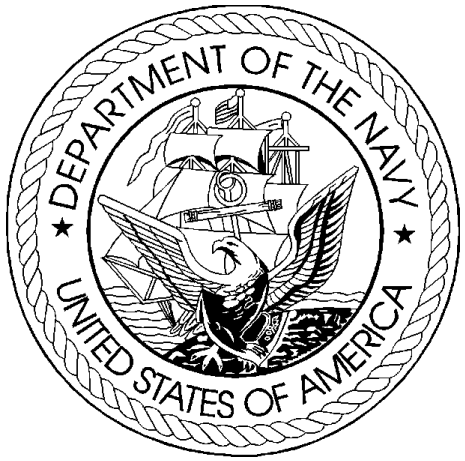
DEPARTMENT OF THE NAVY
FISCAL YEAR (FY) 2015
BUDGET ESTIMATES



JUSTIFICATION OF ESTIMATES
MARCH 2014

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 lead time components and designs for vessels to be constructed or converted in the future; and expansion of public and private plants, including land necessary therefore, and such lands and interests therein, may be acquired, and construction prosecuted thereon prior to approval of title.

In all: $14,400,625,000, to remain available for obligation until September 30, 2019: *Provided*, That additional obligations may be incurred after September 30, 2019, 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 2015 President's Budget
Exhibit P-1 FY 2015 President's Budget
Total Obligational Authority
(Dollars in Thousands)

12 Feb 2014

Appropriation	FY 2013 (Base & OCO)	FY 2014 Base Enacted	FY 2014 OCO Enacted	FY 2014 Total Enacted	FY 2015 Base
Shipbuilding and Conversion, Navy	15,079,680	15,231,364		15,231,364	14,400,625
Total Department of the Navy	15,079,680	15,231,364		15,231,364	14,400,625

P-1C1: FY 2015 President's Budget (Published Version), as of February 12, 2014 at 08:54:56

Department of the Navy
FY 2015 President's Budget
Exhibit P-1 FY 2015 President's Budget
Total Obligational Authority
(Dollars in Thousands)

12 Feb 2014

Appropriation: Shipbuilding and Conversion, Navy

Budget Activity	FY 2013 (Base & OCO)	FY 2014 Base Enacted	FY 2014 OCO Enacted	FY 2014 Total Enacted	FY 2015 Base
02. Other Warships	13,754,718	13,932,909		13,932,909	11,835,614
03. Amphibious Ships	663,503	627,332		627,332	46,248
05. Auxiliaries, Craft, and Prior-Year Program C	661,458	671,123		671,123	2,518,763
Total Shipbuilding and Conversion, Navy*	15,079,680	15,231,364		15,231,364	14,400,625

P-1C1: FY 2015 President's Budget (Published Version), as of February 12, 2014 at 08:54:56
*Numbers may not add due to rounding.

Department of the Navy
FY 2015 President's Budget
Exhibit P-1 FY 2015 President's Budget
Total Obligational Authority
(Dollars in Thousands)

12 Feb 2014

Appropriation: 1611N Shipbuilding and Conversion, Navy

Line No	Item Nomenclature	Ident Code	FY 2013 (Base & OCO) Quantity	FY 2013 (Base & OCO) Cost	FY 2014 Base Enacted Quantity	FY 2014 Base Enacted Cost	FY 2014 OCO Enacted Quantity	FY 2014 OCO Enacted Cost	FY 2014 Total Enacted Quantity	FY 2014 Total Enacted Cost	FY 2015 Base Quantity	FY 2015 Base Cost	Sec
	Budget Activity 02: Other Warships												
	Other Warships												
1	Carrier Replacement Program	A	1	(11,498,000)									U
	Less: Advance Procurement (PY)			(-3,327,050)									U
	Less: Subsequent Full Funding (FY)			(-7,679,990)									U
				490,960									
	Subsequent Full Funding (CY)					917,553				917,553		1,300,000	U
	Completion of Prior Year Shipbuilding (CY)					588,100				588,100			U
2	Virginia Class Submarine	B	2	(5,103,577)	2	(5,409,326)			2	(5,409,326)	2	(5,288,668)	U
	Less: Advance Procurement (PY)			(-1,890,323)		(-1,528,622)				(-1,528,622)		(-1,735,414)	U
	Less: Future Completion of Shipbuilding (FY			(-227,000)									U
				2,986,254		3,880,704				3,880,704		3,553,254	
	Completion of Prior Year Shipbuilding (CY)					227,000				227,000			U
3	Virginia Class Submarine Advance Procurement (CY)			1,650,376		2,354,612				2,354,612		2,330,325	U
4	CVN Refueling Overhauls	A		(1,153,919)									U
	Less: Advance Procurement (PY)			(-1,153,919)									U
	Subsequent Full Funding (CY)			1,546,254		1,609,324				1,609,324			U
	Completion of Prior Year Shipbuilding (CY)			106,569									U
5	CVN Refueling Overhauls Advance Procurement (CY)			69,918		245,793				245,793			U
6	DDG 1000	A		668,339		231,694				231,694		419,532	U

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Department of the Navy
FY 2015 President's Budget
Exhibit P-1 FY 2015 President's Budget
Total Obligational Authority
(Dollars in Thousands)

12 Feb 2014

Appropriation: 1611N Shipbuilding and Conversion, Navy

Line No	Item Nomenclature	Ident Code	FY 2013 (Base & OCO) Quantity	FY 2013 (Base & OCO) Cost	FY 2014 Base Enacted Quantity	FY 2014 Base Enacted Cost	FY 2014 OCO Enacted Quantity	FY 2014 OCO Enacted Cost	FY 2014 Total Enacted Quantity	FY 2014 Total Enacted Cost	FY 2015 Base Quantity	FY 2015 Base Cost	Sec
7	DDG-51	A	3	(4,223,755)	1	(1,729,604)			1	(1,729,604)	2	(2,969,354)	U
	Less: Advance Procurement (PY)			(-92,454)		(-114,040)				(-114,040)		(-297,939)	U
	Less: Future Completion of Shipbuilding (FY			(-100,000)									U
				4,031,301		1,615,564				1,615,564		2,671,415	
	Completion of Prior Year Shipbuilding (CY)					100,000				100,000			U
8	DDG-51												
	Advance Procurement (CY)			465,711		369,551				369,551		134,039	U
9	Littoral Combat Ship	A	4	1,739,037	4	1,793,014			4	1,793,014	3	1,427,049	U
Total Other Warships*				13,754,718		13,932,909				13,932,909		11,835,614	
Budget Activity 03: Amphibious Ships													
	Amphibious Ships												
10	LPD-17	A		(242,976)								(12,565)	U
	Less: Advance Procurement (PY)			(-242,976)									U
												12,565	
	Completion of Prior Year Shipbuilding (CY)			80,781									U
11	LPD-17												
	Advance Procurement (CY)			242,976									U
12	Afloat Forward Staging Base	A			1	579,300			1	579,300			U

P-1C1: FY 2015 President's Budget (Published Version), as of February 12, 2014 at 08:54:56
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Department of the Navy
FY 2015 President's Budget
Exhibit P-1 FY 2015 President's Budget
Total Obligational Authority
(Dollars in Thousands)

12 Feb 2014

Appropriation: 1611N Shipbuilding and Conversion, Navy

Line No	Item Nomenclature	Ident Code	FY 2013 (Base & OCO) Quantity	FY 2013 (Base & OCO) Cost	FY 2014 Base Enacted Quantity	FY 2014 Base Enacted Cost	FY 2014 OCO Enacted Quantity	FY 2014 OCO Enacted Cost	FY 2014 Total Enacted Quantity	FY 2014 Total Enacted Cost	FY 2015 Base Quantity	FY 2015 Base Cost	Sec
13	LHA Replacement	A											
	Completion of Prior Year Shipbuilding (CY)			156,478		37,700				37,700			U
14	LHA Replacement Advance Procurement (CY)											29,093	U
15	Joint High Speed Vessel	A	1	183,268		2,732				2,732		4,590	U
	Completion of Prior Year Shipbuilding (CY)					7,600				7,600			U
Total Amphibious Ships				663,503		627,332				627,332		46,248	
Budget Activity 05: Auxiliaries, Craft, and Prior-Year Program Costs													
	Auxiliaries, Craft and Prior Yr Program Cost												
16	Moored Training Ship										1	(1,322,021)	U
	Less: Advance Procurement (PY)											(-584,753)	U
												737,268	
17	Moored Training Ship Advance Procurement (CY)			283,453		207,300				207,300		64,388	U
18	Outfitting	A		292,288		382,836				382,836		546,104	U
19	Ship to Shore Connector	A									2	123,233	U
20	LCAC SLEP	A	4	85,717	4	80,987			4	80,987	2	40,485	U

P-1C1: FY 2015 President's Budget (Published Version), as of February 12, 2014 at 08:54:56

Department of the Navy
FY 2015 President's Budget
Exhibit P-1 FY 2015 President's Budget
Total Obligational Authority
(Dollars in Thousands)

12 Feb 2014

Appropriation: 1611N Shipbuilding and Conversion, Navy

Line No	Item Nomenclature	Ident Code	FY 2013 (Base & OCO) Quantity	FY 2013 (Base & OCO) Cost	FY 2014 Base Enacted Quantity	FY 2014 Base Enacted Cost	FY 2014 OCO Enacted Quantity	FY 2014 OCO Enacted Cost	FY 2014 Total Enacted Quantity	FY 2014 Total Enacted Cost	FY 2015 Base Quantity	FY 2015 Base Cost	Sec
21	Completion of PY Shipbuilding Programs	B										1,007,285	U
	CVN (MEMO NON ADD)											(663,000)	U
	CVN RCOH (MEMO NON ADD)											(54,000)	U
	DDG (MEMO NON ADD)											(129,144)	U
	LPD 17 (MEMO NON ADD)											(54,096)	U
Total Auxiliaries, Craft, and Prior-Year Program				661,458		671,123				671,123		2,518,763	
Total Shipbuilding and Conversion, Navy*				15,079,680		15,231,364				15,231,364		14,400,625	

P-1C1: FY 2015 President's Budget (Published Version), as of February 12, 2014 at 08:54:56
*Numbers may not add due to rounding.

CLASSIFICATION: UNCLASSIFIED

BUDGET ITEM JUSTIFICATION SHEET (P-40)
FY 2015 President's Budget (PB)

DATE:
March 2014

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

P-1 LINE ITEM NOMENCLATURE
CARRIER REPLACEMENT PROGRAM
BLI: 2001

(Dollars in Millions)	PRIOR YR	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	TO COMP	TOTAL PROG
QUANTITY	1	1	0	0	0	0	1	0	0	3
End Cost	12,887.2	11,498.0	0.0	0.0	0.0	0.0	13,874.2	0.0	0.0	38,259.4
Less Advance Procurement	3,693.1	3,327.1	0.0	0.0	0.0	0.0	1,728.5	0.0	0.0	8,748.6
Less Cost to Complete	1,375.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1,375.1
Less Subsequent Year FF	5,134.0	7,680.0	0.0	0.0	0.0	0.0	11,320.3	0.0	0.0	24,134.3
Plus Subsequent Year FF	5,134.0	0.0	917.6	1,300.0	2,193.0	1,245.6	2,023.9	1,864.5	9,455.8	24,134.3
Full Funding TOA	7,819.0	491.0	917.6	1,300.0	2,193.0	1,245.6	2,849.3	1,864.5	9,455.8	28,135.7
Plus Advance Procurement	7,020.2	0.0	0.0	0.0	683.2	1,045.2	0.0	0.0	0.0	8,748.6
Plus Cost to Complete	0.0	0.0	588.1	663.0	124.0	0.0	0.0	0.0	0.0	1,375.1
Total Obligational Authority	14,839.2	491.0	1,505.7	1,963.0	3,000.2	2,290.8	2,849.3	1,864.5	9,455.8	38,259.4
Plus Outfitting / Plus Post Delivery	0.0	1.0	41.1	45.9	92.9	2.4	0.0	0.0	519.8	703.1
Total	14,839.2	492.0	1,546.7	2,008.9	3,093.1	2,293.2	2,849.3	1,864.5	9,975.6	38,962.5
Unit Cost (Ave. End Cost)	12,887.2	11,498.0	0.0	0.0	0.0	0.0	13,874.2	0.0	0.0	12,753.1

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 78/79	
Hull:		Major Electronics/Ordnance:	
Length overall: 1092'		Ship Self Defense System (SSDS)	
Beam: 134'		Electromagnetic Aircraft Launch System (EMALS)	
Displacement: 97,337 Tons		Dual Band Radar (DBR)	
Draft: 38.7'		Advanced Arresting Gear (AAG)	
CVN 78 Production Status:		CVN 79 Production Status:	
Contract Award	09/08	Contract Award	12/14
Months to Complete:		Months to Complete:	
a) Contract Award to Delivery	90 Months	a) Contract Award to Delivery	99 Months
b) Construction Start to Delivery	127 Months	b) Construction Start to Delivery	141 Months
Delivery Date	03/16	Delivery Date	03/23
Completion of Fitting Out	05/16	Completion of Fitting Out	05/23
Obligation Work Limiting Date	04/17	Obligation Work Limiting Date	04/24

WEAPON SYSTEM COST ANALYSIS (EXHIBIT P-5)

(Dollars in Thousands)

BUDGET ACTIVITY: 2	**P-1 LINE ITEM NOMENCLATURE**	**BLI: 2001**
Other Warships	**CARRIER REPLACEMENT PROGRAM**	

	FY 2008		**FY 2013**	
ELEMENT OF COST	**QTY**	**COST**	**QTY**	**COST**
PLAN COSTS	1	3,336,230	1	880,078
BASIC CONST/CONVERSION		5,995,429		5,838,440
CHANGE ORDERS		218,106		199,945
ELECTRONICS		322,551		394,590
PROPULSION EQUIPMENT		1,515,612		2,044,582
HM&E		30,922		34,172
OTHER COST		66,663		106,087
ORDNANCE		1,401,736		1,338,073
ESCALATION				662,033
TOTAL SHIP ESTIMATE		12,887,249		11,498,000
LESS ADVANCE PROCUREMENT FY01		21,668		
LESS ADVANCE PROCUREMENT FY02		135,341		
LESS ADVANCE PROCUREMENT FY03		395,493		
LESS ADVANCE PROCUREMENT FY04		1,162,876		
LESS ADVANCE PROCUREMENT FY05		623,071		
LESS ADVANCE PROCUREMENT FY06		618,866		
LESS ADVANCE PROCUREMENT FY07		735,800		52,750
LESS ADVANCE PROCUREMENT FY08				123,530
LESS ADVANCE PROCUREMENT FY09				1,210,561
LESS ADVANCE PROCUREMENT FY10				482,938
LESS ADVANCE PROCUREMENT FY11				902,473
LESS ADVANCE PROCUREMENT FY12				554,798
LESS SUBSEQUENT FULL FUNDING FY09		2,684,565		
LESS SUBSEQUENT FULL FUNDING FY10		736,989		
LESS SUBSEQUENT FULL FUNDING FY11		1,712,459		
LESS SUBSEQUENT FULL FUNDING FY14				917,553
LESS SUBSEQUENT FULL FUNDING FY15				1,300,000
LESS SUBSEQUENT FULL FUNDING FY16				2,192,972
LESS SUBSEQUENT FULL FUNDING FY17				1,245,590
LESS SUBSEQUENT FULL FUNDING FY18				2,023,875
LESS COST TO COMPLETE FY14		588,100		
LESS COST TO COMPLETE FY15		663,000		
LESS COST TO COMPLETE FY16		124,000		
NET P-1 LINE ITEM:		2,685,021		490,960

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	HUNTINGTON INGALLS INDUSTRIES			
II.	Classification of Cost Estimate	C			

III. Basic Construction/Conversion	FY 2008	FY 2013
A. Actual Award Date	SEP 08	DEC 14
B. Contract Type (and Share Line if applicable)	CPIF	FPI
C. Request for proposals		
Start/Issue:	JUL 07	APR 12
Complete/Response	OCT 07	OCT 12

IV. Escalation		
Base Date	N/A	OCT 2011
Escalation Termination Date	N/A	MAR 23
Escalation Requirement	N/A	662,033
Labor/Material Split	N/A	58.9% / 41.1%
Allowable Overhead Rate		95%

V. Other Basic(Reserves/Miscellaneous)	Amount	Amount

SHIPBUILDING AND CONVERSION, NAVY
SHIP PRODUCTION SCHEDULE

EXHIBIT P-27
FY 2015 President's Budget (PB)
March 2014

SHIP TYPE	HULL NUMBER	SHIPBUILDER	FISCAL YEAR AUTHORIZED	CONTRACT AWARD	START OF CONSTRUCTION	DELIVERY DATE
CVN	78	Huntington Ingalls Industries Newport News Shipbuilding	2008	SEP-08	AUG-05	MAR-16
CVN	79	Huntington Ingalls Industries Newport News Shipbuilding	2013	DEC-14	FEB-11	MAR-23
CVN	80	Huntington Ingalls Industries Newport News Shipbuilding	2018	DEC-17	DEC-17	SEP-27

SHIPBUILDING AND CONVERSION, NAVY

Analysis of Ship Cost Estimates - Major Equipment

(Dollars in Thousands)

Ship Type: CARRIER REPLACEMENT PROGRAM	FY 2008		FY 2013	
	QTY	COST	QTY	COST
ELECTRONICS				
a. P-35 Items				
AN/USQ-T46X(V)X, BATTLE FORCE TACTICAL TRAINING SYSTEM (BFTT)	1	5,434	1	4,784
CONSOLIDATED AFLOAT NETWORK AND ENTERPRISE SERVICES (CANES)	1	15,430	1	20,595
AN/USG-2, COOPERATIVE ENGAGEMENT CAPABILITY (CEC)	1	8,768	1	5,838
DIGITAL MODULAR RADIO (DMR) ULTRA HIGH FREQUENCY/VERY HIGH FREQUENCY LINE OF SIGHT (EHF/VHF LOS) SATCOM	1	11,563	1	13,556
AN/UPX-29(V), INTERROGATOR FRIEND OR FOE (IFF) W/MK XII	1	6,844	1	7,934
SPN-46, AUTOMATIC CARRIER LANDING SYSTEM	1	10,920	1	13,727
SHIP SELF DEFENSE SYSTEM (SSDS)	1	88,798	1	61,979
AN/TPX-42A(V)14, CARRIER AIR TRAFFIC CONTROL CENTER - DIRECT ALTITUDE AND IDENTIFY READOUT (CATCC-DAIR)	1	5,499	1	6,374
NAVY MULTI-BAND TERMINAL (NMT)	1	6,191	1	7,199
AN/SLQ-32(V)6, SURFACE ELECTRONIC WARFARE IMPROVEMENT PROGRAM (SEWIP) BLOCK 2	1	21,091		
AN/SRQ-6/MCS-21, SHIPS SIGNAL EXPLOITATION EQUIPMENT (SSEE)	1	7,767	1	9,937
ELECTRONIC CONSOLIDATED AUTOMATED SUPPORT SYSTEM (ECASS)			1	33,733
AN/SLQ-32(V)7, SURFACE ELECTRONIC WARFARE IMPROVEMENT PROGRAM (SEWIP) BLOCK 3			1	58,915
HIGH FREQUENCY RADIO GROUP (HFRG)	1	3,085	1	6,905
SEA-BASED JOINT PRECISION APPROACH & LANDING SYSTEM (JPALS)			1	7,780
Subtotal		191,390		259,256
b. Major Items				
AN/USQ-155(V)1 TACTICAL VARIANT SWITCH	1	2,712	1	2,530
INFORMATION ASSURANCE (IA)		1,978		2,012
MAST CLAMP CURRENT PROBE (MCCP) UPGRADE	1	1,862	1	1,538
AN/URC-141X(V), MULTI-FUNCTION INFORMATION DISTRIBUTION SYSTEM (MIDS)-ON SHIP (MOS)	1	2,025	1	2,239
AN/SLQ-25C DUAL, SURFACE SHIP TORPEDO DEFENSE SYSTEM, NIXIE	1	2,229	1	5,215
AN/SMQ-11, METEOROLOGICAL/OCEANOGRAPHIC (METOC) SATELLITE RECEIVER - RECORD SET	1	1,314	1	1,564
SHIPBOARD AIR TRAFFIC CONTROL COMMUNICATIONS (SATCC)	1	1,903	1	2,246
AN/WSN-7(V)3, RING LASER GYRO NAVIGATOR (RLGN)	1	1,729	1	2,004
DISTRIBUTED SYSTEMS DESIGN INTEGRATION SERVICES	1	6,575	1	6,646
C4I INTEGRATION & COORDINATION		8,920		9,301
DISTRIBUTED COMMON GROUND STATION - NAVY (DCGS-N)	1	2,212	1	2,084

SHIPBUILDING AND CONVERSION, NAVY

Analysis of Ship Cost Estimates - Major Equipment

(Dollars in Thousands)

Ship Type: CARRIER REPLACEMENT PROGRAM	FY 2008		FY 2013	
	QTY	COST	QTY	COST
AN/USQ-144K AUTOMATED DIGITAL NETWORK SYSTEM (ADNS)	1	1,494	1	1,290
AN/UYQ-86 COMMON DATA LINK MANAGEMENT SYSTEM (CDLMS) WITH NGC2P	1	1,729	1	2,100
OA-9277 ULTRA HIGH FREQUENCY (UHF) MULTICOUPLER	1	2,122	1	2,350
ARC-210 CARRIER AIR TRAFFIC CONTROL CENTER (CATCC) - PRIFLY - LANDING SIGNAL OFFICER (LSO) SYSTEM	1	1,406	1	1,582
WARFARE SYSTEM INTEGRATION		26,790		24,153
NET-ENABLED COMMAND CAPABILITY (NECC)	1	888	1	936
COMMERCIAL BROADBAND SATELLITE PROGRAM, FORCE LEVEL VARANT (CBSP-FLV)	1	1,252	1	1,436
AN/SSN-6(V)X BLOCK 4, NAVIGATION SENSOR SYSTEM INTERFACE (NAVSSI)	1	4,281	1	2,570
AN/SPS-73(V)12 TECH REFRESH - SURFACE SEARCH RADAR	2	3,014	2	1,252
INTEGRATED STRIKE PLANNING & EXECUTION SYSTEMS (ISP&E)	1	12,055	1	9,652
AN/USQ-123(V), COMMUNICATIONS DATA LINK-SYSTEM (CDL-S)	1	2,034	1	2,308
AN/SPN-41 (V), INSTRUMENT LANDING SYSTEM (ILS)	1	3,338	1	3,870
SHIP SIGNAL EXPLOITATION SPACE (SSES/SI) COMMUNICATIONS	1	4,442	1	4,251
TURNKEY RADIO COMMUNICATIONS SYSTEM (RCS)	1	17,090	1	17,233
Subtotal		115,394		112,362
c. Other ELECTRONICS				
		15,767		22,972
Subtotal		15,767		22,972
Total ELECTRONICS		322,551		394,590

SHIPBUILDING AND CONVERSION, NAVY

Analysis of Ship Cost Estimates - Major Equipment

(Dollars in Thousands)

Ship Type: CARRIER REPLACEMENT PROGRAM	FY 2008		FY 2013	
	QTY	COST	QTY	COST
ORDNANCE				
a. P-35 Items				
ELECTROMAGNETIC AIRCRAFT LAUNCHING SYSTEM (EMALS)	1	670,038	1	777,838
DUAL BAND RADAR (DBR) (SPY-3 AND VOLUME SEARCH RADAR (VSR))	1	484,033	1	277,535
ADVANCED ARRESTING GEAR (AAG)	1	168,566	1	189,799
PHALANX BLOCK 1B MK 15 MOD 21 & 22, CLOSE - IN WEAPONS SYSTEM (CIWS)	3	17,755	3	20,583
AN/SQQ-34, CARRIER-TACTICAL SUPPORT CENTER (CV-TSC)	1	6,675	1	6,585
MK29 MOD 5, GUIDED MISSILE LAUNCHING SYSTEM (GMLS)	2	12,782	2	15,615
AVIATION DATA MANAGEMENT AND CONTROL SYSTEM (ADMACS) BLOCK 3	1	7,597	1	8,517
INTEGRATED LAUNCH AND RECOVERY TELEVISION SYSTEM (ILARTS)	1	8,310	1	5,096
MK 49, MOD 3 ROLLING AIRFRAME MISSLE (RAM)	2	13,911	2	16,126
IMPROVED FRESNEL LENS OPTICAL LANDING SYSTEM (IFLOLS)	1	3,347	1	4,019
Subtotal		1,393,014		1,321,713
b. Major Items				
LANDING SIGNAL OFFICER DISPLAY SYSTEM (LSODS)	1	1,666	1	1,941
MORIAH BLOCK 2	1	1,403	1	1,651
JET BLAST DEFLECTORS (JBD)	1	773	1	1,056
JOINT STRIKE FIGHTER AUTONOMIC LOGISTICS INFORMATION SYSTEM (JSF ALIS)	1	1,268	1	6,162
LONG RANGE LINEUP SYSTEM (LRLS)			1	2,684
Subtotal		5,110		13,494
c. Other ORDNANCE				
		3,612		2,866
Subtotal		3,612		2,866
Total ORDNANCE		1,401,736		1,338,073

SHIPBUILDING AND CONVERSION, NAVY

Analysis of Ship Cost Estimates - Major Equipment

(Dollars in Thousands)

Ship Type: CARRIER REPLACEMENT PROGRAM	FY 2008		FY 2013	
	QTY	COST	QTY	COST
HM&E				
a. P-35 Items				
Subtotal				
b. Major Items				
HM&E ENGINEERING SERVICES		19,227		24,227
INTEGRATED LOGISTICS SUPPORT		2,292		662
LIFE RAFTS		2,252		3,078
SUPSHIP MATERIAL AND GFE		484		560
TEST & INTEGRATION		4,012		
TRUCKS (FORKLIFTS)		500		2,602
Subtotal		28,767		31,129
c. Other HM&E				
		2,155		3,043
Subtotal		2,155		3,043
Total HM&E		30,922		34,172

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Ship Type: **CARRIER REPLACEMENT PROGRAM**
Equipment Item: **AN/USQ-T46X(V)X, BATTLE FORCE TACTICAL TRAINING SYSTEM (BFTT)**
PARM Code: **PEO IWS 7.0**

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

BFTT is a highly flexible, interactive system that provides capability for coordinated shipboard combat system team and Battle Group/Battle Force level tactical training. 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		FY 2013	
	QTY	COST	QTY	COST
Major Hardware	1	2,760	1	1,788
Technical Data and Documentation		25		268
Spares		131		115
System Engineering		512		922
Technical Engineering Services		469		374
Other Costs		1,537		1,317
Total		5,434		4,784

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY 08	CVN 78	KONTRON	FFP	APR-12		1	2,760
FY 13	CVN 79	TBD	TBD	FEB-20		1	1,788

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY 08	CVN 78	MAR-16	25	12	FEB-13
FY 13	CVN 79	MAR-23	25	12	FEB-20

V. COMPETITION/SECOND SOURCE INITIATIVES:

None

NOTE:

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Ship Type: **CARRIER REPLACEMENT PROGRAM**
Equipment Item: **CONSOLIDATED AFLOAT NETWORK AND ENTERPRISE SERVICES (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. The CVN 79 estimate includes potential to collapse additional networks.

II. CURRENT FUNDING:

P-35 Category	FY 2008		FY 2013	
	QTY	COST	QTY	COST
Major Hardware	1	10,740	1	13,908
Spares		175		278
System Engineering		2,452		3,527
Technical Engineering Services		547		643
Other Costs		1,516		2,239
Total		15,430		20,595

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	TBD	MAR-13		1	10,740
FY 13	CVN 79	TBD	TBD	JUL-20		1	13,908

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY 08	CVN 78	MAR-16	18	12	SEP-13
FY 13	CVN 79	MAR-23	20	12	JUL-20

V. COMPETITION/SECOND SOURCE INITIATIVES:

None

NOTE:

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Ship Type: **CARRIER REPLACEMENT PROGRAM**
Equipment Item: **AN/USG-2, COOPERATIVE ENGAGEMENT CAPABILITY (CEC)**
PARM Code: **PEO 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.

II. CURRENT FUNDING:

P-35 Category	FY 2008		FY 2013	
	QTY	COST	QTY	COST
Major Hardware	1	4,745	1	2,750
Spares		390		431
System Engineering		1,278		1,058
Technical Engineering Services		234		181
Other Costs		2,121		1,418
Total		8,768		5,838

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	APR-11	OPTION	1	4,745
FY 13	CVN 79	RAYTHEON	TBD	MAR-19		1	2,750

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY 08	CVN 78	MAR-16	30	18	MAR-12
FY 13	CVN 79	MAR-23	30	18	MAR-19

V. COMPETITION/SECOND SOURCE INITIATIVES:

None

NOTE:

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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		FY 2013	
	QTY	COST	QTY	COST
Major Hardware	1	10,004	1	12,136
Technical Data and Documentation		31		0
Spares		50		50
System Engineering		511		556
Technical Engineering Services		305		434
Other Costs		662		380
Total		11,563		13,556

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY 08	CVN 78	GENERAL DYNAMICS	VARIOUS	SEP-11		1	10,004
FY 13	CVN 79	TBD	TBD	MAR-19		1	12,136

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY 08	CVN 78	MAR-16	30	18	MAR-12
FY 13	CVN 79	MAR-23	30	18	MAR-19

V. COMPETITION/SECOND SOURCE INITIATIVES:

None

NOTE:

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P-35 EXHIBIT
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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**		**FY 2013**	
	QTY	**COST**	**QTY**	**COST**
Major Hardware	1	5,080	1	7,181
Spares		97		0
System Engineering		932		395
Technical Engineering Services		155		82
Other Costs		580		276
Total		6,844		7,934

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/FFP	NOV-08		1	5,080
FY 13	CVN 79	NORTHROP GRUMMAN-BAE SYSTEMS	SS/FFP	MAR-18		1	7,181

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY 08	CVN 78	MAR-16	47	24	APR-10
FY 13	CVN 79	MAR-23	36	24	MAR-18

V. COMPETITION/SECOND SOURCE INITIATIVES:

None

NOTE:

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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	FY 2008 COST	FY 2013 QTY	FY 2013 COST
Major Hardware	1	6,558	1	8,713
System Engineering		1,111		1,193
Technical Engineering Services		0		2,834
Other Costs		3,251		987
Total		10,920		13,727

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY 08	CVN 78	NAWCAD	N/A	APR-08		1	6,558
FY 13	CVN 79	NAWCAD	N/A	FEB-19		1	8,713

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY 08	CVN 78	MAR-16	25	24	FEB-12
FY 13	CVN 79	MAR-23	25	24	FEB-19

V. COMPETITION/SECOND SOURCE INITIATIVES:
None

NOTE:

Due to recent Department changes with the precision approach landing capability (PALC), the Department will put a SPN-46 on the CVN 79 for PALC for non-Joint Precision Approach Landing System equipped aircraft.

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P-35 EXHIBIT
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Ship Type: **CARRIER REPLACEMENT PROGRAM**
Equipment Item: **SHIP SELF DEFENSE SYSTEM (SSDS)**
PARM Code: **PEO IWS 10.0**

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

The SSDS MK 2, Mod (x) Common C2 system provides capabilities for multi-mission requirements including Ship Protection against air, surface, and subsurface threats using both own-ship and remote data (Joint Composite Track Number (JCTN) and Joint Data Network (JDN)) in support of the Anti-Air Warfare (AAW) Capstone requirements.

II. CURRENT FUNDING:

P-35 Category	**FY 2008**		**FY 2013**	
	QTY	**COST**	**QTY**	**COST**
Major Hardware	1	14,140	1	18,532
Technical Data and Documentation		1,294		1,288
Spares		848		1,048
System Engineering		11,720		13,555
Technical Engineering Services		1,526		1,350
Other Costs		59,270		26,206
Total		88,798		61,979

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY 08	CVN 78	RAYTHEON/GEN DYNAMICS	FFP	SEP-08	NEW	1	14,140
FY 13	CVN 79	TBD	TBD	MAY-19		1	18,532

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY 08	CVN 78	MAR-16	22	24	MAY-11
FY 13	CVN 79	MAR-23	22	24	MAY-19

V. COMPETITION/SECOND SOURCE INITIATIVES:

None

NOTE:

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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**		**FY 2013**	
	QTY	**COST**	**QTY**	**COST**
Major Hardware	1	3,007	1	3,486
Spares		228		264
System Engineering		1,649		1,865
Technical Engineering Services		42		49
Other Costs		573		710
Total		5,499		6,374

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	NOV-09		1	3,007
FY 13	CVN 79	TBD	TBD	MAY-17		1	3,486

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY 08	CVN 78	MAR-16	46	24	MAY-10
FY 13	CVN 79	MAR-23	46	24	MAY-17

V. COMPETITION/SECOND SOURCE INITIATIVES:

None

NOTE:

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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**		**FY 2013**	
	QTY	**COST**	**QTY**	**COST**
Major Hardware	1	5,277	1	6,224
Ancillary Equipment		40		46
Spares		329		325
System Engineering		110		143
Technical Engineering Services		175		183
Other Costs		260		278
Total		6,191		7,199

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-11		1	5,277
FY 13	CVN 79	TBD	TBD	AUG-18		1	6,224

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY 08	CVN 78	MAR-16	28	18	MAY-12
FY 13	CVN 79	MAR-23	28	27	AUG-18

V. COMPETITION/SECOND SOURCE INITIATIVES:

None

NOTE:

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Ship Type: **CARRIER REPLACEMENT PROGRAM**
Equipment Item: **AN/SLQ-32(V)6, SURFACE ELECTRONIC WARFARE IMPROVEMENT PROGRAM (SEWIP) BLOCK 2**
PARM Code: **PEO IWS 2E**

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

SEWIP Block 2 is a scalable Electronic Warfare enterprise suite to provide improved Electromagnetic Interference (EMI) mitigation and Combat System Interface capabilities to select new construction ships as well as upgrade current AN/SLQ-32(V)3 and (V)4 Electronic Warfare (EW) suites on existing ships. It provides enhanced shipboard Electronic Warfare (EW) for early detection, analysis, threat warning and protection from anti-ship missiles. SEWIP Block 2 focused on Electronic Support (ES) capability improvements.

II. CURRENT FUNDING:

P-35 Category	**FY 2008**	
	QTY	**COST**
Major Hardware	1	15,791
Ancillary Equipment		393
Spares		516
System Engineering		3,223
Technical Engineering Services		477
Other Costs		691
Total		21,091

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY 08	CVN 78	LOCKHEED MARTIN	FFP	SEP-12		1	15,791

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY 08	CVN 78	MAR-16	18	18	MAR-13

V. COMPETITION/SECOND SOURCE INITIATIVES:

None

NOTE:

Block 2 capability is included in Block 3 on the CVN 79

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Ship Type: **CARRIER REPLACEMENT PROGRAM**
Equipment Item: **AN/SRQ-6/MCS-21, SHIPS SIGNAL EXPLOITATION EQUIPMENT (SSEE)**
PARM Code: **PMW 750**

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

SSEE provided for cryptological signal acquisition, recognition, analysis and geo-location. It replaces Maritime Cryptological System (MCS-21) which replaces the Battle Group Passive Horizon Extension System (BGPHES).

II. CURRENT FUNDING:

P-35 Category	FY 2008 QTY	FY 2008 COST	FY 2013 QTY	FY 2013 COST
Major Hardware	1	4,583	1	5,616
Ancillary Equipment		68		79
Technical Data and Documentation		96		227
Spares		318		315
System Engineering		964		995
Technical Engineering Services		262		1,176
Other Costs		1,476		1,529
Total		7,767		9,937

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY 08	CVN 78	ARGON	FFP/CPFF	JUN-12		1	4,583
FY 13	CVN 79	TBD	TBD	DEC-19		1	5,616

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY 08	CVN 78	MAR-16	21	18	DEC-12
FY 13	CVN 79	MAR-23	21	18	DEC-19

V. COMPETITION/SECOND SOURCE INITIATIVES:

None

NOTE:

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Ship Type: **CARRIER REPLACEMENT PROGRAM**
Equipment Item: **ELECTRONIC CONSOLIDATED AUTOMATED SUPPORT SYSTEM (ECASS)**
PARM Code: **PMA 260**

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

The eCASS program is the CASS replacement program to address obsolescence and test capability issues. The system is used to test both WRAs (Weapons Replaceable Assemblies) and SRAs (Shop Replaceable Assemblies, which are circuit cards and modules. It provides the latest testing technologies to support Intermediate and Depot level testing of current and future USN/USMC electronics, avionics, and missile systems. The system will replace all five configurations of Mainframe CASS, but not the USMC's RT CASS. Additionally, eCASS will rehost over 700 existing CASS test programs utilized to test and repair approximately 1,100 weapon system electronics units.

II. CURRENT FUNDING:

P-35 Category	**FY 2013**	
	QTY	**COST**
Major Hardware	1	33,197
Technical Engineering Services		136
Other Costs		400
Total		33,733

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY 13	CVN 79	TBD	TBD	JUL-17		1	33,197

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY 13	CVN 79	MAR-23	54	14	JUL-17

V. COMPETITION/SECOND SOURCE INITIATIVES:

None

NOTE:

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P-35 EXHIBIT
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Ship Type: **CARRIER REPLACEMENT PROGRAM**
Equipment Item: **AN/SLQ-32(V)7, SURFACE ELECTRONIC WARFARE IMPROVEMENT PROGRAM (SEWIP) BLOCK 3**
PARM Code: **PEO IWS 2.0**

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

SEWIP Block 3 is a scalable Electronic Warfare enterprise suite to provide improved Electronic Attack (EA) capabilities to select new construction ships as well as upgrade current AN/SLQ-32 (V)3 and (V)4 Electronic Warfare (EW) suites on existing ships. It provides enhanced shipboard Electronic Warfare (EW) for early detection, analysis, threat warning, and protection from anti-ship missiles.

II. CURRENT FUNDING:

P-35 Category	**FY 2013**	
	QTY	**COST**
Major Hardware	1	57,972
Other Costs		943
Total		58,915

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY 13	CVN 79	TBD	TBD	SEP-19		1	57,972

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY 13	CVN 79	MAR-23	12	18	SEP-19

V. COMPETITION/SECOND SOURCE INITIATIVES:

None

NOTE:

Block 3 includes Block 2 capabilities along with adding the electronic attack capability not provided by Block 2.

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Ship Type: **CARRIER REPLACEMENT PROGRAM**
Equipment Item: **HIGH FREQUENCY RADIO GROUP (HFRG)**
PARM Code: **PMW 170**

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

HRFG supports the CVN 78 by providing broadband High Frequency Radio Frequency capability to transmit (2-30MHz) and receive (10KHz-30MHz). CVN 79 will be supported by the HFRG replacement system. This system provides broadband capability to communicate long range using HF frequencies. The HFRG replacement system is required to meet the HF transmit and receive channel count on aircraft carriers while minimizing topside complexity.

II. CURRENT FUNDING:

P-35 Category	**FY 2008**		**FY 2013**	
	QTY	**COST**	**QTY**	**COST**
Major Hardware	1	1,373	1	5,550
Technical Data and Documentation		0		100
Spares		40		0
System Engineering		466		435
Technical Engineering Services		1,062		330
Other Costs		144		490
Total		3,085		6,905

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY 08	CVN 78	HARRIS CORP	VARIOUS	SEP-08		1	1,373
FY 13	CVN 79	GENERAL DYNAMICS	TBD	APR-19		1	5,550

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY 08	CVN 78	MAR-16	29	12	OCT-12
FY 13	CVN 79	MAR-23	29	18	APR-19

V. COMPETITION/SECOND SOURCE INITIATIVES:

None

NOTE:

HFRG system is in sustainment and approaching end of life. The system is no longer in production and there are no fleet assets available to refurbish for use on CVN 79. The replacement system for HFRG is High Frequency Distribution Amplifier Group

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

P-35 EXHIBIT
FY 2015 President's Budget (PB)
March 2014

Ship Type: **CARRIER REPLACEMENT PROGRAM**
Equipment Item: **SEA-BASED JOINT PRECISION APPROACH & LANDING SYSTEM (JPALS)**
PARM Code: **PMA 213**

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

JPALS is a precision approach landing system that uses differential GPS to provide an all-weather precision approach and landing capability. JPALS works with the GPS satellite navigation system to provide accurate, reliable and high-integrity guidance for fixed- and rotary-wing aircraft. The system features anti-jam protection to ensure mission continuity in hostile environments.

II. CURRENT FUNDING:

P-35 Category	**FY 2013**	
	QTY	**COST**
Major Hardware	1	3,070
Technical Data and Documentation		117
Spares		525
System Engineering		866
Technical Engineering Services		727
Other Costs		2,475
Total		7,780

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY 13	CVN 79	RAYTHEON	FFP	MAR-20		1	3,070

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY 13	CVN 79	MAR-23	24	12	MAR-20

V. COMPETITION/SECOND SOURCE INITIATIVES:

None

NOTE:

SHIPBUILDING AND CONVERSION, NAVY | **P-35 EXHIBIT**
MAJOR SHIP COMPONENT FACT SHEET | **FY 2015 President's Budget (PB)**
(Dollars in Thousands) | March 2014

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 six primary sub-systems: prime power interface, energy storage, energy distribution, power conversion, launch motor, and launch control subsystem. 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		FY 2013	
	QTY	COST	QTY	COST
Major Hardware	1	614,677	1	713,664
Technical Data and Documentation		514		596
Systems Engineering		10,759		13,357
Technical Engineering Services		13,819		15,479
Other Costs		30,269		34,742
Total		670,038		777,838

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	614,677
FY 13	CVN 79	GENERAL ATOMICS	FFP	JAN-17		1	713,664

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY 08	CVN 78	MAR-16	52	22	JAN-10
FY 13	CVN 79	MAR-23	52	22	JAN-17

V. COMPETITION/SECOND SOURCE INITIATIVES:

None

NOTE:

SHIPBUILDING AND CONVERSION, NAVY | **P-35 EXHIBIT**
MAJOR SHIP COMPONENT FACT SHEET | **FY 2015 President's Budget (PB)**
(Dollars in Thousands) | March 2014

Ship Type: **CARRIER REPLACEMENT PROGRAM**
Equipment Item: **DUAL BAND RADAR (DBR) (SPY-3 AND VOLUME SEARCH RADAR (VSR))**
PARM Code: **PEO IWS 2.0**

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 self 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 cuing and aircraft marshaling assistance.

II. CURRENT FUNDING:

P-35 Category	**FY 2008**		**FY 2013**	
	QTY	**COST**	**QTY**	**COST**
Major Hardware	1	300,983	1	249,557
Technical Data and Documentation		125		128
Spares		2,344		3,000
Systems Engineering		156,162		5,160
Technical Engineering Services		6,537		10,424
Other Costs		17,882		9,266
Total		484,033		277,535

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	MAR-08		1	300,983
FY 13	CVN 79	RAYTHEON	CPIF	DEC-15		1	249,557

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY 08	CVN 78	MAR-16	53	34	DEC-08
FY 13	CVN 79	MAR-23	53	34	DEC-15

V. COMPETITION/SECOND SOURCE INITIATIVES:

None

NOTE:

The June 2010 Nunn McCurdy Certification for DDG 1000 program de-scoped VSR from the ship class baseline design, resulting in a PB 12 resolution that removed $111M from the CVN 79 GFE budget and provided the three VSR Arrays for use on CVN 79.

CVN 78 Hardware costs consists of the following:

DBR (includes SPY-3 arrays and below deck electronic cabinets)	**110,575**
VSR (Volume Search Radar)	**108,840**
Common Array Power/Cooling Systems (CAPS/CACS)	**59,385**
Misc hardware	**14,014**
HIgh Power Interface	**8,169**

Production Lead Time:

Common Array Power/Cooling Systems (CAPS/CACS)	**24 months**
VSR	**34 months**
Multi-Function Radar (MFR)	**30 months**

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(Dollars in Thousands)

P-35 EXHIBIT
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March 2014

Ship Type: **CARRIER REPLACEMENT PROGRAM**
Equipment Item: **ADVANCED ARRESTING GEAR (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 found on the NIMITZ class carriers and will be the aircraft recovery system for both CVN 78 and CVN 79. AAG 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**		**FY 2013**	
	QTY	**COST**	**QTY**	**COST**
Major Hardware	1	148,165	1	169,358
Technical Data and Documentation		427		495
Spares		4,463		2,669
Systems Engineering		6,150		6,425
Technical Engineering Services		1,095		1,269
Other Costs		8,266		9,583
Total		168,566		189,799

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	NOV-09		1	148,165
FY 13	CVN 79	GENERAL ATOMICS	FFP	MAY-17		1	169,358

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY 08	CVN 78	MAR-16	37	33	MAY-10
FY 13	CVN 79	MAR-23	37	33	MAY-17

V. COMPETITION/SECOND SOURCE INITIATIVES:

None

NOTE:

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Ship Type: **CARRIER REPLACEMENT PROGRAM**
Equipment Item: **PHALANX BLOCK 1B MK 15 MOD 21 & 22, CLOSE - IN WEAPONS SYSTEM (CIWS)**
PARM Code: **IWS 3B**

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

Phalanx is a high fire rate Close-In Weapon System (CIWS) that automatically acquires, tracks and destroys Anti-Ship cruise missiles, Helos, Aircraft, and all types of Surface threats. The installed version will have one MK-15, Mod 21 and two MK-15 Mod 22 CIWS systems.

II. CURRENT FUNDING:

P-35 Category	FY 2008		FY 2013	
	QTY	COST	QTY	COST
Major Hardware	3	14,058	3	16,297
Ancillary Equipment		199		231
Spares		240		278
Systems Engineering		1,744		1,857
Technical Engineering Services		638		628
Other Costs		876		1,292
Total		17,755		20,583

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	MAY-09		3	4,686
FY 13	CVN 79	RAYTHEON	FFP	SEP-19		3	5,432

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY 08	CVN 78	MAR-16	20	22	SEP-12
FY 13	CVN 79	MAR-23	20	22	SEP-19

V. COMPETITION/SECOND SOURCE INITIATIVES:

None

NOTE:

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P-35 EXHIBIT
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Ship Type: **CARRIER REPLACEMENT PROGRAM**
Equipment Item: **AN/SQQ-34, CARRIER-TACTICAL SUPPORT CENTER (CV-TSC)**
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 Common Processing System (CPS), Common Display System (CDS), sensor processing in support of the MH-60R helicopter, high speed bandwidth network, Excomm systems, net-centric warfare components, etc.

II. CURRENT FUNDING:

P-35 Category	**FY 2008**		**FY 2013**	
	QTY	**COST**	**QTY**	**COST**
Major Hardware	1	3,295	1	2,980
Technical Data and Documentation		45		0
Spares		125		50
Systems Engineering		1,890		1,050
Technical Engineering Services		400		800
Other Costs		920		1,705
Total		6,675		6,585

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY 08	CVN 78	GTS/GENERAL DYNAMICS	CPFF	MAR-09		1	3,295
FY 13	CVN 79	TBD	TBD	JUL-19		1	2,980

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY 08	CVN 78	MAR-16	26	21	APR-11
FY 13	CVN 79	MAR-23	26	18	JUL-19

V. COMPETITION/SECOND SOURCE INITIATIVES:

None

NOTE:

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P-35 EXHIBIT
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Ship Type: **CARRIER REPLACEMENT PROGRAM**
Equipment Item: **MK29 MOD 5, GUIDED MISSILE LAUNCHING SYSTEM (GMLS)**
PARM Code: **PEO IWS 3**

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

The MK 29 Mod 5 GMLS is a launcher only configuration integrated with the C2 system and will provide CVN 78 and CVN 79 with a cost effective means of employing the initial Evolved Sea Sparrow Missile (ESSM) capability. This configuration consist of an open architecture 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**		**FY 2013**	
	QTY	**COST**	**QTY**	**COST**
Major Hardware	2	5,993	2	10,057
Ancillary Equipment		327		407
Technical Data and Documentation		56		0
Spares		530		894
Systems Engineering		1,502		1,287
Technical Engineering Services		515		665
Other Costs		3,859		2,305
Total		12,782		15,615

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	JUN-11	NEW	2	2,997
FY 13	CVN 79	TBD	TBD	DEC-18		2	5,028

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY 08	CVN 78	MAR-16	22	29	DEC-11
FY 13	CVN 79	MAR-23	22	29	DEC-18

V. COMPETITION/SECOND SOURCE INITIATIVES:

None

NOTE:

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Ship Type: **CARRIER REPLACEMENT PROGRAM**
Equipment Item: **AVIATION DATA MANAGEMENT AND CONTROL SYSTEM (ADMACS) BLOCK 3**
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.

II. CURRENT FUNDING:

P-35 Category	FY 2008		FY 2013	
	QTY	COST	QTY	COST
Major Hardware	1	4,443	1	4,600
Technical Data and Documentation		97		0
Spares		241		90
Systems Engineering		907		1,249
Technical Engineering Services		753		966
Other Costs		1,156		1,612
Total		7,597		8,517

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY 08	CVN 78	CHUGACH	FFP	JUL-12	NEW	1	4,443
FY 13	CVN 79	TBD	TBD	OCT-18		1	4,600

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY 08	CVN 78	MAR-16	26	12	JAN-13
FY 13	CVN 79	MAR-23	26	27	OCT-18

V. COMPETITION/SECOND SOURCE INITIATIVES:

None

NOTE:

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MAJOR SHIP COMPONENT FACT SHEET | **FY 2015 President's Budget (PB)**
(Dollars in Thousands) | March 2014

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 eighteen cameras in different locations aboard ship that are connected to a closed circuit television system.

II. CURRENT FUNDING:

P-35 Category	FY 2008		FY 2013	
	QTY	COST	QTY	COST
Major Hardware	1	4,663	1	2,777
Technical Data and Documentation		229		0
Spares		343		0
Systems Engineering		1,702		1,318
Technical Engineering Services		195		339
Other Costs		1,178		662
Total		8,310		5,096

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY 08	CVN 78	EPSILON/FULLVIEW	FFP	OCT-10	NEW	1	4,663
FY 13	CVN 79	TBD	TBD	AUG-18		1	2,777

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY 08	CVN 78	MAR-16	19	36	AUG-11
FY 13	CVN 79	MAR-23	19	36	AUG-18

V. COMPETITION/SECOND SOURCE INITIATIVES:

None

NOTE:

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

P-35 EXHIBIT
FY 2015 President's Budget (PB)
March 2014

Ship Type: **CARRIER REPLACEMENT PROGRAM**
Equipment Item: **MK 49, MOD 3 ROLLING AIRFRAME MISSILE (RAM)**
PARM Code: **PEO IWS 3B**

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

The MK 49 Mod 3 Rolling Airframe Missile (RAM) 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 and CVN 79 system provides refurbished MK 49 Guided Missile Launching Systems upgraded to MK 49 Mod 3.

II. CURRENT FUNDING:

P-35 Category	FY 2008		FY 2013	
	QTY	COST	QTY	COST
Major Hardware	2	6,816	2	7,902
Ancillary Equipment		1,191		1,381
Technical Data and Documentation		30		35
Spares		121		140
Systems Engineering		1,897		2,190
Technical Engineering Services		332		380
Other Costs		3,524		4,098
Total		13,911		16,126

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	JAN-09		2	3,408
FY 13	CVN 79	TBD	TBD	JUL-19		2	3,951

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY 08	CVN 78	MAR-16	20	21	OCT-12
FY 13	CVN 79	MAR-23	20	24	JUL-19

V. COMPETITION/SECOND SOURCE INITIATIVES:

None

NOTE:

SHIPBUILDING AND CONVERSION, NAVY
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(Dollars in Thousands)

P-35 EXHIBIT
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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		FY 2013	
	QTY	COST	QTY	COST
Major Hardware	1	1,781	1	2,079
System Engineering		743		1,000
Technical Engineering Services		255		276
Other Costs		568		664
Total		3,347		4,019

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY 08	CVN 78	N/A	N/A	FEB-09		1	1,781
FY 13	CVN 79	TBD	TBD	MAR-18		1	2,079

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY 08	CVN 78	MAR-16	36	24	MAR-11
FY 13	CVN 79	MAR-23	36	24	MAR-18

V. COMPETITION/SECOND SOURCE INITIATIVES:

None

NOTE:

CVN 78: Refurbishment of existing IFLOLS unit done at Naval Air Station North Island and Naval Air Warfare Center, Lakehurt, NJ.

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CLASSIFICATION: UNCLASSIFIED

BUDGET ITEM JUSTIFICATION SHEET (P-40) — FY2015 President's Budget Submission — DATE: March 2014

APPROPRIATION/BUDGET ACTIVITY: Ship and Conversion, Navy/BA 02 OTHER WARSHIPS

P-1 ITEM NOMENCLATURE: Virginia Class Submarine — BLI: 2013

	PRIOR YEARS	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	TO COMPLETE	TOTAL PROGRAM
QUANTITY	16	2	2	2	2	2	2	2		30
End Cost	41222.4	5103.6	5409.3	5288.7	5487.0	5650.8	5921.3	6515.4	2524.6	83123.1
Less Advance Procurement	11393.1	1405.1	1528.6	1577.0	1613.5	1651.8	1666.8	2025.2	2524.6	25385.8
Less Transfer / Cost to Complete	1617.7	227.0								1844.7
Less EOQ	1551.5	485.2		158.4	416.9	597.6	580.4			3790.0
Full Funding	26660.1	2986.3	3880.7	3553.3	3456.6	3401.3	3674.1	4490.2	0.0	52102.5
Plus Advance Procurement	13786.5	1650.4	1612.0	1649.5	1663.8	1821.8	1807.2	1394.7		25385.8
Plus Transfer / Cost to Complete	1617.7		227.0							1844.7
Plus EOQ	2036.7		742.6	680.8	330.0					3790.0
Total Obligational Authority	44100.9	4636.6	6462.3	5883.6	5450.3	5223.1	5481.3	5884.9	0.0	83123.1
Plus Outfitting and Post Delivery	667.9	63.2	100.8	137.4	97.8	115.9	121.9	120.7	971.6	2397.2
Total	44768.8	4699.9	6563.1	6021.0	5548.1	5339.0	5603.2	6005.6	971.6	85520.3
Unit Cost (Ave. End Cost)	2576.4	2551.8	2704.7	2644.3	2743.5	2825.4	2960.7	3257.7		2686.6

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 an FY09 - FY13 Multi-Year Procurement (MYP) strategy with EOQ in FY09-FY11 and an FY14-FY18 MYP strategy with EOQ in FY14-FY16. Additionally, the To Complete values includes FY18 and FY19 AP for CFE LLTM and Nuclear Components anticipated for FY20 and FY21 SSNs beyond the current Program of Record of 30 SSNs.

Characteristics:

Hull	
Length overall	377'
Beam	34'
Displacement	7830 Tons
Draft	32'

Armament:

Torpedo Tubes

Vertical Launch Tubes

Major Electronics:

Command, Control, Communications and Intelligence System

- Open System Architecture
- Twenty-three Subsystems

Production Status:	**FY13**	**FY13**	**FY14**	**FY14**	**FY15**	**FY15**
Multi Year Procurement Contract	SSN 790	SSN 791	SSN 792	SSN 793	SSN 794	SSN 795
Contract Award Date	Dec-08	Dec-08	Mar-14	Mar-14	Mar-14	Mar-14
Months to Completion						
a)Option Award Date to Delivery	68 months	73 months	60 months	66 months	68 months	73 months
b) Construction Start to Delivery	66 months	66 months	60 months	60 months	60 months	60 months
Option Award Date	Jan-13	Jan-13	Mar-14	Mar-14	Jan-15	Jan-15
Start of Construction Date	Mar-13	Sep-13	Mar-14	Sep-14	Mar-15	Sep-15
Delivery Date	Aug-18	Feb-19	Mar-19	Sep-19	Mar-20	Sep-20
Completion of Fitting Out	Aug-18	Feb-19	Mar-19	Sep-19	Mar-20	Sep-20
Obligation Work Limiting Date	Jul-19	Jan-20	Feb-20	Aug-20	Feb-21	Aug-21

The FY14 Construction Contract will be a MYP with EOQ for the SSNs in FY14-18. The contract award date is an estimate based on current negotiation schedule.

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 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY2014		FY2015	
ELEMENTS OF 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	114,805	1	98,882	2	184,659	2	176,536	2	183,597	2	167,937	2	177,095
BASIC CONST/CONVERSION		1,775,064		1,699,521		3,384,964		3,306,362		3,232,704		3,491,365		3,336,243
CHANGE ORDERS		49,102		50,675		100,644		98,600		92,430		104,021		99,481
TECHNOLOGY INSERTION		111,267		81,323		80,000		25,600		45,500		73,500		28,835
ELECTRONICS		263,306		262,829		529,217		489,947		499,746		503,718		513,721
PROPULSION EQUIPMENT		462,931		474,000		887,000		878,000		896,000		910,157		970,000
HM&E		48,901		51,557		99,738		100,116		102,476		105,248		108,098
OTHER COST		31,300		31,713		48,170		49,158		51,124		53,380		55,195
TOTAL SHIP ESTIMATE		2,856,676		2,750,500		5,314,392		5,124,319		5,103,577		5,409,326		5,288,668
LESS ADVANCE PROCUREMENT FY07		462,931												
LESS ADVANCE PROCUREMENT FY08		292,998		474,749		513,884								
LESS ADVANCE PROCUREMENT FY09				235,776		563,000								
LESS ADVANCE PROCUREMENT FY10						432,400		914,000						
LESS ADVANCE PROCUREMENT FY11								498,961		932,000				
LESS ADVANCE PROCUREMENT FY12										473,115		988,246		
LESS ADVANCE PROCUREMENT FY13												540,376		1,110,000
LESS ADVANCE PROCUREMENT FY14														467,014
LESS EOQ FY09				81,857		186,488		162,131		162,128				
LESS EOQ FY10						207,222		199,898		200,160				
LESS EOQ FY11								128,015		122,920				
LESS EOQ FY14														158,400
LESS Cost to Complete FY14										227,000				
NET P-1 LINE ITEM		2,100,747		1,958,118		3,411,398		3,221,314		2,986,254		3,880,704		3,553,254

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

Fiscal Year: 2014/2015 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	FY2014	FY2015	
	A. Award Date	Mar-14	Mar-14	
	B. Contract Type	FPI	FPI	
	C. Request for Proposals:			The FY14 Construction Contract will be a MYP with EOQ for the SSNs in FY14-18. The contract award date is an estimate based on current negotiation schedule.
	Start/Issue:	Sept-12	Sept-12	
	Complete/Response:	Dec-12	Dec-12	

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
FY2015 President's Budget Submission
March 2014
BLI: 2013

SHIP TYPE	SHIPBUILDER	FISCAL YEAR AUTHORIZED	CONTRACT AWARD	START OF CONSTRUCTION	DELIVERY DATE
SSN784	EB/NNS	09	Dec-08	Mar-09	Apr-14
SSN785	EB/NNS	10	Dec-08	Mar-10	Feb-15
SSN786	EB/NNS	11	Dec-08	Mar-11	Oct-15
SSN787	EB/NNS	11	Dec-08	Sep-11	Jun-16
SSN788	EB/NNS	12	Dec-08	Mar-12	Oct-16
SSN789	EB/NNS	12	Dec-08	Sep-12	Jun-17
SSN790	EB/NNS	13	Dec-08	Mar-13	Oct-17
SSN791	EB/NNS	13	Dec-08	Sep-13	Sep-18
SSN792	EB/NNS	14	Mar-14	Mar-14	Mar-19
SSN793	EB/NNS	14	Mar-14	Sep-14	Sep-19
SSN794	EB/NNS	15	Mar-14	Mar-15	Mar-20
SSN795	EB/NNS	15	Mar-14	Sep-15	Sep-20
SSN796	EB/NNS	16	Mar-14	Mar-16	Mar-21
SSN797	EB/NNS	16	Mar-14	Sep-16	Sep-21
SSN798	EB/NNS	17	Mar-14	Mar-17	Mar-22
SSN799	EB/NNS	17	Mar-14	Sep-17	Sep-22
SSN800	EB/NNS	18	Mar-14	Mar-18	Mar-23
SSN801	EB/NNS	18	Mar-14	Sep-18	Sep-23
SSN802	EB/NNS	19	Dec-18	Mar-19	Mar-24
SSN803	EB/NNS	19	Dec-18	Sep-19	Sep-24

Note: (1) The start of construction dates reflect when Electric Boat starts construction of Section 7 Hull Cylinder (KE70021).

(2) The FY09-13 Delivery Date reflect's an estimated accelerated date (not the contract delivery dates). VA Class is working towards earlier delivery dates for all currently undelivered SSNs.

(3) The FY14 Construction Contract will be a Multi Year Procurement with EOQ for the SSNs in FY14-18. The contract award date is an estimate based on an aggressive negotiation schedule. The Delivery Dates are an estimate that will be determined at contract award.

CLASSIFICATION: UNCLASSIFIED

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

Ship Type:
VIRGINIA CLASS

	FY13		FY14		FY15	
	QTY	TOTAL COST	QTY	TOTAL COST	QTY	TOTAL COST
	2		2		2	
ELECTRONICS EQUIPMENT						
a. P-35 Items						
1. Sonar, Combat Control & Architecture		$201,254		$202,854		$206,882
2. ESM		$54,974		$55,412		$56,512
3. Photonics Masts		$36,975		$37,268		$38,008
4. UMMs		$21,085		$21,254		$21,676
5. ECS Recurring		$49,880		$50,276		$51,274
Subtotal		$364,168		$367,064		$374,352
b. Major Items						
1. System Level Activities		$40,912		$41,236		$42,055
2. AN/BPS-16		$11,334		$11,424		$11,651
3. Navigation		$6,437		$6,488		$6,617
4. CWITT		$41,860		$42,194		$43,032
5. NPES SE&I		$32,759		$33,020		$33,676
Subtotal		$133,302		$134,362		$137,031
c. Other Electronics						
1. Misc Electronics		$2,276		$2,292		$2,338
TOTAL ELECTRONICS		$499,746		$503,718		$513,721

P-35

EXHIBIT P-35

ITEM: SONAR, COMBAT, CONTROL & ARCHITECTURE

FY2015 President's Budget Submission
March 2014
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:	FY13	FY14	FY15
MAJOR HARDWARE	$164,096	$165,401	$168,685
TECH ENGINEERING SERVICES	$2,940	$2,963	$3,022
OTHER COSTS	$34,218	$34,490	$35,175
TOTAL	$201,254	$202,854	$206,882

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	CONTRACTOR	QTY	HARDWARE UNIT COST	CONTRACT AWARD DATE	CONTRACT TYPE	NEW / OPTION
13	SSN790 / 791	LMMSS	2 Shipsets	$44,857	Jan-13	C/CPIF	Option
14	SSN792 / 793	LMMSS	2 Shipsets	$45,214	Jan-14	C/CPIF	Option
15	SSN794 / 795	LMMSS	2 Shipsets	$46,111	Jan-15	C/CPIF	Option

IV. DELIVERY DATA:

FY	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEAD TIME	REQUIRED AWARD DATE
13	SSN790 / 791	Oct-17 / Sep-18	28	32	Working with Shipbuilder to meet early delivery schedule
14	SSN792 / 793	Mar-19 / Sep-19	28	32	Mar-14 / Sep-14
15	SSN794 / 795	Mar-20 / Sep-20	28	32	Mar-15 / Sep-15

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 FY2015 President's Budget Submission
March 2014
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: 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:	FY13	FY14	FY15
MAJOR HARDWARE	$41,686	$42,018	$42,852
TECH ENGINEERING SERVICES	$2,336	$2,355	$2,402
OTHER COSTS	$10,952	$11,039	$11,258
TOTAL	$54,974	$55,412	$56,512

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	CONTRACTOR	QTY	HARDWARE UNIT COST	CONTRACT AWARD DATE	CONTRACT TYPE	NEW / OPTION
13	SSN790 / 791	LM, Syracuse	2 Shipsets	$20,843	Aug-13	SS / FFP	Option
14	SSN792 / 793	LM, Syracuse	2 Shipsets	$21,009	Aug-14	SS / FFP	Option
15	SSN794 / 795	LM, Syracuse	2 Shipsets	$21,426	Aug-15	SS / FFP	Option

IV. DELIVERY DATA:

FY	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEAD TIME	REQUIRED AWARD DATE
13	SSN790 / 791	Oct-17 / Sep-18	28	24	Working with Shipbuilder to meet early delivery schedule
14	SSN792 / 793	Mar-19 / Sep-19	28	24	Nov-14 / May-15
15	SSN794 / 795	Mar-20 / Sep-20	28	24	Nov-15 / May-16

SHIPBUILDING AND CONVERSION, NAVY
MAJOR SHIP COMPONENT FACT SHEET

P-35
ITEM: PHOTONICS MAST

EXHIBIT P-35
FY2015 President's Budget Submission
March 2014
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: 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:	FY13	FY14	FY15
MAJOR HARDWARE	$25,557	$25,760	$26,272
TECH ENGINEERING SERVICES	$1,150	$1,159	$1,182
OTHER COSTS	$10,268	$10,349	$10,554
TOTAL	$36,975	$37,268	$38,008

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	CONTRACTOR	QTY	HARDWARE UNIT COST	CONTRACT AWARD DATE	CONTRACT TYPE	NEW / OPTION
13	SSN790 / 791	Kollmorgen	2 Shipsets	$12,779	Dec-12	SS / FFP	Option
14	SSN792 / 793	Kollmorgen	2 Shipsets	$12,880	Dec-13	SS / FFP	Option
15	SSN794 / 795	Kollmorgen	2 Shipsets	$13,136	Dec-14	SS / FFP	Option

IV. DELIVERY DATA:

FY	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEAD TIME	REQUIRED AWARD DATE
13	SSN790 / 791	Oct-17 / Sep-18	28	24	Working with Shipbuilder to meet early delivery schedule
14	SSN792 / 793	Mar-19 / Sep-19	28	24	Nov-14 / May-15
15	SSN794 / 795	Mar-20 / Sep-20	28	24	Nov-15 / May-16

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

FY2015 President's Budget Submission
March 2014
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:	FY13	FY14	FY15
	MAJOR HARDWARE	$15,712	$15,838	$16,153
	TECH ENGINEERING SERVICES	$2,608	$2,629	$2,681
	OTHER COSTS	$2,765	$2,787	$2,842
TOTAL	TOTAL	$21,085	$21,254	$21,676

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	CONTRACTOR	QTY	HARDWARE UNIT COST	CONTRACT AWARD DATE	CONTRACT TYPE	NEW / OPTION
13	SSN790 / 791	Kollmorgen	2 Shipsets	$7,856	Oct-12	SS / FP	Option
14	SSN792 / 793	Kollmorgen	2 Shipsets	$7,919	Jul-13	SS / FP	Option
15	SSN794 / 795	Kollmorgen	2 Shipsets	$8,077	Jul-14	SS / FP	Option

IV. DELIVERY DATA:

FY	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEAD TIME	REQUIRED AWARD DATE
13	SSN790 / 791	Oct-17 / Sep-18	42	27	Working with Shipbuilder to meet early delivery schedule
14	SSN792 / 793	Mar-19 / Sep-19	42	27	Jul-13 / Dec-13
15	SSN794 / 795	Mar-20 / Sep-20	42	27	Jul-14 / Dec-14

V. COMPETITION/SECOND SOURCE INITIATIVES:

SHIPBUILDING AND CONVERSION, NAVY
MAJOR SHIP COMPONENT FACT SHEET

P-35 EXHIBIT P-35

ITEM: EXTERIOR COMMUNICATION SYSTEM RECURRING FY2015 President's Budget Submission

March 2014

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. 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 following: 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:	FY13	FY14	FY15
MAJOR HARDWARE	$33,454	$33,720	$34,389
TECH ENGINEERING SERVICES	$5,673	$5,718	$5,832
OTHER COSTS	$10,753	$10,838	$11,053
TOTAL	$49,880	$50,276	$51,274

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	CONTRACTOR	QTY	HARDWARE UNIT COST	CONTRACT AWARD DATE	CONTRACT TYPE	NEW / OPTION
13	SSN790 / 791	Stanley Associates, North Charleston	2 Shipsets	$16,727	Apr-12	Competitive/IDIQ	Option
14	SSN792 / 793	Stanley Associates, North Charleston	2 Shipsets	$16,860	Apr-13	Competitive/IDIQ	Option
15	SSN794 / 795	Stanley Associates, North Charleston	2 Shipsets	$17,195	Apr-14	Competitive/IDIQ	Option

IV. DELIVERY DATA:

FY	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEAD TIME	REQUIRED AWARD DATE
13	SSN790 / 791	Oct-17 / Sep-18	28	9	Sep-14 / Aug-15
14	SSN792 / 793	Mar-19 / Sep-19	28	9	Feb-16 / Aug-16
15	SSN794 / 795	Mar-20 / Sep-20	28	9	Feb-17 / Aug-17

V. COMPETITION/SECOND SOURCE INITIATIVES:

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

Ship Type:
VIRGINIA CLASS

	FY13		FY14		FY15	
	QTY	TOTAL COST	QTY	TOTAL COST	QTY	TOTAL COST
HM&E EQUIPMENT	2		2		2	
a. P-35 Items						
1. Propulsor		$70,378		$72,348		$74,374
b. Major Items						
1. CSA MK2		$3,068		$3,144		$3,224
c. Other						
1. HM&E Installation and testing		$18,136		$18,592		$19,054
2. T&E		$8,840		$9,060		$9,288
3. SUPSHIP responsible material		$2,054		$2,104		$2,158
Subtotal		$29,030		$29,756		$30,500
TOTAL HM&E		$102,476		$105,248		$108,098

SHIPBUILDING AND CONVERSION, NAVY
MAJOR SHIP COMPONENT FACT SHEET

P-35
ITEM: PROPULSOR

EXHIBIT P-35
FY2015 President's Budget Submission
March 2014
BLI: 2013

I. DESCRIPTION/CHARACTERISTICS/PURPOSE

The propulsor consists of Ni-Al-bronze blades and a large steel and inconel 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:	FY13	FY14	FY15
MAJOR HARDWARE	$59,898	$61,576	$63,546
TECH ENGINEERING SERVICES	$10,480	$10,772	$10,828
OTHER COSTS			
TOTAL	$70,378	$72,348	$74,374

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	CONTRACTOR	QTY	HARDWARE UNIT COST	CONTRACT AWARD DATE	CONTRACT TYPE	NEW / OPTION
13	SSN790 / 791	BAE Systems	2 Shipsets	17,850	May-12	FP	Option
14	SSN792 / 793	BAE Systems	2 Shipsets	18,380	Jun-13	FP	Option
15	SSN794 / 795	BAE Systems	2 Shipsets	18,968	May-14	FP	Option

IV. DELIVERY DATA:

FY	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEAD TIME	REQUIRED AWARD DATE
13	SSN790 / 791	Oct-17 / Sep-18	36	36	Working with Shipbuilder to meet early delivery schedule
14	SSN792 / 793	Mar-19 / Sep-19	33	36	June-13 / Jan-14
15	SSN794 / 795	Mar-20 / Sep-20	33	36	June-14 / Jan-15

V. COMPETITION/SECOND SOURCE INITIATIVES:

N/A

Exhibit P-10, Advance Procurement Requirements Analysis (Page 1 - Funding)												FY2015 President's Budget Submission March 2014
Appropriation (Treasury)Code/CC/BA/BSA/Item Control Number 1711 Shipbuilding and Conversion, Navy / BA 02 / BLI 2013 FY2015 President's 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	FY13	FY14	FY15	FY16	FY17	FY18	FY19	To Complete	Total
NUCLEAR PROPULSION PLANT EQUIPMENT (1)	30-72	Various	8,867.4	970.0	1,025.0	1,061.0	1,073.0	1,046.0	1,047.0	618.0	0.0	15,707.4
ELECTRONICS EQUIPMENT (2)	37-43	Various	224.2	13.4	26.6	27.2	27.8	28.2	29.0	29.6	0.0	406.0
NON-NUCLEAR PROPULSION PLANT EQUIPMENT (3)			753.9	23.6	39.2	40.5	41.8	43.1	44.5	46.0	0.0	1,032.7
Propulsor	36	Various	272.8	23.6	39.2	40.5	41.8	43.1	44.5	46.0	0.0	551.6
Various (Heat Exchanger; Main Condensers; Main Propulsion Complex…)	18-66	Various	481.1									481.1
LONG LEAD-TIME CFE (4)	24 - 42	Various	3,457.1	643.4	521.2	520.8	521.2	704.4	686.7	701.1	0.0	7,756.0
DETAIL DESIGN/DESIGN TRANSFER/SHIPBUILDER INTEGRATION	.		480.6								0.0	480.6
OTHER (5)			3.2								0.0	3.2
EOQ (6)			2,036.7		742.6	680.8	330.0				0.0	3,790.0
Total AP			15,823.2	1,650.4	2,354.6	2,330.3	1,993.7	1,821.8	1,807.2	1,394.7	0.0	29,175.9

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 is assembled and tested before being mounted and installed in the hull.

(2) Electronics Equipment AP is required to fund the long-lead time material for the Command and Control System Module (CCSM). AP for the CCSM plays a critical role in early system installation and test in order to keep the CCSM out of the critical path to ship delivery and minimize risk to ship construction. AP is required to procure selected electronics and associated pre-cable kits, cabling, connector plates and mechanical structures to be installed in this module in accordance with Shipyard Required in Yard Dates (RIYD). Pre-cable kits allow the shipyard to establish cable runs and checkout platform interfaces prior to electronics installation. Mechanical structures establish footprint unique packaging to allow electronics to install efficiently.

(3) Non-Nuclear Propulsion Plant Equipment Propulsor AP is required to satisfy in-yard need dates for ship delivery. Other prior year non-nuclear propulsion plant equipment has been negotiated as CFE in the Construction Contract.

(4) Long Lead-Time CFE AP is required to fund long lead time contractor furnished material including the Weapons Handling and Reactor Plant Modules and the Main Propulsion Unit (MPU)/Ship Service Turbine Generator (SSTG). These and other components are required early in the construction phase to meet the delivery schedule.

(5) Other is for VIRGINIA Class curriculum development.

(6) 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									FY2015 President's Budget Submission
(Page 2 - Budget Justification)									March 2014
Appropriation (Treasury)Code/CC/BA/SBA/Item Control Number				Weapon System		P-1 Line Item Nomenclature			
1711 Shipbuilding and Conversion, Navy / BA 02 / BLI 2013				VIRGINIA Class Submarines		VIRGINIA CLASS			
(TOA, $ in Millions)		FY14				FY15			
	PLT	Qty	Contract Forecast Date	End Item Funded	Total Cost Request	Qty	Contract Forecast Date	End Item Funded	Total Cost Request
BLI: 201300 End Item									
NUCLEAR PROPULSION PLANT EQUIPMENT (1)	30-72	2 Shipsets	1st Qtr	FY16	1,025.0	2 Shipsets	1st Qtr	FY17	1,061.0
ELECTRONICS EQUIPMENT (2)	37-43	2 Shipsets	various	FY15	26.6	2 Shipsets	various	FY16	27.2
PROPULSOR (3)	36	2 Shipsets	various	FY15	39.2	2 Shipsets	various	FY16	40.5
LONG LEAD-TIME CFE (4)	24 - 42	various	2nd Qtr	FY15/FY16	521.2	various	2nd Qtr	FY16/FY17	520.8
EOQ (5)					742.6				680.8
		various	various	FY15	158.4				
		various	various	FY16	219.4	various	various	FY16	197.6
		various	various	FY17	194.9	various	various	FY17	251.6
		various	various	FY18	169.9	various	various	FY18	231.6
Total AP					2,354.6				2,330.3

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 is assembled and tested before being mounted and installed in the hull.

(2) Electronics Equipment AP is required to fund the long-lead time material for the Command and Control System Module (CCSM). AP for the CCSM plays a critical role in early system installation and test in order to keep the CCSM out of the critical path to ship delivery and minimize risk to ship construction. AP is required to procure selected electronics and associated pre-cable kits, cabling, connector plates and mechanical structures to be installed in this module in accordance with Shipyard Required in Yard Dates (RIYD). Pre-cable kits allow the shipyard to establish cable runs and checkout platform interfaces prior to electronics installation. Mechanical structures establish footprint unique packaging to allow electronics to install efficiently. Additionally, this 1 YR AP is for long lead items such as metal fabrication parts (mechanical structures, chassis, drawer slides, mounting hardware), power supplies and cable connectors, subcontract items (Aft Sonar Receive Unit), and acoustic hull sensors (iRoc Sensors, DT-574 LAB Hydrophone).

(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 and Reactor Plant Modules and the Main Propulsion Unit (MPU)/Ship Service Turbine Generator (SSTG). These and other components are required early in the construction phase to meet the delivery schedule.

(5) 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. Examples of shipbuilder large lot procurements include items such as Electrical (cable, wire, fittings, switches, instrumentation, connectors, resistors, etc.); Valves, flanges and fittings, piping; Fabricated Parts (bearings, sound isolation mounts, pipe hanged assemblies, machined parts); Hardware and Tools (fasteners, marine fittings, locks, latches, small tools).
Examples of GFE large lot procurements include items such as:
Sonar - Large Aperture Bow (LAB) Arrays and associated bottles, Light Weight Wide Aperture Array (LWWAA) Receivers & electronic components (network servers, switches)
ECS – High Data Rate (HDR) Antennas, Digital Modular Radios (DMRs) & associated power amplifiers, Navy Multiband Terminals (NMTs), and Multi-function Masts (MFMs) OE-538.
ESM - Photonics ESM Performance Improvement (PEPI)-3 systems and Multifunctional Modular Masts (MMMs)
Photonics Masts– outboard equipment only, such as Diploops along with complex electronic & mechanical components that are required to manufacture the Photonics masts
Radar – whole systems

BUDGET ITEM JUSTIFICATION SHEET (P-40)
FY2015 PB CYCLE

DATE:
March 2014

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 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	TO COMP	TOTAL PROG
QUANTITY	5	0	0	0	0	0	0	0	2	7
End Cost	18,021.2	0.0	0.0	0.0	329.7	0.0	0.0	0.0	11,421.0	29,771.9
Less Advance Procurement	4,462.2	0.0	0.0	0.0	329.7	0.0	0.0	0.0	2,293.5	7,085.4
Less Transfer	234.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	234.7
Less Cost to Complete	74.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	74.0
Less Subsequent Year FF	6,891.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4,951.5	11,842.7
Plus Subsequent Year FF	3,735.6	1,546.3	1,609.3	0.0	0.0	0.0	0.0	0.0	4,951.5	11,842.8
Full Funding TOA	10,094.7	1,546.3	1,609.3	0.0	0.0	0.0	0.0	0.0	9,127.5	22,377.9
Plus Advance Procurement	4,476.2	69.9	245.8	0.0	22.7	230.3	473.3	516.6	1,050.6	7,085.3
Plus Transfer	128.1	106.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	234.7
Plus Cost to Complete	0.0	0.0	0.0	54.0	20.0	0.0	0.0	0.0	0.0	74.0
Total Obligational Authority	14,699.0	1,722.8	1,855.1	54.0	42.7	230.3	473.3	516.6	10,178.1	29,771.9
Plus Outfitting / Plus Post Delivery	72.8	41.6	21.9	26.2	19.3	21.8	3.6	0.0	0.0	207.2
Total	14,771.8	1,764.4	1,877.0	80.2	62.0	252.1	476.9	516.6	10,178.1	29,979.1
Unit Cost (Ave. End Cost)	3,604.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5,710.5	4,253.1

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.

Note: End cost in FY 16 reflects AP funding appropriated in FY 12-FY 14 for CVN 73 RCOH.

Note: The PB 15 budget does not fund the CVN 73 RCOH. A decision to fund the CVN 73 RCOH will be made in PB 16.

Characteristics:	
Hull	CVN 68 Class
Overall Length	1092'
Max Beam	134'
Displacement	91,878 TONS
Draft	38.7'
Production Status	FY12
Contract Plans	02/10
Contract Award (Month)	03/13
Months to Complete	
a) Award to Delivery	44
b) Construction Start to Delivery	44
Delivery Date	11/16
Completion of Fitting Out	01/17

Armament	Major Electronics:
FY12 CVN 72:	
NSSMS MK 57 Mods ESSM Upgrade	Ship Self Defense System MK2
AN/SPS-48G(V)1 ROAR	Cooperative Engagement Capability
AN/SPS-49A(V)1 Radar	Naval Strike Warfare Planning Center (NSWPC)
AN/SPQ-9B Radar	C4ISR
AN/SQQ-34C(V) Carrier Tactical Support Center (CV-TSC)	
LAN Radar Display & Distribution (LRADDS)	
EW Decoy Launching System	
Mk 38 Mod 2	

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 2012	
ELEMENT OF COST	**QTY**	**COST**
PLAN COSTS	1	41,881
BASIC CONST/CONVERSION		3,642,159
ELECTRONICS		277,863
PROPULSION EQUIPMENT		137,650
HM&E		108,783
OTHER COST		110,624
ORDNANCE		151,646
TOTAL SHIP ESTIMATE		4,470,606
LESS: ADVANCE PROCUREMENT FY09		21,325
LESS: ADVANCE PROCUREMENT FY10		211,167
LESS: ADVANCE PROCUREMENT FY11		396,763
LESS: ADVANCE PROCUREMENT FY12		515,644
LESS: SUBSEQUENT FULL FUNDING FY13		1,546,254
LESS: SUBSEQUENT FULL FUNDING FY14		1,609,324
LESS: CTC FY15		54,000
LESS: CTC FY16		20,029
NET P-1 LINE ITEM:		96,100

SHIP TYPE	HULL NUMBER	SHIPBUILDER	FISCAL YEAR AUTHORIZED	CONTRACT AWARD	START OF CONSTRUCTION	DELIVERY DATE
CVN	72	Huntington Ingalls Industries Newport News Shipbuilding	12	FEB-13	FEB-13	NOV-16

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 2012	
	QTY	COST
ELECTRONICS		
a. P-35 Items		
C4ISR	1	97,140
INTEGRATED COMMUNICATION NETWORK (ICAN / DDCN & IVCN)	1	51,473
SSDS MK2	1	42,767
COOPERATIVE ENGAGEMENT CAPABILITY (CEC)	1	9,664
NAVAL STRIKE WARFARE PLANNING CENTER (NSWPC)	1	8,570
AN/SPN-46 OVERHAUL/UPGRADE	1	8,944
IFF INTERROGATOR SET (AN/UPX-29)	1	6,309
BATTLE FORCE TACTICAL TRAINER (BFTT)	1	7,130
READY ROOM TRANSFORMATIONAL TECHNOLOGIES UPGRADE	1	6,494
AN/SPN-41 REFURBISHMENT	1	3,535
Subtotal		242,026
b. Major Items		
AN/SPN-43C REFURBISHMENT	1	2,333
AN/SLQ-32 REFURBISHMENT	1	2,436
AN/TPX-42(V)15 UPGRADE	1	1,734
Subtotal		6,503
c. Other ELECTRONICS		
MISCELLANEOUS ELECTRONICS, TEST & CERTIFICATIONS		11,534
CARRIER AIR DEFENSE IMPROVEMENT PROGRAM (CADIP)	1	17,800
Subtotal		29,334
Total ELECTRONICS		277,863

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 2012	
	QTY	COST
ORDNANCE		
a. P-35 Items		
AVIATION EQUIPMENT & SUPPORT	1	43,444
NATO SEASPARROW MISSILE SYSTEM (NSSMS)	1	43,464
AN/SPS-48G (V1) RAPID OVERT AIR RECONNAISSANCE (ROAR)	1	12,846
AN/SPS-49(V)5 UPGRADE/REPAIR	1	12,554
AN/SPQ-9B RADAR	1	10,878
ADVANCED SENSOR DISTRIBUTION SYSTEM (ASDS)	1	4,403
AN/SQQ-34C(V) CARRIER TACTICAL SUPPORT CENTER	1	5,605
MK38 MOD 2 GUN SYSTEM	1	7,275
EW DECOY LAUNCHING SYSTEM	1	4,553
Subtotal		145,022
b. Major Items		
Subtotal		0
c. Other ORDNANCE		
MISCELLANEOUS ORDNANCE, TEST & CERTIFICATIONS		6,624
Subtotal		6,624
Total ORDNANCE		151,646

P-8A EXHIBIT

FY2015 PB CYCLE

March 2014

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 2012**	
	QTY	**COST**
HM&E		
a. P-35 Items		
LOW PRESSURE AIR PLANT (LPAP)	1	3,614
EMERGENCY ESCAPE BREATHING DEVICE (EEBD)	1	3,054
AFT CREW MESS	1	4,368
DECK EDGE AND HANGAR DIVISIONAL DOORS	1	3,602
AIR CONDITIONING (AC) PLANT	1	5,461
FURNITURE (NON PROPULSION PLANT)	1	17,460
Subtotal		37,559
b. Major Items		
SECONDARY STEAM PLANT LESLIE PILOTS	1	1,102
OXYGEN / NITROGEN (O2N2) SYSTEM	1	2,785
TG AUTOMATIC VOLTAGE REGULATOR	1	2,948
VENDING IN A BOX	1	2,735
DISTILLING UNIT (DU) BRINE OVERBOAD PUMPS	1	1,988
MEDICAL FACILITY REQUIREMENTS	1	1,460
DRYER LAUNDRY REPLACEMENT	1	2,595
WEAPONS ELEVATORS	1	2,455
AIRCRAFT ELEVATORS	1	2,376
Subtotal		20,444
c. Other HM&E		
MISCELLANEOUS HM&E, ENGINEERING, TEST & CERTIFICATIONS		50,780
Subtotal		50,780
Total HM&E		108,783

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

P-35 EXHIBIT
FY2015 PB CYCLE
March 2014

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 systen and multiband antennas, and capabilities for the control and monitoring of RF assets introducing network automation and provide interoperable communications for joint operations. It wi 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 equipmen

II. CURRENT FUNDING:

P-35 Category	**FY 2012**	
	QTY	**COST**
Major Hardware	1	33,376
Ancillary Equipment		2,136
Technical Data and Documentation		996
Spares		1,198
Systems Engineering		10,453
Technical Engineering Services		33,302
Other Costs		15,679
Total		97,140

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY-12	CVN 72 RCOH	VARIOUS	VARIOUS	VAR		1 SHIPSET	33,376

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY-12	CVN 72 RCOH	NOV-16	VARIOUS	VARIOUS	VAR

V. COMPETITION/SECOND SOURCE INITIATIVES:

NOTE:

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

P-35 EXHIBIT
FY2015 PB CYCLE
March 2014

Ship Type: **CVN-68 CLASS NUCLEAR REFUELING COMPLEX OVERHAUL (RCOH)**
Equipment Item: **INTEGRATED COMMUNICATION NETWORK (ICAN / DDCN & IVCN)**
PARM Code: **NAVSEA 05H3, NAVSEA 05Z33**

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:
The Integrated Communications Network consists of the following systems:

An Integrated Communications System (ICS) that provides the ship's Internal Command and Control Communications. In addition, ICS provides connectivity to other onboard systems such as Announcing Systems, Sound Powered Circuits, Secure / NonSecure off-ship Communications, Shipboard Air Traffic Control Communications (SATCC) and Hierarchical Yet Dynamically Reprogrammable Architecture (HYDRA).

The Machinery Control Monitoring System (MCMS) controls and monitors approximately 3500 machinery signals for various HM&E auxiliary systems (e.g. JP5, firemain, IC/SM panels) for aircraft carriers. It utilizes the Machinery Control Network for signals.

The Machinery Control Network (MCN) is the core network that provides communication services and transport for the MCMS system and part of the backbone that rides over the Fiber Optic Cable Plant (FOCP) It consists of five network switches, associated racks, and cabling.

The Navigation Critical Distribution System (NAVCRIT) 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.

The Ship Control System (SCS) provides control and display of rudder position, Engine and Propeller Order Telegraph functions. SCS provides data for heading, speed, and rudder angles through NAVCRIT Network from NAVSSI. The SCS interfaces to an Electronic Chart Display Information System.

Shipboard Multipurpose Copiers includes the acquisition and installation of Class III Copier/Printer (B&W), Class III Color Copier/Printer, Class IV Copier/Printer (B&W) and Class IV Color Copier/Printer. The related equipment is for use on surface vessels in the US Navy as part of the Shipboard Multipurpose Copier Program.

II. CURRENT FUNDING:

P-35 Category	**FY 2012**	
	QTY	**COST**
Major Hardware	1	18,271
Ancillary Equipment		1,524
Technical Data & Documentation		1,171
Spares		1,175
Systems Engineering		11,511
Technical Engineering Services		10,158
Other Costs		7,662
Total		51,473

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY-12	CVN 72 RCOH	VARIOUS	VARIOUS	VAR	VARIOUS	1 SHIPSET	18,271

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY-12	CVN 72 RCOH	NOV-16	35	6	JUN-13

V. COMPETITION/SECOND SOURCE INITIATIVES:

NOTE:

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

P-35 EXHIBIT
FY2015 PB CYCLE
March 2014

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

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

The Ship Self Defense System (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 2012**	
	QTY	**COST**
Major Hardware	1	12,922
Technical Data and Documentation		3,842
Spares		1,030
Systems Engineering		6,489
Technical Engineering Services		2,366
Other Costs		16,118
Total		42,767

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY-12	CVN 72 RCOH	RAYTHEON/LOCKHEED MARTIN	CPFF/FFP	JAN-12	OPTION	1 SHIPSET	12,922

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY-12	CVN 72 RCOH	NOV-16	19	34	JUN-12

V. COMPETITION/SECOND SOURCE INITIATIVES:

NOTE:

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

P-35 EXHIBIT
FY2015 PB CYCLE
March 2014

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 2012**	
	QTY	**COST**
Major Hardware	1	4,775
Technical Data & Documentatiom		2,303
Spares		283
Systems Engineering		637
Technical Engineering services		331
Other Costs		1,335
Total		9,664

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY-12	CVN 72 RCOH	RAYTHEON/SECHAN	FFP	APR-11	NEW	1 SHIPSET	4,775

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY-12	CVN 72 RCOH	NOV-16	36	18	MAY-12

V. COMPETITION/SECOND SOURCE INITIATIVES:

NOTE:

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

P-35 EXHIBIT
FY2015 PB CYCLE
March 2014

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 Naval Strike Warfare Planning Center (NSWPC) effort provides System Engineering, Integration and Testing (SEI&T) support for the Carrier Intelligence Center (CVIC) to ensure the delivery of an integrated Strike Planning and Execution capability enabled by NAVAIR and SPAWAR Component Systems. These Component Systems include DCRS (Digital Camera Receiving System), JMPS (Joint Mission Planning Systems), GCCS-M (Global Command and Control System - Maritime), DCGS-N (Distributed Common Ground System - Navy), ADMACS (Aviation Data Management and Control System), TBMCS (Theater Battle Management Core System), SVDS/CVIS (Consolidated Visual Information System), TC2S-CSG (Tomahawk Command and Control-Carrier Strike Group), and ISNS (Integrated Shipboard Network System) .

The PMA-281 NSWPC systems are: Tomahawk Command and Control (TC2S), Digital Camera Receiving System (DCRS) and Naval Mission Planning Systems (Air Wing Embarked Joint Mission Planning Systems(JMPS)).

The effort also includes the installation of the Strike Warfare Commander Watch station (STWC, a.k.a. Bravo Papa, BP) and the full implementation of the revised CVIC general arrangement.

II. CURRENT FUNDING:

P-35 Category	**FY 2012**	
	QTY	**COST**
Major Hardware	1	399
Technical Data & Documentation		165
Systems Engineering		5,981
Technical Engineering Services		1,886
Other Costs		139
Total		8,570

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY-12	CVN 72 RCOH	NAWCAD	WR	FEB-13	OPTION	1 SHIPSET	399

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY-12	CVN 72 RCOH	NOV-16	14	6	MAR-15

V. COMPETITION/SECOND SOURCE INITIATIVES:

NOTE:

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

P-35 EXHIBIT
FY2015 PB CYCLE
March 2014

Ship Type: **CVN-68 CLASS NUCLEAR REFUELING COMPLEX OVERHAUL (RCOH)**
Equipment Item: **AN/SPN-46 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 2012**	
	QTY	**COST**
Major Hardware	1	5,768
System Engineering		596
Technical Engineering Services		203
Other Costs		2,377
Total		8,944

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY-12	CVN 72 RCOH	NAWCAD	WR	DEC-10	N/A	1 SHIPSET	5,768

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY-12	CVN 72 RCOH	NOV-16	24	39	AUG-11

V. COMPETITION/SECOND SOURCE INITIATIVES:

NOTE:

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

P-35 EXHIBIT
FY2015 PB CYCLE
March 2014

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 2012**	
	QTY	**COST**
Major Hardware	1	4,801
Ancillary Equipment		43
Technical Data and Documentation		14
Spares		44
System Engineering		784
Technical Engineering Services		141
Other Costs		482
Total		6,309

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY-12	CVN 72 RCOH	LITTON & BAE	SS / FP	JUN-12	NEW	1 SHIPSET	4,801

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY-12	CVN 72 RCOH	NOV-16	29	24	JUN-12

V. COMPETITION/SECOND SOURCE INITIATIVES:

NOTE:

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

P-35 EXHIBIT
FY2015 PB CYCLE
March 2014

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:

Battle Force Tactical Training (BFTT) system provides training scenarios sent to multiple ships, operating as a simulated coordinated battle group in port or underway. The participating ships will operate their respective shipboard equipment configured as close to normal tactical configuration as possible, inclusive of capabilities and limitations, thereby emulating actual operations.

II. CURRENT FUNDING:

P-35 Category	**FY 2012**	
	QTY	**COST**
Major Hardware	1	3,193
Spares		129
System Engineering		712
Technical Engineering Services		1,850
Other Costs		1,246
Total		7,130

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY-12	CVN 72 RCOH	VARIOUS	FFP	AUG-11	NEW	1 SHIPSET	3,193

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY-12	CVN 72 RCOH	NOV-16	42	12	MAY-12

V. COMPETITION/SECOND SOURCE INITIATIVES:

NOTE:

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

P-35 EXHIBIT
FY2015 PB CYCLE
March 2014

Ship Type: **CVN-68 CLASS NUCLEAR REFUELING COMPLEX OVERHAUL (RCOH)**
Equipment Item: **READY ROOM TRANSFORMATIONAL TECHNOLOGIES UPGRADE**
PARM Code: **PMA 281**

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

The Ready Room transformational technologies upgrade provides the Carrier Air Wing with a standard CVN Ready Room general arrangement (space configuration), additional Secure Mission Planning Space, and Ready Room to Carrier Intelligence Center (CVIC) collaboration system to support Carrier Air Wing Operations. The major elements of the Ready Room transformational technologies upgrade include the installation of elevated Squadron Duty Officer Work station, revised Operations/Administration work areas, mini Secure Tactical Briefing Rooms, and a collaboration system that permits secure audio and video discussions within the Ready Rooms and CVIC.

II. CURRENT FUNDING:

P-35 Category	**FY 2012**	
	QTY	**COST**
Major Hardware	1	2,513
Technical Engineering Services		3,661
Other Costs		320
Total		6,494

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY-12	CVN 72 RCOH	NAWCAD	WR	AUG-14		1 SHIPSET	2,513

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY-12	CVN 72 RCOH	NOV-16	16	6	JAN-15

V. COMPETITION/SECOND SOURCE INITIATIVES:

NOTE:

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

P-35 EXHIBIT
FY2015 PB CYCLE
March 2014

Ship Type: **CVN-68 CLASS NUCLEAR REFUELING COMPLEX OVERHAUL (RCOH)**
Equipment Item: **AN/SPN-41 REFURBISHMENT**
PARM Code: **PMA 2131**

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:
The AN/SPN-41 transmitting set provides azimuth and elevation alignment information to approaching aircraft.

II. CURRENT FUNDING:

P-35 Category	**FY 2012**	
	QTY	**COST**
Major Hardware	1	1,722
Ancillary Equipment		6
System Engineering		374
Technical Engineering Services		107
Other Costs		1,326
Total		3,535

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY-12	CVN 72 RCOH	NAWCAD	WR	DEC-11	N/A	1 SHIPSET	1,722

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY-12	CVN 72 RCOH	NOV-16	15	39	MAY-12

V. COMPETITION/SECOND SOURCE INITIATIVES:

NOTE:
Work accomplished via Government Alteration Installation Team (AIT).

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

P-35 EXHIBIT
FY2015 PB CYCLE
March 2014

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 (Integrated Shipboard Information System)/ADMACS (Aviation Data Management and Control System), Moriah, ILARTS (Integrated Launch and Recovery TV Surveillance System), mission pods, jet blast deflectors, MAPA-C (Magazine Arrangements Planning Aid - Computerized), crosscheck, aviation maintenance facility, weapons compatibility, aircraft spotting, aviation servicing facilities, visual, and marking and lighting.

II. CURRENT FUNDING:

P-35 Category	FY 2012 QTY	FY 2012 COST
Major Hardware	1	27,191
Technical Data and Documentation		323
Spares		82
Systems Engineering		2,571
Technical Engineering Services		8,899
Other Costs		4,378
Total		43,444

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY-12	CVN 72 RCOH	VARIOUS	VARIOUS	DEC-10	VARIOUS	1 SHIPSET	27,191

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY-12	CVN 72 RCOH	NOV-16	34	32	MAY-11

V. COMPETITION/SECOND SOURCE INITIATIVES:

NOTE:

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

P-35 EXHIBIT
FY2015 PB CYCLE
March 2014

Ship Type: **CVN-68 CLASS NUCLEAR REFUELING COMPLEX OVERHAUL (RCOH)**
Equipment Item: **NATO SEASPARROW MISSILE SYSTEM (NSSMS)**
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 Guided Missile Launch System 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 2012**	
	QTY	**COST**
Major Hardware	1	31,179
Ancillary Equipment		339
Spares		1,527
Systems Engineering		1,604
Technical Engineering Services		7,981
Other Costs		834
Total		43,464

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY-12	CVN 72 RCOH	RAYTHEON	FFP	DEC-11		1 SHIPSET	31,179

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY-12	CVN 72 RCOH	NOV-16	30	29	DEC-11

V. COMPETITION/SECOND SOURCE INITIATIVES:

NOTE:

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

P-35 EXHIBIT
FY2015 PB CYCLE
March 2014

Ship Type: **CVN-68 CLASS NUCLEAR REFUELING COMPLEX OVERHAUL (RCOH)**
Equipment Item: **AN/SPS-48G (V1) Rapid Overt Air Reconnaissance (ROAR)**
PARM Code: **PEO IWS 2R1**

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 2012**	
	QTY	**COST**
Major Hardware	1	7,800
Technical Data & Documentation		30
Spares		335
Systems Engineering		687
Technical Engineering Services		3,244
Other Costs		750
Total		12,846

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY-12	CVN 72 RCOH	ITT GILFILLAN	FFP	APR-12	OPTION	1 SHIPSET	7,800

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY-12	CVN 72 RCOH	NOV-16	30	25	APR-12

V. COMPETITION/SECOND SOURCE INITIATIVES:

NOTE:

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

P-35 EXHIBIT
FY2015 PB CYCLE
March 2014

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 2012**	
	QTY	**COST**
Major Hardware	1	6,331
Technical Data and Documentation		134
Spares		275
System Engineering		665
Technical Engineering Services		3,755
Other Costs		1,394
Total		12,554

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY-12	CVN 72 RCOH	NSWC CRANE	WR	JUL-11	N/A	1 SHIPSET	6,331

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY-12	CVN 72 RCOH	NOV-16	31	29	NOV-11

V. COMPETITION/SECOND SOURCE INITIATIVES:

NOTE:

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

P-35 EXHIBIT
FY2015 PB CYCLE
March 2014

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 2012**	
	QTY	**COST**
Major Hardware	1	5,998
Ancillary Equipment		12
Technical Data and Documentation		75
Spares		373
System Engineering		349
Technical Engineering Services		1,627
Other Costs		2,444
Total		10,878

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY-12	CVN 72 RCOH	NORTHROP GRUMMAN	FFP	MAY-11		1 SHIPSET	5,998

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY-12	CVN 72 RCOH	NOV-16	35	30	JUN-11

V. COMPETITION/SECOND SOURCE INITIATIVES:

NOTE:

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

P-35 EXHIBIT
FY2015 PB CYCLE
March 2014

Ship Type: **CVN-68 CLASS NUCLEAR REFUELING COMPLEX OVERHAUL (RCOH)**
Equipment Item: **ADVANCED SENSOR DISTRIBUTION SYSTEM (ASDS)**
PARM Code: **PEO 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 2012**	
	QTY	**COST**
Major Hardware	1	2,317
Spares		37
System Engineering		837
Technical Engineering Services		360
Other Costs		852
Total		4,403

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY-12	CVN 72 RCOH	FRONTIER ELECTRONIC SYS	IDIQ	JAN-14	NEW	1 SHIPSET	2,317

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY-12	CVN 72 RCOH	NOV-16	17	12	JUN-14

V. COMPETITION/SECOND SOURCE INITIATIVES:

NOTE:

SHIPBUILDING AND CONVERSION, NAVY
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(Dollars in Thousands)

P-35 EXHIBIT
FY2015 PB CYCLE
March 2014

Ship Type: **CVN-68 CLASS NUCLEAR REFUELING COMPLEX OVERHAUL (RCOH)**
Equipment Item: **AN/SQQ-34C(V) CARRIER TACTICAL SUPPORT CENTER**
PARM Code: **PEO IWS 5E**

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:
Support tactical employment of carrier ASW aircraft and provide real-time Command, Control, & Communications as ASW module of the Carrier CDS.

II. CURRENT FUNDING:

P-35 Category	**FY 2012**	
	QTY	**COST**
Major Hardware	1	2,713
Ancillary Equipment		20
Technical Data and Documentation		253
Spares		35
System Engineering		903
Technical Engineering Services		628
Other Costs		1,053
Total		5,605

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY-12	CVN 72 RCOH	LOCKHEED MARTIN	CPFF	TBD		1 SHIPSET	2,713

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY-12	CVN 72 RCOH	NOV-16	17	18	DEC-13

V. COMPETITION/SECOND SOURCE INITIATIVES:

NOTE:

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

P-35 EXHIBIT
FY2015 PB CYCLE
March 2014

Ship Type: **CVN-68 CLASS NUCLEAR REFUELING COMPLEX OVERHAUL (RCOH)**
Equipment Item: **MK38 MOD 2 GUN SYSTEM**
PARM Code: **PMS 480**

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

The MK38 Mod 2 is a 25mm remote control, automatic and stabilized machine gun system with day and night sensors and an eye-safe laser range finder. This machine gun system counters the small boat threat. Four Mk38 Mod 2s will be installed on CVNs.

II. CURRENT FUNDING:

P-35 Category	**FY 2012**	
	QTY	**COST**
Major Hardware	1	5,100
Spares		140
System Engineering		355
Technical Engineering Services		710
Other Costs		970
Total		7,275

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY-12	CVN 72 RCOH	BAE SYSTEMS	FFP	NOV-12	NEW	1 SHIPSET	5,100

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY-12	CVN 72 RCOH	NOV-16	29	12	JUN-13

V. COMPETITION/SECOND SOURCE INITIATIVES:

NOTE:
Work is being performed by a government Alternation Installation Team (AIT)

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

P-35 EXHIBIT
FY2015 PB CYCLE
March 2014

Ship Type: **CVN-68 CLASS NUCLEAR REFUELING COMPLEX OVERHAUL (RCOH)**
Equipment Item: **EW DECOY LAUNCHING SYSTEM**
PARM Code: **PEO IWS 2E**

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

The MK 53 Electronic Warfare (EW) Decoy Launching System (DLS), also known as NULKA, is an integral part of the surface Electronic Warfare (EW) suite in the ship self defense system. It provides protection against active RF anti-ship missile attacks

II. CURRENT FUNDING:

P-35 Category	**FY 2012**	
	QTY	**COST**
Major Hardware	1	1,040
Technical Data and Documentation		55
Spares		60
System Engineering		920
Technical Engineering Services		1,810
Other Costs		668
Total		4,553

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY-12	CVN 72 RCOH	SECHAN ELECTRONICS	FFP	NOV-11	NEW	1 SHIPSET	1,040

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY-12	CVN 72 RCOH	NOV-16	40	18	JAN-12

V. COMPETITION/SECOND SOURCE INITIATIVES:

NOTE:

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

P-35 EXHIBIT
FY2015 PB CYCLE
March 2014

Ship Type: **CVN-68 CLASS NUCLEAR REFUELING COMPLEX OVERHAUL (RCOH)**
Equipment Item: **LOW PRESSURE AIR PLANT (LPAP)**
PARM Code: **NAVSSES 912**

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:
Low Pressure Air Plants (LPAPs) serve both Ship Service and Control Air Systems.

II. CURRENT FUNDING:

P-35 Category	**FY 2012**	
	QTY	**COST**
Major Hardware	1	3,115
Spares		162
System Engineering		52
Technical Engineering Services		155
Other Costs		130
Total		3,614

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY-12	CVN 72 RCOH	RIX INDUSTRIES	FFP	JUL-11	OPTION	1 SHIPSET	3,115

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY-12	CVN 72 RCOH	NOV-16	39	12	AUG-12

V. COMPETITION/SECOND SOURCE INITIATIVES:

NOTE:

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

P-35 EXHIBIT
FY2015 PB CYCLE
March 2014

Ship Type: **CVN-68 CLASS NUCLEAR REFUELING COMPLEX OVERHAUL (RCOH)**
Equipment Item: **EMERGENCY ESCAPE BREATHING DEVICE (EEBD)**
PARM Code: **NAVSSES 912**

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:
This effort installs Emergency Escape Breathing Device (EEBD) containers inside/outside ship spaces.

II. CURRENT FUNDING:

P-35 Category	**FY 2012**	
	QTY	**COST**
Major Hardware	1	207
Technical Data and Documentation		120
System Engineering		346
Technical Engineering Services		2,256
Other Costs		125
Total		3,054

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY-12	CVN 72 RCOH	VARIOUS	CPFF	MAY-12		1 SHIPSET	207

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY-12	CVN 72 RCOH	NOV-16	38	11	OCT-12

V. COMPETITION/SECOND SOURCE INITIATIVES:

NOTE:

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

P-35 EXHIBIT
FY2015 PB CYCLE
March 2014

Ship Type: **CVN-68 CLASS NUCLEAR REFUELING COMPLEX OVERHAUL (RCOH)**
Equipment Item: **AFT CREW MESS**
PARM Code: **NAVSSES 912**

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:
Accomplishes modifications to the Aft Ship's Crew Mess.

II. CURRENT FUNDING:

P-35 Category	**FY 2012**	
	QTY	**COST**
Technical Data and Documentation	1	100
System Engineering		303
Technical Engineering Services		3,895
Other Costs		70
Total		4,368

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY-12	CVN 72 RCOH	NSWC	WR	APR-12	N/A	1 SHIPSET	0

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY-12	CVN 72 RCOH	NOV-16	38	12	SEP-12

V. COMPETITION/SECOND SOURCE INITIATIVES:

NOTE:
Work is being performed by a government Alteration Installation Team (AIT)

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

P-35 EXHIBIT
FY2015 PB CYCLE
March 2014

Ship Type: **CVN-68 CLASS NUCLEAR REFUELING COMPLEX OVERHAUL (RCOH)**
Equipment Item: **DECK EDGE AND HANGAR DIVISIONAL DOORS**
PARM Code: **NAVSSES 912**

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:
This efforts completes required modifications to the ship's deck edge and hangar divisional doors.

II. CURRENT FUNDING:

P-35 Category	FY 2012 QTY	FY 2012 COST
Major Hardware	1	1,097
Technical Data and Documentation		246
System Engineering		1,473
Technical Engineering Services		182
Other Costs		604
Total		3,602

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY-12	CVN 72 RCOH	ROCKWELL CORP	IDIQ	AUG-12	OPTION	1 SHIPSET	1,097

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY-12	CVN 72 RCOH	NOV-16	42	8	SEP-12

V. COMPETITION/SECOND SOURCE INITIATIVES:

NOTE:

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

P-35 EXHIBIT
FY2015 PB CYCLE
March 2014

Ship Type: **CVN-68 CLASS NUCLEAR REFUELING COMPLEX OVERHAUL (RCOH)**
Equipment Item: **AIR CONDITIONING (AC) PLANT**
PARM Code: **NAVSSES 912**

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:
Accomplishes modifications to the Ship's Air Conditioning Plant.

II. CURRENT FUNDING:

P-35 Category	**FY 2012**	
	QTY	**COST**
Major Hardware	1	1,128
System Engineering		228
Technical Engineering Services		3,875
Other Costs		230
Total		5,461

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY-12	CVN 72 RCOH	QED	CPFF	SEP-11	NEW	1 SHIPSET	1,128

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY-12	CVN 72 RCOH	NOV-16	42	12	MAY-12

V. COMPETITION/SECOND SOURCE INITIATIVES:

NOTE:

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

P-35 EXHIBIT
FY2015 PB CYCLE
March 2014

Ship Type: **CVN-68 CLASS NUCLEAR REFUELING COMPLEX OVERHAUL (RCOH)**
Equipment Item: **FURNITURE (NON PROPULSION PLANT)**
PARM Code: **NAVSSES 912**

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:
Shipboard Furniture Procurement and Installation in Non-Propulsion Spaces.

II. CURRENT FUNDING:

P-35 Category	**FY 2012**	
	QTY	**COST**
Major Hardware	1	8,250
System Engineering		575
Technical Engineering Services		8,100
Other Costs		535
Total		17,460

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY-12	CVN 72 RCOH	NOTE 1	IDIQ	JUL-12	NEW	1 SHIPSET	8,250

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY-12	CVN 72 RCOH	NOV-16	32	12	MAR-13

V. COMPETITION/SECOND SOURCE INITIATIVES:

NOTE:
1. Three vendors will provide furniture: Technico, George Sharp, and QED.
2. Technical Engineering Services includes installation costs of $7.2M

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BUDGET ITEM JUSTIFICATION SHEET (P-40)
FY2015 PRESIDENTS BUDGET

DATE: March 2014

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 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	TO COMP	TOTAL PROG
QUANTITY	3	0	0	0	0	0	0	0	0	3
End Cost	12,069.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12,069.4
Less Advance Procurement	1,160.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1,160.1
Less Subsequent Year FF	6,817.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6,817.5
Plus Subsequent Year FF	5,144.3	668.3	231.7	419.5	213.4	140.3	0.0	0.0	0.0	6,817.5
Full Funding TOA	9,236.1	668.3	231.7	419.5	213.4	140.3	0.0	0.0	0.0	10,909.3
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	10,396.3	668.3	231.7	419.5	213.4	140.3	0.0	0.0	0.0	12,069.4
Plus Outfitting / Plus Post Delivery	3.9	9.1	34.1	79.8	79.3	68.5	7.3	46.0	47.8	375.8
Total	10,400.2	677.5	265.8	499.3	292.6	208.8	7.3	46.0	47.8	12,445.3
Unit Cost (Ave End Cost)	4,023.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4,023.1

MISSION:
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. This Budget Submission is based is based on a DDG 1000 of 15,482 tons displacement with two Advanced Gun Systems (AGS) including a total magazine capacity of 600 rounds. FY14 funding will support continued construction (for all three hulls), Class Services, and GFE / Mission Systems Equipment procurement.

Characteristics:		Weapons:	Sensors:	Integrated Power System:	Aviation:
Hull		2 Advanced Gun Systems	Multi-Function Radar	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	3 VTUAVs
Beam	80.7'	2 MK 46 MOD 2 GWS	EO / IR System	2 Propulsion Motors	
Displacement (LT)	15,482				Boats:
Draft (Navigation)	27.6'				2 7m RHIBs
Speed	30 kts				(Sized for 2 11m RHIBs)
Installed Power	78.4 MW				
Crew Size (including air detachment)	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 (Re-award 09/11)	09/11
Months to Completion			
a)Award to Delivery	79	94	77
b)Construction Start to Delivery	68	69	70
Delivery Date	09/14	05/16	12/18
Completion of Fitting Out	09/15	05/17	07/19
Obligation Work Limit Date	08/16	04/18	06/20

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

BUDGET ACTIVITY: 2	**P-1 LINE ITEM NOMENCLATURE**
Other Warships	**DDG 1000**

		FY 2007		**FY 2009**
ELEMENT OF COST	**QTY**	**COST**	**QTY**	**COST**
PLAN COSTS	2	1,435,996	1	523,385
BASIC		3,286,065		1,089,079
CHANGE ORDERS		259,441		50,959
ELECTRONICS		2,566,770		1,420,714
HM&E		181,860		71,627
OTHER COST		252,516		141,092
ORDNANCE		526,692		263,244
TOTAL SHIP ESTIMATE		**8,509,340**		**3,560,100**
LESS: ADVANCE PROCUREMENT FY05		304,046		
LESS: ADVANCE PROCUREMENT FY06		706,240		
LESS: ADVANCE PROCUREMENT FY08		-		149,830
LESS: SUBSEQUENT YEAR FUNDING FY08		3,009,929		-
LESS: SUBSEQUENT YEAR FUNDING FY10		315,303		1,063,229
LESS: SUBSEQUENT YEAR FUNDING FY11		106,972		140,112
LESS: SUBSEQUENT YEAR FUNDING FY12		435,339		73,388
LESS: SUBSEQUENT YEAR FUNDING FY13		371,980		296,359
LESS: SUBSEQUENT YEAR FUNDING FY14		170,737		60,957
LESS: SUBSEQUENT YEAR FUNDING FY15		388,011		31,521
LESS: SUBSEQUENT YEAR FUNDING FY16		99,668		113,700
LESS: SUBSEQUENT YEAR FUNDING FY17		13,547		126,706
NET P-1 LINE ITEM:		2,587,568		1,504,298

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		
	MILESTONE B RECERTIFICATION	10/10	10/10		
II.	**Classification of Cost Estimate**	CLASS C BUDGET ESTIMATE			
III.	**Basic Construction/Conversion**	2008	2008	2009	
	A. Actual Award Date	2/08	2/08 and 9/11	9/11*	
	B. Contract Type (and Share Line if applicable)	CPAF/IF	CPAF/IF AND FPIC	FPIC	
	* DDG1002 DECKHOUSE, HANGAR AND AFT PVLS CONTRACT IN NEGOTIATION				
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-14
DDG 1000	1001	BIW	07	SEP-11 (Re-award)	MAR-10	MAY-16
DDG 1000	1002	BIW	09	SEP-11	APR-12	DEC-18

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**
ELECTRONICS				
a. P-35 Items				
EXCOMMS (SHIPSET)	2	464,648	1	94,962
INTEGRATED UNDERSEA WARFARE (IUSW) SYSTEM	2	215,763	1	105,136
MULTI FUNCTION RADAR	2	519,609	1	272,999
COMMON ARRAY POWER SYSTEM (CAPS)	2	97,017	1	16,409
TOTAL SHIP COMPUTING ENVIRONMENT (TSCE)	2	372,377	1	262,584
ELECTRO-OPTICAL / INFRARED (EO/IR)	2	94,411	1	26,952
IDENTIFICATION FRIEND OR FOE (IFF)	2	35,532	1	28,138
COMMON ARRAY COOLING SYSTEM (CACS)	2	20,065	1	965
SHIP CONTROL SYSTEM (SCS)	2	111,527	1	117,229
COOPERATIVE ENGAGEMENT CAPABILITY (CEC)	2	16,025	1	7,800
SURFACE ELECTRONIC WARFARE IMPROVEMENT PROGRAM (SEWIP)	2	39,742	1	20,681
VERTICAL LAUNCHING SYSTEM (VLS) MK 57 4-CELL MODULES	40	248,297	20	249,989
Subtotal		2,235,014		1,203,844
b. Major Items				
Subtotal				
MISSION SYSTEM ENGR INTEGR & TEST (MSEIT)*		331,756		216,870
Subtotal		331,756		216,870
Total ELECTRONICS		2,566,770		1,420,714

* Includes $2,500K Battle Spares - Ship Class Special Tool Set

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	39,412
Battle Spares		32,168		
Subtotal		110,293		39,412
b. Major Items				
RIGID HULL INFLATABLE BOAT (RHIB)	2	2,100	1	1,100
Subtotal		2,100		1,100
c. Other HM&E				
HM&E Activation		69,467		31,115
Subtotal		69,467		31,115
Total HM&E		181,860		71,627

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	488,127	2	247,402
CLOSE-IN GUN SYSTEM (CIGS)	4	38,565	2	15,842
Subtotal		526,692		263,244
b. Major Items				
Subtotal				
c. Other ORDNANCE				
		0		0
Subtotal		0		0
Total ORDNANCE		526,692		263,244

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

P-35 EXHIBIT
FY2015 PRESIDENTS BUDGET
March 2014

Ship Type: **DDG 1000**
Equipment Item: **EXCOMMS (SHIPSET)**
PARM Code: **PEOC4I**

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	195,953	1	35,600
Technical Support Services		28,248		6,585
Other Costs (NRE)		240,448		52,777
Total		464,648		94,962

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	97,976
FY09	DDG-1000	Raytheon	CPAF/IF	MAY-12		1	35,600

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY07	DDG-1000	JUL-14	43	26	OCT-08
FY09	DDG-1000	FEB-18	43	26	MAY-12

V. COMPETITION/SECOND SOURCE INITIATIVES:

N/A

NOTE:

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

P-35 EXHIBIT
FY2015 PRESIDENTS BUDGET
March 2014

Ship Type: **DDG 1000**
Equipment Item: **INTEGRATED UNDERSEA WARFARE (IUSW) SYSTEM**
PARM Code: **IWS 5.0 XR**

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, as well as Software.

II. CURRENT FUNDING:

P-35 Category	**FY 2007**		**FY 2009**	
	QTY	**COST**	**QTY**	**COST**
Major Hardware	2	95,829	1	54,300
Technical Support Services		10,793		5,639
Other Costs (NRE)		109,141		45,198
Total		215,763		105,136

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	47,914
FY09	DDG-1000	Raytheon	CPAF/IF	OCT-12		1	54,300

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY07	DDG-1000	JUL-14	47	18	FEB-09
FY09	DDG-1000	FEB-18	46	18	OCT-12

V. COMPETITION/SECOND SOURCE INITIATIVES:

N/A

NOTE:

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

P-35 EXHIBIT
FY2015 PRESIDENTS BUDGET
March 2014

Ship Type: **DDG 1000**
Equipment Item: **MULTI FUNCTION RADAR**
PARM Code: **IWS 2.0 SQ**

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

The Multi Function 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 MFR is comprised of X-Band (AN/SPY-3) arrays integrated through a common signal data processor offering surface and horizon search capabilities and 3-D air search radar capabilities. 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**		**FY 2009[1]**	
	QTY	**COST**	**QTY**	**COST**
Major Hardware	2	314,313	1	199,573
Technical Support Services		21,993		8,145
Other Costs (NRE)		183,303		65,281
Total		519,609		272,999

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	MAR-08		2	157,157
FY09	DDG-1000	Raytheon	CPAF/IF	OCT-12		1	199,573

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY07	DDG-1000	JUL-14	45	28	JUN-08
FY09	DDG-1000	FEB-18	36	28	OCT-12

V. COMPETITION/SECOND SOURCE INITIATIVES:

N/A

NOTE:

Volume Search Radar (VSR) was removed from the DDG-1000 class per the Nunn McCurdy Certification VSR procured for DDG-1002 will be transferred to the CVN-79.

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

P-35 EXHIBIT
FY2015 PRESIDENTS BUDGET
March 2014

Ship Type: **DDG 1000**
Equipment Item: **COMMON ARRAY POWER SYSTEM (CAPS)**
PARM Code: **IWS 2.0 SQ**

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

The Common Array Power System (CAPS) provides electrical power for the Multi Function Radar (MFR), 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:

	FY 2007		FY 2009	
	QTY	COST	QTY	COST
Major Hardware	2	56,185	1	12,624
Battle Spares		1,000		
Technical Support Services		4,490		420
Other Costs (NRE)		35,342		3,365
Total		97,017		16,409

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	MAR-08		2	28,093
FY09	DDG-1000	Raytheon	CPAF/IF	NOV-12		1	12,624

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY07	DDG-1000	JUL-14	48	28	MAR-08
FY09	DDG-1000	FEB-18	35	28	NOV-12

V. COMPETITION/SECOND SOURCE INITIATIVES:

N/A

NOTE:

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

P-35 EXHIBIT
FY2015 PRESIDENTS BUDGET
March 2014

Ship Type: **DDG 1000**
Equipment Item: **TOTAL SHIP COMPUTING ENVIRONMENT (TSCE)**
PARM Code: **IWS 9.0 XV**

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	196,450	1	134,345
Technical Support Services		18,834		14,224
Other Costs (NRE)		157,093		114,014
Total		372,377		262,584

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	98,225
FY09	DDG-1000	Raytheon	CPAF/IF	OCT-12		1	134,345

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY07	DDG-1000	JUL-14	48	21	OCT-08
FY09	DDG-1000	FEB-18	43	21	OCT-12

V. COMPETITION/SECOND SOURCE INITIATIVES:

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

P-35 EXHIBIT
FY2015 PRESIDENTS BUDGET
March 2014

Ship Type: **DDG 1000**
Equipment Item: **ELECTRO-OPTICAL / INFRARED (EO/IR)**
PARM Code: **IWS 2.0 SJ**

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	33,368	1	12,973
Technical Support Services		6,900		1,551
Other Costs (NRE)		54,144		12,429
Total		94,411		26,952

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	16,684
FY09	DDG-1000	Raytheon	CPAF/IF	NOV-12		1	12,973

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY07	DDG-1000	JUL-14	47	22	OCT-08
FY09	DDG-1000	FEB-18	41	22	NOV-12

V. COMPETITION/SECOND SOURCE INITIATIVES:

N/A

NOTE:

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

P-35 EXHIBIT
FY2015 PRESIDENTS BUDGET
March 2014

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

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	16,018	1	8,640
Technical Support Services		2,186		2,163
Other Costs (NRE)		17,328		17,335
Total		35,532		28,138

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	8,009
FY09	DDG-1000	Raytheon	CPAF/IF	DEC-12		1	8,640

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY07	DDG-1000	JUL-14	40	29	OCT-08
FY09	DDG-1000	FEB-18	33	29	DEC-12

V. COMPETITION/SECOND SOURCE INITIATIVES:

N/A

NOTE:

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

P-35 EXHIBIT
FY2015 PRESIDENTS BUDGET
March 2014

Ship Type: **DDG 1000**
Equipment Item: **COMMON ARRAY COOLING SYSTEM (CACS)**
PARM Code: **IWS 2.0 SQ**

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

The Common Array Cooling System (CACS) provides liquid cooling for the Multi Function Radar (MFR) 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 MFR 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	11,766		0
Battle Spares		1,000		
Technical Support Services		824		107
Other Costs (NRE)		6,475		858
Total		20,065		965

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	5,883
FY09	DDG-1000	Raytheon	CPAF/IF	NOV-12		1	0

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY07	DDG-1000	JUL-14	49	28	OCT-08
FY09	DDG-1000	FEB-18	35	28	NOV-12

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
FY2015 PRESIDENTS BUDGET
March 2014

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

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

The Flight 1 Ship Control 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	58,000	1	42,801
Technical Support Services		6,031		8,256
Other Costs (NRE)		47,497		66,173
Total		111,527		117,229

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	29,000
FY09	DDG-1000	Raytheon	CPAF/IF	MAY-12		1	42,801

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY07	DDG-1000	JUL-14	38	31	OCT-08
FY09	DDG-1000	FEB-18	38	31	MAY-12

V. COMPETITION/SECOND SOURCE INITIATIVES:

N/A

SHIPBUILDING AND CONVERSION, NAVY
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(Dollars in Thousands)

P-35 EXHIBIT
FY2015 PRESIDENTS BUDGET
March 2014

Ship Type: **DDG 1000**
Equipment Item: **COOPERATIVE ENGAGEMENT CAPABILITY (CEC)**
PARM Code: **IWS 6.0 XN**

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	12,000	1	6,800
Technical Support Services		4,025		1,000
Other Costs (NRE)				
Total		16,025		7,800

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY07	DDG 1000	RAYTHEON	FPI	FEB-07		2	6,000
FY09	DDG 1000	RAYTHEON	FPI	OCT-13		1	6,800

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY07	DDG 1000	JUL-14	34	18	MAR-10
FY09	DDG 1000	FEB-18	34	18	OCT-13

V. COMPETITION/SECOND SOURCE INITIATIVES:

N/A

NOTE:

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

P-35 EXHIBIT
FY2015 PRESIDENTS BUDGET
March 2014

Ship Type: **DDG 1000**
Equipment Item: **SURFACE ELECTRONIC WARFARE IMPROVEMENT PROGRAM (SEWIP)**
PARM Code: **IWS 2.0 SJ**

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

SEWIP provides enhanced Electronic Warfare (EW) capabilities to imporve anti-ship missile defense, counter-targeting and counter surveillance capabilities, as well as improved situational awareness to pace the threat, improving detection, accuracy, and mitigation of EMI. The SEWIP Block 2 is an upgraded antenna, receiver and combat system interface for AN/SLQ-32.

II. CURRENT FUNDING:

P-35 Category	FY 2007		FY 2009	
	QTY	COST	QTY	COST
Major Hardware	2	36,214	1	18,906
Technical Support Services		1,906		935
Other Costs (NRE)		1,622		841
Total		39,742		20,681

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY07	DDG-1000	Lockheed Martin	FPI	Jul-12		2	18,107
FY09	DDG-1000	Lockheed Martin	FPI	Jan-15		1	18,906

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY07	DDG-1000	Jul-14	2	19	Oct-12
FY09	DDG-1000	Feb-18	2	16	Aug-16

V. COMPETITION/SECOND SOURCE INITIATIVES:

N/A

NOTE:

SHIPBUILDING AND CONVERSION, NAVY
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(Dollars in Thousands)

P-35 EXHIBIT
FY2015 PRESIDENTS BUDGET
March 2014

Ship Type: **DDG 1000**
Equipment Item: **MAIN TURBINE GENERATOR (MTG)**
PARM Code: **PMS 500 WA**

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 35.25MWe. The engine utilizes a Full Authority Digital Control Local Operating Panel (FADC LOCOP) and electric start system. The generator contains redundant automatic voltage regulators (AVR) with automatic changeover.

II. CURRENT FUNDING:

P-35 Category	FY 2007		FY 2009	
	QTY	COST	QTY	COST
Major Hardware	4	73,262	2	39,412
Battle Spares		32,168		
Technical Support Services		1,485		0
Other Costs (NRE)		3,378		0
Total		110,293		39,412

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	JAN-08	Option	2	19,706

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY07	DDG-1000	JUL-14	33	24	SEP-09
FY09	DDG-1000	FEB-18	33	24	MAY-13

V. COMPETITION/SECOND SOURCE INITIATIVES:

N/A

NOTE:

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

P-35 EXHIBIT
FY2015 PRESIDENTS BUDGET
March 2014

Ship Type: **DDG 1000**
Equipment Item: **ADVANCED GUN SYSTEM (AGS)**
PARM Code: **IWS 3C YF**

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	302,254	2	206,747
Battle Spares		19,000		0
Technical Support Services		8,934		0
Other Costs (NRE)		157,939		40,655
Total		488,127		247,402

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	75,564
FY09	DDG-1000	BAE	TBD	APR-12		2	103,374

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY07	DDG-1000	JUL-14	31	39	SEP-08
FY09	DDG-1000	FEB-18	31	39	APR-12

V. COMPETITION/SECOND SOURCE INITIATIVES:

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

P-35 EXHIBIT
FY2015 PRESIDENTS BUDGET
March 2014

Ship Type: **DDG 1000**
Equipment Item: **VERTICAL LAUNCHING SYSTEM (VLS) MK 57 4-CELL MODULES**
PARM Code: **IWS 3L S8**

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 canistered 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	153,008	20	181,844
Technical Support Services		8,524		4,231
Other Costs (NRE)		86,766		63,914
Total		248,297		249,989

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	3,825
FY09	DDG-1000	Raytheon	CPAF/IF	OCT-12		20	9,092

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY07	DDG-1000	JUL-14	40	24	OCT-08
FY09	DDG-1000	FEB-18	40	24	OCT-12

V. COMPETITION/SECOND SOURCE INITIATIVES:

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

P-35 EXHIBIT
FY2015 PRESIDENTS BUDGET
March 2014

Ship Type: **DDG 1000**
Equipment Item: **CLOSE-IN GUN SYSTEM (CIGS)**
PARM Code: **IWS 3C YF**

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

The Close-In Gun System (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 CIGS MK 46 MOD 2 GWS is composed of a turret assembly that houses the MK 44 MOD 2 cannon and an advanced Fire Control System that includes a ballistic solution computer, an electro-optical sensor package, and an eye-safe laser range finder. The system uses a forward-looking infrared sensor, a low-light television camera, and eye safe laser range finder with a closed-loop tracking system to optimize accuracy against small, high-speed surface targets. The system can be operated locally from the gun control station inside the turret, remotely from the MK 46 MOD 2 GWS Remote Gun Station Operator (RGSO) panel in the Combat Information Center (CIC), or manually using hand cranks from inside the turret. The 30mm cannon, MK 44 MOD 2, is a single barrel, open bolt, dual feed, electrically powered, chain-driven automatic cannon. The system has a magazine capacity of 424 rounds, a dual-feed capability with a firing rate of 200 rounds per minute, and is capable of selectively switching between ammunition types and firing modes.

II. CURRENT FUNDING:

P-35 Category	**FY 2007**		**FY 2009**	
	QTY	**COST**	**QTY**	**COST**
Major Hardware	4	18,034	2	8,535
Technical Support Services		7,177		3,381
Other Costs (NRE)		13,354		3,927
Total		38,565		15,842

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY07	DDG-1000	TBD	FFP	MAR-14		2	4,582
FY07	DDG-1000	TBD	FFP	MAR-15		2	4,582
FY09	DDG-1000	TBD	FFP	MAR-16		2	4,341

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY07	DDG-1000	MAY-16	40	18	SEP-14
FY07	DDG-1000	MAR-17	40	18	JUL-15
FY09	DDG-1000	MAR-18	40	18	JUL-16

V. COMPETITION/SECOND SOURCE INITIATIVES:

N/A

NOTE:

BUDGET ITEM JUSTIFICATION SHEET (P-40)
FY 2015 President's Budget

DATE:
March 2014

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

P-1 LINE ITEM NOMENCLATURE
DDG-51
BLI: 2122 / SUBHEAD NO. 1224

(Dollars in Millions)	PRIOR YR	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	TO COMP	TOTAL PROG
QUANTITY	66	3	1	2	2	2	2	2		80
End Cost (1)	63,661.5	4,223.8	1,729.6	2,969.4	3,576.5	3,375.8	3,369.7	3,441.5	0.0	86,347.7
Less Advance Procurement	2,274.4	92.5	114.0	297.9	374.7	182.6	119.1	104.1	0.0	3,559.3
Less Cost to Complete (2)	935.6	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1,035.6
Less Escalation	48.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	48.2
Less Transfer	218.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	218.5
Less FY06 Hurricane Supplemental	227.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	227.1
Full Funding TOA	59,957.8	4,031.3	1,615.6	2,671.4	3,201.7	3,193.2	3,250.7	3,337.4	0.0	81,259.0
Plus Advance Procurement	2,366.8	465.7	369.6	134.0	0.0	119.1	104.1	0.0	0.0	3,559.3
Plus Cost to Complete (2)	731.4	0.0	100.0	129.1	75.0	0.0	0.0	0.0	0.0	1,035.6
Plus Transfer	218.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	218.5
Plus FY06 Hurricane Supplemental	227.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	227.1
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	63,549.8	4,497.0	2,085.1	2,934.6	3,276.8	3,312.3	3,354.7	3,337.4	0.0	86,347.7
Plus Outfitting / Plus Post Delivery	2,179.7	7.3	1.0	6.5	78.4	69.5	93.9	106.0	841.6	3,383.9
Total	65,729.5	4,504.3	2,086.1	2,941.1	3,355.2	3,381.8	3,448.6	3,443.4	841.6	89,731.6
Unit Cost (Avg. End Cost)	964.6	1,407.9	1,729.6	1,484.7	1,788.3	1,687.9	1,684.9	1,720.7		1,079.3

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. FY10 and follow ships will provide Ballistic Missile Defense capability.

(1) Flight III/AMDR configuration on the 2nd FY16 and the FY17 ship will be executed via Engineering Change Proposals. The shipbuilder ECP effort is reflected in the Change Orders cost element, beginning with the last FY16 ship.
FY15 AP supports introduction of FLT III.

(2) Cost to Complete in FY14 fully funds the FY13 option ship contract award. Cost to Complete in FY15-FY16 reflects buybacks of reductions on FY10-12 ships as a result of FY13 Sequestration.

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	MK12 IFF
		MK32 MOD 7 Torpedo Tubes	SSEE
			MIDS

	FY10	FY11	FY11	FY12	FY13	FY13	FY13	FY14	FY15	FY15
Production Status	DDG 113	DDG 114	DDG 115	DDG 116	DDG 117	DDG 118	DDG 120	DDG 119	DDG 121	DDG 122
Contract Plans										
Award Planned (Month)	6/11	9/11	9/11	2/12	6/13	6/13	6/13	6/13	6/13	6/13
Months to Complete										
a) Award to Delivery	60	64	52	59	55	64	79	73	85	85
b) Construction Start to Delivery	46	40	47	47	40	48	48	44	47	44
Delivery Date	6/16	1/17	1/16	1/17	1/18	10/18	1/20	7/19	7/20	7/20
Completion of Fitting Out	10/16	6/17	6/16	6/17	6/18	2/19	5/20	11/19	11/20	11/20

WEAPON SYSTEM COST ANALYSIS (EXHIBIT P-5)

(Dollars in Thousands)

BUDGET ACTIVITY: 2	**P-1 LINE ITEM NOMENCLATURE**	**SUBHEAD NO. 1224 BLI: 2122**
Other Warships	**DDG-51**	

	FY 2010		**FY 2011**		**FY 2012**	
ELEMENT OF COST	**QTY**	**COST**	**QTY**	**COST**	**QTY**	**COST**
PLAN COSTS	1	92,079	2	77,174	1	122,109
BASIC CONST/CONVERSION		837,286		1,467,654		741,679
CHANGE ORDERS		41,528		68,923		20,823
ELECTRONICS		223,352		358,789		219,437
HM&E		103,280		145,693		80,341
OTHER COST		70,558		71,949		70,327
ORDNANCE		765,469		916,245		629,817
TOTAL SHIP ESTIMATE		2,133,552		3,106,427		1,884,533
Less Advance Procurement FY07		126,097				
Less Advance Procurement FY09		198,628				
Less Advance Procurement FY10				577,210		
Less Advance Procurement FY11						47,719
Less Cost to Complete FY15		65,771		63,373		
Less Cost to Complete FY16						75,014
NET P-1 LINE ITEM:		1,743,056		2,465,844		1,761,800

Note: Cost to Complete budgeted to buyback FY10-12 reductions due to FY13 Sequestration

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

BUDGET ACTIVITY: 2	**P-1 LINE ITEM NOMENCLATURE**	**SUBHEAD NO. 1224 BLI: 2122**
Other Warships	**DDG-51**	

	FY 2013		**FY 2014**		**FY 2015**	
ELEMENT OF COST	**QTY**	**COST**	**QTY**	**COST**	**QTY**	**COST**
PLAN COSTS	3	67,450	1	74,980	2	68,814
BASIC CONST/CONVERSION		2,066,017		716,837		1,404,705
CHANGE ORDERS		60,700		21,505		42,141
ELECTRONICS		544,249		211,726		359,490
HM&E		201,465		91,207		159,533
OTHER COST		81,240		76,736		77,775
ORDNANCE		1,202,634		536,613		856,896
TOTAL SHIP ESTIMATE		4,223,755		1,729,604		2,969,354
Less Advance Procurement FY12		92,454				
Less Advance Procurement FY13				114,040		227,950
Less Advance Procurement FY14						69,989
Less Cost to Complete FY14		100,000				
NET P-1 LINE ITEM:		4,031,301		1,615,564		2,671,415

Note:

Electronics & Ordnance: TI-16 and associated hardware introduced 3rd ship of FY13

Cost to Complete budgeted to fully fund FY13 option ship contract award

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SHIPBUILDING AND CONVERSION, NAVY

FY 2015 President's Budget

Analysis of Ship Cost Estimate - Basic/Escalation

March 2014

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 2010	FY 2011	FY2012	FY2013	FY2014	FY2015
	A. Actual Award Date	06/11	09/11	02/12	06/13	06/13	06/13
	B. Contract Type (and Share Line if applicable)	ANNUAL /FPI	ANNUAL WITH OPTION/FPI	OPTION	MULTIYEAR PROCUREMENT/ FIXED PRICE INCENTIVE	MULTIYEAR PROCUREMENT/ FIXED PRICE INCENTIVE	MULTIYEAR PROCUREMENT/ FIXED PRICE INCENTIVE
	C. RFP Response Date	4/10	8/11	8/11	7/12	7/12	7/12

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

SHIPBUILDING AND CONVERSION, NAVY
SHIP PRODUCTION SCHEDULE

SHIP TYPE	HULL NUMBER	SHIPBUILDER	FISCAL YEAR AUTHORIZED	CONTRACT AWARD	START OF CONSTRUCTION	DELIVERY DATE
DDG	113	HII	10	JUN-11	AUG-12	JUN-16
DDG	114	HII	11	SEP-11	SEP-13	JAN-17
DDG	115	BIW	11	SEP-11	FEB-12	JAN-16
DDG	116	BIW	12	FEB-12	FEB-13	JAN-17
DDG	117	HII	13	JUN-13	SEP-14	JAN-18
DDG	118	BIW	13	JUN-13	OCT-14	OCT-18
DDG	120	BIW	13	JUN-13	JAN-16	JAN-20
DDG	119	HII	14	JUN-13	NOV-15	JUL-19
DDG	121	HII	15	JUN-13	AUG-16	JUL-20
DDG	122	BIW	15	JUN-13	NOV-16	JUL-20
DDG	123	HII	16	JUN-13	MAY-17	JUL-21
DDG	124	BIW	16	JUN-13	SEP-17	JUL-21
DDG	125	HII	17	JUN-13	FEB-18	JUL-22
DDG	126	BIW	17	JUN-13	JUL-18	JUL-22
DDG	127	TBD	18	TBD	TBD	TBD
DDG	128	TBD	18	TBD	TBD	TBD
DDG	129	TBD	19	TBD	TBD	TBD
DDG	130	TBD	19	TBD	TBD	TBD

SHIPBUILDING AND CONVERSION, NAVY

Analysis of Ship Cost Estimates - Major Equipment

(Dollars in Thousands)

Ship Type: DDG-51 AEGIS DESTROYERS	FY 2013		FY 2014		FY 2015	
	QTY	COST	QTY	COST	QTY	COST
ELECTRONICS						
a. P-35 Items						
SQQ 89 ASW	3	124,903	1	52,873	2	85,297
SLQ-32 EW/MK 53 NULKA	3	55,592	1	19,566	2	39,197
USQ 82 GEDMS	3	32,781	1	18,686	2	26,763
EXCOMM	3	128,124	1	52,580	2	95,164
Subtotal		341,400		143,705		246,421
b. Major Items						
NAVIGATION SYSTEM	3	10,814	1	5,588	2	7,457
MK-12 IFF	3	19,032	1	6,285	2	12,800
SLQ 25 NIXIE	3	4,458	1	1,509	2	3,072
SRQ 4 LAMPS III	3	8,671	1	4,073	2	8,247
SSEE	3	41,400	0	0	0	0
MIDS	3	9,292	1	3,460	2	6,418
CEC BLK II	3	16,278	1	6,390	2	11,260
Subtotal		109,945		27,305		49,254
c. Other ELECTRONICS						
MISC. ELECTRONICS	3	92,904	1	40,716	2	63,815
Subtotal		92,904		40,716		63,815
Total ELECTRONICS		544,249		211,726		359,490

Notes:
SQQ-89 ASW: Multi-Function Towed Array (MFTA) capability included on third FY13 ship and FY 2014
SLQ-32 EW/MK 53 NULKA: SLQ-32(V)6 with full SEWIP capability introduced in FY 2013
SSEE descoped from FY14 and follow ships

SHIPBUILDING AND CONVERSION, NAVY

Analysis of Ship Cost Estimates - Major Equipment

(Dollars in Thousands)

Ship Type: DDG-51 AEGIS DESTROYERS	FY 2013		FY 2014		FY 2015	
	QTY	COST	QTY	COST	QTY	COST
HM&E						
a. P-35 Items						
STC 3 IVCS	3	22,321	1	7,522	2	15,419
Main Reduction Gear	3	103,793	1	42,027	2	81,175
Subtotal		126,114		49,549		96,594
b. Major Items						
Machinery Control System	3	13,741	1	6,334	2	10,071
Integrated Bridge Navigation System	3	12,863	1	7,005	2	11,153
Subtotal		26,604		13,339		21,224
c. Other HM&E						
MISC. HM&E	3	48,747	1	28,319	2	41,715
Subtotal		48,747		28,319		41,715
Total HM&E		201,465		91,207		159,533

SHIPBUILDING AND CONVERSION, NAVY

Analysis of Ship Cost Estimates - Major Equipment

(Dollars in Thousands)

Ship Type: DDG-51 AEGIS DESTROYERS	FY 2013		FY 2014		FY 2015	
	QTY	COST	QTY	COST	QTY	COST
ORDNANCE						
a. P-35 Items						
AEGIS WEAPON SYSTEM (MK-7)	3	609,991	1	261,309	2	444,758
VLS MK 41	3	144,801	1	72,994	2	109,225
MK 45 LWG	3	58,529	1	18,550	2	50,129
MK 37 TOMAHAWK	3	33,277	1	16,029	2	26,382
PHALANX (CIWS)	3	23,002	1	7,805	2	15,946
Subtotal		869,600		376,687		646,440
b. Major Items						
MK 32 SVTT	3	8,078	1	2,812	2	5,785
ELECTRO-OPTICAL SYSTEM	3	8,858	1	3,671	2	6,121
MK 160 GFCS	3	9,212	1	3,622	2	6,366
SPS 67 RADAR/SPQ-9B	3	18,343	1	9,655	2	18,081
Subtotal		44,491		19,760		36,353
c. Other ORDNANCE						
MISC. ORDNANCE	3	288,543	1	140,166	2	174,103
Subtotal		288,543		140,166		174,103
Total ORDNANCE		1,202,634		536,613		856,896

Notes:
SPS-67 RADAR/SPQ-9B: SPQ-9B capability introduced on third FY13 ship
MK 45 LWG: FY13 and FY14 include savings for one surplus gun asset (each year) which were originally procured for the CG Mod Program but are no longer required because of planned CG 47 Class decommissionings.

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

P-35 EXHIBIT
FY 2015 President's Budget
March 2014

Ship Type: **DDG-51 AEGIS DESTROYERS**
Equipment Item: **AN/SQQ-89(V) COMBAT SYSTEM**
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 2013		FY 2014		FY 2015	
	QTY	COST	QTY	COST	QTY	COST
Major Hardware	3	83,038	1	34,566	2	52,749
Spares		1,386		483		956
System Engineering		11,636		4,403		8,023
Technical Engineering Services		5,744		2,641		4,660
Other Costs		23,099		10,780		18,909
Total		124,903		52,873		85,297

NOTE: Third ship in FY13 and single shipset in FY14 include introduction of Multi-Function Towed Array (MFTA), which was procured for previous DDG 51 Class ships with OPN.

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY13	DDG 51	LOCKHEED MARTIN	FFP	SEP-13		3	27,679
FY14	DDG 51	LOCKHEED MARTIN	FFP	APR-14		1	34,566
FY15	DDG 51	LOCKHEED MARTIN	FFP	JUL-15		2	26,375

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY13	DDG 51	JAN-18	14	24	NOV-14
FY14	DDG 51	JUL-19	14	24	MAY-16
FY15	DDG 51	JUL-20	14	24	MAY-17

V. COMPETITION/SECOND SOURCE INITIATIVES:

Competitive

NOTE:

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

P-35 EXHIBIT
FY 2015 President's Budget
March 2014

Ship Type: **DDG-51 AEGIS DESTROYERS**
Equipment Item: **SLQ-32(V)6 & MK 53 NULKA**
PARM Code:

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

SLQ-32(V)6 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 2013**		**FY 2014**		**FY 2015**	
	QTY	**COST**	**QTY**	**COST**	**QTY**	**COST**
Major Hardware	3	49,031	1	16,789	2	34,110
Spares		2,162		735		1,490
System Engineering		1,050		443		776
Technical Engineering Services		810		352		632
Other Costs		2,539		1,247		2,189
Total		55,592		19,566		39,197

NOTE: FY13 introduces SLQ-32(V)6 with full SEWIP capability.

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY13	DDG 51	LM/GD/CRANE	FFP	APR-14		3	16,344
FY14	DDG 51	LM/GD/CRANE	FFP	JAN-15		1	16,789
FY15	DDG 51	Competitive	FFP	JAN-16		2	17,055

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY13	DDG 51	JAN-18	19	16	FEB-15
FY14	DDG 51	JUL-19	19	16	AUG-16
FY15	DDG 51	JUL-20	19	16	AUG-17

V. COMPETITION/SECOND SOURCE INITIATIVES:

Sole Source/Competitive

NOTE:

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

P-35 EXHIBIT
FY 2015 President's Budget
March 2014

Ship Type: **DDG-51 AEGIS DESTROYERS**
Equipment Item: **AN/USQ 82(V) GEDMS**
PARM Code:

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

Gigabit Ethernet Data Multiplex System (GEDMS) is the mission critical ship-wide network that transfers data associated with Machinery, Steering, Navigation, Combat, Alarms & Indicating, and Damage Control Systems.

It is a general purpose modular data transfer system that provides high speed, reliable and survivable data from source systems to user systems automatically or on demand.

II. CURRENT FUNDING:

P-35 Category	FY 2013		FY 2014		FY 2015	
	QTY	COST	QTY	COST	QTY	COST
Major Hardware	3	20,116	1	7,282	2	14,322
Technical Data and Documentation		1,231		1,232		1,273
System Engineering		2,983		2,998		3,086
Technical Engineering Services		753		274		520
Other Costs		7,698		6,900		7,562
Total		32,781		18,686		26,763

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY13	DDG 51	COMPETITIVE	FFP	JUN-14		3	6,705
FY14	DDG 51	COMPETITIVE	FFP	JUL-15		1	7,282
FY15	DDG 51	COMPETITIVE	FFP	JUL-16		2	7,161

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY13	DDG 51	JAN-18	25	18	JUN-14
FY14	DDG 51	JUL-19	25	18	DEC-15
FY15	DDG 51	JUL-20	25	18	DEC-16

V. COMPETITION/SECOND SOURCE INITIATIVES:

Competitive

NOTE:

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

P-35 EXHIBIT
FY 2015 President's Budget
March 2014

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 2013**		**FY 2014**		**FY 2015**	
	QTY	**COST**	**QTY**	**COST**	**QTY**	**COST**
Major Hardware	3	79,104	1	27,974	2	56,906
Technical Data and Documentation		253		128		227
Spares		615		299		524
System Engineering		6,228		4,999		5,917
Technical Engineering Services		4,862		1,726		3,452
Assembly & Integration		23,047		9,758		16,940
Other Costs		14,015		7,696		11,198
Total		128,124		52,580		95,164

NOTE: Global Broadcase System is on the third FY13 ship and all follow shipsets.

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY13	DDG 51	VARIOUS	VAR	VAR		3	26,368
FY14	DDG 51	VARIOUS	VAR	VAR		1	27,974
FY15	DDG 51	VARIOUS	VAR	VAR		2	28,453

NOTE: There are numerous components and contracts resulting in various award dates.

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY13	DDG 51	JAN-18	15	9	JAN-16
FY14	DDG 51	JUL-19	15	9	JUL-17
FY15	DDG 51	JUL-20	15	9	JUL-18

V. COMPETITION/SECOND SOURCE INITIATIVES:

Numerous contract arrangements (sole source/competitive)

NOTE:

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

P-35 EXHIBIT
FY 2015 President's Budget
March 2014

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 2013		FY 2014		FY 2015	
	QTY	COST	QTY	COST	QTY	COST
Major Hardware	3	77,299	1	27,700	2	62,500
Spares		0		0		0
System Engineering		13,656		6,687		9,454
Technical Engineering Services		10,548		5,375		7,302
Other Costs		2,290		2,265		1,919
Total		103,793		42,027		81,175

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY13	DDG 51	PHILADELPHIA GEAR	FFP	MAR-12		3	25,766
FY14	DDG 51	PHILADELPHIA GEAR	FFP	MAR-14		1	27,700
FY15	DDG 51	PHILADELPHIA GEAR	FFP	MAR-15		2	31,250

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY13	DDG 51	JAN-18	39	23	NOV-12
FY14	DDG 51	JUL-19	39	23	MAY-14
FY15	DDG 51	JUL-20	39	23	MAY-15

V. COMPETITION/SECOND SOURCE INITIATIVES:

COMPETITIVE

NOTE:

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

P-35 EXHIBIT
FY 2015 President's Budget
March 2014

Ship Type: **DDG-51 AEGIS DESTROYERS**
Equipment Item: **AN/STC 3 (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 2013 QTY	FY 2013 COST	FY 2014 QTY	FY 2014 COST	FY 2015 QTY	FY 2015 COST
Major Hardware	3	14,832	1	5,030	2	10,277
Spares		731		247		503
System Engineering		2,532		857		1,746
Technical Engineering Services		645		220		444
Other Costs		3,581		1,168		2,449
Total		22,321		7,522		15,419

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY13	DDG 51	DRS	FFP	SEP-13		3	4,944
FY14	DDG 51	DRS	FFP	JUL-14		1	5,030
FY15	DDG 51	Competitive	FFP	JUL-15		2	5,139

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY13	DDG 51	JAN-18	30	16	MAR-14
FY14	DDG 51	JUL-19	30	16	SEP-15
FY15	DDG 51	JUL-20	30	16	SEP-16

V. COMPETITION/SECOND SOURCE INITIATIVES:

Competitive

NOTE:

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

P-35 EXHIBIT
FY 2015 President's Budget
March 2014

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 2013 QTY	FY 2013 COST	FY 2014 QTY	FY 2014 COST	FY 2015 QTY	FY 2015 COST
Major Hardware	3	410,136	1	140,499	2	279,087
System Integration		96,281		39,004		69,862
Logistics Support		45,443		21,814		34,708
Technical Engineering Services		12,254		12,462		12,674
System Engineering		5,326		5,417		5,509
Other		40,551		42,113		42,918
Total		609,991		261,309		444,758

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY13	DDG 51	LM/ RTN/ GD	FFP	DEC/SEP/JUL-13		3	136,712
FY14	DDG 51	LM/ RTN/ GD	FFP	DEC/SEP/JUL-13		1	140,499
FY15	DDG 51	LM/ RTN/ GD	FFP	DEC/SEP/JUL-13		2	139,544

NOTE: FY13 is the first year of an MYP.

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY13	DDG 51	JAN-18	15	36	OCT-13
FY14	DDG 51	JUL-19	15	36	APR-15
FY15	DDG 51	JUL-20	15	36	APR-16

V. COMPETITION/SECOND SOURCE INITIATIVES:

Multiple contract arrangements (sole source/competitive)

NOTE:

Contract Data Notes:

Antenna and Signal Processors - Contractor: Lockheed Martin

Spy Transmitter and Fire Control System Transmitter - Contractor: Raytheon

Director/Director Controller - General Dynamics

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

P-35 EXHIBIT
FY 2015 President's Budget
March 2014

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 2013**		**FY 2014**		**FY 2015**	
	QTY	**COST**	**QTY**	**COST**	**QTY**	**COST**
Major Hardware	3	108,093	1	39,148	2	73,040
Ancillary Equip.		4,391		1,488		3,028
Tech Data/Doc		776		262		535
Technical Engineering Services		11,996		12,229		12,407
System Engineering		13,009		13,237		13,455
Other Costs		6,536		6,630		6,760
Total		144,801		72,994		109,225

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY13	DDG 51	Competitive	FFP	JUL-14		3	36,031
FY14	DDG 51	Competitive	FFP	JUL-14		1	39,148
FY15	DDG 51	Competitive	FFP	JUL-14		2	36,520

NOTE: FY13 is the first year of an MYP.

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY13	DDG 51	JAN-18	18	24	JUL-14
FY14	DDG 51	JUL-19	18	24	JAN-16
FY15	DDG 51	JUL-20	18	24	JAN-17

V. COMPETITION/SECOND SOURCE INITIATIVES:

Competitive

NOTE:

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

P-35 EXHIBIT
FY 2015 President's Budget
March 2014

Ship Type: **DDG-51 AEGIS DESTROYERS**
Equipment Item: **5" 62 CALIBER MK 45 GUN**
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 2013**		**FY 2014**		**FY 2015**	
	QTY	**COST**	**QTY**	**COST**	**QTY**	**COST**
Major Hardware	3	42,184	1	10,214	2	37,110
Spares		461		156		318
System Engineering		4,930		2,770		4,484
Technical Engineering Services		2,974		1,487		2,408
Other Costs		7,980		3,923		5,809
Total		58,529		18,550		50,129

NOTE: FY13 and FY14 include savings for one surplus gun (each year) which were originally procured for the CG Mod Program but are no longer required because of planned CG 47 Class decommissionings.

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY13	DDG 51	BAE AD/MCNALLY	CPFF/IDIQ	APR-14		3	14,061
FY14	DDG 51	BAE AD/MCNALLY	CPFF/IDIQ	APR-14		1	10,214
FY15	DDG 51	BAE AD/MCNALLY	CPFF/IDIQ	JAN-15		2	18,555

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY13	DDG 51	JAN-18	18	24	JUL-14
FY14	DDG 51	JUL-19	18	24	JAN-16
FY15	DDG 51	JUL-20	18	24	JAN-17

V. COMPETITION/SECOND SOURCE INITIATIVES:

Sole Source

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 2015 President's Budget
March 2014

Ship Type: **DDG-51 AEGIS DESTROYERS**
Equipment Item: **TOMAHAWK (TTWCS)**
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 2013		FY 2014		FY 2015	
	QTY	COST	QTY	COST	QTY	COST
Major Hardware	3	12,293	1	4,689	2	8,476
Spares		1,893		677		1,378
System Engineering		5,220		3,418		4,289
Technical Engineering Services		5,101		3,124		4,073
Other Costs		8,770		4,121		8,166
Total		33,277		16,029		26,382

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY13	DDG 51	NSWC PT HUENEME	CPFF	APR-14		3	4,098
FY14	DDG 51	NSWC PT HUENEME	CPFF	APR-15		1	4,689
FY15	DDG 51	NSWC PT HUENEME	CPFF	APR-16		2	4,238

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY13	DDG 51	JAN-18	19	8	OCT-15
FY14	DDG 51	JUL-19	19	8	APR-17
FY15	DDG 51	JUL-20	19	8	APR-18

V. COMPETITION/SECOND SOURCE INITIATIVES:

Navy construction

NOTE:

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

P-35 EXHIBIT
FY 2015 President's Budget
March 2014

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 2013 QTY	FY 2013 COST	FY 2014 QTY	FY 2014 COST	FY 2015 QTY	FY 2015 COST
Major Hardware	3	17,044	1	5,799	2	11,804
System Engineering		1,164		395		802
Technical Engineering Services		2,079		706		1,434
Other Costs		2,715		905		1,906
Total		23,002		7,805		15,946

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY13	DDG 51	RAYTHEON	FFP	SEP-13		3	5,681
FY14	DDG 51	RAYTHEON	FFP	MAR-14		1	5,799
FY15	DDG 51	RAYTHEON	FFP	JAN-15		2	5,902

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY13	DDG 51	JAN-18	25	22	FEB-14
FY14	DDG 51	JUL-19	25	22	AUG-15
FY15	DDG 51	JUL-20	25	22	AUG-16

V. COMPETITION/SECOND SOURCE INITIATIVES:

Sole Source

NOTE:

INTENTIONALLY
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CLASSIFICATION:	UNCLASSIFIED											
Exhibit P-10, Advance Procurement Requirements Analysis (Funding)							Date: **March 2014**					
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	FY13	FY14	FY15	FY16	FY17	FY18	FY 19	To Complete	Total
ADVANCE PLANNING (1)			**59.7**			**134.0**						**193.8**
PRODUCTION ENGINEERING (2)			**27.6**									**27.6**
SHIPBUILDER CLASS STANDARD EQUIPMENT (3)			**362.2**									**362.2**
CRP Propeller (3)	25	VAR	18.9									18.9
Crane Handling System (3)	28	Jan-13	2.3									2.3
400HZ Frequency Changers (3)	24	Jan-13	25.1									25.1
Ship Service Gas Turbine Generators (SSGTG) (3)	26	VAR	83.4									83.4
Propulsion Shafting (3)	24	VAR	23.7									23.7
Commodities (3)	VAR	VAR	39.1									39.1
LM2500 (3)	20	VAR	109.7									109.7
Fuel Oil Purifier (3)	17	Oct-12	2.7									2.7
Centrifugal Fans (3)	12	Jul-12	0.3									0.3
Navy Standard Fans (3)	12	Jul-12	2.3									2.3
Steering System (3)	20	Nov-12	37.6									37.6
Non-CFC A/C Plants (3)			10.1									10.1
60HZ Main Switchboard (3)			6.9									6.9
OTHER SHIPBUILDING MATERIAL (4)	VAR	VAR	**36.5**									**36.5**
SHIP CONSTRUCTION EOQ (5)	VAR	VAR		**229.7**	**158.8**							**388.5**
GFE - ELECTRONICS (6)			**44.4**	**4.3**								**48.8**
IFF (OE-120A Antenna) (6)	20	VAR	7.8									7.8
SLQ-32 (6)	VAR	VAR	1.3									1.3
C&D Peripheral (6)	12	VAR	2.5									2.5
SRQ-4 (6)	12	Jun-13	1.1									1.1
Tubes (6)			1.0									1.0
JTT (6)	12	Aug-12	0.6									0.6
MIDS (6)	24	Aug-12	2.5									2.5
EXCOMM Equipment (6)	VAR	VAR	27.7									27.7
CBSP (6)	VAR	VAR		4.3								4.3
GFE - ORDNANCE (7)			**339.0**	**231.6**	**210.7**			**119.1**	**104.1**			**1,004.6**
AEGIS Weapon System (7)	36	VAR	234.5	231.6				119.1				585.2
Tomahawk (7)	3	VAR	1.3									1.3
Vertical Launch System (VLS) (7)	24	VAR	97.6		210.7				104.1			412.5
GFCS (MK 160) (7)	12	Jan-13	0.1									0.1
AN/SPQ-15 DDS (7)	18	Mar-13	3.3									3.3
SVTT (7)	12	Aug-12	2.3									2.3
COMBAT SYSTEM ENGINEERING (8)			**16.0**									**16.0**
GFE - Hull, Mechanical and Electrical (H,M,&E) (9)			**156.6**									**156.6**
WSN-7 (9)	15	Dec-12	3.9									3.9
Engine Controller (9)	26	Nov-12	4.3									4.3
Repair Station Console (9)	18	VAR	1.5									1.5
Digital Video Surveillance System (9)	24	VAR	1.1									1.1
Main Reduction Gear (9)	24	VAR	128.0									128.0
Machinery Control System (9)	24	Jan-13	9.6									9.6
Integrated Bridge Navigation System (9)	18	Dec-12	8.2									8.2
Total AP			**1,042.1**	**465.7**	**369.6**	**134.0**	**0.0**	**119.1**	**104.1**	**0.0**		**2,234.6**

Description:

(1) Advance Planning FY15 AP is required to support detail design effort for Flight III ships.

(2) Production Engineering Production Engineering AP required to fund Ingalls 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 required to satisfy in-yard need dates for ship production.

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

(5) Ship Construction EOQ Ship Construction EOQ AP is required for Economic Order Quantity procurements of shipbuilder large lot material items to achieve savings under the FY13-17 MYP contract.

(6) GFE - Electronics FY09-FY12 AP required to satisfy in-yard need dates for FY10-13 ship production and FY13 AP is for EOQ to support FY13-17 MYP (CBSP).

(7) GFE - Ordnance FY07 & FY09-FY12 AP required to satisfy in-yard need dates for FY10-13 ship production and FY13 (AWS) & FY14 (VLS) AP is for EOQ to support FY13-17 MYP.

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

(9) GFE Hull, Mechanical and Electrical (H,M,&E) GFE Hull, Mechanical and Electrical (H,M,&E) AP required to satisfy in-yard need dates for ship production.

CLASSIFICATION:	UNCLASSIFIED								
Exhibit P-10, Advance Procurement Requirements Analysis (Budget Justification)								Date: **March 2014**	
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)				**FY14**			**FY15**		
	PLT	QPA	Unit Cost	Qty	Contract Forecast Date	Total Cost Request	Qty	Contract Forecast Date	Total Cost Request
ADVANCE PLANNING (1)								May-15	**134.0**
SHIP CONSTRUCTION EOQ (2)	VAR	VAR		4 shipsets	Mar-14	**158.8**			
GFE - ORDNANCE (3)						**210.7**			
Vertical Launch System (VLS) (3)	24	VAR		6 shipsets	Jul-14	210.7			
Total Advance Procurement						**369.6**			**134.0**

Description:

(1) Advance Planning AP is required to support detail design effort for Flight III ships.
(2) Ship Construction EOQ Ship Construction EOQ AP is required for Economic Order Quantity procurements of shipbuilder large lot material items to achieve savings under the FY13-17 MYP contract.
(3) GFE - Ordnance GFE Ordnance AP is for EOQ to support FY13-17 MYP (VLS).

CLASSIFICATION: UNCLASSIFIED

BUDGET ITEM JUSTIFICATION SHEET (P-40)
FY 2015 President's Budget

DATE: March 2014

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

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

(Dollars in Millions)	PRIOR YR	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	TO COMP	TOTAL PROG
QUANTITY	10	4	4	3	3	3	3	2	18	50
End Cost	5,437.2	1,821.0	1,793.0	1,427.1	1,423.3	1,470.0	1,504.1	1,067.2	10,691.3	26,634.2
Less Advance Procurement	78.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	78.9
Less Cost to Complete	175.7	82.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	257.7
Full Funding TOA	5,182.6	1,739.0	1,793.0	1,427.1	1,423.3	1,470.0	1,504.1	1,067.2	10,691.3	26,297.6
Plus Advance Procurement	78.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	78.9
Plus Cost to Complete	0.0	0.0	0.0	93.0	82.7	82.0	0.0	0.0	0.0	257.7
Total Obligational Authority	5,261.5	1,739.0	1,793.0	1,520.1	1,506.0	1,552.0	1,504.1	1,067.2	10,691.3	26,634.2
Plus Outfitting / Plus Post Delivery	33.4	50.1	68.2	118.3	164.5	204.0	206.0	209.8	1,647.6	2,701.8
Total	5,294.9	1,789.1	1,861.2	1,638.4	1,670.5	1,756.0	1,710.1	1,277.0	12,338.9	29,336.0
Unit Cost (Ave. End Cost)	543.7	455.3	448.3	475.7	474.4	490.0	501.4	533.6	594.0	532.7

MISSION:

Provides for the design, construction, integration and testing of the Littoral Combat Ship (LCS), including Ordnance, Government Furnished Equipment (GFE), and includes Program Office and change order costs. LCS is 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 uses 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 operates with focused-mission packages that deploy manned and unmanned vehicles to execute a variety of missions, including littoral anti-submarine warfare (ASW), surface warfare (SUW), and mine countermeasures (MCM). LCS also possesses 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 can 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 is 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 can operate cooperatively with the U.S. Coast Guard and Allies.

Characteristics	LM	AUSTAL
Overall Length:	115.3m	127.6m
Max Beam:	17.5m	31.6m
Displacement	3089 mt	2842 mt

Production Status:	FY13 LCS 13	FY13 LCS 14	FY13 LCS 15	FY13 LCS 16	FY 14 LCS 17	FY 14 LCS 18	FY 14 LCS 19	FY 14 LCS 20	FY15 LCS 21	FY15 LCS 22	FY15 LCS 23
Contract Award Date	3/13	3/13	3/13	3/13	3/14	3/14	3/14	3/14	3/15	3/15	3/15
Months to Completion											
a) Contract Award to Delivery	47 months	46 months	53 months	52 months	47 months	46 months	53 months	52 months	47 months	46 months	53 months
b) Construction Start to Delivery	36 months	34 months	35 months	35 months	35 months	36 months	36 months	36 months	35 months	36 months	36 months
Delivery Date	1/17	12/16	7/17	6/17	1/18	12/17	7/18	6/18	1/19	12/18	7/19
Completion of Fitting Out	03/17	2/17	9/17	8/17	3/18	2/18	9/18	8/18	3/19	2/19	9/19
Obligation Work Limiting Date	02/18	1/18	8/18	7/18	2/19	1/19	8/19	7/19	2/20	1/20	8/20

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

BUDGET ACTIVITY: 2	**P-1 LINE ITEM NOMENCLATURE**	**SUBHEAD NO. BLI: 2127**
Other Warships	**LITTORAL COMBAT SHIP (LCS)**	

	FY 2010		**FY 2011**		**FY 2012**	
ELEMENT OF COST	**QTY**	**COST**	**QTY**	**COST**	**QTY**	**COST**
PLAN COSTS	2	22,774	2	86,488	4	74,504
BASIC CONST/CONVERSION		969,541		811,229		1,539,580
CHANGE ORDERS		34,212		31,085		60,991
ELECTRONICS		26,992		27,245		55,417
HM&E		5,908		6,806		13,843
OTHER COST		1,000		166,942		76,927
ORDNANCE		17,056		17,300		33,695
TOTAL SHIP ESTIMATE		1,077,483		1,147,095		1,854,957
LESS ADVANCE PROCUREMENT FY11						78,949
LESS COST TO COMPLETE FY15		51,345		41,700		
LESS COST TO COMPLETE FY16						82,674
NET P-1 LINE ITEM:		1,026,138		1,105,395		1,693,334

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

BUDGET ACTIVITY: 2	**P-1 LINE ITEM NOMENCLATURE**	**SUBHEAD NO. BLI: 2127**
Other Warships	**LITTORAL COMBAT SHIP (LCS)**	

	FY 2013		**FY 2014**		**FY 2015**	
ELEMENT OF COST	**QTY**	**COST**	**QTY**	**COST**	**QTY**	**COST**
PLAN COSTS	4	81,025	4	84,706	3	86,146
BASIC CONST/CONVERSION		1,504,112		1,456,992		1,137,189
CHANGE ORDERS		64,438		72,896		47,383
ELECTRONICS		56,350		57,308		44,652
HM&E		14,078		14,318		11,041
OTHER COST		67,038		69,035		71,469
ORDNANCE		33,996		37,759		29,169
TOTAL SHIP ESTIMATE		1,821,037		1,793,014		1,427,049
LESS COST TO COMPLETE FY17		82,000				
NET P-1 LINE ITEM:		1,739,037		1,793,014		1,427,049

SHIPBUILDING AND CONVERSION, NAVY

FY 2015 President's Budget

Analysis of Ship Cost Estimate - Basic/Escalation

DATE:

Ship Type: LITTORAL COMBAT SHIP

March 2014

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	07/03	12/03	N/A	N/A
Contract Design	05/04	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	N/A	N/A
Design Agent	LOCKHEED MARTIN - AUSTAL	LOCKHEED MARTIN - AUSTAL	N/A	N/A

II. Classification of Cost Estimate CLASS C

III. Basic Construction/Conversion	2009	2010	2011	2012	2013	2014	2015
A. Actual Award Date	03/09, 05/09	12/10	03/11	03/12	03/13	03/14	03/15
B. Contract Type (and Share Line if applicable)	FPI	FPI	FPI	FPI	FPI	FPI	FPI
C. SHARELINE	VARIES	50/50	50/50	50/50	50/50	50/50	50/50

IV. Escalation

Escalation Termination Date

Escalation Requirement

Labor/Material Split

Allowable Overhead Rate

V. Other Basic(Reserves/Miscellaneous)	Amount

SHIP TYPE	HULL NUMBER	SHIPBUILDER	FISCAL YEAR AUTHORIZED	CONTRACT AWARD	START OF CONSTRUCTION	DELIVERY DATE
LCS	5	LOCKHEED MARTIN	10	DEC-10	AUG-11	JAN-15
LCS	6	AUSTAL	10	DEC-10	AUG-11	DEC-14
LCS	7	LOCKHEED MARTIN	11	MAR-11	APR-12	AUG-15
LCS	8	AUSTAL	11	MAR-11	JUL-12	AUG-15
LCS	9	LOCKHEED MARTIN	12	MAR-12	JAN-13	FEB-16
LCS	10	AUSTAL	12	MAR-12	MAR-13	FEB-16
LCS	11	LOCKHEED MARTIN	12	MAR-12	AUG-13	AUG-16
LCS	12	AUSTAL	12	MAR-12	SEP-13	JUL-16
LCS	13	LOCKHEED MARTIN	13	MAR-13	FEB-14	JAN-17
LCS	14	AUSTAL	13	MAR-13	MAR-14	DEC-16
LCS	15	LOCKHEED MARTIN	13	MAR-13	SEP-14	JUL-17
LCS	16	AUSTAL	13	MAR-13	AUG-14	JUN-17
LCS	17	LOCKHEED MARTIN	14	MAR-14	MAR-15	JAN-18
LCS	18	AUSTAL	14	MAR-14	JAN-15	DEC-17
LCS	19	LOCKHEED MARTIN	14	MAR-14	AUG-15	JUL-18
LCS	20	AUSTAL	14	MAR-14	JUL-15	JUN-18
LCS	21	LOCKHEED MARTIN	15	MAR-15	MAR-16	JAN-19
LCS	22	AUSTAL	15	MAR-15	JAN-16	DEC-18
LCS	23	TBD	15	MAR-15	AUG-16	JUL-19
LCS	24	TBD	16	MAR-16	AUG-16	JUL-19
LCS	25	TBD	16	MAR-16	FEB-17	JAN-20
LCS	26	TBD	16	MAR-16	FEB-17	JAN-20
LCS	27	TBD	17	MAR-17	FEB-18	JAN-21
LCS	28	TBD	17	MAR-17	FEB-18	JAN-21
LCS	29	TBD	17	MAR-17	AUG-18	JUL-21
LCS	30	TBD	18	MAR-18	FEB-19	JAN-22
LCS	31	TBD	18	MAR-18	FEB-19	JAN-22
LCS	32	TBD	18	MAR-18	AUG-19	JUL-22
LCS	33	TBD	19	MAR-19	FEB-20	JAN-23
LCS	34	TBD	19	MAR-19	FEB-20	JAN-23

SHIPBUILDING AND CONVERSION, NAVY

Analysis of Ship Cost Estimates - Major Equipment

(Dollars in Thousands)

Ship Type: LITTORAL COMBAT SHIP	FY 2013		FY 2014		FY 2015	
	QTY	COST	QTY	COST	QTY	COST
ELECTRONICS						
a. P-35 Items						
AN/WSC-6E(V)9 SUPER HIGH FREQUENCY (SHF) DUAL TERMINAL/NAVY MULTIBAND TERMINAL(NMT)	4	15,140	4	15,397	3	11,894
Subtotal		15,140		15,397		11,894
b. Major Items						
ELECTRONIC KEY MANAGEMENT SYSTEM (EKMS)/CRYPTO SYSTEM	4	2,229	4	2,267	3	1,751
COMMON DATA LINK MANAGEMENT SYSTEM (CDLMS)	2	1,958	2	1,992	2	2,052
AN/URC-141 (C) MIDS ON SHIP (MOS)	4	10,171	4	10,344	3	7,991
AN/USQ-172(V)5 GLOBAL COMMAND AND CONTROL SYSTEM - MARITIME (GCCS-M)	4	2,786	4	2,833	3	2,189
DS- LOGISTICS MAINTENANCE AUTOMATED INFO SYSTEM - BAR CODE SUPPLY (BCS) NAVY TACTICAL COMMAND SPT SYS (NTCSS)	4	1,556	4	1,582	3	1,222
MULTI-VEHICLE COMMUNICATION SYSTEM (MVCS)	4	6,770	4	6,885	3	5,319
AN/USQ-144J(V)2 AUTOMATED DIGITAL NETWORK SYSTEM (ADNS)	4	2,389	4	2,430	3	1,877
Subtotal		27,859		28,333		22,401
c. Other ELECTRONICS						
OTHER ELECTRONICS	4	13,351	4	13,578	3	10,357
Subtotal		13,351		13,578		10,357
Total ELECTRONICS		56,350		57,308		44,652

SHIPBUILDING AND CONVERSION, NAVY

Analysis of Ship Cost Estimates - Major Equipment

(Dollars in Thousands)

Ship Type: LITTORAL COMBAT SHIP	FY 2013		FY 2014		FY 2015	
	QTY	COST	QTY	COST	QTY	COST
ORDNANCE						
a. P-35 Items						
RAM	2	13,542				
SEARAM	2	17,931	4	35,192	3	27,186
Subtotal		31,473		35,192		27,186
b. Major Items						
ORDNANCE HANDLING EQUIPMENT	4	1,607	4	1,634	3	1,262
SMALL ARMS, MACHINE GUNS	4	916	4	933	3	721
Subtotal		2,523		2,567		1,983
c. Other ORDNANCE						
Subtotal						
Total ORDNANCE		33,996		37,759		29,169

SHIPBUILDING AND CONVERSION, NAVY

Analysis of Ship Cost Estimates - Major Equipment

(Dollars in Thousands)

Ship Type: LITTORAL COMBAT SHIP	FY 2013		FY 2014		FY 2015	
	QTY	COST	QTY	COST	QTY	COST
HM&E						
a. P-35 Items						
Subtotal						
b. Major Items						
JOINT BIOLOGICAL POINT DETECTION SYSTEM (JBPDS)	4	578	4	588	3	455
AN/SRC-59 SHIPWIDE INTERIOR WIRELESS COMMUNICATION SYSTEM (SIWCS)	4	2,241	4	2,279	3	1,761
TRASH DISPOSAL - SMALL PULPER	4	644	4	655	3	506
VISUAL LANDING AIDS (VLA)	4	8,553	4	8,699	3	6,720
Subtotal		12,016		12,221		9,442
c. Other HM&E						
OTHER HM&E	4	2,062	4	2,097	3	1,599
Subtotal		2,062		2,097		1,599
Total HM&E		14,078		14,318		11,041

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

P-35 EXHIBIT
FY 2015 President's Budget
March 2014

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

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

The AN/WSC-6E(V)9 Super High Frequency (SHF) / Navy Multiband Terminal (NMT) 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 2013		FY 2014		FY 2015	
	QTY	COST	QTY	COST	QTY	COST
Major Hardware	4	10,789	4	13,865	3	10,476
Systems Engineering		907		185		189
Engr/ILS/Mgmt Spt		224		231		236
Technical Support Services		2,434		803		818
Spares		305		107		0
Program Management		481		206		175
Schedule B Services		0		0		0
Total		15,140		15,397		11,894

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY13	LCS 13/14/15/16	HARRIS	SS/FFP	APR-13	OPTION	4	2,697
FY14	LCS 17/18/19/20	TBD	SS/FFP	TBD	NEW	4	3,466
FY15	LCS 21/22/23	TBD	SS/FFP	TBD	OPTION	3	3,492

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY13	LCS 13/14/15/16	DEC-16	21	14	JAN-14
FY14	LCS 17/18/19/20	DEC-17	21	14	JAN-15
FY15	LCS 21/22/23	DEC-18	21	14	JAN-16

V. COMPETITION/SECOND SOURCE INITIATIVES:

NOTE:

LCS program will transition to Navy Multiband Terminal (NMT) beginning on FY 2014 Ships.

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

P-35 EXHIBIT
FY 2015 President's Budget
March 2014

Ship Type: **LITTORAL COMBAT SHIP**
Equipment Item: **RAM**
PARM Code: **3P/3D**

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

The RAM program is designed to provide surface ships with an effective, low-cost, lightweight, self-defense system which will provide an improved capability to engage and defeat incoming antiship cruise missiles (ASCMs). RAM is on the Lockheed Martin Variant.

II. CURRENT FUNDING:

P-35 Category	**FY 2013**	
	QTY	**COST**
Major Hardware	2	8,986
System Engineering		1,422
Integrated Logistics Support		1,254
Technical Data and Documentation		642
Technical Engineering Services		776
Spares		116
Program Management		346
Total		13,542

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY13	LCS 13/15	RAYTHEON	SS/FFP	JAN-13	NEW	2	4,493

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY13	LCS 13/15	DEC-16	20	22	JUN-13

V. COMPETITION/SECOND SOURCE INITIATIVES:

NOTE:

Refurbished assets used for FY13 hardware award. LCS program will transition to SeaRAM beginning on FY 2014 Ships.

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

P-35 EXHIBIT
FY 2015 President's Budget
March 2014

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

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

SeaRAM is an Anti-Ship Missile Defense System and is an evolved Close-In Weapon System (CIWS) comprised of key attributes of both the existing Phalanx CIWS and the RAM. SeaRAM is designed to extend the battle space of the CIWS and enable the ship to effectively engage multiple targets.

II. CURRENT FUNDING:

P-35 Category	FY 2013		FY 2014		FY 2015	
	QTY	COST	QTY	COST	QTY	COST
Major Hardware	2	15,269	4	29,972	3	23,059
Software		92		181		143
System Engineering		654		1,283		1,013
Test & Evaluation		555		1,090		863
Technical Data and Documentation		88		174		138
Technical Engineering Services		933		1,824		1,442
Program Management		340		668		528
Total		17,931		35,192		27,186

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY13	LCS 14/16	RAYTHEON	SS/FFP	JUL-13	NEW	2	7,634
FY14	LCS 17/18/19/20	RAYTHEON	SS/FFP	DEC-13	OPTION	4	7,493
FY15	LCS 21/22/23	RAYTHEON	SS/FFP	DEC-14	NEW	3	7,686

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY13	LCS 14/16	DEC-16	13	22	JAN-14
FY14	LCS 17/18/19/20	DEC-17	13	22	JAN-15
FY15	LCS 21/22/23	DEC-18	13	22	JAN-16

V. COMPETITION/SECOND SOURCE INITIATIVES:

NOTE:

LCS program will transition to SeaRAM beginning on FY 2014 Ships for both variants.

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CLASSIFICATION: UNCLASSIFIED

BUDGET ITEM JUSTIFICATION SHEET (P-40)
FY2015 PB CYCLE

DATE: March 2014

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 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	TO COMP	TOTAL PROG
QUANTITY	11	0	0	0	0	0	0	0	0	11
End Cost	17,729.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	17,729.7
Less Advance Procurement	1,393.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1,393.0
Less Cost to Complete	1,982.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1,982.9
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	1,623.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1,623.3
Less Subsequent Year FF	869.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	869.4
Less Program Closeout/Support	67.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	67.4
Plus Program Closeout/Support	0.0	0.0	0.0	12.6	34.1	20.8	0.0	0.0	0.0	67.4
Plus Subsequent Year FF	869.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	869.4
Full Funding TOA	12,412.1	0.0	0.0	12.6	34.1	20.8	0.0	0.0	0.0	12,479.5
Plus Advance Procurement	1,393.0	243.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1,636.0
Plus Cost to Complete	1,809.3	80.8	0.0	54.1	38.7	0.0	0.0	0.0	0.0	1,982.9
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	1,623.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1,623.3
Total Obligational Authority	17,488.7	323.8	0.0	66.7	72.8	20.8	0.0	0.0	0.0	17,972.7
Plus Outfitting / Plus Post Delivery	725.5	66.2	52.6	23.5	66.4	31.5	30.7	7.8	0.0	1,004.2
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	18,242.6	390.0	52.6	90.2	139.2	52.3	30.7	7.8	0.0	19,005.2
Unit Cost (Ave. End Cost)	1,611.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1,611.8

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.

Notes: Program closeout funding of $67.451M is included in full funding for FY15 - FY17. Program closeout includes maintaining ships documentation for design changes; conducting all governement responsible certification, inspections and testing of LPD 26 & 27's combat systems from light-off to sailaway; and funding production shutdown costs for the Shipbuilder and Government Furnished Equipment production lines. Also, $263.3M less sequestration reduction of $19.9M was appropriated in FY13 for a 12th LPD.

CHARACTERISTICS:

Hull		
Length overall	208.5 M	(684')
Beam	31.9 M	(105')
Displacement	25.3 LMT	(24.9KLT)
Draft	7.0 M	(23')

ARMAMENT
RAM
AN/SPS-48G
SPQ-9B
MK 46 Gun
50 Cal Machine

ELECTRONICS
Mission Systems
C4ISR
SSDS
CEC
MK 12 AIMS IFF
AN/SLQ-32
BFTT
AN/WSN-7

PRODUCTION STATUS:	FY 2012
	LPD 27
Contract Award	7/12
Months to Completion	
a) Award to Delivery	61 months
b) Const. Start to Delivery	60 months
Delivery Date	7/17
Completion of Fitting Out	1/18
Obligation Work Limiting Date	12/18

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 2009		**FY 2012**	
ELEMENT OF COST	**QTY**	**COST**	**QTY**	**COST**
PLAN COSTS	1		1	
BASIC CONST/CONVERSION		1,614,033		1,560,916
CHANGE ORDERS		22,274		36,721
ELECTRONICS		197,321		285,085
HM&E		16,756		58,836
OTHER COST		5,000		9,020
ORDNANCE		48,186		70,852
PROGRAM CLOSEOUT/SUPPORT				67,419
TOTAL SHIP ESTIMATE		1,903,570		2,088,849
LESS ADVANCE PROCUREMENT FY07				
LESS ADVANCE PROCUREMENT FY08		49,651		
LESS ADVANCE PROCUREMENT FY10				183,986
LESS SUBSEQUENT FULL FUNDING FY10		869,394		
LESS COST TO COMPLETE FY10				
LESS COST TO COMPLETE FY12				
LESS COST TO COMPLETE FY13				
LESS COST TO COMPLETE FY15		54,096		
LESS COST TO COMPLETE FY16				38,733
LESS PROGRAM CLOSEOUT/SUPPORT FY15				12,565
LESS PROGRAM CLOSEOUT/SUPPORT FY16				34,054
LESS PROGRAM CLOSEOUT/SUPPORT FY17				20,800
NET P-1 LINE ITEM		930,429		1,798,711

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	FY08 (001)	FY 09 (001)	FY 12 (001)
	A. Actual Award Date	DEC 2007	APR 2011	JUL 2012
	B. Contract Type (and Share Line if applicable)	FPIF/AF	FPIF/AF	FPIF/AF
	C. RFP Response Date	JUN 2006	MAR 2010	AUG 2010

IV.	Escalation			
	Escalation Termination Date			
	Escalation Requirement			
	Labor/Material Split			
	Allowable Overhead Rate			
		FORWARD	FORWARD	FORWARD
	BASE DATE	PRICED	PRICED	PRICED

V.	Other Basic(Reserves/Miscellaneous)	Amount

SHIPBUILDING AND CONVERSION, NAVY
SHIP PRODUCTION SCHEDULE

EXHIBIT P-27
FY2015 PB CYCLE
March 2014

SHIP TYPE	HULL NUMBER	SHIPBUILDER	FISCAL YEAR AUTHORIZED	CONTRACT AWARD	START OF CONSTRUCTION	DELIVERY DATE
LPD	26	HUNTINGTON INGALLS INDUSTRIES	09	Apr-11	May-11	May-16
LPD	27	HUNTINGTON INGALLS INDUSTRIES	12	Jul-12	Aug-12	Jul-17

CLASSIFICATION: UNCLASSIFIED

BUDGET ITEM JUSTIFICATION SHEET (P-40)
FY 2015 President's Budget

DATE: March 2014

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

P-1 LINE ITEM NOMENCLATURE
AFLOAT FORWARD STAGING BASE (AFSB)
BLI: 3039 / SUBHEAD NO.

(Dollars in Millions)	PRIOR YR	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	TO COMP	TOTAL PROG
QUANTITY	3	0	1	0	0	1	0	0	0	5
End Cost	1,538.6	0.0	579.3	0.0	0.0	613.0	0.0	0.0	0.0	2,730.9
Less Advance Procurement	179.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	179.7
Less Subsequent Year FF	162.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	162.9
Full Funding TOA	1,196.0	0.0	579.3	0.0	0.0	613.0	0.0	0.0	0.0	2,388.3
Plus Advance Procurement	179.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	179.7
Plus Subsequent Year FF	0.0	140.3	22.6	0.0	0.0	0.0	0.0	0.0	0.0	162.9
Total Obligational Authority	1,375.7	140.3	601.9	0.0	0.0	613.0	0.0	0.0	0.0	2,730.9
Plus Outfitting / Plus Post Delivery	24.2	32.0	33.3	21.6	35.6	16.5	5.8	0.0	0.0	169.0
Total	1,399.9	172.3	635.2	21.6	35.6	629.5	5.8	0.0	0.0	2,899.9
Unit Cost (Ave. End Cost)	512.9	0.0	579.3	0.0	0.0	613.0	0.0	0.0	0.0	546.2

MISSION:

The MLP AFSB variant will serve as a dedicated naval Afloat Forward Staging Base, optimized to support naval assets in a variety of missions rather than independently modifying ships-of-opportunity as required to meet these roles.
The MLP AFSB variant retains sealift capabilities inherent to the MLP Class through cargo transportation and distribution, but provides enhanced aviation, berthing, small boat handling, and command and control capabilities to meet a broader mission set. The MLP AFSB variant provides the Combatant Commanders flexibility to respond to immediate threats and host task organized forces, including Airborne Mine Countermeasures and Special Forces to confront irregular challenges and counter-terrorism. This includes enhanced logistics and UNREP capability (receive only) and C4I capability to support future missions.

Note:
1) As of FY 2015 all remaining National Defense Sealift Fund (NDSF) MLP procurement funding is moved to SCN.
2) FY 14 and Prior funding for MLP 1, MLP 2, and MLP 3 AFSB executed in NDSF. MLP 4 AFSB executed in SCN in FY14.

Characteristics:		Armament:	Major Electronics:
		N/A	C4ISR
Hull	Nominal Requirements		
Length overall	255.0m		
Beam	50.0m		
Displacement	28879 metric tons		
Draft	9.1m		

	FY11	FY12	FY14
Production Status	MLP 2	MLP 3 AFSB	MLP 4 AFSB
Contract Award Date	5/11	2/12	4/14
Months to Completion			
a) Construction Award to Delivery	34 months	43 months	35 months
b) Construction Start to Delivery	23 months	31 months	21 months
Delivery Date	3/14	9/15	3/17
Completion of Fitting Out	6/14	12/15	6/17

WEAPON SYSTEM COST ANALYSIS (EXHIBIT P-5)

(Dollars in Thousands)

BUDGET ACTIVITY: 3	**P-1 LINE ITEM NOMENCLATURE**	**SUBHEAD NO. BLI: 3039**
Amphibious Ships	**AFLOAT FORWARD STAGING BASE (AFSB)**	

	FY 2011		**FY 2012**		**FY 2014**	
ELEMENT OF COST	**QTY**	**COST**	**QTY**	**COST**	**QTY**	**COST**
PLAN COSTS	2	44,111	1	14,000	1	
BASIC CONST/CONVERSION		807,867		543,931		536,300
CHANGE ORDERS		5,890		4,000		5,000
ELECTRONICS		14,000		24,000		24,000
HM&E		48,448		18,166		11,000
OTHER COST		9,386		4,834		3,000
TOTAL SHIP ESTIMATE		929,702		608,931		579,300
LESS ADVANCE PROCUREMENT FY10		119,702				
LESS ADVANCE PROCUREMENT FY11				60,000		
LESS SUSEQUENT FUNDING FY14				22,617		
LESS SUBSEQUENT FUNDING FY13				140,314		
NET P-1 LINE ITEM:		810,000		386,000		579,300

NOTE:
FY 2011 and FY 2012 Funded in NDSF

SHIPBUILDING AND CONVERSION, NAVY

Analysis of Ship Cost Estimate - Basic/Escalation

Ship Type:

I.	Design/Schedule	Start/Issue	Complete /Response	Reissue	Complete /Response
	Issue date for TLR				
	Issue date for TLS				
	Preliminary Design	SEP 2009	DEC 2009		
	Contract Design	DEC 2009	AUG 2010		
	Detail Design	AUG 2010	NOV 2011		
	Request for Proposals				
	Design Agent				

II.	**Classification of Cost Estimate**	BUDGET QUALITY CLASS		
III.	**Basic Construction/Conversion**	FY11, MLP 2	FY12, MLP 3 AFSB	FY14, MLP 4 AFSB
	A. Actual Award Date	MAY 2011	FEB 2012	APR 2014
	B. Contract Type (and Share Line if applicable)	FPI, 20/80 BELOW TARGET: 50/50 ABOVE TARGET	FPI, 20/80 BELOW TARGET: 50/50 ABOVE TARGET	FPI, 20/80 BELOW TARGET: 50/50 ABOVE TARGET
IV.	**Escalation**			
	Escalation Termination Date			
	Escalation Requirement			
	Labor/Material Split			
	Allowable Overhead Rate			

V.	Other Basic(Reserves/Miscellaneous)	Amount

SHIP TYPE	HULL NUMBER	SHIPBUILDER	FISCAL YEAR AUTHORIZED	CONTRACT AWARD	START OF CONSTRUCTION	DELIVERY DATE
MPF MLP 2	1102	NASSCO	11	MAY-11	APR-12	MAR-14
MLP 3 AFSB	1201	NASSCO	12	FEB-12	FEB-13	SEP-15
MLP 4 AFSB	1401	NASSCO	14	JAN-14	JUN-15	MAR-17
MLP 5 AFSB	1701	NASSCO	17	MAR-17	JUN-18	MAR-20

NOTE:

MLP 2 and MLP 3 Funded in NDSF

SHIPBUILDING AND CONVERSION, NAVY

Analysis of Ship Cost Estimates - Major Equipment

(Dollars in Thousands)

Ship Type: MLP 4 AFSB

	FY 2014	
	QTY	**COST**
ELECTRONICS		
a. P-35 Items		
C4ISR	1	21,000
AVIATION ELECTRONICS	1	3,000
Subtotal		24,000
b. Major Items		
Subtotal		
c. Other ELECTRONICS		
Subtotal		
Total ELECTRONICS		24,000

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

P-35 EXHIBIT
FY 2015 President's Budget
March 2014

Ship Type: **MLP 4 AFSB**
Equipment Item: **C4ISR**
PARM Code:

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

C4ISR items consist of equipment which is in a containerized environment for secure storage and operation of ship's C2 equipment (Next Generation Wideband Communications, SMIS, (classified and unclassified networks). Additional cryptographic equipment above the equipment provided with SMIS, Military radios to provide VHF, UHF Line of Site, and UHF SATCOM, Commercial Broadband Satellite Program (CBSP) for wideband SATCOM to provide voice and data communications to the shore. A Navy network consisting of a rack of electronic boxes that will provide NIPRNET, SIPRNET and CENTRIX plus additional hardware and software to support Military Detachment functions, laptops and printers to outfit several added spaces supporting embarked units: briefing room, tactical operations center, planning room, intel room, training center and communication room. The infrastructure to support installation of a HF radio

II. CURRENT FUNDING:

P-35 Category	**FY 2014**	
	QTY	**COST**
Major Hardware	1	12,390
Spares		1,470
System Engineering		4,410
Technical Engineering Services		840
Other Costs		1,890
Total		21,000

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
14	MLP 4 AFSB 1401	TBD	TBD	TBD	TBD	1	12,390

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
14	MLP 4 AFSB 1401	MAR-17	TBD	TBD	TBD

V. COMPETITION/SECOND SOURCE INITIATIVES:

NOTE:

C4ISR: Unit Cost is much higher for AFSB Variant MLP 4. The MLP Base Ship included a commercial command and control system for the Ship's crew. The MLP AFSB will include the MLP systems to support the Ship's crew, additional funds for an architecture for 4 MBps of SATCOM, NIPRNET, SIPRNET and CENTRIXS, as well as military VHF, UHF, and SHF SATCOM radios.

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

P-35 EXHIBIT
FY 2015 President's Budget
March 2014

Ship Type: **MLP 4 AFSB**
Equipment Item: **AVIATION ELECTRONICS**
PARM Code:

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

Consists of a Moriah wind measuring system to support helicopter operations, a Tactical Air Navigation System (TACAN) to provide a navigation beacon for aircraft, Stabilized Glide Slope Indicator and Visual Landing Aids.

II. CURRENT FUNDING:

P-35 Category	**FY 2014**	
	QTY	**COST**
Major Hardware	1	3,000
Total		3,000

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
14	MLP 4 AFSB 1401	TBD	TBD	TBD	TBD	1	3,000

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
14	MLP 4 AFSB 1401	MAR-17	TBD	TBD	TBD

V. COMPETITION/SECOND SOURCE INITIATIVES:

NOTE:

AVIATION ELECTRONICS: Aviation navigation and landing system electronics.

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CLASSIFICATION: UNCLASSIFIED

BUDGET ITEM JUSTIFICATION SHEET (P-40)
FY 2015 President's Budget

DATE: March 2014

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 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	TO COMP	TOTAL PROG
QUANTITY	2	0	0	0	0	1	0	0	0	3
End Cost	6,418.0	0.0	0.0	0.0	0.0	4,227.4	0.0	0.0	0.0	10,645.4
Less Advance Procurement	644.3	0.0	0.0	0.0	0.0	309.3	0.0	0.0	0.0	953.6
Less Cost To Complete	208.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	208.5
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 FF	3,294.5	0.0	0.0	0.0	0.0	2,348.8	0.0	0.0	0.0	5,643.3
Plus Subsequent Year FF	3,294.5	0.0	0.0	0.0	0.0	0.0	2,348.8	0.0	0.0	5,643.3
Full Funding TOA	5,363.2	0.0	0.0	0.0	0.0	1,569.3	2,348.8	0.0	0.0	9,281.3
Plus Advance Procurement	644.3	0.0	0.0	29.1	280.2	0.0	0.0	0.0	0.0	953.6
Plus Hurricane Supplemental	202.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	202.0
Plus Cost To Complete	14.3	156.5	37.7	0.0	0.0	0.0	0.0	0.0	0.0	208.5
Total Obligational Authority	6,223.8	156.5	37.7	29.1	280.2	1,569.3	2,348.8	0.0	0.0	10,645.4
Plus Outfitting / Plus Post Delivery	13.4	20.1	29.1	32.0	15.9	21.7	40.4	27.9	0.0	200.5
Total	6,237.2	176.6	66.7	61.1	296.1	1,591.0	2,389.2	27.9	0.0	10,845.8
Unit Cost (Ave. End Cost)	3,209.0	0.0	0.0	0.0	0.0	4,227.4	0.0	0.0	0.0	3,548.5

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	LHA 8	Rolling Airframe Missile (RAM)	C4ISR
Length overall	844'	844'	844'	AN/SPS-49A(V)1	BFTT
Beam	106'	106'	106'	AN/SPS-48	CEC
Displacement	45,594T	45,594T	43,000T	CIWS MK 15 MOD 22	SSDS MK II 4B
Draft	29'1	29'1	27'8	NATO Sea Sparrow Missile	AN/SLQ-32/SEWIP Block 1/2
				AN/SPQ-9B	IVN
	FY07	FY11	FY17	VSTOL	MK-12 IFF
PRODUCTION STATUS	LHA 6	LHA 7	LHA 8		AN/SRC-55 HYDRA
Contract Award Date	06/07	05/12	11/16		AN/TPX-42 ATC
Months to Completion					AN/SPN-35C
a) Contract Award to Delivery	81 months	73 months	86 months		AN/WSN-7 RLGN
b) Construction Start to Delivery	74 months	60 months	62 months		
Delivery Date	03/14	06/18	01/24		
Completion of Fitting Out	10/14	01/19	09/24		
Obligation Work Limiting Date	09/15	12/19	08/25		

WEAPON SYSTEM COST ANALYSIS (EXHIBIT P-5)

(Dollars in Thousands)

BUDGET ACTIVITY: 3	**P-1 LINE ITEM NOMENCLATURE**	**SUBHEAD NO. BLI: 3041**
Amphibious Ships	**LHA REPLACEMENT**	

	FY 2007		**FY 2011**	
ELEMENT OF COST	**QTY**	**COST**	**QTY**	**COST**
PLAN COSTS	1	191,000	1	60,084
BASIC CONST/CONVERSION		2,429,347		2,498,975
CHANGE ORDERS		70,549		121,628
ELECTRONICS		237,831		266,574
HM&E		67,686		51,013
OTHER COST		109,936		99,052
ORDNANCE		98,368		115,976
TOTAL SHIP ESTIMATE		3,204,717		3,213,302
LESS ADVANCE PROCUREMENT FY05		149,227		
LESS ADVANCE PROCUREMENT FY06		148,096		
LESS ADVANCE PROCUREMENT FY09				177,504
LESS ADVANCE PROCUREMENT FY10				169,476
LESS SUBSEQUENT FUNDING FY08		1,365,785		
LESS SUBSEQUENT FUNDING FY12				1,928,692
LESS COST TO COMPLETE FY09		14,310		
LESS COST TO COMPLETE FY13		156,478		
LESS COST TO COMPLETE FY14		37,700		
LESS HURRICANE SUPPLEMENTAL FY06		202,000		
NET P-1 LINE ITEM:		1,131,121		937,630

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	MAR 2010		
	Request for Proposals				
	Design Agent				
II.	Classification of Cost Estimate	CLASS C			
III.	Basic Construction/Conversion	FY07	FY11	FY17	
	A. Actual Award Date	JUN 2007	MAY 2012	TBD	
	B. Contract Type (and Share Line if applicable)	FPI (50/50 O/R)	FPI (50/50 O/R)	TBD	
	C. RFP Response Date	MAR 2006	APR 2011	TBD	
IV.	Escalation	FORWARD PRICED	FORWARD PRICED	FORWARD PRICED	
	Escalation Termination Date				
	Escalation Requirement				
	Labor/Material Split				
	Allowable Overhead Rate				
V.	Other Basic(Reserves/Miscellaneous)	Amount			

SHIP TYPE	HULL NUMBER	SHIPBUILDER	FISCAL YEAR AUTHORIZED	CONTRACT AWARD	START OF CONSTRUCTION	DELIVERY DATE
LHA (R)	06	HII	07	JUN-07	JAN-08	MAR-14
LHA (R)	07	HII	11	MAY-12	JUL-13	JUN-18
LHA (R)	08	TBD	17	NOV-16	NOV-18	JAN-24

CLASSIFICATION:	UNCLASSIFIED		
Exhibit P-10, Advance Procurement Requirements Analysis (Funding)		President's Budget 2015	Date: **March 2014**
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 8**	First System (BY1) Award Date and Completion Date **JUL 15**		Interval Between Systems

BLI	PLT	When Req'd	Prior Years	FY13	FY14	FY15	FY16	FY17	FY18	FY19	To Complete	Total
PLANS		JUL-15	0.0	0.0	0.0	29.1	102.4	0.0	0.0	0.0	0.0	131.5
BASIC			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Port Deck Edge Elevator Machinery	48	DEC-16	0.0	0.0	0.0	0.0	32.1	0.0	0.0	0.0	0.0	32.1
Main Reduction Gear	40	DEC-16	0.0	0.0	0.0	0.0	40.0	0.0	0.0	0.0	0.0	40.0
Steering Gear	46	DEC-16	0.0	0.0	0.0	0.0	4.7	0.0	0.0	0.0	0.0	4.7
S/S Diesel Generators	43	DEC-16	0.0	0.0	0.0	0.0	45.3	0.0	0.0	0.0	0.0	45.3
A/C Chilled Water Plant	34	OCT-15	0.0	0.0	0.0	0.0	22.7	0.0	0.0	0.0	0.0	22.7
450/60Hz Switchboard	32	DEC-16	0.0	0.0	0.0	0.0	30.6	0.0	0.0	0.0	0.0	30.6
Oily Waste Ultrafiltration System	37	DEC-16	0.0	0.0	0.0	0.0	2.4	0.0	0.0	0.0	0.0	2.4
			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total AP			0.0	0.0	0.0	29.1	280.2	0.0	0.0	0.0	0.0	309.3

Description:

PLANS ($127.0M) Funds required for non-recurring engineering.

BASIC ($182.4) Procurement of Long Lead Time Contractor Furnished Equipment (CFE) to support in-yard need dates for ship production and completion of design integration efforts.

CLASSIFICATION:	UNCLASSIFIED					
Exhibit P-10, Advance Procurement Requirements Analysis				President's Budget 2015		Date: **March 2014**
Appropriation (Treasury)Code/CC/BA/BSA/Item Control Number **SHIPBUILDING AND CONVERSION, NAVY / 3 / Amphibious Ships / BLI 3041**				Weapon System		P-1 Line Item Nomenclature **LHA REPLACEMENT**
(TOA $ in Millions)				**FY15**		
	PLT	QPA	Unit Cost	Qty	Contract Forecast Date	Total Cost Request
PLANS					JUL 2015	29.1
Port Deck Edge Elevator Machinery	48					0.0
Main Reduction Gear	40					0.0
Steering Gear	46					0.0
S/S Diesel Generators	43					0.0
A/C Chilled Water Plant	34					0.0
450/60Hz Switchboard	32					0.0
Oily Waste Ultrafiltration System	37					0.0

Description:

PLANS Non-recurring engineering

CLASSIFICATION: UNCLASSIFIED

BUDGET ITEM JUSTIFICATION SHEET (P-40)	DATE:
FY 2015 President's Budget	March 2014
APPROPRIATION/BUDGET ACTIVITY	P-1 LINE ITEM NOMENCLATURE
SHIPBUILDING AND CONVERSION, NAVY/BA 3 Amphibious Ships	**JOINT HIGH SPEED VESSEL (JHSV)**
	BLI: 3043

(Dollars in Millions)	PRIOR YR	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	TO COMP	TOTAL PROG
QUANTITY	5	1	0	0	0	0	0	0	0	6
End Cost	937.8	207.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1,145.0
Less Cost to Complete	31.8	5.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	37.5
Less Program Closeout/support	0.0	18.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	18.2
Plus Program Closeout/support	0.0	0.0	2.7	4.6	4.6	4.6	1.7	0.0	0.0	18.2
Full Funding TOA	906.0	183.3	2.7	4.6	4.6	4.6	1.7	0.0	0.0	1,107.5
Plus Cost to Complete	0.0	0.0	7.6	14.0	15.9	0.0	0.0	0.0	0.0	37.5
Total Obligational Authority	906.0	183.3	10.3	18.6	20.5	4.6	1.7	0.0	0.0	1,145.0
Plus Outfitting / Plus Post Delivery	2.3	13.5	11.2	32.9	27.2	15.7	10.0	0.0	0.0	112.7
Total	907.7	207.2	34.6	51.4	47.8	20.2	11.7	0.0	0.0	1,280.6
Unit Cost (Ave. End Cost)	187.6	189.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	187.8

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.

Note: FY14 - FY18 funding is for program support and program closeout costs.

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)				
	FY10	FY11	FY12	FY12	FY13
Production Status	JHSV 4	JHSV 6	JHSV 8	JHSV 9	JHSV 10
Award Planned (Month)	10/10	06/11	02/12	02/12	02/13
Months to Completion					
a) Award to Delivery	44 months	49 months	53 months	59 months	55 months
b) Construction Start to Delivery	25 months	23 months	23 months	23 months	23 months
Delivery Date	06/14	07/15	07/16	01/17	07/17
Completion of Fitting Out	09/14	10/15	10/16	04/17	10/17
Obligation Work Limiting Date	08/15	09/16	09/17	03/18	09/18

WEAPON SYSTEM COST ANALYSIS (EXHIBIT P-5)

(Dollars in Thousands)

BUDGET ACTIVITY: 3	**P-1 LINE ITEM NOMENCLATURE**	**SUBHEAD NO. BLI: 3043**
Amphibious Ships	**JOINT HIGH SPEED VESSEL (JHSV)**	

	FY 2010		**FY 2011**		**FY 2012**		**FY 2013**	
ELEMENT OF COST	**QTY**	**COST**	**QTY**	**COST**	**QTY**	**COST**	**QTY**	**COST**
PLAN COSTS	1		1		2		1	
BASIC CONST/CONVERSION		161,450		160,364		327,207		167,603
CHANGE ORDERS		2,130		3,973		8,477		3,945
ELECTRONICS		12,008		12,271		23,953		12,190
HM&E		5,241		3,342		7,993		2,253
OTHER COST		4,178		4,197		8,753		2,956
PROGRAM CLOSEOUT SUPPORT COST FY14								18,233
TOTAL SHIP ESTIMATE		185,007		184,147		376,383		207,180
LESS PROGRAM CLOSEOUT SUPPORT COST FY14								2,732
LESS PROGRAM CLOSEOUT SUPPORT COST FY15								4,590
LESS PROGRAM CLOSEOUT SUPPORT COST FY16								4,610
LESS PROGRAM CLOSEOUT SUPPORT COST FY17								4,621
LESS PROGRAM CLOSEOUT SUPPORT COST FY18								1,681
LESS COST TO COMPLETE FY14		7,600						
LESS COST TO COMPLETE FY15				9,340		2,620		2,040
LESS COST TO COMPLETE FY16						12,251		3,638
NET P-1 LINE ITEM:		177,407		174,807		361,512		183,268

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			DEC 2009	
	Request for Proposals					
	Design Agent					
II.	**Classification of Cost Estimate**	CLASS C				
III.	**Basic Construction/Conversion**	FY10 JHSV 4	FY11 JHSV 6	FY12 JHSV 8	FY12 JHSV 9	FY13 JHSV 10
	A. Actual Award Date	OCT 2010	JUN 2011	FEB 2012	FEB 2012	DEC 2012
	B. Contract Type (and Share Line if applicable)	FPI (50/50)	FPI (50/50)	FPI (50/50)	FPI (50/50)	FPI (50/50)
IV.	**Escalation**					
	Escalation Termination Date					
	Escalation Requirement	FWD PRICE	FWD PRICE	FWD PRICE	FWD PRICE	
	Labor/Material Split					
	Allowable Overhead Rate					
V.	**Other Basic(Reserves/Miscellaneous)**	**Amount**				

SHIP TYPE	HULL NUMBER	SHIPBUILDER	FISCAL YEAR AUTHORIZED	CONTRACT AWARD	START OF CONSTRUCTION	DELIVERY DATE
JHSV	03	AUSTAL	2009	JAN-10	SEP-11	FEB-14
JHSV	04	AUSTAL	2010	OCT-10	MAY-12	JUN-14
JHSV	05	AUSTAL	2010	OCT-10	FEB-13	JAN-15
JHSV	06	AUSTAL	2011	JUN-11	AUG-13	JUL-15
JHSV	07	AUSTAL	2011	JUN-11	FEB-14	JAN-16
JHSV	08	AUSTAL	2012	FEB-12	AUG-14	JUL-16
JHSV	09	AUSTAL	2012	FEB-12	FEB-15	JAN-17
JHSV	10	AUSTAL	2013	DEC-12	AUG-15	JUL-17

NOTE:

Outfitting and Post delivery costs for the former Army JHSV's: 3, 5, and 7 will be funded by the Navy.

SHIPBUILDING AND CONVERSION, NAVY

Analysis of Ship Cost Estimates - Major Equipment

(Dollars in Thousands)

Ship Type: JOINT HIGH SPEED VESSEL

	FY 2013	
	QTY	COST
ELECTRONICS		
a. P-35 Items		
C4ISR	1	9,586
Subtotal		9,586
b. Major Items		
VISUAL LANDING AIDE SUITE	1	2,159
MISC ELECTRONICS		445
Subtotal		2,604
c. Other ELECTRONICS		
Subtotal		
Total ELECTRONICS		12,190

SHIPBUILDING AND CONVERSION, NAVY

Analysis of Ship Cost Estimates - Major Equipment

(Dollars in Thousands)

Ship Type: JOINT HIGH SPEED VESSEL	FY 2013	
	QTY	COST
HM&E		
a. P-35 Items		
Subtotal		
b. Major Items		
ENGINEERING SERVICES		1,262
SUPSHIP MATERIAL SERVICES		376
LOGISTICS SUPPORT SERVICES		248
TEST AND INSTRUMENTATION		367
Subtotal		2,253
c. Other HM&E		
Subtotal		
Total HM&E		2,253

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

P-35 EXHIBIT
FY 2015 President's Budget
March 2014

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 the 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 2013**	
	QTY	**COST**
Major Hardware	1	5,956
Spares		568
System Engineering		1,755
Technical Engineering Services		505
Other Costs		802
Total		9,586

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
13	JHSV 10	VARIOUS	VARIOUS	VAR	VARIOUS	1	5,956

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
13	JHSV 10	JUL-17	VARIOUS	VARIOUS	

V. COMPETITION/SECOND SOURCE INITIATIVES:

NOTE:

Multiple systems comprise the C4ISR with varying delivery dates and leadtimes.

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CLASSIFICATION: UNCLASSIFIED

BUDGET ITEM JUSTIFICATION SHEET (P-40)

FY 2015 President's Budget

DATE: March 2014

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 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	TO COMP	TOTAL PROG
QUANTITY	3	0	0	0	0	0	0	0	0	3
End Cost	291.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	291.3
Full Funding TOA	291.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	291.3
Total Obligational Authority	291.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	291.3
Plus Outfitting / Plus Post Delivery	0.0	3.4	5.5	5.6	0.0	0.0	0.0	0.0	0.0	14.5
Total	291.3	3.4	5.5	5.6	0.0	0.0	0.0	0.0	0.0	305.8
Unit Cost (Ave. End Cost)	97.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	97.1

MISSION:

FY07 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 (R/V) designated AGOR Ocean. R/V Neil Armstrong (AGOR 27) and R/V Sally Ride (AGOR 28) are designed for integrated, interdisciplinary research that will support science, educational, and engineering operations in all oceans. The Ocean Class AGOR ships will be modern monohull research vessels capable of an integrated, interdisciplinary, general purpose oceanographic research in coastal and deep ocean areas. The vessel will support scientific research of various types including marine geology and geophysics, ocean engineering and marine acoustics, bathymetry, gravimetry, magnetometry, physical/biological/ chemical oceanography, and other multi-disciplinary environmental investigations. AGOR are Research Vessels built in support of the University-National Oceanographic Laboratory System (UNOLS) research consortium of US oceanographic institutions that date back to 1972.

Characteristics

			Armament	Electronics
HULL	T-AGS	AGOR	N/A	TBD
Length overall	353 ft	238 ft		
Beam	58 ft	50 ft		
Displacement	4,888 LT	2915 LT		
Draft	19 ft	15 ft		
	FY07	FY11	FY12	
PRODUCTION STATUS	T-AGS 66	AGOR 27	AGOR 28	
Contract Award Date	12/09	10/11	02/12	
Months to Complete				
a) Contract Award to Delivery	56 months	36 months	38 months	
b) Construction Start to Delivery	47 months	28 months	28 months	
Delivery Date	08/14	10/14	04/15	
Completion of Fitting-Out	11/14	11/15	05/16	
Obligation Work Limiting Date	10/15	10/16	04/17	

WEAPON SYSTEM COST ANALYSIS (EXHIBIT P-5)

(Dollars in Thousands)

BUDGET ACTIVITY: 5	**P-1 LINE ITEM NOMENCLATURE**	**SUBHEAD NO. BLI: 5087**
Auxiliaries, Craft and Prior Year Program Costs	**AGOR OCEANOGRAPHIC CLASS**	

	FY 2007		**FY 2011**		**FY 2012**	
ELEMENT OF COST	**QTY**	**COST**	**QTY**	**COST**	**QTY**	**COST**
PLAN COSTS	1	2,134	1		1	
BASIC CONST/CONVERSION		87,401		75,651		70,983
CHANGE ORDERS		3,000		2,856		1,644
ELECTRONICS		13,856		5,200		5,586
HM&E		8,215		2,000		7,900
OTHER COST		1,900		1,000		2,000
TOTAL SHIP ESTIMATE		116,506		86,707		88,113
NET P-1 LINE ITEM:		116,506		86,707		88,113

SHIPBUILDING AND CONVERSION, NAVY

FY 2015 President's Budget

Analysis of Ship Cost Estimate - Basic/Escalation

DATE: MARCH 2014

Ship Type: AGOR

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	JAN 2010	JAN 2011		
	Contract Design	JAN 2011	MAR 2011		
	Detail Design	TBD	TBD		
	Request for Proposals	APR 2009	JUN 2009		
	Design Agent	GUIDO PERLA ASSOCIATES	GUIDO PERLA ASSOCIATES		
		THE GLOSTEN ASSOCIATES	THE GLOSTEN ASSOCIATES		
II.	Classification of Cost Estimate	N/A			
III.	Basic Construction/Conversion	AGOR 27	AGOR 28		
	A. Actual Award Date	OCT 11	FEB 12		
	B. Contract Type (and Share Line if applicable)	FFP	FFP		
	C. RFP Response Date	MAR 2011	MAR 2011		
IV.	Escalation	AGOR 27	AGOR 28		
	Escalation Termination Date	N/A	N/A		
	Escalation Requirement	N/A	N/A		
	Labor/Material Split	N/A	N/A		
	Allowable Overhead Rate	N/A	N/A		
V.	Other Basic(Reserves/Miscellaneous)	Amount			

SHIP TYPE	HULL NUMBER	SHIPBUILDER	FISCAL YEAR AUTHORIZED	CONTRACT AWARD	START OF CONSTRUCTION	DELIVERY DATE
T-AGS	066	VT HALTER	07	DEC-09	SEP-10	AUG-14
AGOR	027	DAKOTA CREEK INDUSTRIES, INC.	11	OCT-11	JUN-12	OCT-14
AGOR	028	DAKOTA CREEK INDUSTRIES, INC.	12	FEB-12	JUL-12	APR-15

CLASSIFICATION: UNCLASSIFIED

Exhibit P-40, Budget Item Justification Sheet **FY 2015 President's Budget**	DATE: **March 2014**
APPROPRIATION/BUDGET ACTIVITY **SHIPBUILDING AND CONVERSION, NAVY / BA 5 Auxiliaries, Craft and Prior Year Program Costs**	P-1 LINE ITEM NOMENCLATURE **MOORED TRAINING SHIP** **BLI: 5092**

(Dollars in Millions)	PRIOR YR	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	TO COMP	TOTAL PROG
QUANTITY	0	0	0	1	0	1	0	0	0	2
End Cost	0.0	0.0	0.0	1,322.1	0.0	868.7	0.0	0.0	0.0	2,190.8
Less Advance Procurement	0.0	0.0	0.0	584.8	0.0	239.8	0.0	0.0	0.0	824.6
Full Funding TOA	0.0	0.0	0.0	737.3	0.0	628.9	0.0	0.0	0.0	1,366.2
Plus Advance Procurement	131.2	283.5	207.3	64.4	138.2	0.0	0.0	0.0	0.0	824.6
Total Obligational Authority	131.2	283.5	207.3	801.7	138.2	628.9	0.0	0.0	0.0	2,190.8
Plus Outfitting/Plus Post Delivery	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	131.2	283.5	207.3	801.7	138.2	628.9	0.0	0.0	0.0	2,190.8
Unit Cost (Ave. End Cost)	0.0	0.0	0.0	1,322.1	0.0	868.7	0.0	0.0	0.0	1,095.4

MISSION:

The details of this program are classified CONFIDENTIAL and are reported annually to Congress in the classified budget justification books.

CLASSIFICATION:	UNCLASSIFIED		
Exhibit P-5, Weapon Systems Cost Analysis	FY 2015 President's Budget	Date: **March 2014**	
APPROPRIATION/BUDGEDT ACTIVITY: **SHIPBUILDING AND CONVERSION, NAVY/ BA-5 Auxiliaries, Craft and Prior Year Program Costs**		**P-1 LINE ITEM NOMENCLATURE** **MOORED TRAINING SHIP** **BLI: 5092**	
ELEMENT OF COST		**FY 2015**	
(Dollars in Thousands)		**QTY**	**COST**
Total Ship Estimate		1	1322.1
Design			482.4
Plans/Conversion			387.7
GFE			30.6
Basic Construction			421.4
Less Advanced Procurement FY12			131.2
Less Advanced Procurement FY13			283.5
Less Advanced Procurement FY14			170.1
Less Advanced Procurement FY15			
Less Advanced Procurement FY16			
Net P-1 Line Item			737.3

The details of this program are classified CONFIDENTIAL and are reported annually to Congress in the classified budget justification books.

CLASSIFICATION	Unclassified					
EXHIBIT P-27, Ship Production Schedule			FY 2015 President's Budget	DATE: **March 2014**		
Appropriation (Treasury) Code/CC/BA/BSA/Item Control Number **SHIPBUILDING AND CONVERSION, NAVY / BA 5 / Auxiliaries, Craft and Prior Year Program Costs / BLI 5092**				P-1 Line Item Nomenclature **Moored Training Ship**		
SHIP TYPE	HULL NUMBER	SHIPBUILDER/CONVERTER	FISCAL YEAR AUTHORIZED	CONTRACT AWARD	START OF CONSTRUCTION	DELIVERY DATE
LOS ANGELES CLASS	MTS-701	EB/NNSY	FY-2015	DEC-14	DEC-14	OCT-17
LOS ANGELES CLASS	MTS-711	EB/NNSY	FY-2017	JAN-17	JAN-17	SEP-19

Description:

The details of this program are classified CONFIDENTIAL and are reported annually to Congress in the classified budget justification books.

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CLASSIFICATION:	UNCLASSIFIED											
Exhibit P-10, Advance Procurement Requirements Analysis (Funding)						FY 2015 President's Budget					Date: **March 2014**	
Appropriation (Treasury)Code/CC/BA/BSA/Item Control Number **SHIPBUILDING AND CONVERSION, NAVY / BA 5 / Auxiliaries, Craft and Prior Year Program Costs / BLI 5092**							P-1 Line Item Nomenclature **Moored Training Ship**					
Weapon System **MTS-711**			First System (BY1) Award Date and Completion Date **December 2014- December 2016**						Interval Between Systems			
BLI	PLT	When Req'd	Prior Years	FY13	FY14*	FY15	FY16	FY17	FY18	FY18	TO COMP	Total
DESIGN					**0.0**	**0.2**	**10.6**					**10.8**
PLANS					**0.0**	**9.5**	**32.4**					**41.9**
GFE					**9.8**	**21.3**	**0.0**					**31.1**
MODULE					**27.4**	**33.4**	**95.2**					**156.0**
Total Advanced Procurement					**37.2**	**64.4**	**138.2**					**239.8**

The details of this program are classified CONFIDENTIAL and are reported annually to Congress in the classified budget justification books.

*FY14 Total AP value is $207.3M. This P-10 only reflects the amount for MTS-711.

CLASSIFICATION:	UNCLASSIFIED						
Exhibit P-10, Advance Procurement Requirements Analysis (Budget Justification)					FY 2015 President's Budget		Date: **March 2014**
Appropriation (Treasury)Code/CC/BA/BSA/Item Control Number **SHIPBUILDING AND CONVERSION, NAVY / BA 5 / Auxiliaries, Craft and Prior Year Program Costs / BLI 5092**					Weapon System **MTS-711**		P-1 Line Item Nomenclature **Moored Training Ship**
(TOA $ in Millions)				**FY15**			
	PLT	QPA	Unit Cost	Qty	Contract Forecast Date	Total Cost Request	
DESIGN					Nov-14	**0.2**	
PLANS					Oct-14	**9.5**	
GFE		1 shipset			Oct-14	**21.3**	
MODULE					Nov-14	**33.4**	
Total Advance Procurement						**64.4**	

The details of this program are classified CONFIDENTIAL and are reported annually to Congress in the classified budget justification books.

CLASSIFICATION: UNCLASSIFIED

BUDGET ITEM JUSTIFICATION SHEET (P-40)	DATE: March 2014
FY 2015 President's Budget Cycle	
APPROPRIATION/BUDGET ACTIVITY **SHIPBUILDING AND CONVERSION, NAVY/BA 5 Auxiliaries, Craft and Prior Year Program Costs**	P-1 LINE ITEM NOMENCLATURE **OUTFITTING** **BLI: 5110**

(Dollars in Millions)	PRIOR YR	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	TO COMP	TOTAL PROG
Full Funding TOA-Outfitting	307.8	100.7	177.6	228.1	238.2	184.4	142.9	168.7	80.7	1,629.2
Full Funding TOA-Post Delivery	157.9	184.9	201.0	312.9	450.3	394.5	388.0	369.8	308.6	2,767.9
Full Funding TOA-First Destination	21.7	6.7	4.2	5.0	5.2	5.2	5.3	5.4	5.5	64.2
Total Obligational Authority	487.4	292.3	382.8	546.1	693.7	584.1	536.2	543.9	394.8	4,461.3

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 are limited to those items on the COSAL and authorized requirements through the Obligation Work Limiting Date (OWLD). While most Outfitting funds are executed prior to ships' Delivery Dates, some Outfitting funding may be required in the fiscal year (FY). following the scheduled Delivery Date.

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. 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 correct new construction deficiencies found during the shakedown period; to correct 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. Although the majority of Post Delivery funding occurs after ships' Delivery Dates, some funding is required prior to the Delivery Date in preparation for Post Delivery events.

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.

Outfitting requirements in FY 14 and prior FYs for MLP 2 and MLP AFSB 3 were NDSF-funded. FY 15 and subsequent FY Outfitting funding for those hulls is SCN-funded. All Post Delivery requirements for MLP 2 and MLP AFSB 3-4 are SCN-funded. FY 2013 NDSF Outfitting: $32,048K; FY 2014 NDSF Outfitting: $32,282K

CLASSIFICATION: UNCLASSIFIED

BUDGET ITEM JUSTIFICATION SHEET (P-29) | **DATE**

FY 2015 President's Budget Cycle | **March 2014**

APPROPRIATION/BUDGET ACTIVITY | **P-1 LINE ITEM NOMENCLATURE**

SHIPBUILDING AND CONVERSION, NAVY/BA 5 | **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 2013	FY 2014	FY 2015	TO COMP	TOTAL
AGOR	27	11	OCT-11	JUN-12	OCT-14	NOV-15	NOV-15	DEC-15	FEB-16	0	763	1,115	0	0	1,878
AGOR	28	12	FEB-12	JUL-12	APR-15	MAY-16	MAY-16	JUN-16	AUG-16	0	763	1,115	0	0	1,878
									AGOR Total	**0**	**1,526**	**2,230**	**0**	0	**3,756**
TAGS	66	07	DEC-09	SEP-10	AUG-14	NOV-14	JUL-15	AUG-15	OCT-15	41	1,921	1,452	0	0	3,414
									TAGS Total	**41**	**1,921**	**1,452**	**0**	0	**3,414**
JHSV	2	09	JAN-10	SEP-10	JUN-13	SEP-13	MAY-14	JUL-14	AUG-14	1,458	2,411	0	0	0	3,869
JHSV	3	09	JAN-10	SEP-11	FEB-14	MAY-14	NOV-14	JAN-15	APR-15	0	3,463	441	0	0	3,904
JHSV	4	10	OCT-10	MAY-12	JUN-14	SEP-14	MAY-15	JUL-15	AUG-15	844	1,187	1,873	0	0	3,904
JHSV	5	10	OCT-10	FEB-13	JAN-15	APR-15	DEC-15	FEB-16	MAR-16	0	0	3,904	0	0	3,904
JHSV	6	11	JUN-11	AUG-13	JUL-15	OCT-15	JUN-16	AUG-16	SEP-16	0	0	0	4,109	0	4,109
JHSV	7	11	JUN-11	FEB-14	JAN-16	APR-16	DEC-16	FEB-17	MAR-17	0	0	0	3,796	319	4,115
JHSV	8	12	FEB-12	AUG-14	JUL-16	OCT-16	JUN-17	AUG-17	SEP-17	0	0	0	0	4,159	4,159
JHSV	9	12	FEB-12	FEB-15	JAN-17	APR-17	DEC-17	FEB-18	MAR-18	0	0	0	0	4,189	4,189
JHSV	10	13	DEC-12	AUG-15	JUL-17	OCT-17	JUN-18	AUG-18	SEP-18	0	0	0	0	4,224	4,224
									JHSV Total	**2,302**	**7,061**	**6,218**	**7,905**	**12,891**	**36,377**
LCAC SLEP	55	12	FEB-12	OCT-12	FEB-14	MAR-14	FEB-14	MAR-14	APR-15	0	232	0	0	0	232
LCAC SLEP	60	12	FEB-12	JAN-13	APR-14	APR-14	JUN-14	JUL-14	MAR-15	0	232	0	0	0	232
LCAC SLEP	73	12	FEB-12	JAN-13	FEB-14	MAR-14	MAY-14	JUN-14	FEB-15	0	0	235	0	0	235
LCAC SLEP	82	12	FEB-12	OCT-12	NOV-13	DEC-13	MAY-14	JUN-14	NOV-14	0	0	235	0	0	235
LCAC SLEP	88	13	SEP-13	OCT-13	JAN-15	JAN-15	MAR-15	APR-15	DEC-15	0	0	235	0	0	235
LCAC SLEP	89	13	SEP-13	FEB-14	MAY-15	MAY-15	JUL-15	AUG-15	APR-16	0	0	235	0	0	235
LCAC SLEP	81	13	MAY-14	AUG-14	NOV-15	NOV-15	DEC-15	JAN-16	OCT-16	0	0	235	0	0	235
LCAC SLEP	90	13	MAY-14	DEC-14	MAR-16	MAR-16	APR-16	MAY-16	FEB-17	0	0	0	228	0	228
LCAC SLEP	78	14	MAY-14	AUG-14	NOV-15	NOV-15	NOV-15	DEC-15	OCT-16	0	0	235	0	0	235
LCAC SLEP	83	14	MAY-14	DEC-14	MAR-16	MAR-16	MAR-16	APR-16	FEB-17	0	0	0	228	0	228
LCAC SLEP	52	14	MAY-14	APR-15	JUL-16	JUL-16	JUL-16	AUG-16	JUN-17	0	0	0	0	232	232
LCAC SLEP	57	14	MAY-14	AUG-15	NOV-16	NOV-16	NOV-16	DEC-16	OCT-17	0	0	0	0	232	232
LCAC SLEP	84	15	MAR-15	JUN-15	SEP-16	SEP-16	MAR-17	APR-17	AUG-17	0	0	0	0	237	237
LCAC SLEP	85	15	MAR-15	DEC-15	MAR-17	MAR-17	AUG-17	SEP-17	FEB-18	0	0	0	0	238	238
LCAC SLEP	58	16	MAR-16	JUN-16	SEP-17	OCT-17	DEC-17	JAN-18	SEP-18	0	0	0	0	237	237
LCAC SLEP	64	16	MAR-16	OCT-16	JAN-18	FEB-18	APR-18	MAY-18	JAN-19	0	0	0	0	241	241
LCAC SLEP	65	16	MAR-16	FEB-17	MAY-18	JUN-18	AUG-18	SEP-18	MAY-19	0	0	0	0	241	241
LCAC SLEP	76	16	MAR-16	JUN-17	SEP-18	OCT-18	DEC-18	JAN-19	SEP-19	0	0	0	0	242	242
LCAC SLEP	86	17	MAR-17	JUN-17	SEP-18	OCT-18	DEC-18	JAN-19	SEP-19	0	0	0	0	242	242
LCAC SLEP	87	17	MAR-17	OCT-17	JAN-19	FEB-19	APR-19	MAY-19	JAN-20	0	0	0	0	246	246
LCAC SLEP	77	17	MAR-17	FEB-18	MAY-19	JUN-19	AUG-19	SEP-19	MAY-20	0	0	0	0	246	246
LCAC SLEP	50	17	MAR-17	JUN-18	SEP-19	OCT-19	DEC-19	JAN-20	SEP-20	0	0	0	0	247	247
									LCAC SLEP Total	**0**	**464**	**1,410**	**456**	**2,881**	**5,211**

CLASSIFICATION: UNCLASSIFIED

BUDGET ITEM JUSTIFICATION SHEET (P-29)	DATE
FY 2015 President's Budget Cycle	March 2014
APPROPRIATION/BUDGET ACTIVITY	**P-1 LINE ITEM NOMENCLATURE**
SHIPBUILDING AND CONVERSION, NAVY/BA 5	**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 2013	FY 2014	FY 2015	TO COMP	TOTAL
SSC	102	15	MAR-15	MAR-16	DEC-19	DEC-19	FEB-20	APR-20	NOV-20	0	0	0	0	1,103	1,103
SSC	103	15	MAR-15	SEP-16	DEC-19	DEC-19	FEB-20	APR-20	NOV-20	0	0	0	0	1,103	1,103
SSC	104	16	MAR-16	MAR-17	JUN-20	JUN-20	AUG-20	OCT-20	MAY-21	0	0	0	0	1,102	1,102
SSC	105	16	MAR-16	JUN-17	JUN-20	JUN-20	AUG-20	OCT-20	MAY-21	0	0	0	0	1,102	1,102
SSC	106	16	MAR-16	AUG-17	AUG-20	AUG-20	OCT-20	DEC-20	JUL-21	0	0	0	0	1,102	1,102
SSC	107	16	MAR-16	NOV-17	NOV-20	NOV-20	JAN-21	MAR-21	OCT-21	0	0	0	0	1,102	1,102
SSC	108	16	MAR-16	JAN-18	NOV-20	NOV-20	JAN-21	MAR-21	OCT-21					1,102	1,102
									SSC Total	**0**	**0**	**0**	**0**	**7,716**	**7,716**
LHA	6	07	JUN-07	JAN-08	MAR-14	OCT-14	APR-15	JUN-15	SEP-15	13,350	20,100	17,648	0	0	51,098
LHA	7	11	MAY-12	JUL-13	JUN-18	JAN-19	AUG-19	OCT-19	DEC-19	0	0	0	0	60,275	60,275
									LHA Total	**13,350**	**20,100**	**17,648**	**0**	**60,275**	**111,373**
LPD	22	04	JUN-06	FEB-06	DEC-11	JUN-12	DEC-12	APR-13	MAY-13	26,019	149	0	0	0	26,168
LPD	23	05	JUN-06	OCT-06	SEP-12	JAN-13	AUG-13	DEC-13	DEC-13	23,252	194	3,224	0	0	26,670
LPD	24	06	NOV-06	AUG-07	DEC-12	JUN-13	DEC-13	APR-14	MAY-14	22,863	2,378	2,439	0	0	27,680
LPD	25	08	DEC-07	APR-08	OCT-13	APR-14	SEP-14	FEB-15	MAR-15	18,254	5,667	3,759	0	0	27,680
LPD	26	09	APR-11	MAY-11	MAY-16	NOV-16	MAY-17	SEP-17	OCT-17	0	0	0	11,950	14,793	26,743
LPD	27	12	JUL-12	AUG-12	JUL-17	JAN-18	JUL-18	NOV-18	DEC-18	0	0	0	0	25,505	25,505
									LPD Total	**90,388**	**8,388**	**9,422**	**11,950**	**40,298**	**160,446**
MLP	2	11	MAY-11	APR-12	MAR-14	JUN-14	JAN-15	MAR-15	MAY-15	0	0	0	385	0	385
MLP AFSB	3	12	FEB-12	FEB-13	SEP-15	DEC-15	JUL-16	SEP-16	NOV-16	0	0	0	9,680	0	9,680
MLP AFSB	4	14	JAN-14	JUN-15	MAR-17	JUN-17	TBD	TBD	MAY-18	0	0	0	4,316	26,842	31,158
									MLP AFSB Total	**0**	**0**	**0**	**14,381**	**26,842**	**41,223**
DDG	112	05	SEP-02	FEB-08	MAY-12	SEP-12	MAY-13	AUG-13	AUG-13	17,626	785	0	0	0	18,411
DDG	113	10	JUN-11	AUG-12	JUN-16	OCT-16	MAY-17	AUG-17	SEP-17	0	0	510	2,487	12,115	15,112
DDG	114	11	SEP-11	SEP-13	JAN-17	JUN-17	DEC-17	MAR-18	MAY-18	0	0	0	508	15,271	15,779
DDG	115	11	SEP-11	FEB-12	JAN-16	JUN-16	FEB-17	MAY-17	MAY-17	0	0	525	3,025	11,563	15,113
DDG	116	12	FEB-12	FEB-13	JAN-17	JUN-17	JAN-18	APR-18	MAY-18	0	0	0	500	15,280	15,780
DDG	117	13	JUN-13	SEP-14	JAN-18	JUN-18	JUL-19	OCT-19	MAY-19	0	0	0	0	16,446	16,446
DDG	118	13	JUN-13	OCT-14	OCT-18	FEB-19	OCT-19	JAN-20	JAN-20	0	0	0	0	16,446	16,446
DDG	120	13	JUN-13	JAN-16	JAN-20	MAY-20	JAN-21	APR-21	APR-21	0	0	0	0	16,446	16,446
DDG	119	14	JUN-13	NOV-15	JUL-19	NOV-19	JUL-20	OCT-20	OCT-20	0	0	0	0	16,446	16,446
DDG	121	15	JUN-13	AUG-16	JUL-20	NOV-20	JUL-21	OCT-21	OCT-21	0	0	0	0	16,446	16,446
DDG	122	15	JUN-13	NOV-16	JUL-20	NOV-20	JUL-21	OCT-21	OCT-21	0	0	0	0	16,446	16,446
DDG	123	16	JUN-13	MAY-17	JUL-21	NOV-21	JUL-22	OCT-22	OCT-22	0	0	0	0	16,446	16,446
DDG	124	16	JUN-13	SEP-17	JUL-21	NOV-21	JUL-22	OCT-22	OCT-22	0	0	0	0	16,446	16,446
									DDG Total	**17,626**	**785**	**1,035**	**6,520**	**185,797**	**211,763**

CLASSIFICATION: UNCLASSIFIED															
BUDGET ITEM JUSTIFICATION SHEET (P-29)														DATE	
FY 2015 President's Budget Cycle														March 2014	
APPROPRIATION/BUDGET ACTIVITY								P-1 LINE ITEM NOMENCLATURE							
SHIPBUILDING AND CONVERSION, NAVY/BA 5								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 2013	FY 2014	FY 2015	TO COMP	TOTAL
DDG 1000	1000	07	FEB-08	FEB-09	SEP-14	SEP-15	FEB-16	MAY-16	AUG-16	3,942	9,130	16,137	9,043	1,149	39,401
DDG 1000	1001	07	SEP-11	MAR-10	MAY-16	MAY-17	JUL-17	SEP-17	APR-18	0	0	1,876	21,966	15,559	39,401
DDG 1000	1002	09	SEP-11	APR-12	DEC-18	JUL-19	SEP-19	NOV-19	JUN-20	0	0	0	0	39,400	39,400
									DDG 1000 Total	**3,942**	**9,130**	**18,013**	**31,009**	**56,108**	**118,202**
LCS	3	09	MAR-09	APR-09	JUN-12	AUG-12	MAY-13	JUL-13	AUG-13	8,258	189	0	0	0	8,447
LCS	4	09	MAY-09	OCT-09	SEP-13	JAN-14	JUL-14	DEC-14	DEC-14	4,572	646	3,598	0	0	8,816
LCS	5	10	DEC-10	AUG-11	JAN-15	MAY-15	DEC-15	MAR-16	APR-16	1,010	2,083	5,558	165	0	8,816
LCS	6	10	DEC-10	AUG-11	DEC-14	APR-15	NOV-15	FEB-16	MAR-16	249	1,190	7,133	244	0	8,816
LCS	7	11	MAR-11	APR-12	AUG-15	DEC-15	JUL-16	OCT-16	NOV-16	14	1,873	3,803	3,126	0	8,816
LCS	8	11	MAR-11	JUL-12	AUG-15	DEC-15	JUL-16	OCT-16	NOV-16	0	0	6,436	1,791	688	8,915
LCS	9	12	MAR-12	JAN-13	FEB-16	MAR-16	OCT-16	DEC-16	FEB-17	0	0	0	7,621	1,294	8,915
LCS	10	12	MAR-12	MAR-13	FEB-16	APR-16	NOV-16	FEB-17	MAR-17	0	0	0	7,144	1,771	8,915
LCS	11	12	MAR-12	AUG-13	AUG-16	SEP-16	APR-17	JUL-17	AUG-17	0	0	0	5,310	3,603	8,913
LCS	12	12	MAR-12	SEP-13	JUL-16	AUG-16	MAR-17	JUN-17	JUL-17	0	0	0	4,638	4,275	8,913
LCS	13	13	MAR-13	FEB-14	JAN-17	MAR-17	NOV-17	JAN-18	FEB-18	0	0	0	0	8,913	8,913
LCS	14	13	MAR-13	MAR-14	DEC-16	FEB-17	SEP-17	DEC-17	JAN-18	0	0	0	0	8,913	8,913
LCS	15	13	MAR-13	SEP-14	JUL-17	SEP-17	MAY-18	JUL-18	AUG-18	0	0	0	0	8,913	8,913
LCS	16	13	MAR-13	AUG-14	JUN-17	AUG-17	MAR-18	JUN-18	JUL-18	0	0	0	0	8,913	8,913
LCS	17	14	MAR-14	MAR-15	JAN-18	MAR-18	NOV-18	JAN-19	FEB-19	0	0	0	0	8,911	8,911
LCS	18	14	MAR-14	JAN-15	DEC-17	FEB-18	SEP-18	DEC-18	JAN-19	0	0	0	0	8,911	8,911
LCS	19	14	MAR-14	AUG-15	JUL-18	SEP-18	MAY-19	JUL-19	AUG-19	0	0	0	0	8,910	8,910
LCS	20	14	MAR-14	JUL-15	JUN-18	AUG-18	MAR-19	JUN-19	JUL-19	0	0	0	0	8,910	8,910
LCS	21	15	MAR-15	MAR-16	JAN-19	MAR-19	NOV-19	JAN-20	FEB-20	0	0	0	0	8,910	8,910
LCS	22	15	MAR-15	JAN-16	DEC-18	FEB-19	SEP-19	DEC-19	JAN-20	0	0	0	0	8,910	8,910
LCS	23	15	MAR-15	AUG-16	JUL-19	SEP-19	MAY-20	JUL-20	AUG-20	0	0	0	0	8,910	8,910
LCS	24	16	MAR-16	AUG-16	JUL-19	SEP-19	MAR-21	JUN-21	AUG-20	0	0	0	0	8,910	8,910
									LCS Total	**14,103**	**5,981**	**26,528**	**30,039**	**118,565**	**195,216**

CLASSIFICATION: UNCLASSIFIED

BUDGET ITEM JUSTIFICATION SHEET (P-29)	DATE
FY 2015 President's Budget Cycle	March 2014
APPROPRIATION/BUDGET ACTIVITY	**P-1 LINE ITEM NOMENCLATURE**
SHIPBUILDING AND CONVERSION, NAVY/BA 5	**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 2013	FY 2014	FY 2015	TO COMP	TOTAL
VIRGINIA	781	06	JAN-04	FEB-06	AUG-11	AUG-11	FEB-12	JAN-13	MAR-13	14,530	679	0	0	0	15,209
VIRGINIA	782	07	JAN-04	FEB-07	MAY-12	MAY-12	FEB-13	MAR-14	MAR-14	13,972	607	1,071	0	0	15,650
VIRGINIA	783	08	JAN-04	FEB-08	JUN-13	JUN-13	FEB-14	FEB-15	MAR-15	10,554	750	6,759	500	0	18,563
VIRGINIA	784	09	DEC-08	MAR-09	APR-14	APR-14	JAN-15	MAR-15	MAR-15	12,638	3,247	2,172	500	0	18,557
VIRGINIA	785	10	DEC-08	MAR-10	FEB-15	FEB-15	JUL-15	DEC-15	JAN-16	9,313	3,826	7,030	2,196	0	22,365
VIRGINIA	786	11	DEC-08	MAR-11	OCT-15	OCT-15	MAR-16	AUG-16	SEP-16	236	5,936	11,105	5,087	0	22,364
VIRGINIA	787	11	DEC-08	SEP-11	JUN-16	JUN-16	NOV-16	APR-17	MAY-17	0	2,761	0	19,603	0	22,364
VIRGINIA	788	12	DEC-08	MAR-12	OCT-16	OCT-16	MAR-17	AUG-17	SEP-17	0	0	0	15,940	6,422	22,362
VIRGINIA	789	12	DEC-08	SEP-12	JUN-17	JUN-17	NOV-18	APR-19	MAY-18	0	0	0	0	22,397	22,397
VIRGINIA	790	13	DEC-08	MAR-13	OCT-17	OCT-17	MAR-18	AUG-18	SEP-18	0	0	0	0	22,397	22,397
VIRGINIA	791	13	DEC-08	SEP-13	SEP-18	SEP-18	FEB-19	JUL-19	AUG-19	0	0	0	0	22,397	22,397
VIRGINIA	792	14	MAR-14	MAR-14	MAR-19	MAR-19	SEP-19	FEB-20	APR-20	0	0	0	0	22,397	22,397
VIRGINIA	793	14	MAR-14	SEP-14	SEP-19	SEP-19	MAR-20	AUG-20	AUG-20	0	0	0	0	22,397	22,397
VIRGINIA	794	15	MAR-14	MAR-15	MAR-20	MAR-20	SEP-20	FEB-21	APR-21	0	0	0	0	22,397	22,397
VIRGINIA	795	15	MAR-14	SEP-15	SEP-20	SEP-20	MAR-21	AUG-21	AUG-21	0	0	0	0	22,397	22,397
VIRGINIA	796	16	MAR-14	MAR-16	MAR-21	MAR-21	JUL-21	DEC-21	FEB-22	0	0	0	0	22,397	22,397
VIRGINIA	797	16	MAR-14	SEP-16	SEP-21	SEP-21	JUL-22	DEC-22	AUG-22	0	0	0	0	22,338	22,338
									VIRGINIA Total	**61,243**	**17,806**	**28,137**	**43,826**	**207,936**	**358,948**
CVN-RCOH	71	09	AUG-09	AUG-09	AUG-13	SEP-13	AUG-13	FEB-14	AUG-14	71,888	18,259	0	0	0	90,147
CVN-RCOH	72	12	FEB-13	FEB-13	NOV-16	JAN-17	DEC-16	FEB-17	DEC-17	0	0	14,523	26,212	24,396	65,131
									CVN-RCOH Total	**71,888**	**18,259**	**14,523**	**26,212**	**24,396**	**155,278**
CVN	78	08	SEP-08	AUG-05	FEB-16	APR-16	SEP-16	FEB-17	MAR-17	0	1,000	41,051	45,940	20,271	108,262
									CVN Total	**0**	**1,000**	**41,051**	**45,940**	**20,271**	**108,262**
PUBS	N/A	08	N/A	N/A	N/A	N/A	N/A	N/A	N/A	32,879	8,280	9,933	9,895	50,986	111,973
									PUBS Total	**32,879**	**8,280**	**9,933**	**9,895**	**50,986**	**111,973**
									Full Funding TOA-Outfitting Total	**307,762**	**100,701**	**177,600**	**228,133**	**814,962**	**1,629,158**

CLASSIFICATION: UNCLASSIFIED

BUDGET ITEM JUSTIFICATION SHEET (P-30)	DATE
FY 2015 President's Budget Cycle	March 2014
APPROPRIATION/BUDGET ACTIVITY	**P-1 LINE ITEM NOMENCLATURE**
SHIPBUILDING AND CONVERSION, NAVY/BA 5	**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 2013	FY 2014	FY 2015	TO COMP	TOTAL
AGOR	27	11	OCT-11	JUN-12	OCT-14	NOV-15	NOV-15	DEC-15	FEB-16	0	0	0	2,797	0	2,797
AGOR	28	12	FEB-12	JUL-12	APR-15	MAY-16	MAY-16	JUN-16	AUG-16	0	0	0	2,796	0	2,796
									AGOR Total	**0**	**0**	**0**	**5,593**	**0**	**5,593**
TAGS	66	07	DEC-09	SEP-10	AUG-14	NOV-14	JUL-15	AUG-15	OCT-15	0	0	1,824	0	0	1,824
									TAGS Total	**0**	**0**	**1,824**	**0**	**0**	**1,824**
JHSV	2	09	JAN-10	SEP-10	JUN-13	SEP-13	MAY-14	JUL-14	AUG-14	0	4,978	4,136	0	0	9,114
JHSV	3	09	JAN-10	SEP-11	FEB-14	MAY-14	NOV-14	JAN-15	APR-15	0	1,500	894	6,719	0	9,113
JHSV	4	10	OCT-10	MAY-12	JUN-14	SEP-14	MAY-15	JUL-15	AUG-15	0	0	0	9,113	0	9,113
JHSV	5	10	OCT-10	FEB-13	JAN-15	APR-15	DEC-15	FEB-16	MAR-16	0	0	0	9,113	0	9,113
JHSV	6	11	JUN-11	AUG-13	JUL-15	OCT-15	JUN-16	AUG-16	SEP-16	0	0	0	0	8,000	8,000
JHSV	7	11	JUN-11	FEB-14	JAN-16	APR-16	DEC-16	FEB-17	MAR-17	0	0	0	0	8,000	8,000
JHSV	8	12	FEB-12	AUG-14	JUL-16	OCT-16	JUN-17	AUG-17	SEP-17	0	0	0	0	7,981	7,981
JHSV	9	12	FEB-12	FEB-15	JAN-17	APR-17	DEC-17	FEB-18	MAR-18	0	0	0	0	7,981	7,981
JHSV	10	13	DEC-12	AUG-15	JUL-17	OCT-17	JUN-18	AUG-18	SEP-18	0	0	0	0	7,981	7,981
									JHSV Total	**0**	**6,478**	**5,030**	**24,945**	**39,943**	**76,396**
LCAC SLEP	70	09	AUG-09	AUG-11	NOV-12	DEC-12	JUN-13	JUL-13	NOV-13	0	269	0	0	0	269
LCAC SLEP	75	11	FEB-12	FEB-12	APR-13	MAY-13	SEP-13	NOV-13	APR-14	0	152	0	0	0	152
LCAC SLEP	27	11	FEB-12	FEB-12	JUL-13	AUG-13	AUG-13	SEP-13	JUL-14	0	152	0	0	0	152
LCAC SLEP	80	11	FEB-12	MAY-12	AUG-13	SEP-13	JAN-14	FEB-14	AUG-14	0	152	0	0	0	152
LCAC SLEP	38	11	FEB-12	MAY-12	MAR-14	APR-14	MAY-14	JUN-14	MAR-15	0	0	300	0	0	300
LCAC SLEP	55	12	FEB-12	OCT-12	FEB-14	MAR-14	FEB-14	MAR-14	APR-15	0	0	300	0	0	300
LCAC SLEP	60	12	FEB-12	JAN-13	APR-14	APR-14	JUN-14	JUL-14	MAR-15	0	0	300	0	0	300
LCAC SLEP	73	12	FEB-12	JAN-13	FEB-14	MAR-14	MAY-14	JUN-14	FEB-15	0	0	200	0	0	200
LCAC SLEP	82	12	FEB-12	OCT-12	NOV-13	DEC-13	MAY-14	JUN-14	NOV-14	0	0	200	0	0	200
LCAC SLEP	88	13	SEP-13	OCT-13	JAN-15	JAN-15	MAR-15	APR-15	DEC-15	0	0	0	310	0	310
LCAC SLEP	89	13	SEP-13	FEB-14	MAY-15	MAY-15	JUL-15	AUG-15	APR-16	0	0	0	310	0	310
LCAC SLEP	81	13	MAY-14	AUG-14	NOV-15	NOV-15	DEC-15	JAN-16	OCT-16	0	0	0	0	310	310
LCAC SLEP	90	13	MAY-14	DEC-14	MAR-16	MAR-16	APR-16	MAY-16	FEB-17	0	0	0	0	255	255
LCAC SLEP	78	14	MAY-14	AUG-14	NOV-15	NOV-15	NOV-15	DEC-15	OCT-16	0	0	0	206	0	206
LCAC SLEP	83	14	MAY-14	DEC-14	MAR-16	MAR-16	MAR-16	APR-16	FEB-17	0	0	0	205	0	205
LCAC SLEP	52	14	MAY-14	APR-15	JUL-16	JUL-16	JUL-16	AUG-16	JUN-17	0	0	0	0	146	146
LCAC SLEP	57	14	MAY-14	AUG-15	NOV-16	NOV-16	NOV-16	DEC-16	OCT-17	0	0	0	0	146	146
LCAC SLEP	84	15	MAR-15	JUN-15	SEP-16	SEP-16	MAR-17	APR-17	AUG-17	0	0	0	0	146	146

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BUDGET ITEM JUSTIFICATION SHEET (P-30)														DATE	
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APPROPRIATION/BUDGET ACTIVITY								P-1 LINE ITEM NOMENCLATURE							
SHIPBUILDING AND CONVERSION, NAVY/BA 5								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 2013	FY 2014	FY 2015	TO COMP	TOTAL
LCAC SLEP	85	15	MAR-15	DEC-15	MAR-17	MAR-17	AUG-17	SEP-17	FEB-18	0	0	0	0	146	146
LCAC SLEP	58	16	MAR-16	JUN-16	SEP-17	OCT-17	DEC-17	JAN-18	SEP-18	0	0	0	0	146	146
LCAC SLEP	64	16	MAR-16	OCT-16	JAN-18	FEB-18	APR-18	MAY-18	JAN-19	0	0	0	0	145	145
LCAC SLEP	65	16	MAR-16	FEB-17	MAY-18	JUN-18	AUG-18	SEP-18	MAY-19	0	0	0	0	145	145
LCAC SLEP	76	16	MAR-16	JUN-17	SEP-18	OCT-18	DEC-18	JAN-19	SEP-19	0	0	0	0	146	146
LCAC SLEP	86	17	MAR-17	JUN-17	SEP-18	OCT-18	DEC-18	JAN-19	SEP-19	0	0	0	0	146	146
LCAC SLEP	87	17	MAR-17	OCT-17	JAN-19	FEB-19	APR-19	MAY-19	JAN-20	0	0	0	0	145	145
LCAC SLEP	77	17	MAR-17	FEB-18	MAY-19	JUN-19	AUG-19	SEP-19	MAY-20	0	0	0	0	145	145
LCAC SLEP	50	17	MAR-17	JUN-18	SEP-19	OCT-19	DEC-19	JAN-20	SEP-20	0	0	0	0	145	145
									LCAC SLEP Total	**0**	**725**	**1,300**	**1,031**	**2,312**	**5,368**
SSC	102	15	MAR-15	MAR-16	DEC-19	DEC-19	FEB-20	APR-20	NOV-20	0	0	0	0	2,500	2,500
SSC	103	15	MAR-15	SEP-16	DEC-19	DEC-19	FEB-20	APR-20	NOV-20	0	0	0	0	1,307	1,307
									SSC Total	**0**	**0**	**0**	**0**	**3,807**	**3,807**
LHA	6	07	JUN-07	JAN-08	MAR-14	OCT-14	APR-15	JUN-15	SEP-15	0	0	11,442	31,963	0	43,405
LHA	7	11	MAY-12	JUL-13	JUN-18	JAN-19	AUG-19	OCT-19	DEC-19	0	0	0	0	45,641	45,641
									LHA Total	**0**	**0**	**11,442**	**31,963**	**45,641**	**89,046**
LPD	22	04	JUN-06	FEB-06	DEC-11	JUN-12	DEC-12	APR-13	MAY-13	61,693	7,981	0	0	0	69,674
LPD	23	05	JUN-06	OCT-06	SEP-12	JAN-13	AUG-13	DEC-13	DEC-13	20,586	18,979	550	0	0	40,115
LPD	24	06	NOV-06	AUG-07	DEC-12	JUN-13	DEC-13	APR-14	MAY-14	13,228	22,648	13,413	0	0	49,289
LPD	25	08	DEC-07	APR-08	OCT-13	APR-14	SEP-14	FEB-15	MAR-15	405	8,164	29,165	11,556	0	49,290
LPD	26	09	APR-11	MAY-11	MAY-16	NOV-16	MAY-17	SEP-17	OCT-17	0	0	0	0	48,047	48,047
LPD	27	12	JUL-12	AUG-12	JUL-17	JAN-18	JUL-18	NOV-18	DEC-18	0	0	0	0	48,127	48,127
									LPD Total	**95,912**	**57,772**	**43,128**	**11,556**	**96,174**	**304,542**
MLP	2	11	MAY-11	APR-12	MAR-14	JUN-14	JAN-15	MAR-15	MAY-15	0	0	0	4,356	0	4,356
MLP AFSB	3	12	FEB-12	FEB-13	SEP-15	DEC-15	JUL-16	SEP-16	NOV-16	0	0	0	2,911	15,454	18,365
MLP AFSB	4	14	JAN-14	JUN-15	MAR-17	JUN-17	TBD	TBD	MAY-18	0	0	0	0	15,558	15,558
									MLP AFSB Total	**0**	**0**	**0**	**7,267**	**31,012**	**38,279**
YP	705	07	DEC-07	SEP-08	JUL-12	SEP-12	N/A	N/A	AUG-13	0	265	0	0	0	265
YP	706	08	JUN-08	JUN-09	AUG-12	OCT-12	N/A	N/A	SEP-13	0	264	0	0	0	264
YP	707	09	MAR-09	SEP-09	JUL-13	SEP-13	N/A	N/A	AUG-14	0	19	245	0	0	264
YP	708	09	MAR-09	NOV-09	MAR-14	APR-14	N/A	N/A	MAR-15	0	0	264	0	0	264
									YP Total	**0**	**548**	**509**	**0**	**0**	**1,057**

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BUDGET ITEM JUSTIFICATION SHEET (P-30)														DATE	
FY 2015 President's Budget Cycle														March 2014	
APPROPRIATION/BUDGET ACTIVITY								P-1 LINE ITEM NOMENCLATURE							
SHIPBUILDING AND CONVERSION, NAVY/BA 5								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 2013	FY 2014	FY 2015	TO COMP	TOTAL
DDG	112	05	SEP-02	FEB-08	MAY-12	SEP-12	MAY-13	AUG-13	AUG-13	32,149	6,474	0	0	0	38,623
DDG	113	10	JUN-11	AUG-12	JUN-16	OCT-16	MAY-17	AUG-17	SEP-17	0	0	0	0	35,250	35,250
DDG	114	11	SEP-11	SEP-13	JAN-17	JUN-17	DEC-17	MAR-18	MAY-18	0	0	0	0	35,097	35,097
DDG	115	11	SEP-11	FEB-12	JAN-16	JUN-16	FEB-17	MAY-17	MAY-17	0	0	0	0	35,249	35,249
DDG	116	12	FEB-12	FEB-13	JAN-17	JUN-17	JAN-18	APR-18	MAY-18	0	0	0	0	35,097	35,097
DDG	117	13	JUN-13	SEP-14	JAN-18	JUN-18	JUL-19	OCT-19	MAY-19	0	0	0	0	35,418	35,418
DDG	118	13	JUN-13	OCT-14	OCT-18	FEB-19	OCT-19	JAN-20	JAN-20	0	0	0	0	35,419	35,419
DDG	120	13	JUN-13	JAN-16	JAN-20	MAY-20	JAN-21	APR-21	APR-21	0	0	0	0	35,330	35,330
									DDG Total	**32,149**	**6,474**	**0**	**0**	**246,860**	**285,483**
DDG 1000	1000	07	FEB-08	FEB-09	SEP-14	SEP-15	FEB-16	MAY-16	AUG-16	0	0	16,131	48,763	24,977	89,871
DDG 1000	1001	07	SEP-11	MAR-10	MAY-16	MAY-17	JUL-17	SEP-17	APR-18	0	0	0	0	83,040	83,040
DDG 1000	1002	09	SEP-11	APR-12	DEC-18	JUL-19	SEP-19	NOV-19	JUN-20	0	0	0	0	84,759	84,759
									DDG 1000 Total	**0**	**0**	**16,131**	**48,763**	**192,776**	**257,670**
LCS	3	09	MAR-09	APR-09	JUN-12	AUG-12	MAY-13	JUL-13	AUG-13	19,199	33,284	0	0	0	52,483
LCS	4	09	MAY-09	OCT-09	SEP-13	JAN-14	JUL-14	DEC-14	DEC-14	0	10,800	41,637	0	0	52,437
LCS	5	10	DEC-10	AUG-11	JAN-15	MAY-15	DEC-15	MAR-16	APR-16	0	0	0	27,990	14,064	42,054
LCS	6	10	DEC-10	AUG-11	DEC-14	APR-15	NOV-15	FEB-16	MAR-16	0	0	0	27,990	14,064	42,054
LCS	7	11	MAR-11	APR-12	AUG-15	DEC-15	JUL-16	OCT-16	NOV-16	0	0	0	16,131	25,923	42,054
LCS	8	11	MAR-11	JUL-12	AUG-15	DEC-15	JUL-16	OCT-16	NOV-16	0	0	0	16,132	25,922	42,054
LCS	9	12	MAR-12	JAN-13	FEB-16	MAR-16	OCT-16	DEC-16	FEB-17	0	0	0	0	42,054	42,054
LCS	10	12	MAR-12	MAR-13	FEB-16	APR-16	NOV-16	FEB-17	MAR-17	0	0	0	0	42,055	42,055
LCS	11	12	MAR-12	AUG-13	AUG-16	SEP-16	APR-17	JUL-17	AUG-17	0	0	0	0	42,055	42,055
LCS	12	12	MAR-12	SEP-13	JUL-16	AUG-16	MAR-17	JUN-17	JUL-17	0	0	0	0	42,055	42,055
LCS	13	13	MAR-13	FEB-14	JAN-17	MAR-17	NOV-17	JAN-18	FEB-18	0	0	0	0	42,198	42,198
LCS	14	13	MAR-13	MAR-14	DEC-16	FEB-17	SEP-17	DEC-17	JAN-18	0	0	0	0	42,198	42,198
LCS	15	13	MAR-13	SEP-14	JUL-17	SEP-17	MAY-18	JUL-18	AUG-18	0	0	0	0	42,197	42,197
LCS	16	13	MAR-13	AUG-14	JUN-17	AUG-17	MAR-18	JUN-18	JUL-18	0	0	0	0	42,197	42,197
LCS	17	14	MAR-14	MAR-15	JAN-18	MAR-18	NOV-18	JAN-19	FEB-19	0	0	0	0	42,196	42,196
LCS	18	14	MAR-14	JAN-15	DEC-17	FEB-18	SEP-18	DEC-18	JAN-19	0	0	0	0	42,196	42,196
LCS	19	14	MAR-14	AUG-15	JUL-18	SEP-18	MAY-19	JUL-19	AUG-19	0	0	0	0	42,196	42,196
LCS	20	14	MAR-14	JUL-15	JUN-18	AUG-18	MAR-19	JUN-19	JUL-19	0	0	0	0	42,196	42,196
LCS	21	15	MAR-15	MAR-16	JAN-19	MAR-19	NOV-19	JAN-20	FEB-20	0	0	0	0	42,197	42,197
LCS	22	15	MAR-15	JAN-16	DEC-18	FEB-19	SEP-19	DEC-19	JAN-20	0	0	0	0	42,197	42,197
LCS	23	15	MAR-15	AUG-16	JUL-19	SEP-19	MAY-20	JUL-20	AUG-20	0	0	0	0	42,197	42,197
LCS	24	16	MAR-16	AUG-16	JUL-19	SEP-19	MAR-21	JUN-21	AUG-20	0	0	0	0	42,197	42,197
									LCS Total	**19,199**	**44,084**	**41,637**	**88,243**	**754,554**	**947,717**

CLASSIFICATION: UNCLASSIFIED

BUDGET ITEM JUSTIFICATION SHEET (P-30)														DATE	
FY 2015 President's Budget Cycle														March 2014	
APPROPRIATION/BUDGET ACTIVITY								P-1 LINE ITEM NOMENCLATURE							
SHIPBUILDING AND CONVERSION, NAVY/BA 5								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 2013	FY 2014	FY 2015	TO COMP	TOTAL
VIRGINIA	782	07	JAN-04	FEB-07	MAY-12	MAY-12	FEB-13	MAR-14	MAR-14	9,695	38,040	4,045	0	0	51,780
VIRGINIA	783	08	JAN-04	FEB-08	JUN-13	JUN-13	FEB-14	FEB-15	MAR-15	0	6,883	44,273	0	0	51,156
VIRGINIA	784	09	DEC-08	MAR-09	APR-14	APR-14	JAN-15	MAR-15	MAR-15	0	516	20,882	32,434	0	53,832
VIRGINIA	785	10	DEC-08	MAR-10	FEB-15	FEB-15	JUL-15	DEC-15	JAN-16	0	0	3,442	52,446	0	55,888
VIRGINIA	786	11	DEC-08	MAR-11	OCT-15	OCT-15	MAR-16	AUG-16	SEP-16	0	0	0	7,839	50,430	58,269
VIRGINIA	787	11	DEC-08	SEP-11	JUN-16	JUN-16	NOV-16	APR-17	MAY-17	0	0	0	848	56,986	57,834
VIRGINIA	788	12	DEC-08	MAR-12	OCT-16	OCT-16	MAR-17	AUG-17	SEP-17	0	0	0	0	57,134	57,134
VIRGINIA	789	12	DEC-08	SEP-12	JUN-17	JUN-17	NOV-18	APR-19	MAY-18	0	0	0	0	58,982	58,982
VIRGINIA	790	13	DEC-08	MAR-13	OCT-17	OCT-17	MAR-18	AUG-18	SEP-18	0	0	0	0	58,661	58,661
VIRGINIA	791	13	DEC-08	SEP-13	SEP-18	SEP-18	FEB-19	JUL-19	AUG-19	0	0	0	0	58,986	58,986
VIRGINIA	792	14	MAR-14	MAR-14	MAR-19	MAR-19	SEP-19	FEB-20	FEB-20	0	0	0	0	61,497	61,497
VIRGINIA Total										**9,695**	**45,439**	**72,642**	**93,567**	**402,676**	**624,019**
CVN-RCOH	71	09	AUG-09	AUG-09	AUG-13	SEP-13	AUG-13	FEB-14	AUG-14	952	23,357	7,350	0	0	31,659
CVN-RCOH	72	12	FEB-13	FEB-13	NOV-16	JAN-17	DEC-16	FEB-17	DEC-17	0	0	0	0	20,380	20,380
CVN-RCOH Total										**952**	**23,357**	**7,350**	**0**	**20,380**	**52,039**
CVN	78	08	SEP-08	AUG-05	FEB-16	APR-16	SEP-16	FEB-17	MAR-17	0	0	0	0	75,005	75,005
CVN Total										**0**	**0**	**0**	**0**	**75,005**	**75,005**
Full Funding TOA-Post Delivery Total										**157,907**	**184,877**	**200,993**	**312,928**	**1,911,140**	**2,767,845**
Full Funding TOA-First Destination Transportation Total										**21,682**	**6,710**	**4,243**	**5,043**	**26,525**	**64,203**
Full Funding TOA-Outfitting Total										**307,762**	**100,701**	**177,600**	**228,133**	**814,962**	**1,629,158**
Total Obligational Authority Total										**487,351**	**292,288**	**382,836**	**546,104**	**2,752,627**	**4,461,206**

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BUDGET ITEM JUSTIFICATION SHEET (P-40)

FY 2015 President's Budget

DATE: March 2014

APPROPRIATION/BUDGET ACTIVITY

SHIPBUILDING AND CONVERSION, NAVY/BA 5 Auxiliaries, Craft and Prior Year Program Costs

P-1 LINE ITEM NOMENCLATURE

SHIP TO SHORE CONNECTOR

BLI: 5112

(Dollars in Millions)	PRIOR YR	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	TO COMP	TOTAL PROG
QUANTITY	0	0	0	2	5	5	8	11	40	71
End Cost	0.0	0.0	0.0	123.2	258.1	278.8	442.4	627.3	2,258.6	3,988.4
Full Funding TOA	0.0	0.0	0.0	123.2	258.1	278.8	442.4	627.3	2,258.6	3,988.4
Total Obligational Authority	0.0	0.0	0.0	123.2	258.1	278.8	442.4	627.3	2,258.6	3,988.4
Plus Outfitting / Plus Post Delivery	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.0	109.7	118.7
Total	0.0	0.0	0.0	123.2	258.1	278.8	442.4	636.3	2,368.3	4,107.1
Unit Cost (Ave. End Cost)	0.0	0.0	0.0	61.6	51.6	55.8	55.3	57.0	56.5	56.2

MISSION:

The Ship to Shore Connector (SSC) program provides the capability to rapidly move assault forces with the littoral operational environment to accomplish Unified Command Plan (UCP) missions and ensures the Joint Force Commander's (JFCDR"s) ability to conduct amphibious operations and operate over the high water mark, including movement over ice, mud, rivers, swamps and marshes. SSC provides the functional replacement for the LCAC Class of ships, which begin reaching extended service life in 2015. This program provides SCN funding for 71 craft. The Test and Training craft (Craft 100) and first production craft (Craft 101), which will be operationally fielded, are funded in RDT&E under PE 0604567N, Project 3137 (FY 11-FY 14) and RDTEN PE 0605220N, Project 3137 (FY 15-FY 18).

CHARACTERISTICS:

Hull:	Aluminum	
Length overall	91.8 FT	
Beam	48.3 FT	
Displacement	180.57 mt	
Draft	N/A	
Armament:	N/A	
	FY15	FY15
Production Status:	SSC 102	SSC 103
Contract Award Date	3/15	3/15
Months to Completion:		
a) Contract Award to Delivery	58 months	58 months
b) Construction Start to Delivery	46 months	40 months
Delivery Date	12/19	12/19
Completion of Fitting Out	12/19	12/19
Obligation Work Limiting Date	11/20	11/20

WEAPON SYSTEM COST ANALYSIS (EXHIBIT P-5)

(Dollars in Thousands)

BUDGET ACTIVITY: 5	**P-1 LINE ITEM NOMENCLATURE**	**BLI: 5112**
Auxiliaries, Craft and Prior Year Program Costs	**SHIP TO SHORE CONNECTOR**	

	FY 2015	
ELEMENT OF COST	**QTY**	**COST**
PLAN COSTS	2	
BASIC CONST/CONVERSION		93,780
CHANGE ORDERS		4,200
ELECTRONICS		4,250
HM&E		5,855
OTHER COST		15,048
ORDNANCE		100
TOTAL SHIP ESTIMATE		123,233
NET P-1 LINE ITEM:		123,233

SHIPBUILDING AND CONVERSION, NAVY

Analysis of Ship Cost Estimate - Basic/Escalation

Ship Type: SSC

P-5B Exhibit

FY 2015 President's Budget

DATE:

March 2014

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	21 APR 08	06 MAY 09		
	Contract Design	07 MAY 09	07 JUL 10		
	Detail Design	06 JUL 12			
	Request for Proposals	20 MAY 11	07 JUL 12		
	Design Agent	NAVSEA/TEXTRON, INC			
	ISSUE DATE FOR CDD	01 JUL 08	10 JUN 10		
II.	**Classification of Cost Estimate**				
III.	**Basic Construction/Conversion**	**FY15/16**			
	A. Actual Award Date	06 JUL 12			
	B. Contract Type (and Share Line if applicable)	FPIF (50/50)			
IV.	**Escalation**				
	Escalation Termination Date	N/A			
	Escalation Requirement	N/A			
	Labor/Material Split	N/A			
	Allowable Overhead Rate	N/A			
V.	**Other Basic(Reserves/Miscellaneous)**	**Amount**			

SHIPBUILDING AND CONVERSION, NAVY

SHIP PRODUCTION SCHEDULE

EXHIBIT P-27

FY 2015 President's Budget

DATE:

March 2014

SHIP TYPE	HULL NUMBER	SHIPBUILDER	FISCAL YEAR AUTHORIZED	CONTRACT AWARD	START OF CONSTRUCTION	DELIVERY DATE
SHIP TO SHORE CONNECTOR	102	TEXTRON, INC	15	MAR-15	MAR-16	DEC-19
SHIP TO SHORE CONNECTOR	103	TEXTRON, INC	15	MAR-15	SEP-16	DEC-19
SHIP TO SHORE CONNECTOR	104	TEXTRON, INC	16	MAR-16	MAR-17	JUN-20
SHIP TO SHORE CONNECTOR	105	TEXTRON, INC	16	MAR-16	JUN-17	JUN-20
SHIP TO SHORE CONNECTOR	106	TEXTRON, INC	16	MAR-16	AUG-17	AUG-20
SHIP TO SHORE CONNECTOR	107	TEXTRON, INC	16	MAR-16	NOV-17	NOV-20
SHIP TO SHORE CONNECTOR	108	TEXTRON, INC	16	MAR-16	JAN-18	NOV-20
SHIP TO SHORE CONNECTOR	109	TBD	17	MAR-17	MAR-18	JUL-20
SHIP TO SHORE CONNECTOR	110	TBD	17	MAR-17	JUN-18	AUG-20
SHIP TO SHORE CONNECTOR	111	TBD	17	MAR-17	AUG-18	SEP-20
SHIP TO SHORE CONNECTOR	112	TBD	17	MAR-17	NOV-18	NOV-20
SHIP TO SHORE CONNECTOR	113	TBD	17	MAR-17	JAN-19	DEC-20
SHIP TO SHORE CONNECTOR	114	TBD	18	SEP-18	SEP-19	JUL-21
SHIP TO SHORE CONNECTOR	115	TBD	18	SEP-18	NOV-19	AUG-21
SHIP TO SHORE CONNECTOR	116	TBD	18	SEP-18	JAN-20	SEP-21
SHIP TO SHORE CONNECTOR	117	TBD	18	SEP-18	FEB-20	SEP-21
SHIP TO SHORE CONNECTOR	118	TBD	18	SEP-18	APR-20	OCT-21
SHIP TO SHORE CONNECTOR	119	TBD	18	SEP-18	JUN-20	DEC-21
SHIP TO SHORE CONNECTOR	120	TBD	18	SEP-18	JUL-20	JAN-22
SHIP TO SHORE CONNECTOR	121	TBD	18	SEP-18	SEP-19	SEP-22
SHIP TO SHORE CONNECTOR	122	TBD	19	MAR-19	MAR-20	SEP-21
SHIP TO SHORE CONNECTOR	123	TBD	19	MAR-19	MAY-20	NOV-21
SHIP TO SHORE CONNECTOR	124	TBD	19	MAR-19	JUN-20	DEC-21
SHIP TO SHORE CONNECTOR	125	TBD	19	MAR-19	JUL-20	JAN-22
SHIP TO SHORE CONNECTOR	126	TBD	19	MAR-19	SEP-20	MAR-22
SHIP TO SHORE CONNECTOR	127	TBD	19	MAR-19	OCT-20	SEP-23
SHIP TO SHORE CONNECTOR	128	TBD	19	MAR-19	NOV-20	SEP-23
SHIP TO SHORE CONNECTOR	129	TBD	19	MAR-19	JAN-21	JUL-22
SHIP TO SHORE CONNECTOR	130	TBD	19	MAR-19	FEB-21	AUG-22
SHIP TO SHORE CONNECTOR	131	TBD	19	MAR-19	MAR-20	MAR-23
SHIP TO SHORE CONNECTOR	132	TBD	19	MAR-19	SEP-20	JUL-23

CLASSIFICATION: UNCLASSIFIED

BUDGET ITEM JUSTIFICATION SHEET (P-40) FY 2015 President's Budget	DATE: March 2014
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 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	TO COMP	TOTAL PROG
QUANTITY	37	0	0	0	14	3	3	3	0	60
End Cost	105.2	0.0	0.0	0.0	62.8	30.9	31.5	32.1	0.0	262.5
Full Funding TOA	105.2	0.0	0.0	0.0	62.8	30.9	31.5	32.1	0.0	262.5
Total Obligational Authority	105.2	0.0	0.0	0.0	62.8	30.9	31.5	32.1	0.0	262.5
Plus Outfitting / Plus Post Delivery	1.5	0.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0	2.5
Total	106.7	0.5	0.5	0.0	62.8	30.9	31.5	32.1	0.0	265.0
Unit Cost (Ave. End Cost)	2.8	0.0	0.0	0.0	4.5	10.3	10.5	10.7	0.0	4.4

MISSION:

The US Navy owns/operates approximately 386 Service Craft of 36 different classes at 57 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: Open Lighter Barge (YC) - To transport cargo or equipment and for use as a floating work platform. 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) - To carry liquid petroleum products for refueling ships; Waste Oil Barge (YWO) - To offload waste oil from ships and transport for processing.

Characteristics:		Armament	Electronics
Hull Various - Multiple Craft		N/A	N/A
	FY09	FY11	FY11
Production Status	YP-708	YON-337	YON-338
Contract Award Date	03/09	11/13	11/13
Month(s) to Completion			
(a) Contract Award to Delivery	60 months	22 months	22 months
(b) Construction Start to Delivery	52 months	19 months	16 months
Delivery Date	03/14	09/15	09/15
Completion of Fitting Out	05/14	11/15	11/15
Obligation Work Limiting Date	04/15	10/16	10/16

WEAPON SYSTEM COST ANALYSIS (EXHIBIT P-5)

(Dollars in Thousands)

BUDGET ACTIVITY: 5	**P-1 LINE ITEM NOMENCLATURE**	**BLI: 5113**
Auxiliaries, Craft and Prior Year Program Costs	**SERVICE CRAFT**	

	FY 2009		**FY 2011**	
ELEMENT OF COST	**QTY**	**COST**	**QTY**	**COST**
PLAN COSTS	5		3	
BASIC CONST/CONVERSION		45,310		13,294
CHANGE ORDERS		312		
HM&E		549		300
OTHER COST		1,802		100
TOTAL SHIP ESTIMATE		47,973		13,694
NET P-1 LINE ITEM:		47,973		13,694

FY 2009		**FY 2011**	
1-YON	4,950	3-YON	13,694
2-YT	22,031	3	13,694
2-YP	20,992		
5	47,973		

SHIP TYPE	HULL NUMBER	SHIPBUILDER	FISCAL YEAR AUTHORIZED	CONTRACT AWARD	START OF CONSTRUCTION	DELIVERY DATE
YP	708	C&G BOAT WORKS	09	MAR-09	NOV-09	MAR-14
YON	337	MAYBANK INDUSTRIES	11	NOV-13	FEB-14	SEP-15
YON	338	MAYBANK INDUSTRIES	11	NOV-13	MAY-14	SEP-15
YON	339	TBD	16	JUL-16	OCT-16	FEB-18
YON	340	TBD	16	JUL-16	JAN-17	FEB-18
YON	341	TBD	17	JUL-17	TBD	TBD
YON	342	TBD	18	JUL-18	TBD	TBD
YON	343	TBD	19	JUL-19	TBD	TBD
YC	1686	TBD	16	JUL-16	OCT-16	SEP-17
YC	1687	TBD	16	JUL-16	DEC-16	SEP-17
YC	1688	TBD	16	JUL-16	FEB-17	SEP-17
YWO	3	TBD	16	JUL-16	OCT-16	DEC-17
YWO	4	TBD	16	JUL-16	JAN-17	DEC-17
YWO	5	TBD	16	JUL-16	AUG-17	JUN-18
YWO	6	TBD	16	JUL-16	NOV-17	AUG-18
YWO	7	TBD	16	JUL-16	JUN-18	FEB-19
YWO	8	TBD	16	JUL-16	AUG-18	NOV-19
YWO	9	TBD	16	JUL-16	MAR-19	NOV-19
YT	808	TBD	16	JUL-16	OCT-16	OCT-17
YT	809	TBD	16	JUL-16	JAN-17	JAN-18
YT	1701	TBD	17	JUL-17	TBD	TBD
YT	1702	TBD	17	JUL-17	TBD	TBD
YT	1801	TBD	18	JUL-18	TBD	TBD
YT	1802	TBD	18	JUL-18	TBD	TBD
YT	1901	TBD	19	JUL-19	TBD	TBD
YT	1902	TBD	19	JUL-19	TBD	TBD

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CLASSIFICATION: UNCLASSIFIED

BUDGET ITEM JUSTIFICATION SHEET (P-40)

FY 2015 President's Budget

DATE: March 2014

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 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	TO COMP	TOTAL PROG
QUANTITY	50	4	4	2	4	4	4	0	0	72
End Cost	1,050.5	85.7	81.0	40.5	81.3	83.5	85.1	0.0	0.0	1,507.6
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	987.3	85.7	81.0	40.5	81.3	83.5	85.1	0.0	0.0	1,444.4
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
Total Obligational Authority	1,050.5	85.7	81.0	40.5	81.3	83.5	85.1	0.0	0.0	1,507.6
Plus Outfitting / Plus Post Delivery	6.5	1.2	2.7	1.5	1.3	1.4	1.2	0.8	0.4	17.0
Plus Katrina Supplement	19.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	19.8
Total	1,076.8	86.9	83.7	42.0	82.6	84.9	86.3	0.8	0.4	1,544.4
Unit Cost (Ave. End Cost)	21.0	21.4	20.3	20.3	20.3	20.9	21.3	0.0	0.0	20.9

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, designated ETF40B.

Characteristics:

Hull	Air Cushion
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**	**BLI: 5139**
Auxiliaries, Craft and Prior Year Program Costs	**LCAC SLEP**	

	FY 2011		**FY 2012**	
ELEMENT OF COST	**QTY**	**COST**	**QTY**	**COST**
PLAN COSTS	4		4	
BASIC CONST/CONVERSION		35,869		36,694
ELECTRONICS		7,184		7,757
HM&E		35,454		35,946
OTHER COST		3,598		3,679
TOTAL SHIP ESTIMATE		82,105		84,076
NET P-1 LINE ITEM:		82,105		84,076

WEAPON SYSTEM COST ANALYSIS (EXHIBIT P-5)

(Dollars in Thousands)

BUDGET ACTIVITY: 5	**P-1 LINE ITEM NOMENCLATURE**	**BLI: 5139**
Auxiliaries, Craft and Prior Year Program Costs	**LCAC SLEP**	

	FY 2013		**FY 2014**		**FY 2015**	
ELEMENT OF COST	**QTY**	**COST**	**QTY**	**COST**	**QTY**	**COST**
PLAN COSTS	4		4		2	
BASIC CONST/CONVERSION		37,950		33,714		18,000
ELECTRONICS		7,600		7,428		3,500
HM&E		36,367		36,196		17,363
OTHER COST		3,800		3,649		1,622
TOTAL SHIP ESTIMATE		85,717		80,987		40,485
NET P-1 LINE ITEM:		85,717		80,987		40,485

SHIPBUILDING AND CONVERSION, NAVY

Analysis of Ship Cost Estimate - Basic/Escalation

Ship Type: LCAC

	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	N/A	N/A		
	Contract Design	N/A	N/A		
	Detail Design	N/A	N/A		
	Request for Proposals	NOV 2012	DEC 2012		
	Design Agent	BOSTON PLANNING YARD	BOSTON PLANNING YARD		
	REQUEST FOR PROPOSALS - FY13 / FY14 SLEP	JAN 2014	FEB 2014		
II.	**Classification of Cost Estimate**	N/A			
III.	**Basic Construction/Conversion**	FY13 SLEP (EAST COAST)	FY13 / FY14 SLEP (WEST COAST)	FY14 SLEP (EAST COAST)	
	A. Actual Award Date	SEPTEMBER 2013	MAY 2014	MAY 2014	
	B. Contract Type (and Share Line if applicable)	FFP	FFP	FFP	
IV.	**Escalation**				
	Escalation Termination Date	N/A	N/A	N/A	
	Escalation Requirement	N/A	N/A	N/A	
	Labor/Material Split	N/A	N/A	N/A	
	Allowable Overhead Rate	N/A	N/A	N/A	
V.	**Other Basic(Reserves/Miscellaneous)**	**Amount**			

1. LCAC SLEP DOES NOT HAVE STAGES OF DESIGN LIKE NEW CONSTRUCTION SHIPS. THE LCAC PLANNING YARD PUTS TOGETHER WORK ITEMS IN A SLEP WORK PACKAGE. THIS WORK PACKAGE IS THEN INCLUDED IN THE RFP, WHICH IS COMPETED.
2. ESCALATION DOES NOT APPLY TO FFP CONTRACTS.
3. RFP RELEASED TO INCLUDE CONGRESSIONAL RESTORATION OF TWO FY13 CRAFT AND FOUR FY14 CRAFT.

SHIP TYPE	HULL NUMBER	SHIPBUILDER	FISCAL YEAR AUTHORIZED	CONTRACT AWARD	START OF CONSTRUCTION	DELIVERY DATE
LCAC SLEP	038	L-3 UNIDYNE, INC.	11	FEB-12	MAY-12	MAR-14
LCAC SLEP	055	L-3 UNIDYNE, INC.	12	FEB-12	OCT-12	FEB-14
LCAC SLEP	060	L-3 UNIDYNE, INC.	12	FEB-12	JAN-13	APR-14
LCAC SLEP	073	L-3 UNIDYNE, INC.	12	FEB-12	JAN-13	FEB-14
LCAC SLEP	088	L-3 UNIDYNE, INC.	13	SEP-13	OCT-13	JAN-15
LCAC SLEP	089	L-3 UNIDYNE, INC.	13	SEP-13	FEB-14	MAY-15
LCAC SLEP	081	TBD	13	MAY-14	AUG-14	NOV-15
LCAC SLEP	090	TBD	13	MAY-14	DEC-14	MAR-16
LCAC SLEP	078	TBD	14	MAY-14	AUG-14	NOV-15
LCAC SLEP	083	TBD	14	MAY-14	DEC-14	MAR-16
LCAC SLEP	052	TBD	14	MAY-14	APR-15	JUL-16
LCAC SLEP	057	TBD	14	MAY-14	AUG-15	NOV-16
LCAC SLEP	084	TBD	15	MAR-15	JUN-15	SEP-16
LCAC SLEP	085	TBD	15	MAR-15	DEC-15	MAR-17
LCAC SLEP	058	TBD	16	MAR-16	JUN-16	SEP-17
LCAC SLEP	064	TBD	16	MAR-16	OCT-16	JAN-18
LCAC SLEP	065	TBD	16	MAR-16	FEB-17	MAY-18
LCAC SLEP	076	TBD	16	MAR-16	JUN-17	SEP-18
LCAC SLEP	086	TBD	17	MAR-17	JUN-17	SEP-18
LCAC SLEP	087	TBD	17	MAR-17	OCT-17	JAN-19
LCAC SLEP	077	TBD	17	MAR-17	FEB-18	MAY-19
LCAC SLEP	050	TBD	17	MAR-17	JUN-18	SEP-19
LCAC SLEP	014	TBD	18	MAR-18	JUN-18	SEP-19
LCAC SLEP	035	TBD	18	MAR-18	OCT-18	JAN-20
LCAC SLEP	020	TBD	18	MAR-18	FEB-19	MAY-20
LCAC SLEP	066	TBD	18	MAR-18	JUN-19	SEP-20

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CLASSIFICATION: UNCLASSIFIED

BUDGET ITEM JUSTIFICATION SHEET (P-40)
FY 2015 PRESIDENT'S BUDGET

DATE: March 2014

APPROPRIATION/BUDGET ACTIVITY
SHIPBUILDING AND CONVERSION, NAVY/BA 5 Auxiliaries, Craft and Prior Year Program Costs

P-1 LINE ITEM NOMENCLATURE
COMPLETION OF PRIOR YEAR SHIPBUILDING PROGRAMS
BLI: 5300

(Dollars in Millions)	PRIOR YR	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	TO COMP	TOTAL PROG
Cost to Complete										
LPD 17 Class	0.0	0.0	0.0	54.1	38.7	0.0	0.0	0.0	0.0	92.8
LCS	0.0	0.0	0.0	93.0	82.7	82.0	0.0	0.0	0.0	257.7
CVN	0.0	0.0	0.0	663.0	124.0	0.0	0.0	0.0	0.0	787.0
CVN RCOH	0.0	0.0	0.0	54.0	20.0	0.0	0.0	0.0	0.0	74.0
JHSV	0.0	0.0	0.0	14.0	15.9	0.0	0.0	0.0	0.0	29.9
DDG-51	0.0	0.0	0.0	129.1	75.0	0.0	0.0	0.0	0.0	204.2
Total	0.0	0.0	0.0	1,007.3	356.3	82.0	0.0	0.0	0.0	1,445.6

Note: General Provision 8072 of the Department of Defense Appropriations Act, 2014 directs that funds appropriated for the Completion of Prior Year Shipbuilding Programs be merged with and available for the same purposes as the appropriation to which transferred.

LPD-17 Class:

Funds in FY15 are required for LPD 26 for contract clause adjustments ($27.7M), Government responsible portion of shipbuilding contract overrun ($15.4M), and Legislative changes ($11.0M).

CVN 78:

Funds in FY15 are required to support drawing completion and work package development (NRE) ($143.0M) and the Government responsible portion of the shipbuilding construction contract overrun ($520.0M).

CVN 72 RCOH:

Funds in FY15 are required for restoration of descoped requirements for CVN 72 Electronics, Ordnance, and Hull, Mechanical & Electrical GFE modernization and refurbishment resulting from sequestration reductions ($54.0M).

JHSV:

Funds in FY15 are required for the Government responsible portion of shipbuilding contract overrun ($4.1M) on JHSV 6, Change Orders shortfall on JHSV 6 ($0.3M) and restoration of descoped requirements resulting from sequestration reductions for Change Orders and Electronics GFE ($9.6M) for JHSV 6, JHSV 8, JHSV 9, and JHSV 10.

LCS:

Funds in FY15 are required for Government responsible portion of the shipbuilding contract overruns ($93.0M) for LCS 5, LCS 6, LCS 7, and LCS 8. The total program shortfall results in part from a $184M Sequestration reduction.

DDG-51:

FY15 funds are required for restoration of descoped requirements resulting from Sequestration reductions ($129.1M) on DDG 113, DDG 114, and DDG 115.

WEAPON SYSTEM COST ANALYSIS (EXHIBIT P-5)

(Dollars in Thousands)

BUDGET ACTIVITY: 5	**P-1 LINE ITEM NOMENCLATURE**	**BLI: 5300**
Auxiliaries, Craft and Prior Year Program Costs	**COMPLETION OF PRIOR YEAR SHIPBUILDING PROGRAMS**	

ELEMENT OF COST	**FY 2013 COST**	**FY 2014 COST**	**FY 2015 COST**
TOTAL SHIP ESTIMATE			
LPD-17 Class:			
LPD 26 Contract Clause Adjustments (Deferred depreciation related to Katrina Insurance Claims and Deferred Restructuring)	0	0	27,696
Legislative Changes (including OSHA Regulations) for LPD 26	0	0	11,000
Government responsible portion of shipbuilding contract overrun for LPD 26	0	0	15,400
Total LPD-17 Class	0	0	54,096
LCS:			
Government responsible portion of shipbuilding contract overrun for LCS 5 and LCS 6	0	0	51,345
Government responsible portion of shipbuilding contract overrun for LCS 7 and LCS 8	0	0	41,700
Total LCS	0	0	93,045
CVN 78:			
Drawing Completion and Work Package Development	0	0	143,000
Government responsible portion of shipbuilding contract overrun	0	0	520,000
Total CVN-78	0	0	663,000
CVN 72 RCOH:			
Restoration of Sequestration shortfall: Electronics/Ordnance/Hull, Mechanical & Electrical GFE	0	0	54,000
Total CVN 72 RCOH	0	0	54,000
JHSV:			
Government responsible portion of shipbuilding contract overrun - JHSV 6	0	0	4,141
Change Orders shortfall- JHSV 6	0	0	300
Restoration of Sequestration shortfall: Change Orders/Electronics GFE - JHSV 6	0	0	4,899
Restoration of Sequestration shortfall: Change Orders/Electronics GFE - JHSV 8 and JHSV 9	0	0	2,620
Restoration of Sequestration shortfall: Change Orders/Electronics GFE - JHSV 10	0	0	2,040
Total JHSV	0	0	14,000
Subtotal, Completion of Prior Year Shipbuilding Programs	0	0	878,141

WEAPON SYSTEM COST ANALYSIS (EXHIBIT P-5)

(Dollars in Thousands)

BUDGET ACTIVITY: 5	**P-1 LINE ITEM NOMENCLATURE**	**BLI: 5300**
Auxiliaries, Craft and Prior Year Program Costs	**COMPLETION OF PRIOR YEAR SHIPBUILDING PROGRAMS**	

ELEMENT OF COST	**FY 2013 COST**	**FY 2014 COST**	**FY 2015 COST**
TOTAL SHIP ESTIMATE			
DDG-51:			
Restoration of Sequestration shortfall: Deferred work DDG 113	0	0	6,700
Restoration of Sequestration shortfall: Combat System Engineering for DDG 113	0	0	25,398
Restoration of Sequestration shortfall: GFE (Electronics/Ordnance) for DDG 113	0	0	33,673
Restoration of Sequestration shortfall: GFE (Electronics/Ordnance) for DDG 114 and DDG 115	0	0	63,373
Total DDG-51:	0	0	129,144
Total Completion of Prior Year Shipbuilding Programs	0	0	1,007,285

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