	82,242
CVN	78	08	SEP-08	AUG-05	SEP-15	NOV-15	JUN-16	SEP-16	OCT-16	0	0	0	0	122,076	122,076
CVN	79	13	DEC-12	DEC-12	SEP-20	NOV-20	JUN-21	SEP-21	OCT-21	0	0	0	0	139,779	139,779
									CVN Total	**78,108**	**4,093**	**41**	**0**	**261,855**	**344,097**
CVN-RCOH	70	06	NOV-05	NOV-05	JUL-09	JUL-09	AUG-09	DEC-09	JUN-10	79,125	8,226	50	0	0	87,401
CVN-RCOH	71	09	AUG-09	AUG-09	FEB-13	APR-13	APR-13	JUN-13	MAR-14	0	630	15,258	32,758	21,337	69,983
CVN-RCOH	72	13	FEB-13	FEB-13	MAY-16	JUL-16	JUL-16	SEP-16	JUN-17	0	0	0	0	90,312	90,312
									CVN-RCOH Total	**79,125**	**8,856**	**15,308**	**32,758**	**111,649**	**247,696**
DDG	103	02	SEP-02	MAY-04	OCT-08	MAR-09	SEP-09	FEB-10	FEB-10	13,007	740	755	0	0	14,502
DDG	104	02	SEP-02	OCT-04	FEB-08	JUN-08	MAR-09	JUN-09	JUL-09	16,415	810	0	0	0	17,225
DDG	105	03	SEP-02	APR-05	AUG-09	NOV-09	SEP-10	OCT-10	OCT-10	7,821	5,778	315	0	0	13,914
DDG	106	03	SEP-02	MAY-05	SEP-08	FEB-09	SEP-09	DEC-09	JAN-10	13,343	1,586	471	0	0	15,400
DDG	107	04	SEP-02	FEB-06	JUL-10	SEP-10	MAY-11	JUL-11	AUG-11	399	8,055	3,885	105	0	12,444
DDG	108	04	SEP-02	DEC-05	JUL-09	SEP-09	JUN-10	AUG-10	AUG-10	7,087	7,838	315	0	0	15,240
DDG	109	04	SEP-02	JUL-06	JUN-10	OCT-10	MAY-11	AUG-11	SEP-11	411	9,789	3,296	137	0	13,633
DDG	110	05	SEP-02	MAY-07	OCT-10	JAN-11	JUL-11	OCT-11	DEC-11	0	4,827	9,373	530	0	14,730
DDG	111	05	SEP-02	APR-07	MAR-11	JUL-11	MAR-12	MAY-12	JUN-12	0	6,629	7,466	576	150	14,821
DDG	112	05	SEP-02	FEB-08	NOV-11	MAR-12	SEP-12	DEC-12	FEB-13	0	179	9,198	3,381	254	13,012
DDG	113	10	JUN-10	MAR-12	OCT-15	TBD	TBD	TBD	TBD	0	0	0	0	16,664	16,664
DDG	114	11	APR-11	TBD	AUG-16	TBD	TBD	TBD	TBD	0	0	0	0	16,694	16,694
DDG	115	11	APR-11	TBD	AUG-16	TBD	TBD	TBD	TBD	0	0	0	0	16,694	16,694
DDG	116	12	TBD	TBD	TBD	TBD	TBD	TBD	TBD	0	0	0	0	17,269	17,269
DDG	117	13	TBD	TBD	TBD	TBD	TBD	TBD	TBD	0	0	0	0	17,580	17,580
DDG	118	13	TBD	TBD	TBD	TBD	TBD	TBD	TBD	0	0	0	0	17,580	17,580
DDG	119	14	TBD	TBD	TBD	TBD	TBD	TBD	TBD	0	0	0	0	17,897	17,897
DDG	120	15	TBD	TBD	TBD	TBD	TBD	TBD	TBD	0	0	0	0	18,219	18,219
DDG	121	15	TBD	TBD	TBD	TBD	TBD	TBD	TBD	0	0	0	0	18,219	18,219
									DDG Total	**58,483**	**46,231**	**35,074**	**4,729**	**157,220**	**301,737**
DDG 1000	1000	07	FEB-08	FEB-09	SEP-13	TBD	TBD	TBD	NOV-14	0	0	0	18,486	19,148	37,634
DDG 1000	1001	07	FEB-08	TBD	TBD	TBD	TBD	TBD	TBD	0	0	0	0	37,539	37,539
DDG 1000	1002	09	TBD	TBD	TBD	TBD	TBD	TBD	TBD	0	0	0	0	37,830	37,830
									DDG 1000 Total	**0**	**0**	**0**	**18,486**	**94,517**	**113,003**

CLASSIFICATION: UNCLASSIFIED

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APPROPRIATION/BUDGET ACTIVITY
SHIPBUILDING AND CONVERSION, NAVY/BA 5

P-1 LINE ITEM NOMENCLATURE
OUTFITTING
BLI: 5110

Ship Type	HULL NO	PROG YEAR	Contract Award	Start of Constr.	DEL DATE	CFO DATE	PSA START	PSA FINISH	OWLD	PRIOR YEARS	FY 2009	FY 2010	FY 2011	TO COMP	TOTAL
JHSV	0901	09	JUN-09	JAN-11	JAN-13	APR-13	TBD	TBD	MAR-14	0	0	0	3,426	3,237	6,663
JHSV	1001	10	SEP-10	JAN-12	JAN-14	APR-14	TBD	TBD	MAR-15	0	0	0	0	6,802	6,802
JHSV	1101	11	JUN-11	JAN-13	JAN-15	APR-15	TBD	TBD	MAR-16	0	0	0	0	6,934	6,934
JHSV	1201	12	FEB-12	JAN-14	JAN-16	APR-16	TBD	TBD	MAR-17	0	0	0	0	7,068	7,068
JHSV	1301	13	FEB-13	JAN-15	JAN-17	APR-17	TBD	TBD	MAR-18	0	0	0	0	7,195	7,195
JHSV	1302	13	TBD	TBD	TBD	TBD	TBD	TBD	TBD	0	0	0	0	7,195	7,195
JHSV	1401	14	TBD	TBD	TBD	TBD	TBD	TBD	TBD	0	0	0	0	7,325	7,325
JHSV	1402	14	TBD	TBD	TBD	TBD	TBD	TBD	TBD	0	0	0	0	7,325	7,325
JHSV	1501	15	TBD	TBD	TBD	TBD	TBD	TBD	TBD	0	0	0	0	7,457	7,457
JHSV	1502	15	TBD	TBD	TBD	TBD	TBD	TBD	TBD	0	0	0	0	7,457	7,457
									JHSV Total	**0**	**0**	**0**	**3,426**	**67,995**	**71,421**
LCS	3	09	MAR-09	MAR-09	FEB-12	APR-12	FEB-13	JUN-13	JUN-13	0	0	0	1,394	9,394	10,788
LCS	4	09	MAY-09	JUL-09	APR-12	JUL-12	APR-13	JUL-13	JUL-13	0	0	0	1,393	9,395	10,788
LCS	5	10	MAY-10	FEB-11	OCT-13	JAN-14	SEP-14	DEC-14	DEC-14	0	0	0	0	10,699	10,699
LCS	6	10	MAY-10	APR-11	DEC-13	MAR-14	NOV-14	FEB-15	FEB-15	0	0	0	0	10,698	10,698
LCS	7	11	NOV-10	AUG-11	APR-14	JUL-14	MAR-15	JUN-15	JUN-15	0	0	0	0	11,027	11,027
LCS	8	11	NOV-10	OCT-11	JUN-14	SEP-14	MAY-15	AUG-15	AUG-15	0	0	0	0	11,205	11,205
LCS	9	12	NOV-11	AUG-12	APR-15	JUL-15	MAR-16	JUN-16	JUN-16	0	0	0	0	11,206	11,206
LCS	10	12	NOV-11	OCT-12	JUN-15	SEP-15	MAY-16	AUG-16	AUG-16	0	0	0	0	11,408	11,408
LCS	11	12	NOV-11	DEC-12	AUG-15	NOV-15	JUL-16	OCT-16	OCT-16	0	0	0	0	11,408	11,408
LCS	12	13	NOV-12	AUG-13	APR-16	JUL-16	MAR-17	JUN-17	JUN-17	0	0	0	0	11,613	11,613
LCS	13	13	NOV-12	OCT-13	JUN-16	SEP-16	MAY-17	AUG-17	AUG-17	0	0	0	0	11,613	11,613
LCS	14	13	NOV-12	DEC-13	AUG-16	NOV-16	JUL-17	OCT-17	OCT-17	0	0	0	0	11,613	11,613
LCS	15	13	NOV-12	FEB-14	OCT-16	JAN-17	SEP-17	DEC-17	DEC-17	0	0	0	0	11,613	11,613
LCS	16	14	NOV-13	AUG-14	APR-17	JUL-17	MAR-18	JUN-18	JUN-18	0	0	0	0	11,822	11,822
LCS	17	14	NOV-13	OCT-14	JUN-17	SEP-17	MAY-18	AUG-18	AUG-18	0	0	0	0	11,822	11,822
LCS	18	14	NOV-13	DEC-14	AUG-17	NOV-17	JUL-18	OCT-18	OCT-18	0	0	0	0	11,822	11,822
LCS	19	14	NOV-13	FEB-15	OCT-17	JAN-18	SEP-18	DEC-18	DEC-18	0	0	0	0	11,822	11,822
LCS	20	15	NOV-14	AUG-15	APR-18	JUL-18	MAR-19	JUN-19	JUN-19	0	0	0	0	12,035	12,035
LCS	21	15	NOV-14	OCT-15	JUN-18	SEP-18	MAY-19	AUG-19	AUG-19	0	0	0	0	12,035	12,035
LCS	22	15	NOV-14	DEC-15	AUG-18	NOV-18	JUL-19	OCT-19	OCT-19	0	0	0	0	12,035	12,035

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APPROPRIATION/BUDGET ACTIVITY
SHIPBUILDING AND CONVERSION, NAVY/BA 5

P-1 LINE ITEM NOMENCLATURE
OUTFITTING
BLI: 5110

Ship Type	HULL NO	PROG YEAR	Contract Award	Start of Constr.	DEL DATE	CFO DATE	PSA START	PSA FINISH	OWLD	PRIOR YEARS	FY 2009	FY 2010	FY 2011	TO COMP	TOTAL
LCS	23	15	NOV-14	FEB-16	OCT-18	JAN-19	SEP-19	DEC-19	DEC-19	0	0	0	0	12,035	12,035
									LCS Total	**0**	**0**	**0**	**2,787**	**238,320**	**241,107**
LCAC SLEP	30	08	JUN-09	SEP-09	NOV-10	DEC-10	JAN-11	FEB-11	AUG-12	0	204	0	0	0	204
LCAC SLEP	41	08	MAY-09	JAN-10	MAR-11	APR-11	APR-11	MAY-11	AUG-12	0	204	0	0	0	204
LCAC SLEP	46	08	MAY-09	JUN-10	AUG-11	SEP-11	SEP-11	OCT-11	AUG-12	0	204	0	0	0	204
LCAC SLEP	53	08	MAY-09	NOV-09	JAN-11	FEB-11	FEB-11	MAR-11	AUG-12	0	204	0	0	0	204
LCAC SLEP	56	08	JUN-09	JAN-10	MAR-11	APR-11	APR-11	MAY-11	AUG-12	0	204	0	0	0	204
LCAC SLEP	59	09	SEP-09	MAR-10	MAR-11	APR-11	SEP-11	OCT-11	AUG-13	0	0	249	0	0	249
LCAC SLEP	62	09	SEP-09	OCT-10	OCT-11	NOV-11	NOV-11	DEC-11	AUG-13	0	0	249	0	0	249
LCAC SLEP	67	09	AUG-09	MAR-11	MAR-12	APR-12	APR-12	MAY-12	AUG-13	0	0	249	0	0	249
LCAC SLEP	70	09	AUG-09	MAR-11	MAR-12	APR-12	APR-12	MAY-12	AUG-13	0	0	248	0	0	248
LCAC SLEP	71	09	AUG-09	AUG-11	AUG-12	SEP-12	SEP-12	OCT-12	AUG-13	0	0	0	261	0	261
LCAC SLEP	79	09	SEP-09	DEC-10	DEC-11	JAN-12	JAN-12	FEB-12	AUG-13	0	0	248	0	0	248
LCAC SLEP	63	10	AUG-10	MAR-11	MAR-11	APR-12	APR-12	MAY-12	JAN-14	0	0	0	261	0	261
LCAC SLEP	72	10	AUG-10	MAY-11	OCT-12	NOV-12	NOV-12	DEC-12	JAN-14	0	0	0	262	0	262
LCAC SLEP	74	10	AUG-10	SEP-11	JAN-13	FEB-13	FEB-13	MAR-13	JAN-14	0	0	0	0	332	332
LCAC SLEP	27	11	JUL-11	SEP-11	MAR-13	APR-13	APR-13	MAY-13	OCT-14	0	0	0	0	333	333
LCAC SLEP	38	11	JUL-11	FEB-12	APR-13	MAY-13	MAY-13	JUN-13	OCT-14	0	0	0	0	333	333
LCAC SLEP	75	11	JUL-11	MAR-12	APR-13	MAY-13	MAY-13	JUN-13	OCT-14	0	0	0	0	200	200
LCAC SLEP	80	11	JUL-11	MAR-12	OCT-13	NOV-13	NOV-13	DEC-13	OCT-14	0	0	0	0	201	201
LCAC SLEP	60	12	DEC-11	MAR-12	MAR-13	APR-13	APR-13	MAY-13	SEP-15	0	0	0	0	259	259
LCAC SLEP	66	12	DEC-11	SEP-13	SEP-14	OCT-14	OCT-14	NOV-14	SEP-15	0	0	0	0	259	259
LCAC SLEP	73	12	DEC-11	MAR-12	APR-13	MAY-13	MAY-13	JUN-13	SEP-15	0	0	0	0	260	260
LCAC SLEP	82	12	DEC-11	FEB-12	FEB-13	MAR-13	MAR-13	APR-13	SEP-15	0	0	0	0	260	260
LCAC SLEP	57	13	JUL-13	FEB-14	FEB-15	MAR-15	MAR-15	APR-15	MAR-16	0	0	0	0	260	260
LCAC SLEP	77	13	JUL-13	SEP-13	SEP-14	OCT-14	OCT-14	NOV-14	MAR-16	0	0	0	0	221	221
LCAC SLEP	78	13	JUL-13	MAR-14	MAR-15	APR-15	APR-15	MAY-15	MAR-16	0	0	0	0	221	221
LCAC SLEP	81	13	JUL-13	FEB-14	FEB-15	MAR-15	MAR-15	APR-15	MAR-16	0	0	0	0	225	225
LCAC SLEP	52	14	AUG-14	SEP-14	SEP-15	OCT-15	OCT-15	NOV-15	MAY-17	0	0	0	0	229	229
LCAC SLEP	58	14	AUG-14	SEP-14	SEP-15	OCT-15	OCT-15	NOV-15	MAY-17	0	0	0	0	229	229
LCAC SLEP	83	14	AUG-14	MAR-15	MAR-16	APR-16	APR-16	MAY-16	MAY-17	0	0	0	0	229	229

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APPROPRIATION/BUDGET ACTIVITY
SHIPBUILDING AND CONVERSION, NAVY/BA 5

P-1 LINE ITEM NOMENCLATURE
OUTFITTING
BLI: 5110

Ship Type	HULL NO	PROG YEAR	Contract Award	Start of Constr.	DEL DATE	CFO DATE	PSA START	PSA FINISH	OWLD	PRIOR YEARS	FY 2009	FY 2010	FY 2011	TO COMP	TOTAL
LCAC SLEP	84	14	AUG-14	MAY-15	MAY-16	JUN-16	JUN-16	JUL-16	MAY-17	0	0	0	0	229	229
LCAC SLEP	76	15	JUL-15	SEP-15	SEP-16	OCT-16	OCT-16	NOV-16	FEB-18	0	0	0	0	233	233
LCAC SLEP	85	15	JUL-15	SEP-15	SEP-16	OCT-16	OCT-16	NOV-16	FEB-18	0	0	0	0	233	233
LCAC SLEP	86	15	JUL-15	SEP-15	SEP-16	OCT-16	OCT-16	NOV-16	FEB-18	0	0	0	0	233	233
LCAC SLEP	87	15	JUL-15	FEB-16	FEB-17	MAR-17	MAR-17	APR-17	FEB-18	0	0	0	0	233	233
									LCAC SLEP Total	**0**	**1,020**	**1,243**	**784**	**5,212**	**8,259**
LHA	6	07	JUN-07	JAN-08	APR-13	NOV-13	JUN-14	AUG-14	OCT-14	0	0	0	8,717	37,730	46,447
LHA	7	11	NOV-10	MAY-12	SEP-16	APR-17	OCT-17	DEC-17	MAR-18	0	0	0	0	49,883	49,883
									LHA Total	**0**	**0**	**0**	**8,717**	**87,613**	**96,330**
LHD	8	02	APR-02	MAY-03	APR-09	SEP-09	MAR-10	AUG-10	AUG-10	34,201	4,377	1,716	0	0	40,294
									LHD Total	**34,201**	**4,377**	**1,716**	**0**	**0**	**40,294**
LPD	19	00	FEB-00	JUL-01	SEP-07	MAR-08	SEP-08	MAR-09	JUL-09	29,355	532	0	0	0	29,887
LPD	20	00	MAY-00	OCT-02	SEP-08	JUN-09	DEC-09	JAN-10	MAY-10	26,692	1,091	633	0	0	28,416
LPD	21	03	NOV-03	MAR-04	AUG-09	DEC-09	JUN-10	SEP-10	NOV-10	21,311	6,274	1,440	0	0	29,025
LPD	22	04	JUN-06	JUL-06	MAY-11	OCT-11	MAY-12	JUL-12	SEP-12	43	3,452	19,162	2,981	786	26,424
LPD	23	05	JUN-06	MAR-07	MAY-12	OCT-12	MAY-13	JUL-13	SEP-13	0	162	12,894	12,357	1,292	26,705
LPD	24	06	NOV-06	AUG-07	DEC-11	MAY-12	DEC-12	FEB-13	APR-13	0	0	16,003	10,136	747	26,886
LPD	25	08	DEC-07	APR-08	DEC-12	MAY-13	DEC-13	FEB-14	APR-14	0	0	0	18,467	7,774	26,241
LPD	26	09	APR-10	APR-11	MAR-15	AUG-15	MAR-16	MAY-16	JUL-16	0	0	0	0	27,052	27,052
LPD	27	12	DEC-11	DEC-12	NOV-16	APR-17	NOV-17	JAN-18	MAR-18	0	0	0	0	31,201	31,201
									LPD Total	**77,401**	**11,511**	**50,132**	**43,941**	**68,852**	**251,837**
VIRGINIA	775	99	SEP-98	AUG-98	JUN-06	JUN-06	JAN-07	JUL-08	JUN-09	17,308	701	0	0	0	18,009
VIRGINIA	776	01	SEP-98	OCT-99	DEC-06	DEC-06	MAY-08	MAY-09	AUG-09	15,860	884	0	0	0	16,744
VIRGINIA	777	02	SEP-98	APR-01	FEB-08	FEB-08	JAN-09	MAR-10	SEP-10	15,293	1,845	337	0	0	17,475
VIRGINIA	778	03	AUG-03	OCT-02	AUG-08	AUG-08	FEB-10	AUG-10	OCT-10	12,934	82	1,228	0	0	14,244
VIRGINIA	779	04	JAN-04	MAR-04	SEP-09	APR-10	JUL-10	JUL-11	OCT-11	11,445	1,222	2,993	1,069	0	16,729
VIRGINIA	780	05	JAN-04	FEB-05	APR-10	APR-11	JAN-11	JAN-12	OCT-12	9,739	3,013	3,386	1,760	611	18,509
VIRGINIA	781	06	JAN-04	FEB-06	JUN-11	APR-12	FEB-12	FEB-13	MAR-13	66	7,095	4,190	2,523	2,692	16,566
VIRGINIA	782	07	JAN-04	FEB-07	FEB-12	APR-13	OCT-12	OCT-13	MAR-14	0	7,500	3,037	2,880	2,667	16,084
VIRGINIA	783	08	JAN-04	FEB-08	APR-13	APR-14	OCT-13	OCT-14	MAR-15	0	1,020	311	2,204	11,131	14,666
VIRGINIA	784	09	DEC-08	MAR-09	AUG-14	AUG-14	SEP-14	MAR-15	JUL-15	0	0	0	3,272	14,096	17,368

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APPROPRIATION/BUDGET ACTIVITY
SHIPBUILDING AND CONVERSION, NAVY/BA 5

P-1 LINE ITEM NOMENCLATURE
OUTFITTING
BLI: 5110

Ship Type	HULL NO	PROG YEAR	Contract Award	Start of Constr.	DEL DATE	CFO DATE	PSA START	PSA FINISH	OWLD	PRIOR YEARS	FY 2009	FY 2010	FY 2011	TO COMP	TOTAL
VIRGINIA	785	10	DEC-08	MAR-10	AUG-15	AUG-15	SEP-15	FEB-16	JUL-16	0	0	0	0	18,110	18,110
VIRGINIA	786	11	DEC-08	MAR-11	AUG-16	AUG-16	SEP-16	FEB-17	JUL-17	0	0	0	0	18,436	18,436
VIRGINIA	787	11	DEC-08	SEP-11	FEB-17	FEB-17	MAR-17	AUG-17	JAN-18	0	0	0	0	18,436	18,436
VIRGINIA	788	12	DEC-08	MAR-12	AUG-17	AUG-17	AUG-17	JAN-18	JUL-18	0	0	0	0	18,768	18,768
VIRGINIA	789	12	DEC-08	SEP-12	FEB-18	FEB-18	MAR-18	JUL-18	JAN-19	0	0	0	0	18,768	18,768
VIRGINIA	790	13	DEC-08	MAR-13	AUG-18	AUG-18	AUG-18	JAN-19	MAY-19	0	0	0	0	19,106	19,106
VIRGINIA	791	13	DEC-08	SEP-13	FEB-19	FEB-19	MAR-19	JUL-19	JAN-20	0	0	0	0	19,106	19,106
VIRGINIA	792	14	TBD	TBD	TBD	TBD	DEC-19	JUN-20	TBD	0	0	0	0	19,450	19,450
VIRGINIA	793	14	TBD	TBD	TBD	TBD	AUG-20	FEB-21	TBD	0	0	0	0	19,450	19,450
VIRGINIA	794	15	TBD	TBD	TBD	TBD	DEC-20	JUN-21	TBD	0	0	0	0	19,800	19,800
VIRGINIA	795	15	TBD	TBD	TBD	TBD	AUG-21	FEB-22	TBD	0	0	0	0	19,800	19,800
									VIRGINIA Total	**82,645**	**23,362**	**15,482**	**13,708**	**240,427**	**375,624**
SSN	717	04	OCT-03	MAR-06	APR-09	APR-09	N/A	N/A	MAR-10	1,849	45	1	0	0	1,895
									SSN Total	**1,849**	**45**	**1**	**0**	**0**	**1,895**
SSGN	729	05	OCT-05	OCT-05	NOV-07	DEC-07	N/A	N/A	SEP-09	6,405	12	0	0	0	6,417
									SSGN Total	**6,405**	**12**	**0**	**0**	**0**	**6,417**
SSBN ERO	731	06	MAY-04	JAN-06	MAY-08	MAY-08	N/A	N/A	APR-09	2,189	126	0	0	0	2,315
SSBN ERO	732	07	FEB-05	NOV-06	MAR-09	MAR-09	N/A	N/A	FEB-10	2,185	240	24	0	0	2,449
SSBN ERO	733	08	FEB-06	FEB-08	MAY-10	MAY-10	N/A	N/A	APR-11	1,647	431	419	38	0	2,535
SSBN ERO	734	09	FEB-07	JAN-09	APR-11	APR-11	N/A	N/A	MAR-12	0	2,666	728	379	22	3,795
									SSBN ERO Total	**6,021**	**3,463**	**1,171**	**417**	**22**	**11,094**
PUBS	N/A	6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	27,783	8,426	10,100	6,260	51,670	104,239
									PUBS Total	**27,783**	**8,426**	**10,100**	**6,260**	**51,670**	**104,239**
SSC	02	13	TBD	TBD	TBD	TBD	TBD	TBD	TBD	0	0	0	0	1,149	1,149
SSC	03	14	TBD	TBD	TBD	TBD	TBD	TBD	TBD	0	0	0	0	1,170	1,170
SSC	04	14	TBD	TBD	TBD	TBD	TBD	TBD	TBD	0	0	0	0	1,170	1,170
SSC	05	15	TBD	TBD	TBD	TBD	TBD	TBD	TBD	0	0	0	0	1,191	1,191
SSC	06	15	TBD	TBD	TBD	TBD	TBD	TBD	TBD	0	0	0	0	1,191	1,191
SSC	07	15	TBD	TBD	TBD	TBD	TBD	TBD	TBD	0	0	0	0	1,191	1,191
SSC	08	15	TBD	TBD	TBD	TBD	TBD	TBD	TBD	0	0	0	0	1,191	1,191
									SSC Total	**0**	**0**	**0**	**0**	**8,253**	**8,253**

CLASSIFICATION: UNCLASSIFIED

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APPROPRIATION/BUDGET ACTIVITY
SHIPBUILDING AND CONVERSION, NAVY/BA 5

P-1 LINE ITEM NOMENCLATURE
OUTFITTING
BLI: 5110

Ship Type	HULL NO	PROG YEAR	Contract Award	Start of Constr.	DEL DATE	CFO DATE	PSA START	PSA FINISH	OWLD	PRIOR YEARS	FY 2009	FY 2010	FY 2011	TO COMP	TOTAL
TAGS	66	07	DEC-09	AUG-10	APR-13	JUN-13	TBD	TBD	MAY-14	0	0	0	1,268	1,320	2,588
									TAGS Total	**0**	**0**	**0**	**1,268**	**1,320**	**2,588**
AGOR	1101	11	FEB-11	NOV-11	FEB-14	APR-14	TBD	TBD	MAR-15	0	0	0	0	1,573	1,573
AGOR	1201	12	FEB-12	AUG-12	AUG-14	OCT-14	TBD	TBD	SEP-15	0	0	0	0	1,603	1,603
									AGOR Total	**0**	**0**	**0**	**0**	**3,176**	**3,176**
YON	0328	07	DEC-06	FEB-07	JUN-09	AUG-09	N/A	N/A	JUL-10	53	0	0	0	0	53
									YON Total	**53**	**0**	**0**	**0**	**0**	**53**
YP	0703	06	JUN-07	MAR-08	FEB-10	APR-10	N/A	N/A	MAR-11	8	256	52	0	0	316
YP	0704	06	JUN-07	JUN-08	MAY-10	JUL-10	N/A	N/A	JUN-11	0	274	52	0	0	326
YP	0705	07	DEC-07	SEP-08	AUG-10	OCT-10	N/A	N/A	SEP-11	0	284	57	0	0	341
YP	0706	08	JUN-08	JUN-09	NOV-10	JAN-11	N/A	N/A	DEC-11	0	0	520	0	0	520
YP	0707	09	MAR-09	SEP-09	FEB-11	APR-11	N/A	N/A	MAR-12	0	0	550	0	0	550
YP	0708	09	MAR-09	NOV-09	APR-11	JUN-11	N/A	N/A	MAY-12	0	0	570	0	0	570
YP	1101	11	JAN-11	AUG-11	AUG-12	OCT-12	N/A	N/A	SEP-13	0	0	0	0	616	616
YP	1201	12	JAN-12	SEP-12	SEP-13	NOV-13	N/A	N/A	OCT-14	0	0	0	0	620	620
YP	1202	12	JUN-12	JAN-13	JAN-14	MAR-14	N/A	N/A	FEB-15	0	0	0	0	621	621
YP	1301	13	JAN-13	AUG-13	AUG-14	OCT-14	N/A	N/A	SEP-15	0	0	0	0	616	616
YP	1302	13	JUN-13	JAN-14	JAN-15	MAR-15	N/A	N/A	FEB-16	0	0	0	0	617	617
YP	1401	14	JAN-14	AUG-14	AUG-15	OCT-15	N/A	N/A	SEP-16	0	0	0	0	625	625
YP	1402	14	JUN-14	JAN-15	JAN-16	MAR-16	N/A	N/A	FEB-17	0	0	0	0	626	626
YP	1501	15	JAN-15	AUG-15	AUG-16	OCT-16	N/A	N/A	SEP-17	0	0	0	0	637	637
YP	1502	15	JUN-15	JAN-16	JAN-17	MAR-17	N/A	N/A	FEB-18	0	0	0	0	637	637
									YP Total	**8**	**814**	**1,801**	**0**	**5,615**	**8,238**
									Full Funding TOA-Outfitting Total	**452,082**	**112,210**	**132,069**	**137,281**	**1,403,716**	**2,237,358**

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APPROPRIATION/BUDGET ACTIVITY
SHIPBUILDING AND CONVERSION, NAVY/BA 5

P-1 LINE ITEM NOMENCLATURE
OUTFITTING
BLI: 5110

Ship Type	HULL NO	PROG YEAR	Contract Award	Start of Constr.	DEL DATE	CFO DATE	PSA START	PSA FINISH	OWLD	PRIOR YEARS	FY 2009	FY 2010	FY 2011	TO COMP	TOTAL
CVN	77	01	JAN-01	SEP-98	MAY-09	MAY-09	JUN-09	JAN-10	APR-10	5,543	39,495	0	0	0	45,038
CVN	78	08	SEP-08	AUG-05	SEP-15	NOV-15	JUN-16	SEP-16	OCT-16	0	0	0	0	81,370	81,370
CVN	79	13	DEC-12	DEC-12	SEP-20	NOV-20	JUN-21	SEP-21	OCT-21	0	0	0	0	99,550	99,550
									CVN Total	**5,543**	**39,495**	**0**	**0**	**180,920**	**225,958**
CVN-RCOH	70	06	NOV-05	NOV-05	JUL-09	JUL-09	AUG-09	DEC-09	JUN-10	760	38,807	0	0	0	39,567
CVN-RCOH	71	09	AUG-09	AUG-09	FEB-13	APR-13	APR-13	JUN-13	MAR-14	0	0	0	0	41,596	41,596
CVN-RCOH	72	13	FEB-13	FEB-13	MAY-16	JUL-16	JUL-16	SEP-16	JUN-17	0	0	0	0	59,376	59,376
									CVN-RCOH Total	**760**	**38,807**	**0**	**0**	**100,972**	**140,539**
DDG	103	02	SEP-02	MAY-04	OCT-08	MAR-09	SEP-09	FEB-10	FEB-10	11,696	30,913	0	0	0	42,609
DDG	104	02	SEP-02	OCT-04	FEB-08	JUN-08	MAR-09	JUN-09	JUL-09	26,573	3,579	0	0	0	30,152
DDG	105	03	SEP-02	APR-05	AUG-09	NOV-09	SEP-10	OCT-10	OCT-10	5,526	9,481	19,911	0	0	34,918
DDG	106	03	SEP-02	MAY-05	SEP-08	FEB-09	SEP-09	DEC-09	JAN-10	17,118	14,706	0	0	0	31,824
DDG	107	04	SEP-02	FEB-06	JUL-10	SEP-10	MAY-11	JUL-11	AUG-11	0	3,436	28,934	6,295	0	38,665
DDG	108	04	SEP-02	DEC-05	JUL-09	SEP-09	JUN-10	AUG-10	AUG-10	266	17,323	23,081	0	0	40,670
DDG	109	04	SEP-02	JUL-06	JUN-10	OCT-10	MAY-11	AUG-11	SEP-11	75	5,137	29,319	7,980	0	42,511
DDG	110	05	SEP-02	MAY-07	OCT-10	JAN-11	JUL-11	OCT-11	DEC-11	0	0	16,001	25,000	0	41,001
DDG	111	05	SEP-02	APR-07	MAR-11	JUL-11	MAR-12	MAY-12	JUN-12	0	0	13,514	23,746	4,622	41,882
DDG	112	05	SEP-02	FEB-08	NOV-11	MAR-12	SEP-12	DEC-12	FEB-13	0	0	0	12,522	32,037	44,559
DDG	113	10	JUN-10	MAR-12	OCT-15	TBD	TBD	TBD	TBD	0	0	0	0	48,357	48,357
DDG	114	11	APR-11	TBD	AUG-16	TBD	TBD	TBD	TBD	0	0	0	0	49,325	49,325
DDG	115	11	APR-11	TBD	AUG-16	TBD	TBD	TBD	TBD	0	0	0	0	49,325	49,325
DDG	116	12	TBD	TBD	TBD	TBD	TBD	TBD	TBD	0	0	0	0	50,213	50,213
DDG	117	13	TBD	TBD	TBD	TBD	TBD	TBD	TBD	0	0	0	0	51,117	51,117
DDG	118	13	TBD	TBD	TBD	TBD	TBD	TBD	TBD	0	0	0	0	51,117	51,117
DDG	119	14	TBD	TBD	TBD	TBD	TBD	TBD	TBD	0	0	0	0	52,037	52,037
DDG	120	15	TBD	TBD	TBD	TBD	TBD	TBD	TBD	0	0	0	0	52,973	52,973
DDG	121	15	TBD	TBD	TBD	TBD	TBD	TBD	TBD	0	0	0	0	52,973	52,973
									DDG Total	**61,254**	**84,575**	**130,760**	**75,543**	**494,096**	**846,228**
DDG 1000	1000	07	FEB-08	FEB-09	SEP-13	TBD	TBD	TBD	NOV-14	0	0	0	1,757	88,948	90,705
DDG 1000	1001	07	FEB-08	NOV-09	TBD	TBD	TBD	TBD	TBD	0	0	0	0	67,200	67,200
DDG 1000	1002	09	TBD	TBD	TBD	TBD	TBD	TBD	TBD	0	0	0	0	68,410	68,410
									DDG 1000 Total	**0**	**0**	**0**	**1,757**	**224,558**	**226,315**

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APPROPRIATION/BUDGET ACTIVITY
SHIPBUILDING AND CONVERSION, NAVY/BA 5

P-1 LINE ITEM NOMENCLATURE
OUTFITTING
BLI: 5110

Ship Type	HULL NO	PROG YEAR	Contract Award	Start of Constr.	DEL DATE	CFO DATE	PSA START	PSA FINISH	OWLD	PRIOR YEARS	FY 2009	FY 2010	FY 2011	TO COMP	TOTAL
JHSV	0901	09	JUN-09	JAN-11	JAN-13	APR-13	TBD	TBD	MAR-14	0	0	0	0	9,898	9,898
JHSV	1001	10	SEP-10	JAN-12	JAN-14	APR-14	TBD	TBD	MAR-15	0	0	0	0	8,932	8,932
JHSV	1101	11	JUN-11	JAN-13	JAN-15	APR-15	TBD	TBD	MAR-16	0	0	0	0	8,925	8,925
JHSV	1201	12	FEB-12	JAN-14	JAN-16	APR-16	TBD	TBD	MAR-17	0	0	0	0	9,162	9,162
JHSV	1301	13	FEB-13	JAN-15	JAN-17	APR-17	TBD	TBD	MAR-18	0	0	0	0	9,327	9,327
JHSV	1302	13	TBD	TBD	TBD	TBD	TBD	TBD	TBD	0	0	0	0	9,327	9,327
JHSV	1401	14	TBD	TBD	TBD	TBD	TBD	TBD	TBD	0	0	0	0	9,495	9,495
JHSV	1402	14	TBD	TBD	TBD	TBD	TBD	TBD	TBD	0	0	0	0	9,495	9,495
JHSV	1501	15	TBD	TBD	TBD	TBD	TBD	TBD	TBD	0	0	0	0	9,666	9,666
JHSV	1502	15	TBD	TBD	TBD	TBD	TBD	TBD	TBD	0	0	0	0	9,666	9,666
									JHSV Total	**0**	**0**	**0**	**0**	**93,893**	**93,893**
LCS	3	09	MAR-09	MAR-09	FEB-12	APR-12	FEB-13	JUN-13	JUN-13	0	0	0	0	93,893	93,893
LCS	4	09	MAY-09	JUL-09	APR-12	JUL-12	APR-13	JUL-13	JUL-13	0	0	0	0	32,778	32,778
LCS	5	10	MAY-10	FEB-11	OCT-13	JAN-14	SEP-14	DEC-14	DEC-14	0	0	0	0	25,193	25,193
LCS	6	10	MAY-10	APR-11	DEC-13	MAR-14	NOV-14	FEB-15	FEB-15	0	0	0	0	25,439	25,439
LCS	7	11	NOV-10	AUG-11	APR-14	JUL-14	MAR-15	JUN-15	JUN-15	0	0	0	0	25,531	25,531
LCS	8	11	NOV-10	OCT-11	JUN-14	SEP-14	MAY-15	AUG-15	AUG-15	0	0	0	0	23,159	23,159
LCS	9	12	NOV-11	AUG-12	APR-15	JUL-15	MAR-16	JUN-16	JUN-16	0	0	0	0	23,159	23,159
LCS	10	12	NOV-11	OCT-12	JUN-15	SEP-15	MAY-16	AUG-16	AUG-16	0	0	0	0	25,243	25,243
LCS	11	12	NOV-11	DEC-12	AUG-15	NOV-15	JUL-16	OCT-16	OCT-16	0	0	0	0	25,243	25,243
LCS	12	13	NOV-12	AUG-13	APR-16	JUL-16	MAR-17	JUN-17	JUN-17	0	0	0	0	25,811	25,811
LCS	13	13	NOV-12	OCT-13	JUN-16	SEP-16	MAY-17	AUG-17	AUG-17	0	0	0	0	25,811	25,811
LCS	14	13	NOV-12	DEC-13	AUG-16	NOV-16	JUL-17	OCT-17	OCT-17	0	0	0	0	25,811	25,811
LCS	15	13	NOV-12	FEB-14	OCT-16	JAN-17	SEP-17	DEC-17	DEC-17	0	0	0	0	25,811	25,811
LCS	16	14	NOV-13	AUG-14	APR-17	JUL-17	MAR-18	JUN-18	JUN-18	0	0	0	0	26,275	26,275
LCS	17	14	NOV-13	OCT-14	JUN-17	SEP-17	MAY-18	AUG-18	AUG-18	0	0	0	0	26,275	26,275
LCS	18	14	NOV-13	DEC-14	AUG-17	NOV-17	JUL-18	OCT-18	OCT-18	0	0	0	0	26,275	26,275
LCS	19	14	NOV-13	FEB-15	OCT-17	JAN-18	SEP-18	DEC-18	DEC-18	0	0	0	0	26,275	26,275
LCS	20	15	NOV-14	AUG-15	APR-18	JUL-18	MAR-19	JUN-19	JUN-19	0	0	0	0	26,748	26,748
LCS	21	15	NOV-14	OCT-15	JUN-18	SEP-18	MAY-19	AUG-19	AUG-19	0	0	0	0	26,748	26,748
LCS	22	15	NOV-14	DEC-15	AUG-18	NOV-18	JUL-19	OCT-19	OCT-19	0	0	0	0	26,748	26,748

CLASSIFICATION: UNCLASSIFIED

BUDGET ITEM JUSTIFICATION SHEET(P-30)
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DATE
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APPROPRIATION/BUDGET ACTIVITY
SHIPBUILDING AND CONVERSION, NAVY/BA 5

P-1 LINE ITEM NOMENCLATURE
OUTFITTING
BLI: 5110

Ship Type	HULL NO	PROG YEAR	Contract Award	Start of Constr.	DEL DATE	CFO DATE	PSA START	PSA FINISH	OWLD	PRIOR YEARS	FY 2009	FY 2010	FY 2011	TO COMP	TOTAL
LCS	23	15	NOV-14	FEB-16	OCT-18	JAN-19	SEP-19	DEC-19	DEC-19	0	0	0	0	26,748	26,748
									LCS Total	**0**	**0**	**0**	**0**	**553,918**	**553,918**
LCAC SLEP	29	06	AUG-06	MAR-07	APR-08	MAY-08	NOV-08	DEC-08	SEP-11	231	0	0	0	0	231
LCAC SLEP	32	06	AUG-06	SEP-07	SEP-08	OCT-08	APR-09	MAY-09	SEP-11	0	134	0	0	0	134
LCAC SLEP	34	06	AUG-06	FEB-07	SEP-10	OCT-10	OCT-10	NOV-10	SEP-11	0	0	258	0	0	258
LCAC SLEP	54	06	AUG-06	MAR-07	AUG-08	OCT-08	MAY-09	JUN-09	SEP-11	140	0	0	0	0	140
LCAC SLEP	68	06	AUG-06	MAY-07	APR-09	MAY-09	JUL-09	AUG-09	SEP-11	0	175	0	0	0	175
LCAC SLEP	31	07	MAR-07	MAR-08	MAR-09	MAY-09	OCT-09	NOV-09	APR-11	0	216	0	0	0	216
LCAC SLEP	33	07	MAR-07	JUL-08	JUL-09	SEP-09	JAN-10	FEB-10	APR-11	0	0	258	0	0	258
LCAC SLEP	36	07	MAR-07	SEP-08	APR-10	MAY-10	JUL-10	AUG-10	APR-11	0	0	258	0	0	258
LCAC SLEP	48	07	MAR-07	OCT-08	NOV-09	DEC-09	MAY-10	JUN-10	APR-11	0	0	258	0	0	258
LCAC SLEP	69	07	MAR-07	DEC-08	JAN-10	FEB-10	MAR-10	APR-10	APR-11	0	0	258	0	0	258
LCAC SLEP	30	08	JUN-09	SEP-09	NOV-10	DEC-10	JAN-11	FEB-11	AUG-12	0	0	0	266	0	266
LCAC SLEP	41	08	MAY-09	JAN-10	MAR-11	APR-11	APR-11	MAY-11	AUG-12	0	0	0	266	0	266
LCAC SLEP	46	08	MAY-09	JUN-10	AUG-11	SEP-11	SEP-11	OCT-11	AUG-12	0	0	0	266	0	266
LCAC SLEP	53	08	MAY-09	NOV-09	JAN-11	FEB-11	FEB-11	MAR-11	AUG-12	0	0	0	266	0	266
LCAC SLEP	56	08	JUN-09	JAN-10	MAR-11	APR-11	APR-11	MAY-11	AUG-12	0	0	0	266	0	266
LCAC SLEP	59	09	SEP-09	MAR-10	MAR-11	APR-11	SEP-11	OCT-11	AUG-13	0	0	0	266	0	266
LCAC SLEP	62	09	SEP-09	OCT-10	OCT-11	NOV-11	NOV-11	DEC-11	AUG-13	0	0	0	266	0	266
LCAC SLEP	67	09	AUG-09	MAR-11	MAR-12	APR-12	APR-12	MAY-12	AUG-13	0	0	0	0	274	274
LCAC SLEP	70	09	AUG-09	MAR-11	MAR-12	APR-12	APR-12	MAY-12	AUG-13	0	0	0	0	274	274
LCAC SLEP	71	09	AUG-09	AUG-11	AUG-12	SEP-12	SEP-12	OCT-12	AUG-13	0	0	0	0	274	274
LCAC SLEP	79	09	SEP-09	DEC-10	DEC-11	JAN-12	JAN-12	FEB-12	AUG-13	0	0	0	0	274	274
LCAC SLEP	63	10	AUG-10	MAR-11	MAR-11	APR-12	APR-12	MAY-12	JAN-14	0	0	0	0	274	274
LCAC SLEP	72	10	AUG-10	MAY-11	OCT-12	NOV-12	NOV-12	DEC-12	JAN-14	0	0	0	0	274	274
LCAC SLEP	74	10	AUG-10	SEP-11	JAN-13	FEB-13	FEB-13	MAR-13	JAN-14	0	0	0	0	279	279
LCAC SLEP	27	11	JUL-11	SEP-11	MAR-13	APR-13	APR-13	MAY-13	OCT-14	0	0	0	0	279	279
LCAC SLEP	38	11	JUL-11	FEB-12	APR-13	MAY-13	MAY-13	JUN-13	OCT-14	0	0	0	0	279	279
LCAC SLEP	75	11	JUL-11	MAR-12	APR-13	MAY-13	MAY-13	JUN-13	OCT-14	0	0	0	0	279	279
LCAC SLEP	80	11	JUL-11	MAR-12	OCT-13	NOV-13	NOV-13	DEC-13	OCT-14	0	0	0	0	279	279
LCAC SLEP	60	12	DEC-11	MAR-12	MAR-13	APR-13	APR-13	MAY-13	SEP-15	0	0	0	0	284	284

CLASSIFICATION: UNCLASSIFIED

BUDGET ITEM JUSTIFICATION SHEET(P-30)
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APPROPRIATION/BUDGET ACTIVITY
SHIPBUILDING AND CONVERSION, NAVY/BA 5

P-1 LINE ITEM NOMENCLATURE
OUTFITTING
BLI: 5110

Ship Type	HULL NO	PROG YEAR	Contract Award	Start of Constr.	DEL DATE	CFO DATE	PSA START	PSA FINISH	OWLD	PRIOR YEARS	FY 2009	FY 2010	FY 2011	TO COMP	TOTAL
LCAC SLEP	66	12	DEC-11	SEP-13	SEP-14	OCT-14	OCT-14	NOV-14	SEP-15	0	0	0	0	284	284
LCAC SLEP	73	12	DEC-11	MAR-12	APR-13	MAY-13	MAY-13	JUN-13	SEP-15	0	0	0	0	284	284
LCAC SLEP	82	12	DEC-11	FEB-12	FEB-13	MAR-13	MAR-13	APR-13	SEP-15	0	0	0	0	284	284
LCAC SLEP	57	13	JUL-13	FEB-14	FEB-15	MAR-15	MAR-15	APR-15	MAR-16	0	0	0	0	289	289
LCAC SLEP	77	13	JUL-13	SEP-13	SEP-14	OCT-14	OCT-14	NOV-14	MAR-16	0	0	0	0	289	289
LCAC SLEP	78	13	JUL-13	MAR-14	MAR-15	APR-15	APR-15	MAY-15	MAR-16	0	0	0	0	289	289
LCAC SLEP	81	13	JUL-13	FEB-14	FEB-15	MAR-15	MAR-15	APR-15	MAR-16	0	0	0	0	289	289
LCAC SLEP	52	14	AUG-14	SEP-14	SEP-15	OCT-15	OCT-15	NOV-15	MAY-17	0	0	0	0	294	294
LCAC SLEP	58	14	AUG-14	SEP-14	SEP-15	OCT-15	OCT-15	NOV-15	MAY-17	0	0	0	0	294	294
LCAC SLEP	83	14	AUG-14	MAR-15	MAR-16	APR-16	APR-16	MAY-16	MAY-17	0	0	0	0	294	294
LCAC SLEP	84	14	AUG-14	MAY-15	MAY-16	JUN-16	JUN-16	JUL-16	MAY-17	0	0	0	0	294	294
LCAC SLEP	76	15	JUL-15	SEP-15	SEP-16	OCT-16	OCT-16	NOV-16	FEB-18	0	0	0	0	300	300
LCAC SLEP	85	15	JUL-15	SEP-15	SEP-16	OCT-16	OCT-16	NOV-16	FEB-18	0	0	0	0	300	300
LCAC SLEP	86	15	JUL-15	SEP-15	SEP-16	OCT-16	OCT-16	NOV-16	FEB-18	0	0	0	0	300	300
LCAC SLEP	87	15	JUL-15	FEB-16	FEB-17	MAR-17	MAR-17	APR-17	FEB-18	0	0	0	0	300	300
									LCAC SLEP Total	**371**	**525**	**1,290**	**1,862**	**7,707**	**11,755**
LHA	6	07	JUN-07	JAN-08	APR-13	NOV-13	JUN-14	AUG-14	OCT-14	0	0	0	0	24,339	24,339
LHA	7	11	NOV-10	MAY-12	SEP-16	APR-17	OCT-17	DEC-17	MAR-18	0	0	0	0	25,117	25,117
									LHA Total	**0**	**0**	**0**	**0**	**49,456**	**49,456**
LHD	8	02	APR-02	MAY-03	APR-09	SEP-09	MAR-10	AUG-10	AUG-10	0	11,029	29,595	0	0	40,624
									LHD Total	**0**	**11,029**	**29,595**	**0**	**0**	**40,624**
LPD	19	00	FEB-00	JUL-01	SEP-07	MAR-08	SEP-08	MAR-09	JUL-09	72,743	8,501	0	0	0	81,244
LPD	20	00	MAY-00	OCT-02	SEP-08	JUN-09	DEC-09	JAN-10	MAY-10	8,736	29,867	0	0	0	38,603
LPD	21	03	NOV-03	MAR-04	AUG-09	DEC-09	JUN-10	SEP-10	NOV-10	1,077	17,174	26,050	0	0	44,301
LPD	22	04	JUN-06	JUL-06	MAY-11	OCT-11	MAY-12	JUL-12	SEP-12	0	0	0	19,669	16,704	36,373
LPD	23	05	JUN-06	MAR-07	MAY-12	OCT-12	MAY-13	JUL-13	SEP-13	0	0	0	3,387	32,171	35,558
LPD	24	06	NOV-06	AUG-07	DEC-11	MAY-12	DEC-12	FEB-13	APR-13	0	0	0	12,107	23,693	35,800
LPD	25	08	DEC-07	APR-08	DEC-12	MAY-13	DEC-13	FEB-14	APR-14	0	0	0	0	35,826	35,826
LPD	26	09	APR-10	APR-11	MAR-15	AUG-15	MAR-16	MAY-16	JUL-16	0	0	0	0	44,342	44,342
LPD	27	12	DEC-11	DEC-12	NOV-16	APR-17	NOV-17	JAN-18	MAR-18	0	0	0	0	44,342	44,342
									LPD Total	**82,556**	**55,542**	**26,050**	**35,163**	**197,078**	**396,389**

CLASSIFICATION: UNCLASSIFIED

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APPROPRIATION/BUDGET ACTIVITY
SHIPBUILDING AND CONVERSION, NAVY/BA 5

P-1 LINE ITEM NOMENCLATURE
OUTFITTING
BLI: 5110

Ship Type	HULL NO	PROG YEAR	Contract Award	Start of Constr.	DEL DATE	CFO DATE	PSA START	PSA FINISH	OWLD	PRIOR YEARS	FY 2009	FY 2010	FY 2011	TO COMP	TOTAL
VIRGINIA	775	99	SEP-98	AUG-98	JUN-06	JUN-06	JAN-07	JUL-08	JUN-09	77,336	71	0	0	0	77,407
VIRGINIA	776	01	SEP-98	OCT-99	DEC-06	DEC-06	MAY-08	MAY-09	AUG-09	57,256	6,381	0	0	0	63,637
VIRGINIA	777	02	SEP-98	APR-01	FEB-08	FEB-08	JAN-09	MAR-10	SEP-10	21,461	43,143	434	0	0	65,038
VIRGINIA	778	03	AUG-03	OCT-02	AUG-08	AUG-08	FEB-10	AUG-10	OCT-10	4,401	24,813	20,081	0	0	49,295
VIRGINIA	779	04	JAN-04	MAR-04	SEP-09	APR-10	JUL-10	JUL-11	OCT-11	0	3,775	31,392	10,477	0	45,644
VIRGINIA	780	05	JAN-04	FEB-05	APR-10	APR-11	JAN-11	JAN-12	OCT-12	0	232	7,938	31,508	5,802	45,480
VIRGINIA	781	06	JAN-04	FEB-06	JUN-11	APR-12	FEB-12	FEB-13	MAR-13	0	0	224	7,126	36,398	43,748
VIRGINIA	782	07	JAN-04	FEB-07	FEB-12	APR-13	OCT-12	OCT-13	MAR-14	0	0	0	247	43,518	43,765
VIRGINIA	783	08	JAN-04	FEB-08	APR-13	APR-14	OCT-13	OCT-14	MAR-15	0	0	0	0	48,154	48,154
VIRGINIA	784	09	DEC-08	MAR-09	AUG-14	AUG-14	SEP-14	MAR-15	JUL-15	0	0	0	0	51,132	51,132
VIRGINIA	785	10	DEC-08	MAR-10	AUG-15	AUG-15	SEP-15	FEB-16	JUL-16	0	0	0	0	55,960	55,960
VIRGINIA	786	11	DEC-08	MAR-11	AUG-16	AUG-16	SEP-16	FEB-17	JUL-17	0	0	0	0	58,888	58,888
VIRGINIA	787	11	DEC-08	SEP-11	FEB-17	FEB-17	MAR-17	AUG-17	JAN-18	0	0	0	0	59,207	59,207
VIRGINIA	788	12	DEC-08	MAR-12	AUG-17	AUG-17	AUG-17	JAN-18	JUL-18	0	0	0	0	61,042	61,042
VIRGINIA	789	12	DEC-08	SEP-12	FEB-18	FEB-18	MAR-18	JUL-18	JAN-19	0	0	0	0	61,042	61,042
VIRGINIA	790	13	DEC-08	MAR-13	AUG-18	AUG-18	AUG-18	JAN-19	MAY-19	0	0	0	0	62,934	62,934
VIRGINIA	791	13	DEC-08	SEP-13	FEB-19	FEB-19	MAR-19	JUL-19	JAN-20	0	0	0	0	62,934	62,934
VIRGINIA	792	14	TBD	TBD	TBD	TBD	DEC-19	JUN-20	TBD	0	0	0	0	64,885	64,885
VIRGINIA	793	14	TBD	TBD	TBD	TBD	AUG-20	FEB-21	TBD	0	0	0	0	64,885	64,885
VIRGINIA	794	15	TBD	TBD	TBD	TBD	DEC-20	JUN-21	TBD	0	0	0	0	66,896	66,896
VIRGINIA	795	15	TBD	TBD	TBD	TBD	AUG-21	FEB-22	TBD	0	0	0	0	66,896	66,896
									VIRGINIA Total	**160,454**	**78,415**	**60,069**	**49,358**	**870,573**	**1,218,869**
SSGN	729	05	OCT-05	OCT-05	NOV-07	DEC-07	N/A	N/A	SEP-09	9,166	1,457	0	0	0	10,623
									SSGN Total	**9,166**	**1,457**	**0**	**0**	**0**	**10,623**
SSC	02	13	TBD	TBD	TBD	TBD	TBD	TBD	TBD	0	0	0	0	1,042	1,042
SSC	03	14	TBD	TBD	TBD	TBD	TBD	TBD	TBD	0	0	0	0	1,061	1,061
SSC	04	14	TBD	TBD	TBD	TBD	TBD	TBD	TBD	0	0	0	0	1,061	1,061
SSC	05	15	TBD	TBD	TBD	TBD	TBD	TBD	TBD	0	0	0	0	1,080	1,080
SSC	06	15	TBD	TBD	TBD	TBD	TBD	TBD	TBD	0	0	0	0	1,080	1,080
SSC	07	15	TBD	TBD	TBD	TBD	TBD	TBD	TBD	0	0	0	0	1,080	1,080
SSC	08	15	TBD	TBD	TBD	TBD	TBD	TBD	TBD	0	0	0	0	1,080	1,080
									SSC Total	**0**	**0**	**0**	**0**	**7,484**	**7,484**

CLASSIFICATION: UNCLASSIFIED

BUDGET ITEM JUSTIFICATION SHEET(P-30) FY 2011 President's Budget	DATE February 2010
APPROPRIATION/BUDGET ACTIVITY **SHIPBUILDING AND CONVERSION, NAVY/BA 5**	**P-1 LINE ITEM NOMENCLATURE** **OUTFITTING** **BLI: 5110**

Ship Type	HULL NO	PROG YEAR	Contract Award	Start of Constr.	DEL DATE	CFO DATE	PSA START	PSA FINISH	OWLD	PRIOR YEARS	FY 2009	FY 2010	FY 2011	TO COMP	TOTAL
TAGS	66	07	DEC-09	AUG-10	APR-13	JUN-13	TBD	TBD	MAY-14	0	0	0	0	2,037	2,037
									TAGS Total	**0**	**0**	**0**	**0**	**2,037**	**2,037**
AGOR	1101	11	FEB-11	NOV-11	FEB-14	APR-14	TBD	TBD	MAR-15	0	0	0	0	2,010	2,010
AGOR	1201	12	FEB-12	AUG-12	AUG-14	OCT-14	TBD	TBD	SEP-15	0	0	0	0	1,915	1,915
									AGOR Total	**0**	**0**	**0**	**0**	**3,925**	**3,925**
YP	0703	06	JUN-07	MAR-08	FEB-10	APR-10	N/A	N/A	MAR-11	0	0	127	0	0	127
YP	0704	06	JUN-07	JUN-08	MAY-10	JUL-10	N/A	N/A	JUN-11	0	0	127	0	0	127
YP	0705	07	DEC-07	SEP-08	AUG-10	OCT-10	N/A	N/A	SEP-11	0	0	128	0	0	128
YP	0706	08	JUN-08	JUN-09	NOV-10	JAN-11	N/A	N/A	DEC-11	0	0	128	0	0	128
YP	0708	09	MAR-09	SEP-09	FEB-11	APR-11	N/A	N/A	MAR-12	0	0	0	261	0	261
YP	1,101	11	MAR-09	NOV-09	APR-11	JUN-11	N/A	N/A	MAY-12	0	0	0	0	274	274
YP	1201	12	JAN-12	SEP-12	SEP-13	NOV-13	N/A	N/A	OCT-14	0	0	0	0	284	284
YP	1202	12	JUN-12	JAN-13	JAN-14	MAR-14	N/A	N/A	FEB-15	0	0	0	0	284	284
YP	1,301	13	JAN-13	AUG-13	AUG-14	OCT-14	N/A	N/A	SEP-15	0	0	0	0	287	287
YP	1302	13	JUN-13	JAN-14	JAN-15	MAR-15	N/A	N/A	FEB-16	0	0	0	0	288	288
YP	1401	13	JAN-14	AUG-14	AUG-15	OCT-15	N/A	N/A	SEP-16	0	0	0	0	288	288
YP	1402	14	JUN-14	JAN-15	JAN-16	MAR-16	N/A	N/A	FEB-17	0	0	0	0	293	293
YP	1501	15	JAN-15	AUG-15	AUG-16	OCT-16	N/A	N/A	SEP-17	0	0	0	0	298	298
YP	1502	15	JUN-15	JAN-16	JAN-17	MAR-17	N/A	N/A	FEB-18	0	0	0	0	298	298
									YP Total	**0**	**0**	**510**	**261**	**2,594**	**3,365**
									Full Funding TOA-Outfitting Total	**452,082**	**112,210**	**132,069**	**137,281**	**1,403,716**	**2,237,358**
									Full Funding TOA-Post Delivery Total	**320,104**	**309,845**	**248,274**	**163,944**	**2,789,211**	**3,831,378**
									Full Funding TOA-First Destination Total	**11,277**	**6,250**	**5,363**	**5,415**	**28,853**	**57,158**
									Total Obligational Authority Total	**783,463**	**428,305**	**385,706**	**306,640**	**4,221,780**	**6,125,894**
									NET P-1 Total	**783,463**	**428,305**	**385,706**	**306,640**	**4,221,780**	**6,125,894**

Note: An additional 30,300K is budgeted in Prior Years for Hurricane Katrina under the following ships:

DDG 100 (OF)	1,700	LPD 18 (OF)	500
LHD 8 (OF)	200	LPD 19 (OF)	1,200
LPD 17 (PD)	25,600	LPD 20 (OF)	1,100

BUDGET ITEM JUSTIFICATION SHEET (P-40)
FY 2011 President's Budget

DATE: February 2010

APPROPRIATION/BUDGET ACTIVITY
SHIPBUILDING AND CONVERSION, NAVY/BA 5 Auxiliaries, Craft and Prior Year Program Costs

P-1 LINE ITEM NOMENCLATURE
SERVICE CRAFT
BLI: 5113

(Dollars in Millions)	PRIOR YR	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	TO COMP	TOTAL PROG
QUANTITY	26	5	1	2	3	3	3	3	0	46
End Cost	32.7	48.0	3.7	13.8	23.1	22.9	23.0	23.3	0.0	190.5
Full Funding TOA	32.7	48.0	3.7	13.8	23.1	22.9	23.0	23.3	0.0	190.5
Total Obligational Authority	32.7	48.0	3.7	13.8	23.1	22.9	23.0	23.3	0.0	190.5
Plus Outfitting / Plus Post Delivery	0.1	0.8	2.3	0.3	0.6	1.5	1.8	2.1	2.1	11.6
Total	32.7	48.8	6.0	14.0	23.7	24.4	24.8	25.4	2.1	201.9
Unit Cost (Ave. End Cost)	1.3	9.6	3.7	6.9	7.7	7.6	7.7	7.8	0.0	4.1

MISSION:

The US Navy owns/operates approximately 500 Service Craft of 43 different classes at 85 different commands and activities throughout the world. Nearly half of the Service Craft inventory is over 40 years of age. The Service Craft budget will procure replacement craft for the following: Training Patrol Craft (YP) - For instruction in seamanship and navigation at the United States Naval Academy; Harbor Tug (YT) - To maneuver ships, tow barges and submarines in close quarters such as channel operations, harbors, coastal waters, mooring, docking or undocking; Fuel Oil Barge (YON) - Carry liquid petroleum products for refueling ships.

Characteristics:
Hull Various - Multiple Craft

Armament
N/A

Electronics
N/A

	FY09	FY09	FY09	FY09	FY09	FY10	FY11	FY11
PRODUCTION STATUS	YON - 332	YT - 806	YT - 807	YP - 707	YP - 708	YON - 333	YON-1101	YP-1101
Contract Award Date	03/10	03/10	03/10	03/09	03/09	03/10	01/11	01/11
Months to Completion								
a) Contract Award to Delivery	15 months	25 months	25 months	24 months	26 months	15 months	13 months	20 months
b) Construction Start to Delivery	13 months	23 months	23 months	18 months	18 months	13 months	10 months	13 months
Delivery Date	05/11	03/12	03/12	02/11	04/11	05/11	01/12	08/12
Completion of Fitting Out	07/11	05/12	05/12	04/11	06/11	07/11	03/12	10/12
Obligation Work Limiting Date	06/12	04/13	04/13	03/12	05/12	06/12	02/13	09/13

WEAPON SYSTEM COST ANALYSIS (EXHIBIT P-5)
(Dollars in Thousands)

BUDGET ACTIVITY: 5
Auxiliaries, Craft and Prior Year Program Costs

P-1 LINE ITEM NOMENCLATURE
SERVICE CRAFT

BLI: 5113

ELEMENT OF COST	FY 2006 QTY	FY 2006 COST	FY 2007 QTY	FY 2007 COST	FY 2008 QTY	FY 2008 COST	FY 2009 QTY	FY 2009 COST	FY 2010 QTY	FY 2010 COST	FY 2011 QTY	FY 2011 COST
PLAN COSTS	5		5		4		5		1		2	250
BASIC CONST/CONVERSION		41,431		44,584		29,599		45,063		3,683		12,770
CHANGE ORDERS		1,300		418		418		879				450
HM&E		861		1,388		1,631		1,000				200
OTHER COST		1,244		1,055		1,024		1,031				100
NET P-1 LINE ITEM:		44,836		47,445		32,672		47,973		3,683		13,770

FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011	
1-YON	3,636	1-YON	4,290	2-YON	8,000	1-YON	4,950	1-YON	3,683	1-YON	3,832
2-YP	22,295	1-YP	15,155	1-YT	12,250	2-YT	23,578			1-YP	9,938
1-YT	11,105	3-YT	28,000	1-YP	12,422	2-YP	19,445				
1-TWR	7,800										
5	44,836	5	47,445	4	32,672	5	47,973	1	3,683	2	13,770

SHIP TYPE	HULL NUMBER	SHIPBUILDER	FISCAL YEAR AUTHORIZED	CONTRACT AWARD	START OF CONSTRUCTION	DELIVERY DATE
YON	0332	TBD	09	MAR-10	MAY-10	MAY-11
YON	0333	TBD	10	MAR-10	MAY-10	MAY-11
YON	1101	TBD	11	JAN-11	APR-11	JAN-12
YON	1201	TBD	12	JAN-12	APR-12	JAN-13
YON	1301	TBD	13	JAN-13	APR-13	JAN-14
YON	1401	TBD	14	JAN-14	APR-14	JAN-15
YON	1501	TBD	15	JAN-15	APR-15	JAN-16
YP	0703	C&G BOAT WORKS	06	JUN-07	MAY-08	FEB-10
YP	0704	C&G BOAT WORKS	06	JUN-07	JUN-08	MAY-10
YP	0705	C&G BOAT WORKS	07	DEC-07	SEP-08	AUG-10
YP	0706	C&G BOAT WORKS	08	JUN-08	JUN-09	NOV-10
YP	0707	C&G BOAT WORKS	09	MAR-09	SEP-09	FEB-11
YP	0708	C&G BOAT WORKS	09	MAR-09	NOV-09	APR-11
YP	1101	TBD	11	JAN-11	AUG-11	AUG-12
YP	1201	TBD	12	JAN-12	SEP-12	SEP-13
YP	1202	TBD	12	JUN-12	JAN-13	JAN-14
YP	1301	TBD	13	JAN-13	AUG-13	AUG-14
YP	1302	TBD	13	JUN-13	JAN-14	JAN-15
YP	1401	TBD	14	JAN-14	AUG-14	AUG-15
YP	1402	TBD	14	JUN-14	JAN-15	JAN-16
YP	1501	TBD	15	JAN-15	AUG-15	AUG-16
YP	1502	TBD	15	JUN-15	JAN-16	JAN-17
YT	0802	PACIFIC TUG BOAT SERV	07	AUG-07	SEP-08	JAN-10
YT	0803	PACIFIC TUG BOAT SERV	07	AUG-07	NOV-08	MAY-10
YT	0804	PACIFIC TUG BOAT SERV	07	AUG-07	JAN-09	AUG-10
YT	0805	PACIFIC TUG BOAT SERV	08	MAR-08	DEC-09	FEB-11
YT	0806	TBD	09	MAR-10	MAY-10	MAR-12
YT	0807	TBD	09	MAR-10	MAY-10	MAR-12
ARC/TWR	01249	TBD	06	TBD	TBD	TBD

CLASSIFICATION: UNCLASSIFIED

BUDGET ITEM JUSTIFICATION SHEET (P-40)
FY 2011 President's Budget

DATE: February 2010

APPROPRIATION/BUDGET ACTIVITY
SHIPBUILDING AND CONVERSION, NAVY/BA 5 Auxiliaries, Craft and Prior Year Program Costs

P-1 LINE ITEM NOMENCLATURE
LCAC SLEP
BLI: 5139

(Dollars in Millions)	PRIOR YR	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	TO COMP	TOTAL PROG
QUANTITY	35	6	3	4	4	4	4	4	8	72
End Cost	703.5	110.6	63.7	83.0	82.1	87.0	87.6	88.8	365.8	1672.1
Less Advance Procurement	27.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	27.9
Less Transfer	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5
Less Cost to Complete	14.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14.0
Less Katrina Supplemental	19.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	19.8
Full Funding TOA	640.3	110.6	63.7	83.0	82.1	87.0	87.6	88.8	365.8	1608.9
Plus Advance Procurement	27.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	27.9
Plus Transfer Cost	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5
Plus Cost to Complete	14.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14.0
Plus Katrina Supplement	19.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	19.8
Total Obligational Authority	703.5	110.6	63.7	83.0	82.1	87.0	87.6	88.8	365.8	1672.1
Plus Outfitting / Plus Post Delivery	0.4	1.5	2.5	2.7	2.6	1.8	2.4	1.6	4.5	20.0
Total	703.9	112.1	66.2	85.7	84.7	88.8	90.0	90.4	370.3	1702.3
Unit Cost (Ave. End Cost)	20.1	18.4	21.2	20.8	20.5	21.8	21.9	22.2	45.7	23.2

MISSION:
Landing Craft Air Cushion (LCAC) transports weapon systems, equipment, cargo and personnel of the assault elements of the Marine Air/Ground Task Force from ship to shore and across the beach. The LCAC Service Life Extension Program (SLEP) extends the craft service life from twenty years to thirty years. The new hull incorporates four modifications: 1) additional internal compartmentation to increase cargo carrying capacity, 2) a modified fuel system to increase range, 3) improved skirt attachments to reduce maintenance and 4) deep skirt to improve performance and maximize safety. The SLEP will also include the C4N electronic suite replacement as well as a modified set of TF40B engines.

Characteristics:		**Armament:**
Hull	Air Cushion	None
Length Overall	88ft	
Beam	47ft	
Displacement	150 tons	
Draft	None (rides on cushion of air)	

WEAPON SYSTEM COST ANALYSIS (EXHIBIT P-5)

(Dollars in Thousands)

BUDGET ACTIVITY: 5	**P-1 LINE ITEM NOMENCLATURE**	**SUBHEAD NO. 1576 BLI: 5139**
Auxiliaries, Craft and Prior Year Program Costs	**LCAC SLEP**	

	FY 2006		**FY 2007**		**FY 2008**		**FY 2009**		**FY 2010**	
ELEMENT OF COST	**QTY**	**COST**	**QTY**	**COST**	**QTY**	**COST**	**QTY**	**COST**	**QTY**	**COST**
PLAN COSTS	5		6		5		6		3	
BASIC CONST/CONVERSION		48,450		53,419		48,960		51,639		30,014
ELECTRONICS		6,588		11,134		9,466		9,451		5,550
HM&E		40,700		41,000		34,880		46,489		24,904
OTHER COST		2,900		4,672		4,524		3,008		3,192
TOTAL SHIP ESTIMATE		98,638		110,225		97,830		110,587		63,660
NET P-1 LINE ITEM:		98,638		110,225		97,830		110,587		63,660

WEAPON SYSTEM COST ANALYSIS (EXHIBIT P-5)
(Dollars in Thousands)

BUDGET ACTIVITY: 5	**P-1 LINE ITEM NOMENCLATURE**	**SUBHEAD NO. 1576 BLI: 5139**
Auxiliaries, Craft and Prior Year Program Costs	**LCAC SLEP**	

	FY 2011	
ELEMENT OF COST	**QTY**	**COST**
PLAN COSTS	4	
BASIC CONST/CONVERSION		36,328
ELECTRONICS		7,655
HM&E		35,454
OTHER COST		3,598
TOTAL SHIP ESTIMATE		83,035
NET P-1 LINE ITEM:		83,035

SHIPBUILDING AND CONVERSION, NAVY
SHIP PRODUCTION SCHEDULE

SHIP TYPE	HULL NUMBER	SHIPBUILDER	FISCAL YEAR AUTHORIZED	CONTRACT AWARD	START OF CONSTRUCTION	DELIVERY DATE
LCAC SLEP	MULTIPLE	L3 TITAN	06	AUG-06	MAR-07	SEP-10
LCAC SLEP	MULTIPLE	L3 TITAN	07	MAR-07	MAR-08	APR-10
LCAC SLEP	MULTIPLE	OCEANEERING	08	MAY-09	SEP-09	AUG-11
LCAC SLEP	MULTIPLE	OCEANEERING	09	AUG-09	MAR-10	AUG-12
LCAC SLEP	MULTIPLE	TBD	10	AUG-10	MAR-11	JAN-13
LCAC SLEP	MULTIPLE	TBD	11	JUL-11	SEP-11	OCT-13
LCAC SLEP	MULTIPLE	TBD	12	DEC-11	FEB-12	SEP-14
LCAC SLEP	MULTIPLE	TBD	13	JUL-13	SEP-13	MAR-15
LCAC SLEP	MULTIPLE	TBD	14	AUG-14	SEP-14	MAY-16
LCAC SLEP	MULTIPLE	TBD	15	JUL-15	SEP-15	FEB-17