DEPARTMENT OF THE NAVY
FISCAL YEAR (FY) 2014
BUDGET ESTIMATES

JUSTIFICATION OF ESTIMATES
APRIL 2013

SHIPBUILDING AND CONVERSION, NAVY

INTENTIONALLY
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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: $15,030,543,000, to remain available for obligation until September 30, 2018: *Provided*, That of the amounts provided under this heading, $952,739,000 shall become available on October 1, 2014 for construction of Virginia class submarines and shall remain available until September 30, 2019: *Provided further*, That additional obligations may be incurred after September 30, 2018, for the amounts made available on October 1, 2013, and after September 20, 2019, for the amounts made available on October 1, 2014, 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 2014 President's Budget
Exhibit P-1 FY 2014 President's Budget
Total Obligational Authority
(Dollars in Thousands)

28 Feb 2013

Appropriation	FY 2012 (Base & OCO)	FY 2013 Base Request with CR Adj*	FY 2013 OCO Request with CR Adj*	Emergency Disaster Relief Act of 2013	FY 2013 Total Request with CR Adj*
Shipbuilding and Conversion, Navy	15,138,214	15,010,419			15,010,419
Total Department of the Navy	15,138,214	15,010,419			15,010,419

P-1C: FY 2014 President's Budget (Published Version), as of February 28, 2013 at 15:35:54
* Reflects the FY 2013 President's Budget with an undistributed adjustment to match the Annualized Continuing Resolution funding level by appropriation.

Department of the Navy
FY 2014 President's Budget
Exhibit P-1 FY 2014 President's Budget
Total Obligational Authority
(Dollars in Thousands)

28 Feb 2013

Appropriation	FY 2014 Base
Shipbuilding and Conversion, Navy	14,077,804
Total Department of the Navy	14,077,804

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Department of the Navy
FY 2014 President's Budget
Exhibit P-1 FY 2014 President's Budget
Total Obligational Authority
(Dollars in Thousands)

28 Feb 2013

Appropriation: Shipbuilding and Conversion, Navy

Budget Activity	FY 2012 (Base & OCO)	FY 2013 Base Request with CR Adj*	FY 2013 OCO Request with CR Adj*	Emergency Disaster Relief Act of 2013	FY 2013 Total Request with CR Adj*
02. Other Warships	10,276,477	12,353,198			12,353,198
03. Amphibious Ships	4,282,959	189,196			189,196
05. Auxiliaries, Craft, and Prior-Year Program C	578,778	1,037,451			1,037,451
20. Undistributed		1,430,574			1,430,574
Total Shipbuilding and Conversion, Nav	15,138,214	15,010,419			15,010,419

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Department of the Navy
FY 2014 President's Budget
Exhibit P-1 FY 2014 President's Budget
Total Obligational Authority
(Dollars in Thousands)

28 Feb 2013

Appropriation: Shipbuilding and Conversion, Navy

Budget Activity	FY 2014 Base
02. Other Warships	12,210,222
03. Amphibious Ships	526,732
05. Auxiliaries, Craft, and Prior-Year Program C	1,340,850
20. Undistributed	
Total Shipbuilding and Conversion, Nav	14,077,804

P-1C: FY 2014 President's Budget (Published Version), as of February 28, 2013 at 15:35:54

Department of the Navy
FY 2014 President's Budget
Exhibit P-1 FY 2014 President's Budget
Total Obligational Authority
(Dollars in Thousands)

28 Feb 2013

Appropriation: 1611N Shipbuilding and Conversion, Navy

Line No	Item Nomenclature	Ident Code	FY 2012 (Base & OCO) Quantity	FY 2012 (Base & OCO) Cost	FY 2013 Base Request with CR Adj* Quantity	FY 2013 Base Request with CR Adj* Cost	FY 2013 OCO Request with CR Adj* Quantity	FY 2013 OCO Request with CR Adj* Cost	Emergency Disaster Relief Act of 2013 Quantity	Emergency Disaster Relief Act of 2013 Cost	FY 2013 Total Request with CR Adj* Quantity	FY 2013 Total Request with CR Adj* Cost	Sec
	Budget Activity 02: Other Warships												
	Other Warships												
1	Carrier Replacement Program	A			1	(11,338,380)					1	(11,338,380)	U
	Less: Advance Procurement (PY)					(-3,327,874)						(-3,327,874)	U
	Less: Subsequent Full Funding (FY)					(-7,402,311)						(-7,402,311)	U
						608,195						608,195	
	Subsequent Full Funding (CY)												U
2	Carrier Replacement Program												
	Advance Procurement (CY)			554,798									U
3	Virginia Class Submarine	B	2	(5,124,319)	2	(5,107,924)					2	(5,107,924)	U
	Less: Advance Procurement (PY)			(-1,903,005)		(-1,890,323)						(-1,890,323)	U
	Less: Subsequent Full Funding (FY)												U
				3,221,314		3,217,601						3,217,601	
4	Virginia Class Submarine												
	Advance Procurement (CY)			1,461,361		874,878						874,878	U
5	CVN Refueling Overhauls	A	1	(4,568,835)									U
	Less: Advance Procurement (CY/PY)			(-1,153,919)									U
	Less: Subsequent Full Funding (FY)			(-3,318,816)									U
				96,100									
	Subsequent Full Funding (CY)			68,000		1,613,392						1,613,312	U
6	CVN Refueling Overhauls												
	Advance Procurement (CY)			529,652		70,010						70,010	U
7	DDG 1000	A		508,727		669,222						669,222	U

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Department of the Navy
FY 2014 President's Budget
Exhibit P-1 FY 2014 President's Budget
Total Obligational Authority
(Dollars in Thousands)

28 Feb 2013

Appropriation: 1611N Shipbuilding and Conversion, Navy

Line No	Item Nomenclature	Ident Code	FY 2014 Base Quantity	FY 2014 Base Cost	Sec
	Budget Activity 02: Other Warships				
	Other Warships				
1	Carrier Replacement Program	A			U
	Less: Advance Procurement (PY)				U
	Less: Subsequent Full Funding (FY)				U

	Subsequent Full Funding (CY)			944,866	U
2	Carrier Replacement Program				
	Advance Procurement (CY)				U
3	Virginia Class Submarine	B	2	(4,718,516)	U
	Less: Advance Procurement (PY)			(-835,073)	U
	Less: Subsequent Full Funding (FY)			(-952,739)	U

				2,930,704	
4	Virginia Class Submarine				
	Advance Procurement (CY)			2,354,612	U
5	CVN Refueling Overhauls	A			U
	Less: Advance Procurement (PY)				U
	Less: Subsequent Full Funding (FY)				U

	Subsequent Full Funding (CY)			1,705,424	U
6	CVN Refueling Overhauls				
	Advance Procurement (CY)			245,793	U
7	DDG 1000	A		231,694	U

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Department of the Navy
FY 2014 President's Budget
Exhibit P-1 FY 2014 President's Budget
Total Obligational Authority
(Dollars in Thousands)

28 Feb 2013

Appropriation: 1611N Shipbuilding and Conversion, Navy

Line No	Item Nomenclature	Ident Code	FY 2012 (Base & OCO) Quantity	FY 2012 (Base & OCO) Cost	FY 2013 Base Request with CR Adj* Quantity	FY 2013 Base Request with CR Adj* Cost	FY 2013 OCO Request with CR Adj* Quantity	FY 2013 OCO Request with CR Adj* Cost	Emergency Disaster Relief Act of 2013 Quantity	Emergency Disaster Relief Act of 2013 Cost	FY 2013 Total Request with CR Adj* Quantity	FY 2013 Total Request with CR Adj* Cost	Sec
8	DDG-51	A	1	(2,028,428)	2	(3,149,381)					2	(3,149,381)	U
	Less: Advance Procurement (PY)			(-47,719)		(-100,723)						(-100,723)	U
				1,980,709		3,048,658						3,048,658	
9	DDG-51												
	Advance Procurement (CY)			100,723		466,283						466,283	U
10	Littoral Combat Ship	A	4	(1,834,042)	4	(1,784,959)					4	(1,784,959)	U
	Less: Advance Procurement (PY)			(-78,949)									U
				1,755,093		1,784,959						1,784,959	
Total Other Warships				10,276,477		12,353,198						12,353,198	
Budget Activity 03: Amphibious Ships													
	Amphibious Ships												
11	LPD-17	A	1	(2,021,430)									U
	Less: Advance Procurement (PY)			(-183,986)									U
				1,837,444									
	Completion of Prior Year Shipbuilding (CY)			73,992									U
12	Afloat Forward Staging Base	A											U
13	LHA Replacement	A											
	Subsequent Full Funding (CY)			1,999,191									U
14	Joint High Speed Vessel	A	2	372,332	1	189,196					1	189,196	U
Total Amphibious Ships				4,282,959		189,196						189,196	

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Department of the Navy
FY 2014 President's Budget
Exhibit P-1 FY 2014 President's Budget
Total Obligational Authority
(Dollars in Thousands)

28 Feb 2013

Appropriation: 1611N Shipbuilding and Conversion, Navy

Line No	Item Nomenclature	Ident Code	FY 2014 Base Quantity	FY 2014 Base Cost	Sec
8	DDG-51	A	1	(1,729,712)	U
	Less: Advance Procurement (PY)			(-114,148)	U
				1,615,564	
9	DDG-51 Advance Procurement (CY)			388,551	U
10	Littoral Combat Ship	A	4	(1,793,014)	U
	Less: Advance Procurement (PY)				U
				1,793,014	
Total Other Warships				12,210,222	
Budget Activity 03: Amphibious Ships					
	Amphibious Ships				
11	LPD-17	A			U
	Less: Advance Procurement (PY)				U
	Completion of Prior Year Shipbuilding (CY)				U
12	Afloat Forward Staging Base	A	1	524,000	U
13	LHA Replacement	A			
	Subsequent Full Funding (CY)				U
14	Joint High Speed Vessel	A		2,732	U
Total Amphibious Ships				526,732	

P-1C: FY 2014 President's Budget (Published Version), as of February 28, 2013 at 15:35:54

Department of the Navy
FY 2014 President's Budget
Exhibit P-1 FY 2014 President's Budget
Total Obligational Authority
(Dollars in Thousands)

28 Feb 2013

Appropriation: 1611N Shipbuilding and Conversion, Navy

Line No	Item Nomenclature	Ident Code	FY 2012 (Base & OCO) Quantity	FY 2012 (Base & OCO) Cost	FY 2013 Base Request with CR Adj* Quantity	FY 2013 Base Request with CR Adj* Cost	FY 2013 OCO Request with CR Adj* Quantity	FY 2013 OCO Request with CR Adj* Cost	Emergency Disaster Relief Act of 2013 Quantity	Emergency Disaster Relief Act of 2013 Cost	FY 2013 Total Request with CR Adj* Quantity	FY 2013 Total Request with CR Adj* Cost	Sec
	Budget Activity 05: Auxiliaries, Craft, and Prior-Year Program Costs												
	Auxiliaries, Craft and Prior Yr Program Cost												
15	Oceanographic Ships	A	1	89,000									U
16	Moored Training Ship Advance Procurement (CY)			131,200		307,300						307,300	U
17	Outfitting	A		270,639		309,648						309,648	U
18	Service Craft	A		3,863									U
19	LCAC SLEP	A	4	84,076	2	47,930					2	47,930	U
20	Completion of PY Shipbuilding Programs	B				372,573						372,573	U
	LHA R (MEMO NON ADD)					(156,685)						(156,685)	U
	CVN (MEMO NON ADD)												U
	CVN RCOH (MEMO NON ADD)					(135,000)						(135,000)	U
	LPD 17 (MEMO NON ADD)					(80,888)						(80,888)	U
	Total Auxiliaries, Craft, and Prior-Year Program			578,778		1,037,451						1,037,451	
	Budget Activity 20: Undistributed												
	Undistributed												
21	Adj to Match Continuing Resolution	A				1,430,574						1,430,574	U
	Total Undistributed					1,430,574						1,430,574	
	Total Shipbuilding and Conversion, Navy			15,138,214		15,010,419						15,010,419	

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Department of the Navy
FY 2014 President's Budget
Exhibit P-1 FY 2014 President's Budget
Total Obligational Authority
(Dollars in Thousands)

28 Feb 2013

Appropriation: 1611N Shipbuilding and Conversion, Navy

Line No	Item Nomenclature	Ident Code	FY 2014 Base Quantity	FY 2014 Base Cost	Sec
Budget Activity 05: Auxiliaries, Craft, and Prior-Year Program Costs					
	Auxiliaries, Craft and Prior Yr Program Cost				
15	Oceanographic Ships	A			U
16	Moored Training Ship Advance Procurement (CY)			183,900	U
17	Outfitting	A		450,163	U
18	Service Craft	A			U
19	LCAC SLEP	A	4	80,987	U
20	Completion of PY Shipbuilding Programs	B		625,800	U
	LHA R (MEMO NON ADD)			(37,700)	U
	CVN (MEMO NON ADD)			(588,100)	U
	CVN RCOH (MEMO NON ADD)				U
	LPD 17 (MEMO NON ADD)				U
Total Auxiliaries, Craft, and Prior-Year Program				1,340,850	
Budget Activity 20: Undistributed					
	Undistributed				
21	Adj to Match Continuing Resolution	A			U
Total Undistributed					
Total Shipbuilding and Conversion, Navy				14,077,804	

P-1C: FY 2014 President's Budget (Published Version), as of February 28, 2013 at 15:35:54

CLASSIFICATION: UNCLASSIFIED

BUDGET ITEM JUSTIFICATION SHEET (P-40)
FY 2014 President's Budget (PB)

DATE: April 2013

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 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	TO COMP	TOTAL PROG
QUANTITY	1	0	1	0	0	0	0	1	0	3
End Cost	12,829.3	0.0	11,338.4	0.0	0.0	0.0	0.0	13,874.2	0.0	38,041.9
Less Advance Procurement	3,693.2	0.0	3,327.9	0.0	0.0	0.0	0.0	1,726.7	0.0	8,747.7
Less Cost to Complete	1,317.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1,317.1
Less Subsequent Year FF	5,134.0	0.0	7,402.3	0.0	0.0	0.0	0.0	11,084.9	0.0	23,621.2
Plus Subsequent Year FF	5,134.0	0.0	0.0	944.9	1,834.1	1,235.6	1,496.0	1,891.8	11,084.9	23,621.2
Full Funding TOA	7,819.0	0.0	608.2	944.9	1,834.1	1,235.6	1,496.0	2,954.4	11,084.9	27,977.1
Plus Advance Procurement	6,466.2	554.8	0.0	0.0	0.0	682.8	1,043.8	0.0	0.0	8,747.7
Plus Cost to Complete	0.0	0.0	0.0	588.1	729.0	0.0	0.0	0.0	0.0	1,317.1
Total Obligational Authority	14,285.3	554.8	608.2	1,533.0	2,563.1	1,918.4	2,539.8	2,954.4	11,084.9	38,041.9
Plus Outfitting / Plus Post Delivery	0.0	0.0	0.0	54.0	96.8	40.7	2.5	0.0	519.8	713.8
Total	14,285.3	554.8	608.2	1,587.0	2,659.9	1,959.1	2,542.4	2,954.4	11,604.7	38,755.7
Unit Cost (Ave. End Cost)	12,829.3	0.0	11,338.4	0.0	0.0	0.0	0.0	13,874.2	0.0	12,680.6

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	09/13
Months to Complete:		Months to Complete:	
a) Contract Award to Delivery	84 Months	a) Contract Award to Delivery	108 Months
b) Construction Start to Delivery	121 Months	b) Construction Start to Delivery	139 Months
Delivery Date	09/15	Delivery Date	09/22
Completion of Fitting Out	11/15	Completion of Fitting Out	11/22
Obligation Work Limiting Date	10/16	Obligation Work Limiting Date	10/23

WEAPON SYSTEM COST ANALYSIS (EXHIBIT P-5)

(Dollars in Thousands)

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

	FY 2008		**FY 2013**	
ELEMENT OF COST	**QTY**	**COST**	**QTY**	**COST**
PLAN COSTS	1	3,278,258	1	802,402
BASIC CONST/CONVERSION		5,988,718		5,728,834
CHANGE ORDERS		218,106		216,145
ELECTRONICS		329,262		397,668
PROPULSION EQUIPMENT		1,515,612		2,044,582
HM&E		30,939		34,172
OTHER COST		66,663		106,087
ORDNANCE		1,401,736		1,346,457
ESCALATION				662,033
TOTAL SHIP ESTIMATE		12,829,294		11,338,380
LESS ADVANCE PROCUREMENT FY01		21,668		
LESS ADVANCE PROCUREMENT FY02		135,341		
LESS ADVANCE PROCUREMENT FY03		395,493		
LESS ADVANCE PROCUREMENT FY04		1,162,905		
LESS ADVANCE PROCUREMENT FY05		623,073		
LESS ADVANCE PROCUREMENT FY06		618,880		
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				903,297
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				944,866
LESS SUBSEQUENT FULL FUNDING FY15				1,834,072
LESS SUBSEQUENT FULL FUNDING FY16				1,235,600
LESS SUBSEQUENT FULL FUNDING FY17				1,495,981
LESS SUBSEQUENT FULL FUNDING FY18				1,891,792
LESS COST TO COMPLETE FY14		588,100		
LESS COST TO COMPLETE FY15		729,000		
NET P-1 LINE ITEM:		2,685,021		608,195

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		
	Design Agent	HUNTINGTON INGALLS INCORPORATED			
II.	Classification of Cost Estimate	C			

III.	Basic Construction/Conversion	FY 2008	FY 2013
	A. Actual Award Date	SEP 08	SEP 13
	B. Contract Type	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	SEP 22
	Escalation Requirement	N/A	662,033
	Labor/Material Split	N/A	58.9% / 41.1%
	Allowable Overhead Rate	N/A	95%
V.	Other Basic(Reserves/Miscellaneous)	Amount	Amount

SHIPBUILDING AND CONVERSION, NAVY
SHIP PRODUCTION SCHEDULE

EXHIBIT P-27
FY 2014 Presidents Budget
DATE:
April 2013

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	SEP-15
CVN	79	Huntington Ingalls Industries Newport News Shipbuilding	2013	SEP-13	FEB-11	SEP-22
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		
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	70,028
HIGH FREQUENCY RADIO GROUP (HFRG)	1	3,085	1	6,905
SEA-BASED JOINT PRECISION APPROACH & LANDING SYSTEM (JPALS)	1	6,711	1	7,780
Subtotal		198,101		256,642
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 (Note 1)	1	2,229	1	10,907
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

Note 1: CVN 79 Surface Ship Torpedo Defense System (Nixie) adds detect-to-engage hard-kill capability in addition to the electro-acoustic soft-kill countermeasure decoy system which the CVN 78 version does not have. The Department directed rapid fielding of this capability.

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		118,054
c. Other ELECTRONICS				
		15,767		22,972
Subtotal		15,767		22,972
Total ELECTRONICS		329,262		397,668

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 LAUNCH 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	16,361
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		1,322,459
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	1,469
NULKA ELECTRONIC WARFARE DECOY LAUNCHING SYSTEM			1	4,656
MK-38, MOD 2 - MACHINE GUN SYSTEM (MGS)			5	7,675
LONG RANGE LINEUP SYSTEM (LRLS)			1	2,684
Subtotal		5,110		21,132
c. Other ORDNANCE				
		3,612		2,866
Subtotal		3,612		2,866
Total ORDNANCE		1,401,736		1,346,457

Note 1: LRLS in the PB 13 budget was included in "other ordnance". Cost of the system has not changed since the PB 13 submit.

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				
		2,172		3,043
Subtotal		2,172		3,043
Total HM&E		30,939		34,172

SHIPBUILDING AND CONVERSION, NAVY | **P-35 EXHIBIT**
MAJOR SHIP COMPONENT FACT SHEET | **FY 2014 Presidents Budget**
(Dollars in Thousands) | April 2013

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	AUG-19		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	SEP-15	25	12	AUG-12
FY 13	CVN 79	SEP-22	25	12	AUG-19

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	JAN-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	SEP-15	18	12	MAR-13
FY 13	CVN 79	SEP-22	20	12	JAN-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	SEP-18		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	SEP-15	30	18	SEP-11
FY 13	CVN 79	SEP-22	30	18	SEP-18

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	SEP-18		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	SEP-15	30	18	SEP-11
FY 13	CVN 79	SEP-22	30	18	SEP-18

V. COMPETITION/SECOND SOURCE INITIATIVES:

None

NOTE:

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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	SEP-17		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	SEP-15	47	24	OCT-09
FY 13	CVN 79	SEP-22	36	24	SEP-17

V. COMPETITION/SECOND SOURCE INITIATIVES:

None

NOTE:

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MAJOR SHIP COMPONENT FACT SHEET
(Dollars in Thousands)

P-35 EXHIBIT
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April 2013

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

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

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

II. CURRENT FUNDING:

P-35 Category	**FY 2008**	
	QTY	**COST**
Major Hardware	1	6,558
System Engineering		1,111
Other Costs		3,251
Total		10,920

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

IV. DELIVERY DATE:

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

V. COMPETITION/SECOND SOURCE INITIATIVES:

None

NOTE:

SPN-46 will not be on CVN 79. All flight squadrons should be JPALS compatible eliminating the need for SPN-46 on the CVN 79.

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

P-35 EXHIBIT
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Ship Type: **CARRIER REPLACEMENT PROGRAM**
Equipment Item: **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	NOV-18		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	SEP-15	22	24	NOV-11
FY 13	CVN 79	SEP-22	22	24	NOV-18

V. COMPETITION/SECOND SOURCE INITIATIVES:

None

NOTE:

SHIPBUILDING AND CONVERSION, NAVY | **P-35 EXHIBIT**
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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	NOV-16		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	SEP-15	46	24	NOV-09
FY 13	CVN 79	SEP-22	46	24	NOV-16

V. COMPETITION/SECOND SOURCE INITIATIVES:

None

NOTE:

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P-35 EXHIBIT
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April 2013

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	FEB-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	SEP-15	28	18	NOV-11
FY 13	CVN 79	SEP-22	28	27	FEB-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	SEP-15	18	18	SEP-12

V. COMPETITION/SECOND SOURCE INITIATIVES:

None

NOTE:

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

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

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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**		**FY 2013**	
	QTY	**COST**	**QTY**	**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	JUN-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	SEP-15	21	18	JUN-12
FY 13	CVN 79	SEP-22	21	18	JUN-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	JAN-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	SEP-22	54	14	JAN-17

V. COMPETITION/SECOND SOURCE INITIATIVES:

None

NOTE:

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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	61,163
Ancillary Equipment		705
Spares		2,473
System Engineering		2,500
Technical Engineering Services		1,921
Other Costs		1,266
Total		70,028

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	MAR-20		1	61,163

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY 13	CVN 79	SEP-22	12	18	MAR-20

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	OCT-18		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	SEP-15	29	12	APR-12
FY 13	CVN 79	SEP-22	29	18	OCT-18

V. COMPETITION/SECOND SOURCE INITIATIVES:

None

NOTE:

CVN 78 received a refurbished HFRG unit. The 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 (HFDAG).

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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 2008**		**FY 2013**	
	QTY	**COST**	**QTY**	**COST**
Major Hardware	1	2,648	1	3,070
Technical Data and Documentation		101		117
Spares		453		525
System Engineering		747		866
Technical Engineering Services		627		727
Other Costs		2,135		2,475
Total		6,711		7,780

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY 08	CVN 78	RAYTHEON	FPIF	OCT 14		1	2,648
FY 13	CVN 79	RAYTHEON	FFP	SEP-19		1	3,070

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY 08	CVN 78	SEP-15	0 (Note 1)	12	MAY-13
FY 13	CVN 79	SEP-22	24	12	SEP-19

V. COMPETITION/SECOND SOURCE INITIATIVES:

None

NOTE:

JPALS unit for CVN 78 is part of the LRIP buy for the JPALS increment 1A scheduled to award in October, 2014. Unit will be procured and installed with SCN endcost funding. JPALS unit will be installed during the CVN 78 post shakedown availability.

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Ship Type: **CARRIER REPLACEMENT PROGRAM**
Equipment Item: **ELECTROMAGNETIC AIRCRAFT LAUNCH 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	TBD	JUL-16		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	SEP-15	52	22	JUL-09
FY 13	CVN 79	SEP-22	52	22	JUL-16

V. COMPETITION/SECOND SOURCE INITIATIVES:

None

NOTE:

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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	JUN-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	SEP-15	53	34	JUN-08
FY 13	CVN 79	SEP-22	53	34	JUN-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)	109,565
VSR (Volume Search Radar)	108,840
Common Array Power/Cooling Systems (CAPS/CACS)	59,385
Misc hardware	9,466
High Power Interface	27,800

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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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	TBD	NOV-16		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	SEP-15	37	33	NOV-09
FY 13	CVN 79	SEP-22	37	33	NOV-16

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	MAR-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	SEP-15	20	22	MAR-12
FY 13	CVN 79	SEP-22	20	22	MAR-19

V. COMPETITION/SECOND SOURCE INITIATIVES:

None

NOTE:

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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	JAN-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	SEP-15	26	21	OCT-11
FY 13	CVN 79	SEP-22	26	18	JAN-19

V. COMPETITION/SECOND SOURCE INITIATIVES:

None

NOTE:

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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		1,633
Technical Engineering Services		515		1,065
Other Costs		3,859		2,305
Total		12,782		16,361

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	JUN-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	SEP-15	22	29	JUN-11
FY 13	CVN 79	SEP-22	22	29	JUN-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	APR-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	SEP-15	26	12	JUL-12
FY 13	CVN 79	SEP-22	26	27	APR-18

V. COMPETITION/SECOND SOURCE INITIATIVES:

None

NOTE:

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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	FEB-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	SEP-15	19	36	FEB-11
FY 13	CVN 79	SEP-22	19	36	FEB-18

V. COMPETITION/SECOND SOURCE INITIATIVES:

None

NOTE:

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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	JAN-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	SEP-15	20	21	APR-12
FY 13	CVN 79	SEP-22	20	24	JAN-19

V. COMPETITION/SECOND SOURCE INITIATIVES:

None

NOTE:

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

P-35 EXHIBIT
FY 2014 Presidents Budget
April 2013

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	SEP-17		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	SEP-15	36	24	SEP-10
FY 13	CVN 79	SEP-22	36	24	SEP-17

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, Lakehurst, NJ.

CLASSIFICATION: UNCLASSIFIED

BUDGET ITEM JUSTIFICATION SHEET (P-40) — FY2014 President's Budget Submission — DATE: April 2013

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

P-1 ITEM NOMENCLATURE: Virginia Class Submarine

BLI: 2013

	PRIOR YEARS	FY2012	FY2013	FY2014 *	FY2015	FY2016	FY2017	FY2018	TO COMPLETE	TOTAL PROGRAM
QUANTITY	14	2	2	2	2	2	2	2	2	30
End Cost	36236.6	5124.3	5107.9	5414.2	5410.2	5553.8	5711.6	6006.7	7815.9	82381.3
Less Advance Procurement	9980.6	1413.0	1405.1	1264.1	1066.1	1613.5	1651.8	1691.1	3363.7	23448.9
Less Advance Procurement FY13 Congressional Add	0.0			266.7	510.9					777.7
Less Transfer / Cost to Complete	1617.7									1617.7
Less EOQ	1061.5	490.0	485.2		158.4	417.1	597.9	580.7		3790.9
Less Subsequent Year Full Funding	0.0			952.7						952.7
Plus Subsequent Year Full Funding	0.0				952.7					952.7
Full Funding	23576.8	3221.3	3217.6	2930.7	4627.5	3523.2	3461.9	3734.9	4452.2	52746.1
Plus Advance Procurement	12325.6	1461.4	874.9	1612.0	1649.5	1688.8	1909.0	1927.8		23448.9
Plus Advance Procurement FY13 Congressional Add	0.0		777.7							777.7
Plus Transfer / Cost to Complete	1617.7									1617.7
Plus EOQ	2036.8			742.6	681.6	330.0				3790.9
Total Obligational Authority	39556.8	4682.7	4870.2	5285.3	6958.6	5542.0	5370.9	5662.7	4452.2	82381.3
Plus Cost to Complete Planned										0
Plus Outfitting and Post Delivery	601.2	65.4	71.7	101.4	92.6	99.1	131.6	127.5	1106.7	2397.2
Total	40158.0	4748.1	4941.9	5386.7	7051.1	5641.1	5502.5	5790.2	5558.9	84778.5
Unit Cost (Ave. End Cost)	2588.3	2562.2	2554.0	2707.1	2705.1	2776.9	2855.8	3003.4	3908.0	2746.0

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.

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:	**FY12**	**FY12**	**FY13**	**FY13**	**FY14**	**FY14**
Multi Year Procurement Contract	SSN 788	SSN 789	SSN 790	SSN 791	SSN 792	SSN 793
Contract Award Date	Dec-08	Dec-08	Dec-08	Dec-08	Oct-13	Oct-13
Months to Completion						
a)Option Award Date to Delivery	68 months	73 months	68 months	73 months	68 months	73 months
b) Construction Start to Delivery	66 months	66 months	66 months	66 months	62 months	60 months
Option Award Date	Jan-12	Jan-12	Jan-13	Jan-13	Oct-13	Oct-13
Start of Construction Date	Mar-12	Sep-12	Mar-13	Sep-13	Mar-14	Sep-14
Delivery Date	Aug-17	Feb-18	Aug-18	Feb-19	May-19	Sep-19
Completion of Fitting Out	Aug-17	Feb-18	Aug-18	Feb-19	May-19	Sep-19
Obligation Work Limiting Date	Jul-18	Jan-19	Jul-19	Jan-20	Apr-20	Aug-20

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 an aggressive negotiation schedule, Congressional approval and timely release of funds. The Delivery Dates will be determined at contract award.

***NOTE:** These exhibits include 2 SSNs in FY14 (PB13 had 1 SSN). One ship is fully funded by prior year AP and FY14 Full Funding. The 2nd is funded with prior year AP which includes the FY13 proposed Congressional Add (total of $777.7M), FY14 Full Funding and a request for an Advance Appropriation in FY15.

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 2008		FY 2009		FY 2010		FY 2011		FY 2012		FY 2013		FY14 *	
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	72,903	1	114,805	1	98,882	2	184,659	2	176,536	2	183,597	2	190,942
BASIC CONST/CONVERSION		1,646,470		1,775,064		1,699,521		3,384,964		3,306,362		3,232,704		3,473,921
CHANGE ORDERS		50,240		49,102		50,675		100,644		98,600		96,777		103,380
TECHNOLOGY INSERTION		89,700		111,267		81,323		80,000		25,600		45,500		73,500
ELECTRONICS		238,628		263,351		262,829		529,217		489,947		499,746		503,718
PROPULSION EQUIPMENT		456,000		462,931		474,000		887,000		878,000		896,000		910,157
HM&E		46,752		48,901		51,557		99,738		100,116		102,476		105,248
OTHER COST		30,713		31,300		31,713		48,170		49,158		51,124		53,380
TOTAL SHIP ESTIMATE		2,631,406		2,856,721		2,750,500		5,314,392		5,124,319		5,107,924		5,414,246
LESS ADVANCE PROCUREMENT FY06		456,520												
LESS ADVANCE PROCUREMENT FY07		210,795		462,931										
LESS ADVANCE PROCUREMENT FY08				293,043		474,749		513,884						
LESS ADVANCE PROCUREMENT FY09						235,776		563,000						
LESS ADVANCE PROCUREMENT FY10								432,400		914,000				
LESS ADVANCE PROCUREMENT FY11										498,961		932,000		
LESS ADVANCE PROCUREMENT FY12												473,115		988,246
LESS ADVANCE PROCUREMENT FY13														275,827
LESS ADVANCE PROCUREMENT FY13 CONGRESSIONAL ADD														266,730
LESS EOQ FY04		63,257												
LESS EOQ FY05		79,676												
LESS EOQ FY06		47,192												
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 SUBSEQUENT FULL FUNDING FY15 ADVANCE APPROPRIATION														952,739
NET P-1 LINE ITEM		1,773,966		2,100,747		1,958,118		3,411,398		3,221,314		3,217,601		2,930,704

***NOTE:** These Exhibits include 2 SSNs in FY14 (PB13 had 1 SSN). One is fully funded by prior year AP and FY14 Full Funding. The 2nd is funded with prior year AP which includes the FY13 proposed Congressional Add to fully fund the FY14-2 SSN for LLTM, FY14 Full funding and a request for an Advance Appropriation in FY15.

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

Fiscal Year: 2013/2014

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	FY2013	FY2014	
	A. Award Date	Dec-08	Oct-13	
	B. Contract Type	FPI	FPI	
	C. Request for Proposals:			
	Start/Issue:	Feb-08	Sept-12	
	Complete/Response:	May-08	Dec-12	

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 an aggressive negotiation schedule, Congressional approval and timely release of funds. The Delivery Dates will be determined at contract award.

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
FY2014 President's Budget Submission
April 2013
BLI: 2013

SHIP TYPE	SHIPBUILDER	FISCAL YEAR AUTHORIZED	CONTRACT AWARD	START OF CONSTRUCTION	DELIVERY DATE
SSN783	EB/NNS	08	Jan-04	Feb-08	Apr-14
SSN784	EB/NNS	09	Dec-08	Mar-09	Aug-14
SSN785	EB/NNS	10	Dec-08	Mar-10	Aug-15
SSN786	EB/NNS	11	Dec-08	Mar-11	Aug-16
SSN787	EB/NNS	11	Dec-08	Sep-11	Feb-17
SSN788	EB/NNS	12	Dec-08	Mar-12	Aug-17
SSN789	EB/NNS	12	Dec-08	Sep-12	Feb-18
SSN790	EB/NNS	13	Dec-08	Mar-13	Aug-18
SSN791	EB/NNS	13	Dec-08	Sep-13	Feb-19
SSN792	TBD	14	Oct-13	Mar-14	May-19
SSN793	TBD	14	Oct-13	Sep-14	Sep-19
SSN794	TBD	15	Oct-13	Mar-15	Jul-20
SSN795	TBD	15	Oct-13	Sep-15	Jan-21
SSN796	TBD	16	Oct-13	Mar-16	Jul-21
SSN797	TBD	16	Oct-13	Sep-16	Jan-22
SSN798	TBD	17	Oct-13	Mar-17	Jul-22
SSN799	TBD	17	Oct-13	Sep-17	Jan-23
SSN800	TBD	18	Oct-13	Mar-18	Jul-23
SSN801	TBD	18	Oct-13	Sep-18	Jan-24

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

(2) The FY08-13 reflect contract delivery dates. VA Class is working towards earlier delivery dates for the SSN783 and later 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 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

	FY12		FY13		FY14	
	QTY	TOTAL COST	QTY	TOTAL COST	QTY	TOTAL COST
	2		2		2	
ELECTRONICS EQUIPMENT						
a. P-35 Items						
* 1. Sonar, Combat Control & Architecture		$197,307		$201,254		$202,854
2. ESM		$53,896		$54,974		$55,412
3. Photonics Masts		$36,250		$36,975		$37,268
4. UMMs		$20,672		$21,085		$21,254
5. ECS Recurring		$48,902		$49,880		$50,276
Subtotal		$357,027		$364,168		$367,064
b. Major Items						
1. System Level Activities		$40,109		$40,912		$41,236
2. AN/BPS-16		$11,112		$11,334		$11,424
* 3. Navigation		$6,311		$6,437		$6,488
4. CWITT		$41,040		$41,860		$42,194
5. NPES SE&I		$32,117		$32,759		$33,020
Subtotal		$130,689		$133,302		$134,362
c. Other Electronics						
1. Misc Electronics		$2,231		$2,276		$2,292
TOTAL ELECTRONICS		$489,947		$499,746		$503,718

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

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:	FY12	FY13	FY14
MAJOR HARDWARE	$160,878	$164,096	$167,376
TECH ENGINEERING SERVICES	$2,882	$2,940	$3,000
OTHER COSTS	$33,547	$34,218	$32,478
TOTAL	$197,307	$201,254	$202,854

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	CONTRACTOR	QTY	HARDWARE UNIT COST	CONTRACT AWARD DATE	CONTRACT TYPE	NEW / OPTION
12	SSN788 / 789	LMMSS	2 Shipsets	$43,892	Jan-12	C/CPIF	New
13	SSN790 / 791	LMMSS	2 Shipsets	$44,857	Jan-13	C/CPIF	Option
14	SSN792 / 793	LMMSS	2 Shipsets	$45,756	Jan-14	C/CPIF	Option

IV. DELIVERY DATA:

FY	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEAD TIME	REQUIRED AWARD DATE
12	SSN788 / 789	Aug-17 / Feb-18	28	32	Aug-12 / Feb-13
13	SSN790 / 791	Aug-18 / Feb-19	28	32	Aug-13 / Feb-14
14	SSN792 / 793	May-19/ Sep-19	28	32	May-14 / Sep-14

V. COMPETITION/SECOND SOURCE INITIATIVES:

In FY12, Sonar and Combat Control / Architecture subsystems was competitively awarded.

P-35 EXHIBIT P-35

ITEM: ELECTRONIC SUPPORT MEASURES SUBSYSTEM FY2014 President's Budget Submission

April 2013

I. DESCRIPTION/CHARACTERISTICS/PURPOSE BLI: 2013

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

Quantity of 1 per hull

II. CURRENT FUNDING:

SHIP:	FY12	FY13	FY14
MAJOR HARDWARE	$40,868	$41,686	$42,520
TECH ENGINEERING SERVICES	$2,291	$2,336	$2,382
OTHER COSTS	$10,737	$10,952	$10,510
TOTAL	$53,896	$54,974	$55,412

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	CONTRACTOR	QTY	HARDWARE UNIT COST	CONTRACT AWARD DATE	CONTRACT TYPE	NEW / OPTION
12	SSN788 / 789	LM, Syracuse	2 Shipsets	$20,434	Aug-12	SS / FFP	Option
13	SSN790 / 791	LM, Syracuse	2 Shipsets	$20,843	Aug-13	SS / FFP	Option
14	SSN792 / 793	LM, Syracuse	2 Shipsets	$21,260	Aug-14	SS / FFP	Option

IV. DELIVERY DATA:

FY	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEAD TIME	REQUIRED AWARD DATE
12	SSN788 / 789	Aug-17 / Feb-18	28	24	Apr-13 / Oct-13
13	SSN790 / 791	Aug-18 / Feb-19	28	24	Apr-14 / Oct-14
14	SSN792 / 793	May-19/ Sep-19	28	24	Jan-15 / May-15

V. COMPETITION/SECOND SOURCE INITIATIVES:

N/A

SHIPBUILDING AND CONVERSION, NAVY
MAJOR SHIP COMPONENT FACT SHEET

P-35 EXHIBIT P-35
ITEM: PHOTONICS MAST FY2014 President's Budget Submission
April 2013
I. DESCRIPTION/CHARACTERISTICS/PURPOSE BLI: 2013

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

Quantity of 1 per hull

II. CURRENT FUNDING:

SHIP:	FY12	FY13	FY14
MAJOR HARDWARE	$25,056	$25,557	$26,068
TECH ENGINEERING SERVICES	$1,127	$1,150	$1,172
OTHER COSTS	$10,067	$10,268	$10,028
TOTAL	$36,250	$36,975	$37,268

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	CONTRACTOR	QTY	HARDWARE UNIT COST	CONTRACT AWARD DATE	CONTRACT TYPE	NEW / OPTION
12	SSN788 / 789	Kollmorgen	2 Shipsets	$12,528	Feb-12	SS / FFP	Option
13	SSN790 / 791	Kollmorgen	2 Shipsets	$12,779	Dec-12	SS / FFP	Option
14	SSN792 / 793	Kollmorgen	2 Shipsets	$26,068	Dec-13	SS / FFP	Option

IV. DELIVERY DATA:

FY	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEAD TIME	REQUIRED AWARD DATE
12	SSN788 / 789	Aug-17 / Feb-18	28	24	Apr-13 / Oct-13
13	SSN790 / 791	Aug-18 / Feb-19	28	24	Apr-14 / Oct-14
14	SSN792 / 793	May-19 / Sep-19	28	24	Jan-15 / May-15

V. COMPETITION/SECOND SOURCE INITIATIVES:
N/A

P-35 EXHIBIT P-35

ITEM: UNIVERSAL MODULAR MAST FY2014 President's Budget Submission

April 2013

I. DESCRIPTION/CHARACTERISTICS/PURPOSE BLI: 2013

The VIRGINIA Class Command, Control, Communications and Intelligence (C3I) System is the electronics suite which will provide required operational and warfighting capability for the Navy's newest attack submarine. The C3I System includes 15 subsystems (23 if all electronically interfaced subsystems are included) integrated by an overarching Architecture Subsystem. This P-35 covers the procurement requirements for the following: 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:	FY12	FY13	FY14
MAJOR HARDWARE	$15,404	$15,712	$16,028
TECH ENGINEERING SERVICES	$2,557	$2,608	$2,660
OTHER COSTS	$2,711	$2,765	$2,566
TOTAL	$20,672	$21,085	$21,254

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	CONTRACTOR	QTY	HARDWARE UNIT COST	CONTRACT AWARD DATE	CONTRACT TYPE	NEW / OPTION
12	SSN788 / 789	Kollmorgen	2 Shipsets	$7,702	Oct-11	SS / FP	New
13	SSN790 / 791	Kollmorgen	2 Shipsets	$7,856	Oct-12	SS / FP	Option
14	SSN792 / 793	Kollmorgen	2 Shipsets	$8,014	Jul-13	SS / FP	Option

IV. DELIVERY DATA:

FY	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEAD TIME	REQUIRED AWARD DATE
12	SSN788 / 789	Aug-17 / Feb-18	42	27	Nov-11 / May-12
13	SSN790 / 791	Aug-18 / Feb-19	42	27	Nov-12 / May-13
14	SSN792 / 793	May-19 / Sep-19	42	27	Aug-13 / Dec-13

V. COMPETITION/SECOND SOURCE INITIATIVES:

N/A

P-35 EXHIBIT P-35

ITEM: EXTERIOR COMMUNICATION SYSTEM RECURRING FY2014 President's Budget Submission

April 2013

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:	FY12	FY13	FY14
MAJOR HARDWARE	$32,798	$33,454	$34,124
TECH ENGINEERING SERVICES	$5,562	$5,673	$5,786
OTHER COSTS	$10,542	$10,753	$10,366
TOTAL	$48,902	$49,880	$50,276

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	CONTRACTOR	QTY	HARDWARE UNIT COST	CONTRACT AWARD DATE	CONTRACT TYPE	NEW / OPTION
12	SSN788 / 789	Stanley Associates, North Charleston	2 Shipsets	$16,399	Apr-12	Competitive/IDIQ	Option
13	SSN790 / 791	Stanley Associates, North Charleston	2 Shipsets	$16,727	Apr-13	Competitive/IDIQ	Option
14	SSN792 / 793	Stanley Associates, North Charleston	2 Shipsets	$17,062	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
12	SSN788 / 789	Aug-17 / Feb-18	28	9	Jul-14 / Jan-15
13	SSN790 / 791	Aug-18 / Feb-19	28	9	Jul-15 / Jan-16
14	SSN792 / 793	May-19 / Sep-19	28	9	Apr-16 / Aug-16

V. COMPETITION/SECOND SOURCE INITIATIVES:

N/A

CLASSIFICATION: UNCLASSIFIED

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

Ship Type:
VIRGINIA CLASS

	FY12		FY13		FY14	
	QTY	TOTAL COST	QTY	TOTAL COST	QTY	TOTAL COST
HM&E EQUIPMENT	2		2		2	
a. P-35 Items						
1. Propulsor		$68,662		$70,378		$72,348
b. Major Items						
1. CSA MK2		$2,992		$3,068		$3,144
c. Other						
1. HM&E Installation and testing		$17,780		$18,136		$18,592
2. T&E		$8,668		$8,840		$9,060
3. SUPSHIP responsible material		$2,014		$2,054		$2,104
Subtotal		$28,462		$29,030		$29,756
TOTAL HM&E		$100,116		$102,476		$105,248

SHIPBUILDING AND CONVERSION, NAVY
MAJOR SHIP COMPONENT FACT SHEET

P-35
ITEM: PROPULSOR

EXHIBIT P-35
FY2014 President's Budget Submission
April 2013
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:	FY12	FY13	FY14
MAJOR HARDWARE	$58,438	$59,898	$61,576
TECH ENGINEERING SERVICES	$10,224	$10,480	$10,772
OTHER COSTS			
TOTAL	$68,662	$70,378	$72,348

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	CONTRACTOR	QTY	HARDWARE UNIT COST	CONTRACT AWARD DATE	CONTRACT TYPE	NEW / OPTION
12	SSN788 / 789	BAE Systems	2 Shipsets	17,245	May-11	FP	Option
13	SSN790 / 791	BAE Systems	2 Shipsets	17,850	May-12	FP	Option
14	SSN792 / 793	BAE Systems	2 Shipsets	18,380	May-13	FP	Option

IV. DELIVERY DATA:

FY	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEAD TIME	REQUIRED AWARD DATE
12	SSN788 / 789	Aug-17 / Feb-18	36	36	Aug-11 / Dec-11
13	SSN790 / 791	Aug-18 / Feb-19	36	36	Aug-12 / Dec-12
14	SSN792 / 793	May-19/ Sep-19	36	36	May-13 / Sep-13

V. COMPETITION/SECOND SOURCE INITIATIVES:

N/A

CLASSIFICATION:
UNCLASSIFIED

Exhibit P-10, Advance Procurement Requirements Analysis (Page 1 - Funding)												FY2014 President's Budget Submission April 2013
Appropriation (Treasury)Code/CC/BA/BSA/Item Control Number 1711 Shipbuilding and Conversion, Navy / BA 02 / BLI 2013			FY2014 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: 2013	PLT	When Req'd	Prior Years	FY12	* FY13	FY14	FY15	FY16	FY17	FY18	To Complete	Total
NUCLEAR PROPULSION PLANT EQUIPMENT (1)	30-72	Various	7,957.2	910.2	990.0	1,025.0	1,061.0	1,098.0	1,136.0	1,172.0	.0	15,349.4
ELECTRONICS EQUIPMENT (2)	37-43	Various	199.3	24.9	26.0	26.6	27.2	27.8	28.4	29.1	.0	389.3
NON-NUCLEAR PROPULSION PLANT EQUIPMENT (3)			719.8	34.1	38.0	39.2	40.5	41.8	43.1	44.5	.0	1,001.0
Propulsor	36	Various	238.7	34.1	38.0	39.2	40.5	41.8	43.1	44.5	.0	519.8
Various (Heat Exchanger; Main Condensers; Main Propulsion Complex...)	18-66	Various	481.1									481.1
LONG LEAD-TIME CFE (4)	24 - 42	Various	2,965.4	492.2	598.6	521.2	520.8	521.2	701.5	682.3	.0	7,003.2
DETAIL DESIGN/DESIGN TRANSFER/SHIPBUILDER INTEGRATION	.		480.6								.0	480.6
OTHER (5)			3.2								.0	3.2
EOQ (6)			2,036.9			742.6	681.6	330.0			.0	3,791.0
Total AP			14,362.5	1,461.4	1,652.6	2,354.6	2,331.1	2,018.8	1,909.0	1,927.8	.0	28,017.7

NOTE: FY13 Advance Procurement includes $778M required to fund the 2nd FY14 SSN as proposed as a FY13 Congressional Add.

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.

The use of advance procurement (AP), advance construction(AC), and economic order quantity (EOQ) procurements reduce the cost of subcontractor effort, material, and components. AP/EOQ/AC funds also allow the program to ensure that material and advance construction efforts are available to support a shortened construction span resulting in earlier ship delivery.

Exhibit P-10, Advance Procurement Funding

Exhibit P-10, Advance Procurement Requirements Analysis (Page 2 - Budget Justification)							FY2014 President's Budget Submission April 2013		
Appropriation (Treasury)Code/CC/BA/SBA/Item Control Number 1711 Shipbuilding and Conversion, Navy / BA 02 / BLI 2013				Weapon System VIRGINIA Class Submarines			P-1 Line Item Nomenclature VIRGINIA CLASS		
(TOA, $ in Millions)		FY13 *					FY14		
	PLT	Qty	Contract Forecast Date	End Item Funded	Total Cost Request	Qty	Contract Forecast Date	End Item Funded	Total Cost Request
BLI: 2013 End Item									
NUCLEAR PROPULSION PLANT EQUIPMENT (1)	**30-72**	**2 Shipsets**	**1st Qtr**	**FY15**	**990.0**	**2 Shipsets**	**1st Qtr**	**FY16**	**1,025.0**
ELECTRONICS EQUIPMENT (2)	**37-43**	**2 Shipsets**	**various**	**FY14**	**26.0**	**2 Shipsets**	**various**	**FY15**	**26.6**
PROPULSOR (3)	**36**	**2 Shipsets**	**various**	**FY14**	**38.0**	**2 Shipsets**	**various**	**FY15**	**39.2**
LONG LEAD-TIME CFE (4)	**24 - 42**	**Various**	**1st Qtr**	**FY14/FY15**	**598.6**	**Various**	**1st Qtr**	**FY15/FY16**	**521.2**
EOQ (5)									**742.6**
						2 Shipsets	**various**	**FY15**	**158.4**
						2 Shipsets	**various**	**FY16**	**219.4**
						2 Shipsets	**various**	**FY17**	**194.9**
						2 Shipsets	**various**	**FY18**	**169.9**
Total AP					**1,652.6**				**2,354.6**

NOTE: FY13 Advance Procurement includes $778M required to fund the 2nd FY14 SSN as proposed as a FY13 Congressional Add.

Description:

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

(2) Electronics Equipment AP is required to fund 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)

FY2014 President's Budget (PB)

DATE: April 2013

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 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	TO COMP	TOTAL PROG
QUANTITY	4	1	0	0	0	1	0	0	1	7
End Cost	13,685.1	4,568.8	0.0	0.0	0.0	4,738.2	0.0	0.0	6,047.8	29,039.9
Less Advance Procurement	3,318.0	1,153.9	0.0	0.0	0.0	820.9	0.0	0.0	1,541.3	6,834.1
Less Transfer	128.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	128.1
Less Cost to Complete	135.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	135.0
Less Subsequent Year FF	3,819.4	3,318.8	0.0	0.0	0.0	1,951.1	0.0	0.0	0.0	9,089.4
Plus Subsequent Year FF	3,751.4	68.0	1,613.4	1,705.4	0.0	0.0	1,951.1	0.0	0.0	9,089.4
Full Funding TOA	10,036.0	164.1	1,613.4	1,705.4	0.0	1,966.2	1,951.1	0.0	4,506.5	21,942.8
Plus Advance Procurement	3,956.3	529.7	70.0	245.8	491.1	31.1	231.1	481.6	797.4	6,834.1
Plus Transfer	128.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	128.1
Plus Cost to Complete	0.0	0.0	135.0	0.0	0.0	0.0	0.0	0.0	0.0	135.0
Total Obligational Authority	14,120.4	693.8	1,818.4	1,951.2	491.1	1,997.3	2,182.3	481.6	5,303.9	29,040.0
Plus Outfitting / Plus Post Delivery	65.8	10.6	44.4	31.1	27.6	39.9	24.9	27.9	54.3	326.5
Total	14,186.2	704.4	1,862.8	1,982.3	518.6	2,037.2	2,207.2	509.5	5,358.2	29,366.4
Unit Cost (Ave. End Cost)	3,421.3	4,568.8	0.0	0.0	0.0	4,738.2	0.0	0.0	6,047.8	4,148.6

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 equipments will provide for reliable operations during its remaining 23 plus years of ship life using only the normal maintenance cycle.

Characteristics:

Hull	CVN68 Class
Length Overall	1092'
Max Beam	134'
Displacement	91,878 TONS
Draft	38.7'
CVN 72 Production Status	
Contract Plans	02/10
Award Planned (Month)	02/13
Months to Complete	
a) Award to Delivery	44
b) Construction Start to Delivery	44
Delivery Date	10/16
Completion of Fitting Out	12/16

Armament:

FY12 CVN 72:

NSSMS MK 57 Mods ESSM Upgrade
AN/SPS-48G(V)1 ROAR
AN/SPS-49A(V)1 Radar
AN/SPQ-9B Radar
AN/SQQ-34C(V) Carrier Tactical Support Center
LAN Radar Display & Distribution
EW Decoy Launching System
Mk 38 Mod 2

Major Electronics:

Ship Self Defense System MK2
Cooperative Engagement Capability
Naval Strike Warfare Planning Center
C4ISR

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

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

	FY 2009		**FY 2012**	
ELEMENT OF COST	**QTY**	**COST**	**QTY**	**COST**
PLAN COSTS	1	36,141	1	41,882
BASIC CONST/CONVERSION		3,450,656		3,740,359
ELECTRONICS		214,386		277,889
PROPULSION EQUIPMENT		113,579		137,650
HM&E		56,658		108,783
OTHER COST		71,314		110,624
ORDNANCE		102,520		151,647
TOTAL SHIP ESTIMATE		4,045,256		4,568,835
LESS ADVANCE PROCUREMENT FY06		19,707		
LESS ADVANCE PROCUREMENT FY07		116,645		
LESS ADVANCE PROCUREMENT FY08		295,263		
LESS ADVANCE PROCUREMENT FY09				21,325
LESS ADVANCE PROCUREMENT FY10				211,167
LESS ADVANCE PROCUREMENT FY11				405,783
LESS ADVANCE PROCUREMENT FY12 (Note 1)				515,644
LESS SUBSEQUENT FULL FUNDING FY10		1,558,779		
LESS SUBSEQUENT FULL FUNDING FY11		1,242,101		
LESS SUBSEQUENT FULL FUNDING FY12 (Note 2		68,000		
LESS SUBSEQUENT FULL FUNDING FY13 (Note 1)				1,613,392
LESS SUBSEQUENT FULL FUNDING FY14				1,705,424
LESS COST TO COMPLETE FY13 (Note 2)		135,000		
NET P-1 LINE ITEM: (Note 1,2)		609,761		96,100

Comments:

Note 1: CVN 72 include both Advance Porcurement and Full Funding in FY 12. Due to the FY 12 Prior Approval Reprogramming Action of $96.1M, the CVN 72 is an FY 12 start, with Subsequent Full Funding in FY 2013 and 2014. The FY 2013 Subsequent Full Funding ($1,613.4M) may be reduced by $96.1M to a requirement $1,517.3M to reflect the FY 12 Prior Approval Reprogramming Action.

Note 2: CVN 71 funds include $18M of STA in FY09 and $135M of CTC in FY13. Due to the FY 12 Prior Approval Reprogramming Action of $68.0M in FY 12, the FY 13 Completion of Prior Year Shipbuilding Programs funding (cost to complete) control of $135M may be reduced by $68M to a requirement of $67M to reflect the FY 12 Prior Approval Reprogramming Action.

SHIPBUILDING AND CONVERSION, NAVY

SHIP PRODUCTION SCHEDULE

FY2014 President's Budget

April 2013

SHIP TYPE	HULL NUMBER	SHIPBUILDER	FISCAL YEAR AUTHORIZED	CONTRACT AWARD	START OF CONSTRUCTION	DELIVERY DATE
CVN 71	71	Huntington Ingalls Industries Newport News Shipbuilding	09	AUG-09	AUG-09	JUN-13
CVN 72	72	Huntington Ingalls Industries Newport News Shipbuilding	12	FEB-13	FEB-13	OCT-16
CVN 73	73	Huntington Ingalls Industries Newport News Shipbuilding	16	AUG-16	AUG-16	MAY-20

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	51,431
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		241,984
b. Major Items		
AN/SPN-43C REFURBISHMENT	1	2,343
AN/SLQ-32 REFURBISHMENT	1	2,436
AN/TPX-42(V)15 UPGRADE	1	1,724
Subtotal		6,503
c. Other ELECTRONICS		
MISCELLANEOUS ELECTRONICS, TEST & CERTIFICATIONS		11,602
CARRIER AIR DEFENSE IMPROVEMENT PROGRAM (CADIP)	1	17,800
Subtotal		29,402
Total ELECTRONICS		277,889

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	43,248
NATO SEASPARROW MISSILE SYSTEM (NSSMS)	1	43,464
AN/SPS-48G (V1) 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		144,826
b. Other ORDNANCE		
MISCELLANEOUS ORDNANCE, TEST & CERTIFICATIONS		6,821
Subtotal		6,821
Total ORDNANCE		151,647

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
FY2014 President's Budget
April 2013

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

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

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

II. CURRENT FUNDING:

P-35 Category	**FY 2012**	
	QTY	**COST**
Major Hardware	1	32,131
Ancillary Equipment		2,136
Technical Data and Documentation		971
Spares		1,172
Systems Engineering		10,348
Technical Engineering Services		34,847
Other Costs		15,535
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	32,131

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	OCT-16	VARIOUS	VARIOUS	VAR

V. COMPETITION/SECOND SOURCE INITIATIVES:

NONE

NOTE:

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

P-35 EXHIBIT
FY2014 President's Budget
April 2013

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 (IVN) that provides the ship's Internal Command and Control Communications. In addition, IVN provides connectivity to other onboard systems such as Announcing Systems, Sound Powered Circuits, Secure / NonSecure off-ship Communications, SATCC and 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 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	18,359
Ancillary Equipment		1,524
Technical Data & Documentation		1,171
Spares		1,164
Systems Engineering		11,401
Technical Engineering Services		10,153
Other Costs		7,659
Total		51,431

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	18,359

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	OCT-16	34	6	JUN-13

V. COMPETITION/SECOND SOURCE INITIATIVES:

NONE

NOTE:

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

P-35 EXHIBIT
FY2014 President's Budget
April 2013

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	OCT-16	18	34	JUN-12

V. COMPETITION/SECOND SOURCE INITIATIVES:

NONE

NOTE:

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

P-35 EXHIBIT
FY2014 President's Budget
April 2013

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 & Documentation		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	OCT-16	35	18	MAY-12

V. COMPETITION/SECOND SOURCE INITIATIVES:

NONE

NOTE:

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(Dollars in Thousands)

P-35 EXHIBIT
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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, JMPS, GCCS-M, DCGS-N, ADMACS, TBMCS, SVDS/CVIS, TC2S-CSG, and ISNS. 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	OCT-16	13	6	MAR-15

V. COMPETITION/SECOND SOURCE INITIATIVES:

NONE

NOTE:

SHIPBUILDING AND CONVERSION, NAVY
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P-35 EXHIBIT
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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	OCT-16	23	39	AUG-11

V. COMPETITION/SECOND SOURCE INITIATIVES:

NONE

NOTE:

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(Dollars in Thousands)

P-35 EXHIBIT
FY2014 President's Budget
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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 & 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	OCT-16	28	24	JUN-12

V. COMPETITION/SECOND SOURCE INITIATIVES:

NOTE:

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(Dollars in Thousands)

P-35 EXHIBIT
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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	FY 2012 COST
Major Hardware	1	3,193
Ancillary Equipment		0
Technical Data and Documentation		0
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	MULTIPLE	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	OCT-16	41	12	MAY-12

V. COMPETITION/SECOND SOURCE INITIATIVES:

NOTE:

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P-35 EXHIBIT
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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
Ancillary Equipment		0
System Engineering		0
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	OCT-16	15	6	JAN-15

V. COMPETITION/SECOND SOURCE INITIATIVES:

NOTE:

CVN 72 RCOH cost increase since PB 13: Multiple contracts CPFF/FFP. Funding updated to reflect actual costs of CVN 71.

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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	OCT-16	14	39	MAY-12

V. COMPETITION/SECOND SOURCE INITIATIVES:

NOTE:

Work accomplished via Government Alteration Installation Team (AIT).

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

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

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

II. CURRENT FUNDING:

P-35 Category	**FY 2012**	
	QTY	**COST**
Major Hardware	1	27,041
Technical Data and Documentation		382
Spares		82
Systems Engineering		2,466
Technical Engineering Services		8,899
Other Costs		4,378
Total		43,248

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	27,041

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	OCT-16	33	32	MAY-11

V. COMPETITION/SECOND SOURCE INITIATIVES:

NONE

NOTE:

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(Dollars in Thousands)

P-35 EXHIBIT
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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 GMLS for ESSM compatibility. The NSSMS Is a medium range self defense missile system capable of defeating near/mid-term air/surface threats.

II. CURRENT FUNDING:

P-35 Category	**FY 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	OCT-16	29	29	DEC-11

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: **CVN-68 CLASS NUCLEAR REFUELING COMPLEX OVERHAUL (RCOH)**
Equipment Item: **AN/SPS-48G (V1) 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	OCT-16	29	25	APR-12

V. COMPETITION/SECOND SOURCE INITIATIVES:

NONE

NOTE:

SHIPBUILDING AND CONVERSION, NAVY
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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	OCT-16	30	29	NOV-11

V. COMPETITION/SECOND SOURCE INITIATIVES:

NOTE:

SHIPBUILDING AND CONVERSION, NAVY
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P-35 EXHIBIT
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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	OCT-16	34	30	JUN-11

V. COMPETITION/SECOND SOURCE INITIATIVES:

NOTE:

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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
Systems 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	OCT-16	16	12	JUN-14

V. COMPETITION/SECOND SOURCE INITIATIVES:

NOTE:

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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	OCT-16	18	18	OCT-13

V. COMPETITION/SECOND SOURCE INITIATIVES:

NOTE:

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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	OCT-16	28	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
FY2014 President's Budget
April 2013

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 2013**	
	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	OCT-16	39	18	JAN-12

V. COMPETITION/SECOND SOURCE INITIATIVES:

NOTE:

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

P-35 EXHIBIT
FY2014 President's Budget
April 2013

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	OCT-16	38	12	AUG-12

V. COMPETITION/SECOND SOURCE INITIATIVES:

NOTE:

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

P-35 EXHIBIT
FY2014 President's Budget
April 2013

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 2013**	
	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	OCT-16	37	11	OCT-12

V. COMPETITION/SECOND SOURCE INITIATIVES:

NOTE:

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

P-35 EXHIBIT
FY2014 President's Budget
April 2013

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	OCT-16	37	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
FY2014 President's Budget
April 2013

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	**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	OCT-16	41	8	SEP-12

V. COMPETITION/SECOND SOURCE INITIATIVES:

NOTE:

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

P-35 EXHIBIT
FY2014 President's Budget
April 2013

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	OCT-16	41	12	MAY-12

V. COMPETITION/SECOND SOURCE INITIATIVES:

NOTE:

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

P-35 EXHIBIT
FY2014 President's Budget
April 2013

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 (Note 1)		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	OCT-16	31	12	MAR-13

V. COMPETITION/SECOND SOURCE INITIATIVES:

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

CLASSIFICATION:	UNCLASSIFIED											
Exhibit P-10, Advance Procurement Requirements Analysis (Funding)										Date: **April 2013**		
Appropriation (Treasury)Code/CC/BA/BSA/Item Control Number **SHIPBUILDING AND CONVERSION, NAVY / 2 / Other Warships / BLI 2086**							P-1 Line Item Nomenclature **CVN REFUELING OVERHAULS**					
Weapon System **CVN 73 RCOH**			First System (BY1) Award Date and Completion Date **AUGUST 2016 - MAY 2020**						Interval Between Systems			
BLI	PLT	When Req'd	Prior Years	FY12	FY13	FY14	FY15	FY16	FY17	FY18	To Complete	Total
CVN 73			0.0	14.0	70.1	245.8	491.1	0.0	0.0	0.0	0.0	821.0
Plans			0.0	0.1	6.0	17.0	21.5	0.0	0.0	0.0	0.0	44.6
Basic	1 Shipset		0.0	0.6	7.2	130.9	301.7	0.0	0.0	0.0	0.0	440.4
Other			0.0	0.0	3.5	6.0	11.5	0.0	0.0	0.0	0.0	21.0
Propulsion Equipment			0.0	13.3	50.0	62.6	13.4	0.0	0.0	0.0	0.0	139.3
HM&E			0.0	0.0	0.0	7.0	31.0	0.0	0.0	0.0	0.0	38.0
Electronics			0.0	0.0	3.3	19.8	77.0	0.0	0.0	0.0	0.0	100.1
Ordnance			0.0	0.0	0.1	2.5	35.0	0.0	0.0	0.0	0.0	37.6
Total AP			0.0	14.0	70.1	245.8	491.1	0.0	0.0	0.0	0.0	821.0

Description:

CVN 73: Funding is required to procure long-lead items and fund long-lead efforts critical to supporting the contract award. Efforts will include work package planning, shipchecks, drawings, GFE engineering & hardware procurements. The advance planning contract with the prime contractor is funded under "BASIC" in each fiscal year.

CLASSIFICATION:	UNCLASSIFIED					
Exhibit P-10, Advance Procurement Requirements Analysis (Budget Justification)						Date: **April 2013**
Appropriation (Treasury)Code/CC/BA/BSA/Item Control Number **SHIPBUILDING AND CONVERSION, NAVY / 2 / Other Warships / BLI 2086**				Weapon System **CVN 73**		P-1 Line Item Nomenclature **CVN REFUELING OVERHAULS**
(TOA $ in Millions)				**FY14**		
	PLT	QPA	Unit Cost	Qty	Contract Forecast Date	Total Cost Request
Plans						17.0
Basic		1 Shipset		1 Shipset	October 2013	130.9
Other						6.0
Propulsion Equipment						62.6
HM&E						7.0
Electronics						19.8
Ordnance						2.5
Total AP						245.8

Description:

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

Basic: Prime Contractor Advance Planning (Integration of the AWP into the Execution Integrated Master Schedule), Miscellaneous Onload-Offload Costs, Ship's Force Work Package Material Procurement, Customer Contracted Teams (CCTs), Government Furnished Equipment (GFE), and Technical Support

Other: Program Management Plans, Budget Development, Work Package Review, IDE, Logistic Plans and Review, Cost Estimating and Studies

Propulsion Equipment: Nuclear Component Procurement and Technical Support Services

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

Electronics: Electronics GFI/GFE and Technical Support Services

Ordnance: Ordnance GFI/GFE and Technical Support Services

BUDGET ITEM JUSTIFICATION SHEET (P-40)
FY2014 Presidents Budget

DATE:
April 2013

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

P-1 LINE ITEM NOMENCLATURE
DDG 1000
BLI: 2119 / SUBHEAD NO.

(Dollars in Millions)	PRIOR YR	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	TO COMP	TOTAL PROG
QUANTITY	3	0	0	0	0	0	0	0	0	3
End Cost	11,618.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11,618.4
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	6,366.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6,366.4
Plus Subsequent Year FF	4,635.5	508.7	669.2	231.7	321.3	0.0	0.0	0.0	0.0	6,366.4
Full Funding TOA	8,727.4	508.7	669.2	231.7	321.3	0.0	0.0	0.0	0.0	10,458.3
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	9,887.5	508.7	669.2	231.7	321.3	0.0	0.0	0.0	0.0	11,618.4
Plus Outfitting / Plus Post Delivery	0.0	4.3	10.6	48.4	75.2	77.5	71.9	25.6	96.1	409.6
Total	9,887.5	513.0	679.9	280.1	396.5	77.5	71.9	25.6	96.1	12,028.0
Unit Cost (Ave End Cost)	3,872.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3,872.8

MISSION:

DDG 1000, a multi-mission surface combatant will serve as a versatile assetin 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 1000of 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	77	94	77
b)Construction Start to Delivery	65	69	70
Delivery Date	07/14	12/15	02/18
Completion of Fitting Out	09/15	12/16	02/19
Obligation Work Limit Date	08/16	11/17	01/20

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

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

		FY 2007		**FY 2009**
ELEMENT OF COST	**QTY**	**COST**	**QTY**	**COST**
PLAN COSTS	2	1,361,093	1	540,443
BASIC		2,952,693		1,256,495
CHANGE ORDERS		307,398		52,374
ELECTRONICS		2,216,242		1,070,796
HM&E		176,560		71,627
OTHER COST		258,234		140,013
ORDNANCE		770,720		443,740
TOTAL SHIP ESTIMATE		8,042,940		3,575,487
LESS: ADVANCE PROCUREMENT FY05		304,048		
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		309,636		1,068,896
LESS: SUBSEQUENT YEAR FUNDING FY11		104,757		142,327
LESS: SUBSEQUENT YEAR FUNDING FY12		381,627		127,100
LESS: SUBSEQUENT YEAR FUNDING FY13		302,584		366,638
LESS: SUBSEQUENT YEAR FUNDING FY14		170,737		60,957
LESS: SUBSEQUENT YEAR FUNDING FY15		165,815		155,442
NET P-1 LINE ITEM:		2,587,567		1,504,297

SHIPBUILDING AND CONVERSION, NAVY

FY2014 Presidents Budget

Analysis of Ship Cost Estimate - Basic/Escalation

April 2013

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) * DDG1002 DECKHOUSE, HANGAR AND AFT PVLS CONTRACT IN NEGOTIATION	CPAF/IF	CPAF/IF AND FPIC	FPIC	
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	JUL-14
DDG 1000	1001	BIW	07	SEP-11 (Re-award)	MAR-10	DEC-15
DDG 1000	1002	BIW	09	SEP-11	APR-12	FEB-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	443,414	1	87,062
INTEGRATED UNDERSEA WARFARE (IUSW) SYSTEM	2	186,685	1	86,136
MULTI FUNCTION RADAR	2	519,609	1	258,485
COMMON ARRAY POWER SYSTEM (CAPS)	2	97,017	1	13,085
TOTAL SHIP COMPUTING ENVIRONMENT (TSCE)	2	322,863	1	240,014
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	99,229
COOPERATIVE ENGAGEMENT CAPABILITY (CEC)	2	16,025	1	7,800
SURFACE ELECTRONIC WARFARE IMPROVEMENT PROGRAM (SEWIP)	2	39,742	1	20,681
Subtotal		1,886,891		868,547
b. Major Items				
Subtotal				
MISSION SYSTEM ENGR INTEGR & TEST (MSEIT)*		329,351		202,249
Subtotal		329,351		202,249
Total ELECTRONICS		2,216,242		1,070,796

* 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		26,868		
Subtotal		104,993		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		176,560		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	530,729	2	272,591
VERTICAL LAUNCHING SYSTEM (VLS) MK 57 4-CELL MODULES	40	206,221	20	155,665
CLOSE-IN GUN SYSTEM (CIGS)	4	33,770	2	15,483
Subtotal		770,720		443,740
b. Major Items				
Subtotal				
c. Other ORDNANCE				
		0		0
Subtotal		0		0
Total ORDNANCE		770,720		443,740

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

P-35 EXHIBIT
FY2014 Presidents Budget
April 2013

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	174,719	1	27,700
Technical Support Services		28,248		6,585
Other Costs (NRE)		240,448		52,777
Total		443,414		87,062

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	87,360
FY09	DDG-1000	Raytheon	CPAF/IF	MAY-12		1	27,700

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:

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P-35 EXHIBIT
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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	66,751	1	35,300
Technical Support Services		10,793		5,639
Other Costs (NRE)		109,141		45,198
Total		186,685		86,136

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	33,375
FY09	DDG-1000	Raytheon	CPAF/IF	OCT-12		1	35,300

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:

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P-35 EXHIBIT
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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	185,059
Technical Support Services		21,993		8,145
Other Costs (NRE)		183,303		65,281
Total		519,609		258,485

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	185,059

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.

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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	9,300
Battle Spares		1,000		
Technical Support Services		4,490		420
Other Costs (NRE)		35,342		3,365
Total		97,017		13,085

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	9,300

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	48	28	MAR-08
FY09	DDG-1000	FEB-18	35	28	NOV-12

V. COMPETITION/SECOND SOURCE INITIATIVES:

N/A

NOTE:

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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	138,936	1	111,775
Technical Support Services		18,834		14,224
Other Costs (NRE)		165,093		114,014
Total		322,863		240,014

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	69,468
FY09	DDG-1000	Raytheon	CPAF/IF	OCT-12		1	111,775

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:

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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:

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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:

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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.

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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	24,801
Technical Support Services		6,031		8,256
Other Costs (NRE)		47,497		66,173
Total		111,527		99,229

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	24,801

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

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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:

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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:

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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		26,868		
Technical Support Services		1,485		0
Other Costs (NRE)		3,378		0
Total		104,993		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:

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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	299,854	2	205,547
Technical Support Services		8,934		0
Other Costs (NRE)		221,941		67,044
Total		530,729		272,591

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	74,964
FY09	DDG-1000	BAE	TBD	APR-12		2	102,774

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:

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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	110,932	20	117,520
Technical Support Services		8,524		4,231
Other Costs (NRE)		86,766		33,914
Total		206,221		155,665

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY07	DDG-1000	Raytheon	CPAF/IF	MAY-08		40	2,773
FY09	DDG-1000	Raytheon	CPAF/IF	OCT-12		20	5,876

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
FY2014 Presidents Budget
April 2013

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		4,675		3,381
Other Costs (NRE)		11,061		3,568
Total		33,770		15,483

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:

CLASSIFICATION: UNCLASSIFIED

BUDGET ITEM JUSTIFICATION SHEET (P-40) **FY 2014 President's Budget**	DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY **SHIPBUILDING AND CONVERSION, NAVY/BA 2 Other Warships**	P-1 LINE ITEM NOMENCLATURE **DDG-51** **BLI: 2122**

(Dollars in Millions)	PRIOR YR	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	TO COMP	TOTAL PROG
QUANTITY	65	1	2	1	2	2	2	2		77
End Cost (1) (2) (3) (4)	62,313.0	2,028.4	3,149.4	1,729.7	3,060.0	3,818.7	3,796.1	3,812.8	0.0	83,708.1
Less Advance Procurement (3) (4)	2,392.4	47.7	100.7	114.1	298.2	375.1	182.6	119.1	0.0	3,630.0
Less Cost to Complete	731.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	731.4
Less Escalation	48.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	48.2
Less 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	58,695.4	1,980.7	3,048.7	1,615.6	2,761.8	3,443.6	3,613.5	3,693.7	0.0	78,852.9
Plus Advance Procurement (3) (4)	2,440.1	100.7	466.3	388.6	115.2	0.0	119.1	0.0	0.0	3,630.0
Plus Cost to Complete	731.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	731.4
Plus 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	62,360.7	2,081.4	3,514.9	2,004.1	2,877.0	3,443.6	3,732.6	3,693.7	0.0	83,708.1
Plus Outfitting / Plus Post Delivery	2,123.8	49.1	7.5	9.0	26.1	63.5	71.2	79.6	746.6	3,176.4
Total	64,484.5	2,130.6	3,522.5	2,013.1	2,903.1	3,507.1	3,803.7	3,773.3	746.6	86,884.6
Unit Cost (Avg. End Cost)	958.7	2,028.4	1,574.7	1,729.7	1,530.0	1,909.3	1,898.0	1,906.4	0.0	1,087.1

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) Due to the proprietary sensitive nature of dual shipbuilders competitive bids on the 9 ship MYP procurement, P40 only will be submitted to protect source selection information.

(2) In FY13 the program requested Congressional Approval for a FY13-17 Multi-Year Procurement. Advance Procurement identified in FY13-14 required to support MYP. Anticipated MYP savings have been removed from estimates.

(3) Flight III/AMDR configuration 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.

(4) Advance Procurement funding is requested in FY17 for a new MYP beginning in FY18. Anticipated MYP savings have been removed from FY18 estimates.

(5) P-40 exhibit does not include additional FY 2013 quantity enacted in the Consolidated and Further Continuing Appropriations Act, 2013.

			FY10	FY11	FY11	FY12	FY13	FY13	FY14
Characteristics:		Production Status:	DDG 113	DDG 114	DDG 115	DDG 116	DDG 117	DDG 118	DDG 119
Hull	FLIGHT IIA	Contract Plans							
Length overall	471'	Award Planned (Month)	6/11	9/11	9/11	2/12	5/13	5/13	5/13
Beam	59'	Months to Complete							
Displacement	9217 TONS	a) Award to Delivery	56	60	53	66	68	68	80
		b) Construction Start to Delivery	41	39	48	55	57	57	57
Ordnance:	Electronics:	Delivery Date	2/16	9/16	2/16	8/17	1/19	1/19	1/20
AEGIS WEAPON SYSTEM (SPY-1D(V))	AN/SQQ-89 (V) 15	Completion of Fitting Out	6/16	1/17	6/16	12/17	5/19	5/19	5/20
VLS MK41/SM-2	AN/SLQ-32								
5" 62 MK 45 Gun	AN/USQ-82(GEDMS)								
Tomahawk (TTWCS)	EXCOMM								
CIWS	MK 12 IFF								
MK 32 MOD 7 Torpedo Tubes	SSEE								
	MIDS								

CLASSIFICATION:	UNCLASSIFIED											
Exhibit P-10, Advance Procurement Requirements Analysis (Funding)								Date: **April 2013**				
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	FY12	FY13	FY14	FY15	FY16	FY17	FY18	To Complete	Total
ADVANCE PLANNING (1)			**61.0**	**8.3**		**19.0**	**115.2**					**203.5**
PRODUCTION ENGINEERING (2)			**29.6**									**29.6**
SHIPBUILDER CLASS STANDARD EQUIPMENT (3)			**362.1**									**362.1**
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			**229.8**	**158.8**			**119.1**			**507.7**
GFE - ELECTRONICS (6)			**30.1**	**14.4**	**4.8**							**49.3**
IFF (OE-120A Antenna) (6)	20	VAR	3.5	4.3								7.8
SLQ-32 (6)	VAR	VAR	1.1	0.3								1.4
C&D Peripheral (6)	12	VAR	1.7	2.0								3.8
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	22.8	4.7								27.5
CBSP (6)	VAR	VAR			4.8							4.8
GFE - ORDNANCE (7)			**333.2**	**5.9**	**231.7**	**210.7**						**781.5**
AEGIS Weapon System (7)	36	VAR	234.4		231.7							466.1
Tomahawk (7)	3	VAR	1.1	0.2								1.3
Vertical Launch System (VLS) (7)	24	VAR	97.7			210.7						308.4
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)			**84.4**	**72.2**								**156.6**
WSN-7 (9)	15	Dec-12		3.9								3.9
Engine Controller (9)	26	Nov-12		3.5								3.5
Repair Station Console (9)	18	VAR	3.0	1.0								4.0
Digital Video Surveillance System (9)	24	VAR	3.0	0.7								3.7
Main Reduction Gear (9)	24	VAR	78.4	49.6								128.0
Machinery Control System (9)	24	Jan-13		6.8								6.8
Integrated Bridge Navigation System (9)	18	Dec-12		6.7								6.7
Total AP			**952.9**	**100.7**	**466.3**	**388.6**	**115.2**	**0.0**	**119.1**	**0.0**		**2,142.8**

Description:

(1) Advance Planning FY12 Advance Planning AP is required to fund production planning and procurement management for the continuation of the DDG 51 Program. FY14 & FY15 AP is required to support detail design effort Flight III ships.

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

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

(5) 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 proposed FY13-17 MYP contract, and for proposed MYP beginning in FY18.

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

(7) GFE - Ordnance FY12 GFE Ordnance AP is required to satisfy in-yard need dates for ship production. FY13 & FY14 AP is for EOQ to support FY13-17 MYP.

(8) Combat System Engineering Combat System Engineering AP is 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 is required to satisfy in-yard need dates for ship production.

Note: DDG-51 Advance Procurement is compliant with sections 010107.2 and 010202.B.3 of the DoD FMR which limits advance procurement funding to "components whose long lead-times require purchase early in order to reduce the overall procurement lead-time of the major end item."

CLASSIFICATION:	UNCLASSIFIED								
Exhibit P-10, Advance Procurement Requirements Analysis (Budget Justification)								Date: **April 2013**	
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)				**FY13**			**FY14**		
	PLT	QPA	Unit Cost	Qty	Contract Forecast Date	Total Cost Request	Qty	Contract Forecast Date	Total Cost Request
ADVANCE PLANNING (1)								Feb-14	**19.0**
SHIP CONSTRUCTION EOQ (2)	VAR	VAR		7 shipsets	May-13	**229.8**	4 shipsets	Feb-14	**158.8**
GFE - ELECTRONICS (3)						**4.8**			
CBSP (3)	VAR	1		7 shipsets	May-13	4.8			
GFE - ORDNANCE (4)						**231.7**			**210.7**
AEGIS Weapon System (4)	36	1		4 shipsets	May-13	231.7			
Vertical Launch System (VLS) (4)							6 shipsets	Feb-14	210.7
Total Advance Procurement						**466.3**			**388.6**

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 proposed FY13-17 MYP contract.

(3) GFE - Electronics GFE Electronics AP is for EOQ to support FY13-17 MYP.

(4) GFE - Ordnance GFE Ordnance AP is for EOQ to support FY13-17 MYP.

CLASSIFICATION: UNCLASSIFIED

BUDGET ITEM JUSTIFICATION SHEET (P-40)
FY 2014 President's Budget

DATE:
April 2013

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

P-1 LINE ITEM NOMENCLATURE
LITTORAL COMBAT SHIP (LCS)
BLI: 2127 / SUBHEAD NO.

(Dollars in Millions)	PRIOR YR	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	TO COMP	TOTAL PROG
QUANTITY	6	4	4	4	4	2	2	2	22	50
End Cost	3,596.9	1,834.0	1,785.0	1,793.0	1,824.9	997.1	1,032.5	1,056.0	13,085.3	27,004.7
Less Advance Procurement	0.0	78.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	78.9
Full Funding TOA	3,596.9	1,755.1	1,785.0	1,793.0	1,824.9	997.1	1,032.5	1,056.0	13,085.3	26,925.8
Plus Advance Procurement	78.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	78.9
Total Obligational Authority	3,675.8	1,755.1	1,785.0	1,793.0	1,824.9	997.1	1,032.5	1,056.0	13,085.3	27,004.7
Plus Outfitting / Plus Post Delivery	7.4	26.0	60.1	79.8	134.1	134.7	208.9	211.2	1,870.1	2,732.3
Total	3,683.2	1,781.1	1,845.0	1,872.8	1,959.0	1,131.8	1,241.4	1,267.2	14,955.4	29,736.9
Unit Cost (Ave. End Cost)	599.5	458.5	446.3	448.3	456.2	498.6	516.3	528.0	594.8	540.1

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	3,089 mt	2,842 mt

	FY12	FY12	FY12	FY12	FY13	FY13	FY13	FY13	FY 14	FY 14	FY 14	FY 14
Production Status:	LCS 9	LCS 10	LCS 11	LCS 12	LCS 13	LCS 14	LCS 15	LCS 16	LCS 17	LCS 18	LCS 19	LCS 20
Contract Award Date	3/12	3/12	3/12	3/12	3/13	3/13	3/13	3/13	3/14	3/14	3/14	3/14
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	52 months
b) Construction Start to Delivery	37 months	34 months	35 months	36 months	35 months	40 months	36 months	41 months	35 months	39 months	36 months	41 months
Delivery Date	1/16	12/15	7/16	6/16	1/17	12/16	7/17	6/17	1/18	12/17	7/18	6/18
Completion of Fitting Out	3/16	2/16	9/16	8/16	3/17	2/17	9/17	8/17	3/18	2/18	9/18	8/18
Obligation Work Limiting Date	3/17	1/17	8/17	7/17	3/18	1/18	8/18	7/18	2/19	1/19	8/19	7/19

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

BUDGET ACTIVITY: 2
Other Warships

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

SUBHEAD NO. BLI: 2127

	FY 2009		FY 2010		FY 2011	
ELEMENT OF COST	**QTY**	**COST**	**QTY**	**COST**	**QTY**	**COST**
PLAN COSTS	2	46,114	2	24,438	2	91,386
BASIC CONST/CONVERSION		1,138,316		955,325		809,749
CHANGE ORDERS		35,627		45,950		43,100
ELECTRONICS		20,263		26,992		27,245
HM&E		4,702		5,908		6,806
OTHER COST		99,907		1,000		166,942
ORDNANCE		12,723		17,056		17,300
TOTAL SHIP ESTIMATE		1,357,652		1,076,669		1,162,528
LESS SCN AND MATERIALS TRANSFER FY06		340,700				
NET P-1 LINE ITEM:		1,016,952		1,076,669		1,162,528

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 2012		**FY 2013**		**FY 2014**	
ELEMENT OF COST	**QTY**	**COST**	**QTY**	**COST**	**QTY**	**COST**
PLAN COSTS	4	83,459	4	83,989	4	84,706
BASIC CONST/CONVERSION		1,485,671		1,453,694		1,456,992
CHANGE ORDERS		82,100		72,684		72,896
ELECTRONICS		55,417		56,350		57,308
HM&E		13,843		14,078		14,318
OTHER COST		76,927		67,038		69,035
ORDNANCE		36,625		37,126		37,759
TOTAL SHIP ESTIMATE		1,834,042		1,784,959		1,793,014
LESS ADVANCE PROCUREMENT FY12		78,949				
NET P-1 LINE ITEM:		1,755,093		1,784,959		1,793,014

SHIPBUILDING AND CONVERSION, NAVY

FY 2014 President's Budget

Analysis of Ship Cost Estimate - Basic/Escalation

April 2013

Ship Type: LITTORAL COMBAT SHIP

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
	A. Actual Award Date	03/09, 05/09	12/10	03/11	03/12	3/13	TBD
	B. Contract Type (and Share Line if applicable)	FPI	FPI	FPI	FPI	FPI	FPI
	C. SHARELINE	VARIES	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	4	GD/AUSTAL	09	MAY-09	OCT-09	JUL-13
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	MAR-12	AUG-15
LCS	8	AUSTAL	11	MAR-11	MAY-12	JUN-15
LCS	9	LOCKHEED MARTIN	12	MAR-12	JAN-13	JAN -16
LCS	10	AUSTAL	12	MAR-12	MAR-13	DEC-15
LCS	11	LOCKHEED MARTIN	12	MAR-12	SEP-13	JUL-16
LCS	12	AUSTAL	12	MAR-12	JUL-13	JUN-16
LCS	13	LOCKHEED MARTIN	13	MAR-13	MAR-14	JAN-17
LCS	14	AUSTAL	13	MAR-13	SEP-13	DEC-16
LCS	15	LOCKHEED MARTIN	13	MAR-13	AUG-14	JUL-17
LCS	16	AUSTAL	13	MAR-13	FEB-14	JUN-17
LCS	17	LOCKHEED MARTIN	14	MAR-14	MAR-15	JAN-18
LCS	18	AUSTAL	14	MAR-14	OCT-14	DEC-17
LCS	19	LOCKHEED MARTIN	14	MAR-14	AUG-15	JUL-18
LCS	20	AUSTAL	14	MAR-14	FEB-15	JUN-18
LCS	21	LOCKHEED MARTIN	15	MAR-15	MAR-16	JAN-19
LCS	22	AUSTAL	15	MAR-15	SEP-15	DEC-18
LCS	23	LOCKHEED MARTIN	15	MAR-15	AUG-16	JUL-19
LCS	24	AUSTAL	15	MAR-15	FEB-16	JUN-19
LCS	25	TBD	16	TBD	TBD	TBD
LCS	26	TBD	16	TBD	TBD	TBD
LCS	27	TBD	17	TBD	TBD	TBD
LCS	28	TBD	17	TBD	TBD	TBD
LCS	29	TBD	18	TBD	TBD	TBD
LCS	30	TBD	18	TBD	TBD	TBD

SHIPBUILDING AND CONVERSION, NAVY

Analysis of Ship Cost Estimates - Major Equipment

(Dollars in Thousands)

Ship Type: LITTORAL COMBAT SHIP	FY 2012		FY 2013		FY 2014	
	QTY	COST	QTY	COST	QTY	COST
ELECTRONICS						
a. P-35 Items						
AN/WSC-6E(V)9 SUPER HIGH FREQUENCY (SHF) DUAL TERMINAL	4	14,887	4	15,140	4	15,397
Subtotal		14,887		15,140		15,397
b. Major Items						
ELECTRONIC KEY MANAGEMENT SYSTEM (EKMS)/CRYPTO SYSTEM	4	2,192	4	2,229	4	2,267
COMMON DATA LINK MANAGEMENT SYSTEM (CDLMS)	2	1,925	2	1,958	2	1,992
AN/URC-141 (C) MIDS ON SHIP (MOS)	4	10,001	4	10,171	4	10,344
AN/USQ-172(V)5 GLOBAL COMMAND AND CONTROL SYSTEM - MARITIME (GCCS-M)	4	2,740	4	2,786	4	2,833
DS- LOGISTICS MAINTENANCE AUTOMATED INFO SYSTEM - BAR CODE SUPPLY (BCS) NAVY TACTICAL COMMAND SPT SYS (NTCSS)	4	1,530	4	1,556	4	1,582
MULTI-VEHICLE COMMUNICATION SYSTEM (MVCS)	4	6,657	4	6,770	4	6,885
AN/USQ-144J(V)2 AUTOMATED DIGITAL NETWORK SYSTEM (ADNS)	4	2,349	4	2,389	4	2,430
Subtotal		27,394		27,859		28,333
c. Other ELECTRONICS						
OTHER ELECTRONICS	4	13,136	4	13,351	4	13,578
Subtotal		13,136		13,351		13,578
Total ELECTRONICS		55,417		56,350		57,308

SHIPBUILDING AND CONVERSION, NAVY

Analysis of Ship Cost Estimates - Major Equipment

(Dollars in Thousands)

Ship Type: LITTORAL COMBAT SHIP	FY 2012		FY 2013		FY 2014	
	QTY	COST	QTY	COST	QTY	COST
ORDNANCE						
a. P-35 Items						
RAM	2	16,450	2	16,672	2	16,956
SEARAM	2	17,694	2	17,931	2	18,236
Subtotal		34,144		34,603		35,192
b. Major Items						
ORDNANCE HANDLING EQUIPMENT	4	1,580	4	1,607	4	1,634
SMALL ARMS, MACHINE GUNS	4	901	4	916	4	933
Subtotal		2,481		2,523		2,567
c. Other ORDNANCE						
Subtotal						
Total ORDNANCE		36,625		37,126		37,759

SHIPBUILDING AND CONVERSION, NAVY

Analysis of Ship Cost Estimates - Major Equipment

(Dollars in Thousands)

Ship Type: LITTORAL COMBAT SHIP	**FY 2012**		**FY 2013**		**FY 2014**	
	QTY	**COST**	**QTY**	**COST**	**QTY**	**COST**
HM&E						
a. P-35 Items						
Subtotal						
b. Major Items						
JOINT BIOLOGICAL POINT DETECTION SYSTEM (JBPDS)	4	568	4	578	4	588
AN/SRC-59 SHIPWIDE INTERIOR WIRELESS COMMUNICATION SYSTEM (SIWCS)	4	2,203	4	2,241	4	2,279
TRASH DISPOSAL - SMALL PULPER	4	633	4	644	4	655
VISUAL LANDING AIDS (VLA)	4	8,411	4	8,553	4	8,699
Subtotal		11,815		12,016		12,221
c. Other HM&E						
OTHER HM&E	4	2,028	4	2,062	4	2,097
Subtotal		2,028		2,062		2,097
Total HM&E		13,843		14,078		14,318

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

P-35 EXHIBIT
FY 2014 President's Budget
April 2013

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

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

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

II. CURRENT FUNDING:

P-35 Category	FY 2012		FY 2013		FY 2014	
	QTY	COST	QTY	COST	QTY	COST
Major Hardware	4	10,604	4	10,789	4	10,973
Systems Engineering		892		907		923
Engr/ILS/Mgmt Spt		221		224		228
Technical Support Services		2,355		2,434		2,474
Spares		300		305		310
Program Management		515		481		489
Schedule B Services		0		0		0
Total		14,887		15,140		15,397

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY12	LCS 9/10/11/12	HARRIS	SS/FFP	JAN-12	OPTION	4	2,651
FY13	LCS 13/14/15/16	HARRIS	SS/FFP	APR-13	OPTION	4	2,697
FY14	LCS 17/18/19/20	HARRIS	SS/FFP	TBD	OPTION	4	2,743

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY12	LCS 9/10/11/12	JAN-16	10	14	JAN-14
FY13	LCS 13/14/15/16	JAN-17	10	14	JAN-15
FY14	LCS 17/18/19/20	JAN-18	10	14	JAN-16

V. COMPETITION/SECOND SOURCE INITIATIVES:

NOTE:

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

P-35 EXHIBIT
FY 2014 President's Budget
April 2013

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 2012		FY 2013		FY 2014	
	QTY	COST	QTY	COST	QTY	COST
Major Hardware	2	11,961	2	12,116	2	12,326
System Engineering		1,398		1,422		1,446
Integrated Logistics Support		1,232		1,254		1,275
Technical Data and Documentation		630		642		653
Technical Engineering Services		773		776		786
Spares		114		116		118
Program Management		342		346		352
Total		16,450		16,672		16,956

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY12	LCS 9/11	RAYTHEON	SS/FFP	AUG-12	OPTION	2	5,980
FY13	LCS 13/15	RAYTHEON	SS/FFP	JAN-13	NEW	2	6,058
FY14	LCS 17/19	RAYTHEON	SS/FFP	TBD	OPTION	2	6,163

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY12	LCS 9/11	JAN-16	10	22	MAY-13
FY13	LCS 13/15	JAN-17	10	22	MAY-14
FY14	LCS 17/19	JAN-18	10	22	MAY-15

V. COMPETITION/SECOND SOURCE INITIATIVES:

NOTE:

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

P-35 EXHIBIT
FY 2014 President's Budget
April 2013

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

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. SeaRAM is on the Austal Variant.

II. CURRENT FUNDING:

P-35 Category	FY 2012		FY 2013		FY 2014	
	QTY	COST	QTY	COST	QTY	COST
Major Hardware	2	15,073	2	15,269	2	15,531
Software		90		92		94
System Engineering		642		654		665
Test & Evaluation		545		555		565
Technical Data and Documentation		86		88		90
Technical Engineering Services		924		933		945
Program Management		334		340		346
Total		17,694		17,931		18,236

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY12	LCS 10/12	RAYTHEON	SS/FFP	MAY-12	OPTION	2	7,536
FY13	LCS 14/16	RAYTHEON	SS/FFP	APR-13	NEW	2	7,634
FY14	LCS 18/20	RAYTHEON	SS/FFP	TBD	OPTION	2	7,765

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY12	LCS 10/12	DEC-15	10	22	APR-13
FY13	LCS 14/16	DEC-16	10	22	APR-14
FY14	LCS 18/20	DEC-17	10	22	APR-15

V. COMPETITION/SECOND SOURCE INITIATIVES:

NOTE:

CLASSIFICATION: UNCLASSIFIED

BUDGET ITEM JUSTIFICATION SHEET (P-40)
FY2014 PB CYCLE

DATE: April 2013

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 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	TO COMP	TOTAL PROG
QUANTITY	10	1	0	0	0	0	0	0	0	11
End Cost	15,655.2	2,021.4	0.0	0	53.7	37.7	24.4	0.0	0.0	17,792.4
Less Advance Procurement	1,210.5	184.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1,394.5
Less Cost to Complete	1,816.7	74.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1,890.7
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	1,622.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1,622.9
Less Subsequent Year FF	869.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	869.4
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	10,754.1	1,763.4	0.0	0.0	53.7	37.7	24.4	0.0	0.0	12,633.3
Plus Advance Procurement	1,210.5	184.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1,394.5
Plus Cost to Complete	1,735.8	74.0	80.9	0.0	0.0	0.0	0.0	0.0	0.0	1,890.7
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	1,622.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1,622.9
Total Obligational Authority	15,574.3	2,021.4	80.9	0.0	53.7	37.7	24.4	0.0	0.0	17,792.4
Plus Outfitting / Plus Post Delivery	641.7	82.7	59.4	45.0	14.4	65.2	29.7	31.4	0.0	969.5
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	16,244.4	2,104.1	140.3	45.0	68.1	102.9	54.1	31.4	0.0	18,790.3
Unit Cost (Ave. End Cost)	1,565.5	2,021.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1,607.0

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.

Note 1: Program closeout funding of $116M is included in full funding in FY15 - FY17

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	59 months
b) Const. Start to Delivery	58 months
Delivery Date	6/17
Completion of Fitting Out	12/17
Obligation Work Limiting Date	11/18

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 2005		**FY 2006**		**FY 2008**		**FY 2009**		**FY 2012**	
ELEMENT OF COST	**QTY**	**COST**	**QTY**	**COST**	**QTY**	**COST**	**QTY**	**COST**	**QTY**	**COST**
PLAN COSTS	1		1		1		1		1	
BASIC CONST/CONVERSION		1,282,780		1,340,341		1,504,371		1,559,937		1,560,916
CHANGE ORDERS		19,700		26,807		23,300		22,274		36,721
ELECTRONICS		103,937		144,882		282,925		197,321		285,085
HM&E		9,556		49,049		51,951		16,756		58,836
OTHER COST		5,000		5,000		5,000		5,000		9,020
ORDNANCE		43,849		47,428		47,041		48,186		70,852
TOTAL SHIP ESTIMATE		1,464,822		1,613,507		1,914,588		1,849,474		2,021,430
LESS HURRICANE KATRINA SUPPLEMENTAL		237,533		210,803						
LESS ADVANCE PROCUREMENT FY01		7,184		6,865						
LESS ADVANCE PROCUREMENT FY04		133,674								
LESS ADVANCE PROCUREMENT FY07						296,236				
LESS ADVANCE PROCUREMENT FY08								49,651		
LESS ADVANCE PROCUREMENT FY10										183,986
LESS SUBSEQUENT FULL FUNDING FY10								869,394		
LESS COST TO COMPLETE FY07		17,400								
LESS COST TO COMPLETE FY08		65,999								
LESS COST TO COMPLETE FY10		16,498				66,000				
LESS COST TO COMPLETE FY11										
LESS COST TO COMPLETE FY12		18,627		23,437		31,928				
LESS COST TO COMPLETE FY13 (Note 1)						80,888				
NET P-1 LINE ITEM (Note 1)		967,907		1,372,402		1,439,536		930,429		1,837,444

Comments:
Note 1: Due to the Special Transfer Authority notification for LPD 25 ($49.0M) submitted to the Congressional Defense Committees on February 6, 2013, the FY 13 Completion of Prior Year Shipbuilding Programs funding request for LPD may be reduced by $49.0M to a requirement of $32.0M to reflect this Special Transfer Authority notification action.

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**		**FY05 (001)**	**FY06 (001)**	**FY08 (001)**	**FY 09 (001)**	**FY 12 (001)**
	A. Actual Award Date		JUN 2006	NOV 2006	DEC 2007	APR 2011	JUL 2012
	B. Contract Type (and Share Line if applicable)		FPIF/AF	FPIF/AF	FPIF/AF	FPIF/AF	FPIF/AF
	C. RFP Response Date		MAY 2004	JUN 2005	JUN 2006	MAR 2010	AUG 2010
IV.	**Escalation**						
	Escalation Termination Date						
	Escalation Requirement						
	Labor/Material Split						
	Allowable Overhead Rate						
	BASE DATE	FORWARD PRICED	FORWARD PRICED	FORWARD PRICED	FORWARD PRICED	FORWARD PRICED	FORWARD PRICED
V.	**Other Basic(Reserves/Miscellaneous)**	**Amount**					

SHIPBUILDING AND CONVERSION, NAVY
SHIP PRODUCTION SCHEDULE

EXHIBIT P-27
FY2014 PB CYCLE
April 2013

SHIP TYPE	HULL NUMBER	SHIPBUILDER	FISCAL YEAR AUTHORIZED	CONTRACT AWARD	START OF CONSTRUCTION	DELIVERY DATE
LPD	23	HUNTINGTON INGALLS INDUSTRIES	05	Jun-06	Mar-07	Sep-12
LPD	24	HUNTINGTON INGALLS INDUSTRIES	06	Nov-06	Aug-07	Dec-12
LPD	25	HUNTINGTON INGALLS INDUSTRIES	08	Dec-07	Apr-08	Sep-13
LPD	26	HUNTINGTON INGALLS INDUSTRIES	09	Apr-11	May-11	Feb-16
LPD	27	HUNTINGTON INGALLS INDUSTRIES	12	Jul-12	Aug-12	Jun-17

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

Ship Type: LPD 17

	FY 2012 QTY	FY 2012 COST
ELECTRONICS		
a. P-35 Items		
Mission Systems (Raytheon)	1	73,194
C4ISR	1	72,148
SSDS MARK 2	1	14,073
COOPERATIVE ENGAGEMENT CAPABILITY (CEC)	1	5,345
MK 12 AIMS IFF	1	6,698
AN/SLQ-32(V)2 (REFURB)	1	5,520
BATTLE FORCE TACTICAL TRAINER	1	4,275
AN/WSN-7 (RING LASER GYRO NAVIGATION)	1	4,005
Subtotal		185,257
b. Major Items		
NULKA	1	2,207
AMPHIB ASSAULT DIR SYSTEM	1	3,589
NIXIE	1	1,285
RADIAC	1	85
AN/SPQ-14	1	1,580
AN/UQN-4(FATHOMETER)	1	220
DCAMS	1	328
AN/WSN-8A DEML	1	546
Subtotal		9,840
c. Other ELECTRONICS		
MISCELLANEOUS ELECTRONICS		89,988
Subtotal		89,988
Total ELECTRONICS		285,085

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

Ship Type: LPD 17

	FY 2012 QTY	FY 2012 COST
HM&E		
a. P-35 Items		
Subtotal		0
b. Major Items		
BOATS	3	1,231
CCTV, SITE 400	3	559
CIRCUIT 27		774
TRUCK, FORKLIFT	14	1,383
CHEMICAL WARFARE DETECTOR	1	158
MILITARY PAYROLL SYSTEM	1	683
Navy Standard Integrated Personnel System (NSIPS)	1	125
INTEGRATED CONDITION ASSESSMENT SYSTEM (ICAS)	1	421
OILY WATER SEPARATOR	1	861
PLASTIC WASTE PROCESSING EQP	1	341
Subtotal		6,536
c. Other HM&E		
MISCELLANEOUS HM&E		52,300
Subtotal		52,300
Total HM&E		58,836

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

Ship Type: LPD 17

	FY 2012 QTY	FY 2012 COST
ORDNANCE		
a. P-35 Items		
ROLLING AIRFRAME MISSILE SYSTEM (REFURB)	2	17,642
AN/SPS-48	1	13,240
SPQ-9B	1	7,108
MK 46 GUN	1	6,329
Subtotal		44,319
b. Major Items		
50 CAL MACHINE GUN		78
FLIGHT CNTRL & INSTRUMENT LANDING SYS WITH HELICOPTER OPERATIONS SURVEILLANCE SYS AND DYNAMIC INTERFACE TEST	1	2,897
MK44 GUN BARRELS	1	946
ORDNANCE HANDLING EQUIPMENT		495
Subtotal		4,416
c. Other ORDNANCE		
MISCELLANEOUS ORDNANCE		22,117
Subtotal		22117
Total ORDNANCE		70,852

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

P-35 EXHIBIT
FY2014 PB CYCLE
April 2013

Ship Type: **LPD 17**
Equipment Item: **Mission Systems**
PARM Code: **PMS317**

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:
Mission Systems is a microcomputer-based integration of shipboard control electronics; Engineering Control System (ECS), Magnetic Signature Control System (MSCS), Ship Control System (SCS),

II. CURRENT FUNDING:

P-35 Category	**FY 2012**	
	QTY	**COST**
Major Hardware	1	71,484
Spares		0
Ancillary Equipment		0
Documentation and Systems Engineering		0
Software		0
Technical Engineering		0
Other Appropriate Costs		1,710
Turnkey		
Total		73,194

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY 12	LPD 27	Raytheon	FFP	Feb-12	Option	1	71,484

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY 12	LPD 27	JUN-17	37	Various	Various

V. COMPETITION/SECOND SOURCE INITIATIVES:

NOTE:

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

P-35 EXHIBIT
FY2014 PB CYCLE
April 2013

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

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:
To prove the link between the ship, the command hierarchy, and other units of the operating forces.

II. CURRENT FUNDING:

P-35 Category	**FY 2012**	
	QTY	**COST**
Major Hardware	1	43,051
Spares		626
Ancillary Equipment		128
Documentation and Systems Engineering		3,421
Technical Engineering		3,912
Other Appropriate Costs		5,646
Turnkey		15,364
Total		72,148

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY 12	LPD 27	VAR	VAR	VAR	VAR	1	43,051

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY 12	LPD 27	JUN-17	VAR	VAR	VAR

V. COMPETITION/SECOND SOURCE INITIATIVES:

NOTE:

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

P-35 EXHIBIT
FY2014 PB CYCLE
April 2013

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

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:
Ship Self Defense System Mark 2 is microcomputer-based, self-defense coordination system that integrates and automates multiple sensors, self defense weapons, and softkill systems to provide quick reaction combat capability against anti-ship cruise missile threats.

II. CURRENT FUNDING:

P-35 Category	**FY 2012**	
	QTY	**COST**
Major Hardware	1	9,296
Systems Engineering		1,048
Technical Data and Documentation		404
Technical Engineering		343
Spares		381
Other Appropriate Costs		2,602
Total		14,073

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY 12	LPD 27	RAYTHEON	CP	TBD	4 OPTION YEARS	1	9,296

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY 12	LPD 27	JUN-17	18	13	MAY-14

V. COMPETITION/SECOND SOURCE INITIATIVES:

NOTE:

SHIPBUILDING AND CONVERSION, NAVY | **P-35 EXHIBIT**
MAJOR SHIP COMPONENT FACT SHEET | **FY2014 PB CYCLE**
(Dollars in Thousands) | April 2013

Ship Type: **LPD 17**
Equipment Item: **COOPERATIVE ENGAGEMENT CAPABILITY**
PARM Code:

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:
Cooperative Engagement Capability (CEC) coordinates all anti-warfare sensors into single, real time, fire control quality composite track which improves battle force air defense.

II. CURRENT FUNDING:

P-35 Category	**FY 2012**	
	QTY	**COST**
Major Hardware	1	4,934
Systems Engineering		97
Technical Engineering		265
Other Appropriate Costs		49
Total		5,345

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY 12	LPD 27	RAYTHEON	FFP	TBD	TBD	1	4,934

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY 12	LPD 27	JUN-17	24	18	MAY-13

V. COMPETITION/SECOND SOURCE INITIATIVES:

NOTE:

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

P-35 EXHIBIT
FY2014 PB CYCLE
April 2013

Ship Type: **LPD 17**
Equipment Item: **MK 12 AIMS IFF**
PARM Code:

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:
The Transponder Set is an Automatic Identification and Monitoring System (AIMS) Identification Friend or Foe (IFF) system that receives interrogation signals from air, surface, and land IFF - equipped units and automatically replies with a coded response signal that provides ownship position and identification.

II. CURRENT FUNDING:

P-35 Category	**FY 2012**	
	QTY	**COST**
Major Hardware	1	4,886
Systems Engineering		766
Technical Data and Documentation		0
Technical Engineering		433
Spares		64
Other Appropriate Costs		548
Total		6,698

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY12	LPD 27	BAE AND NG	FFP	TBD	NEW	1	4,886

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY12	LPD 27	JUN-17	27	30	NOV-13

V. COMPETITION/SECOND SOURCE INITIATIVES:

NOTE:

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

P-35 EXHIBIT
FY2014 PB CYCLE
April 2013

Ship Type: **LPD 17**
Equipment Item: **AN/SLQ-32(V)2 (REFURB)**
PARM Code:

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:
The AN/SLQ-32(V)2 is a passive electronics countermeasure system.

II. CURRENT FUNDING:

P-35 Category	**FY 2012**	
	QTY	**COST**
Major Hardware	1	4,772
Ancillary Equipment		0
Systems Engineering		52
Technical Data and Documentation		5
Technical Engineering		71
Spares		143
Other Appropriate Costs		476
Total		5,520

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY 12	LPD 27	RAYTHEON	BOA-FFP	TBD	TBD	1	4,772

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY 12	LPD 27	JUN-17	26	24	MAY-13

V. COMPETITION/SECOND SOURCE INITIATIVES:

NOTE:

SHIPBUILDING AND CONVERSION, NAVY | **P-35 EXHIBIT**
MAJOR SHIP COMPONENT FACT SHEET | **FY2014 PB CYCLE**
(Dollars in Thousands) | April 2013

Ship Type: **LPD 17**
Equipment Item: **BATTLE FORCE TACTICAL TRAINER**
PARM Code:

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

The AN/USQ-t46(V) Battle Force Tactical Trainer (BFTT) System provides standardized combat system team proficiency training for the Surface Fleet in accordance with the Afloat Training Strategy. BFTT provides integrated training capability for the primary combat system elements onboard LPD 17 Class ships.

II. CURRENT FUNDING:

P-35 Category	**FY 2012**	
	QTY	**COST**
Major Hardware	1	2,770
Systems Engineering		379
Technical Data and Documentation		123
Technical Engineering		493
Spares		110
Other Appropriate Costs		400
Total		4,275

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY12	LPD 27	TBD	FFP	TBD	TBD	1	2,770

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY12	LPD 27	JUN-17	18	7	OCT-14

V. COMPETITION/SECOND SOURCE INITIATIVES:

NOTE:

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

P-35 EXHIBIT
FY2014 PB CYCLE
April 2013

Ship Type: **LPD 17**
Equipment Item: **AN/WSN-7 RING LASER GYRO NAVIGATION**
PARM Code:

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:
The AN/WSN-7(V) 1 Ring Laser Gyro Navigation System provides real-time navigation data for use by navigation and combat systems.

II. CURRENT FUNDING:

P-35 Category	**FY 2012**	
	QTY	**COST**
Major Hardware	1	3,503
Systems Engineering		52
Technical Data and Documentation		157
Technical Engineering		225
Spares		0
Other Appropriate Costs		68
Total		4,005

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY12	LPD 27	TBD	TBD	TBD	TBD	1	3,503

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY12	LPD 27	JUN-17	24	18	MAY-13

V. COMPETITION/SECOND SOURCE INITIATIVES:

NOTE:

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

P-35 EXHIBIT
FY2014 PB CYCLE
April 2013

Ship Type: **LPD 17**
Equipment Item: **ROLLING AIRFRAME MISSILE SYSTEM**
PARM Code:

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:
The Rolling Airframe Missile (RAM) system is a short-range, fast-reaction, high-firepower, lightweight weapon designed to destroy incoming anti-ship cruise missiles.

II. CURRENT FUNDING:

P-35 Category	**FY 2012**	
	QTY	**COST**
Major Hardware	2	13,038
Systems Engineering		1,476
Technical Engineering		0
Spares		129
Other Appropriate Costs		3,000
Total		17,642

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY 12	LPD 27	RAYTHEON	FFP	TBD	OPTION	2	6,519

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY 12	LPD 27	JUN-17	22	24	JAN-13

V. COMPETITION/SECOND SOURCE INITIATIVES:

NOTE:

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

P-35 EXHIBIT
FY2014 PB CYCLE
April 2013

Ship Type: **LPD 17**
Equipment Item: **AN/SPS-48G**
PARM Code:

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:
The AN/SPS-48G is a long-range, three dimensional, air-search radar system that provides contact range, bearing, and height information.

II. CURRENT FUNDING:

P-35 Category	**FY 2012**	
	QTY	**COST**
Major Hardware	1	11,465
Systems Engineering		709
Technical Data and Documentation		131
Technical Engineering		209
Spares		350
Other Appropriate Costs		376
Total		13,240

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY 12	LPD 27	ITT/G	FFP/CPFF	TBD	TBD	1	11,465

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY 12	LPD 27	JUN-17	28	27	FEB-13

V. COMPETITION/SECOND SOURCE INITIATIVES:

NOTE:

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

P-35 EXHIBIT
FY2014 PB CYCLE
April 2013

Ship Type: **LPD 17**
Equipment Item: **SPQ-9B**
PARM Code:

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:
The AN/SPQ-9B is a high resolution, X-band, narrow beam radar that provides both air and surface tracking information.

II. CURRENT FUNDING:

P-35 Category	**FY 2012**	
	QTY	**COST**
Major Hardware	1	5,965
Systems Engineering		209
Technical Data and Documentation		52
Technical Engineering		332
Spares		116
Other Appropriate Costs		433
Total		7,108

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY 12	LPD 27	NORTHROP GRUMMAN	FFP	TBD	TBD	1	5,965

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY 12	LPD 27	JUN-17	24	24	MAY-13

V. COMPETITION/SECOND SOURCE INITIATIVES:

NOTE:

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

P-35 EXHIBIT
FY2014 PB CYCLE
April 2012

Ship Type: **LPD 17**
Equipment Item: **MK 46 GUN**
PARM Code:

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:
The MK 46 Gun is a remotely operated naval gun system using a high velocity cannon and second-generation thermal day-night sight for close-in ship's protection.

II. CURRENT FUNDING:

P-35 Category	**FY 2012**	
	QTY	**COST**
Major Hardware	2	6,329
Systems Engineering		0
Technical Data and Documentation		0
Technical Engineering		0
Spares		0
Other Appropriate Costs		0
Total		6,329

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY 12	LPD 27	General Dynamics	FFP	TBD	OPTION	2	3,165

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY 12	LPD 27	JUN-17	18	18	MAY-14

V. COMPETITION/SECOND SOURCE INITIATIVES:

NOTE:

BUDGET ITEM JUSTIFICATION SHEET (P-40)

FY 2014 President's Budget

DATE: April 2013

APPROPRIATION/BUDGET ACTIVITY

SHIPBUILDING AND CONVERSION, NAVY/BA 3 Amphibious Ships

P-1 LINE ITEM NOMENCLATURE

AFLOAT FORWARD STAGING BASE (AFSB)

BLI: 3039

(Dollars in Millions)	PRIOR YR	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	TO COMP	TOTAL PROG
QUANTITY	0	0	0	1	0	0	0	0	0	1
End Cost	0.0	0.0	0.0	562.0	0.0	0.0	0.0	0.0	0.0	562.0
Less Advance Procurement (Note 1)	0.0	0.0	0.0	38.0	0.0	0.0	0.0	0.0	0.0	38.0
Less Subsequent Year FF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Plus Subsequent Year FF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Full Funding TOA	0.0	0.0	0.0	524.0	0.0	0.0	0.0	0.0	0.0	524.0
Plus Advance Procurement	0.0	0.0	0.0	38.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Obligational Authority	0.0	0.0	0.0	562.0	0.0	0.0	0.0	0.0	0.0	524.0
Plus Outfitting / Plus Post Delivery	0.0	0.0	0.0	0.0	4.4	20.6	16.8	5.9	0.0	47.7
Total	0.0	0.0	0.0	524.0	0.0	0.0	0.0	0.0	0.0	571.7
Unit Cost (Ave. End Cost)	0.0	0.0	0.0	524.0	0.0	0.0	0.0	0.0	0.0	524.0

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: $38M of advance procurement funds for MLP 4 AFSB is in the NDSF President's Budget request.

Characteristics:			FY14
Hull	Nominal Requirements	Production Status	MLP 4 1401
Length overall	255.0m	Contract Award Date:	12/13
Beam	50.0m	Months to Completion	
Displacement	28879 metric tons	a) Construction award to delivery	39 months
Draft	9.1M	b) Construction Start to Delivery	22 months
		Delivery Date	3/17
		Completion of Fitting Out	5/17

Armament:	Major Electronics:
N/A	C4ISR

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 2014	
ELEMENT OF COST	**QTY**	**COST**
PLAN COSTS	1	
BASIC CONST/CONVERSION		518,000
CHANGE ORDERS		5,000
ELECTRONICS		24,000
HM&E		11,000
OTHER COST		4,000
TOTAL SHIP ESTIMATE		562,000
LESS ADVANCE PROCUREMENT FY13 (Note 1)		38,000
NET P-1 LINE ITEM:		524,000

Comments

Note 1: $38M of advance procurement funds for MLP 4 AFSB is in the NDSF President's Budget request.

SHIPBUILDING AND CONVERSION, NAVY

FY 2014 President's Budget

Analysis of Ship Cost Estimate - Basic/Escalation

DATE:

Ship Type:

April 2013

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**	FY14, MLP 4 1401			
	A. Actual Award Date	DEC 2013			
	B. Contract Type (and Share Line if applicable)	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
MLP 4 AFSB	1401	NASSCO	14	DEC-13	MAY-15	MAR-17

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 2014 President's Budget
April 2013

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 function 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 2014 President's Budget
April 2013

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:

BUDGET ITEM JUSTIFICATION SHEET (P-40)

FY 2014 President's Budget

DATE: April 2013

APPROPRIATION/BUDGET ACTIVITY

SHIPBUILDING AND CONVERSION, NAVY/BA 3 Amphibious Ships

P-1 LINE ITEM NOMENCLATURE

LHA REPLACEMENT

BLI: 3041 / SUBHEAD NO.

(Dollars in Millions)	PRIOR YR	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	TO COMP	TOTAL PROG
QUANTITY	2	0	0	0	0	0	1	0	0	3
End Cost	6,489.4	0.0	0.0	0.0	0.0	0.0	4,316.0	0.0	0.0	10,805.4
Less Advance Procurement	644.9	0.0	0.0	0.0	0.0	0.0	317.6	0.0	0.0	962.5
Less Cost To Complete	208.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	208.7
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	1,999.2	0.0	0.0	0.0	0.0	0.0	2,399.5	0.0	0.0	4,398.7
Plus Subsequent Year FF	0.0	1,999.2	0.0	0.0	0.0	0.0	0.0	2,399.5	0.0	4,398.7
Full Funding TOA	3,434.6	1,999.2	0.0	0.0	0.0	0.0	1,598.9	2,399.5	0.0	9,432.2
Plus Advance Procurement	644.9	0.0	0.0	0.0	77.9	239.7	0.0	0.0	0.0	962.5
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	0.0	156.7	37.7	0.0	0.0	0.0	0.0	0.0	208.7
Total Obligational Authority	4,295.8	1,999.2	156.7	37.7	77.9	239.7	1,598.9	2,399.5	0.0	10,805.4
Plus Outfitting / Plus Post Delivery	0.0	16.4	6.3	37.3	5.5	16.2	24.5	41.2	5.1	152.5
Total	4,295.8	2,015.6	163.0	75.0	83.4	255.9	1,623.4	2,440.7	5.1	10,957.9
Unit Cost (Ave. End Cost)	3,244.7	0.0	0.0	0.0	0.0	0.0	4,316.0	0.0	0.0	3,601.8

MISSION:

Provide functional replacement for the LHA 1 Class ships which are reaching the end of their extended service lives. Ensure that the Amphibious Fleet remains capable of Expeditionary Warfare well into the 21st Century and provide for an affordable and sustainable amphibious ship development program. Provide forward presence and power projection as an integral part of joint, interagency, and multinational maritime expeditionary forces. Operate for sustained periods in transit to and operations in an Amphibious Objective Area to include the embarkation, deployment, and landing of a Marine Landing Force in an assault by helicopters and tilt rotors, supported by Joint Strike Fighters.

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

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		2,569,474
CHANGE ORDERS		62,200		121,628
ELECTRONICS		256,062		266,837
HM&E		56,632		51,013
OTHER COST		92,787		99,052
ORDNANCE		117,249		115,976
TOTAL SHIP ESTIMATE		3,205,277		3,284,064
LESS ADVANCE PROCUREMENT FY05		149,278		
LESS ADVANCE PROCUREMENT FY06		148,398		
LESS ADVANCE PROCUREMENT FY09				177,767
LESS ADVANCE PROCUREMENT FY10				169,476
LESS SUBSEQUENT FUNDING FY08		1,365,785		
LESS SUBSEQUENT FUNDING FY12				1,999,191
LESS COST TO COMPLETE FY09		14,310		
LESS COST TO COMPLETE FY13		156,685		
LESS HURRICANE SUPPLEMENTAL FY06		202,000		
LESS COST TO COMPLETE FY14		37,700		
NET P-1 LINE ITEM:		1,131,121		937,630

SHIPBUILDING AND CONVERSION, NAVY

FY 2014 President's Budget

Analysis of Ship Cost Estimate - Basic/Escalation

April 2013

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**		
	A. Actual Award Date	JUN 2007	MAY 2012		
	B. Contract Type (and Share Line if applicable)	FPI (50/50 O/R)	FPI (50/50 O/R)		
	C. RFP Response Date	MAR 2006	APR 2011		
IV.	**Escalation**	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	HUNTINGTON INGALLS INDUSTRIES	07	JUN-07	JAN-08	MAR-14
LHA (R)	07	HUNTINGTON INGALLS INDUSTRIES	11	MAY-12	APR-13	JUN-18
LHA (R)	08	TBD	17	MAR-15	NOV-18	JAN-24

SHIPBUILDING AND CONVERSION, NAVY

Analysis of Ship Cost Estimates - Major Equipment

(Dollars in Thousands)

Ship Type: LHA REPLACEMENT

	FY 2011	
	QTY	COST
ELECTRONICS		
a. P-35 Items		
AN/SLQ-32	1	7,748
C4ISR	1	134,189
CEC	1	6,520
SSDS	1	33,684
BFTT	1	11,721
IVN	1	15,980
MK-12 IFF	1	7,841
AN/SRC-55 (HYDRA)	1	5,653
AN/TPX-42 ATC	1	5,217
AN/SPN-35C	1	4,805
AN/WSN-7 RLGN	1	4,645
Subtotal		238,003
b. Major Items		
AN/SLQ-25	2	2,376
AN/SPN-43C	1	2,952
AN/SPN-41A	1	4,391
MK70 SWBD W/ MK443 SWBD	1	1,591
ANNOUNCING SYSTEMS	1	2,330
DIGITAL PHOTO LAB	1	1,642
MK 53 NULKA MOD 3	1	2,751
Subtotal		18,033
c. Other ELECTRONICS		
MISCELLANEOUS ELECTRONICS		10,801
Subtotal		10,801
Total ELECTRONICS		266,837

SHIPBUILDING AND CONVERSION, NAVY

Analysis of Ship Cost Estimates - Major Equipment

(Dollars in Thousands)

Ship Type: LHA REPLACEMENT

	FY 2011	
	QTY	COST
ORDNANCE		
a. P-35 Items		
AN/SPS-48	1	13,262
AN/SPS-49A(V)1	1	8,328
CIWS MK15 MOD22	2	11,485
AN/SPQ-9B	1	8,846
NATO SEASPARROW	2	27,253
RAM	2	15,436
VSTOL	1	9,893
Subtotal		94,503
b. Major Items		
AN/SPQ-14 (LHA6)/LRADDS (LHA 7)	1	2,962
AN/SPS-73(V)12 DUAL	2	2,280
Subtotal		5,242
c. Other ORDNANCE		
AVIATION SUPPORT		6,299
MISC ORDNANCE		2,270
TOTAL SHIP TEST PROGRAM		7,662
Subtotal		16,231
Total ORDNANCE		115,976

SHIPBUILDING AND CONVERSION, NAVY

Analysis of Ship Cost Estimates - Major Equipment

(Dollars in Thousands)

Ship Type: LHA REPLACEMENT

	FY 2011	
	QTY	COST
HM&E		
a. P-35 Items		
Subtotal		
b. Major Items		
EQUIPMENT & ENGINEERING		39,863
SUPSHIP MATERIAL/SERVICES		3,558
TEST & INSTRUMENTATION		7,592
Subtotal		51,013
c. Other HM&E		
Subtotal		
Total HM&E		51,013

SHIPBUILDING AND CONVERSION, NAVY | **P-35 EXHIBIT**

MAJOR SHIP COMPONENT FACT SHEET | **FY 2014 President's Budget**

(Dollars in Thousands) | April 2013

Ship Type: **LHA REPLACEMENT**

Equipment Item: **AN/SLQ-32**

PARM Code: **3P (PEO IWS)**

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

The AN/SLQ-32B(V)2 is the Anti-Ship Missile Defense (ASMD) electronic warfare system that provides proven electronic support and countermeasure protection. The (V)2 suite is passive, providing early warning, identification and direction finding capability for simultaneous multiple threats. The system achieves electronic warfare objectives by providing full threat band frequency coverage, instantaneous azimuth coverage, 100 percent probability of intercept and simultaneous response to multiple threats. It can detect aircraft search and target radars well before they detect the ship. The system's rapid response time ensures that jamming protection is enabled to prevent long range targeting of the ship and to deceive missiles launched against the ship. The system has an online library of emitter types for rapid identification.

II. CURRENT FUNDING:

P-35 Category	**FY 2011**	
	QTY	**COST**
Major Hardware	1	5,521
Technical Data and Documentation		18
Spares		139
System Engineering		279
Technical Engineering Services		132
Other Costs		1,659
Total		7,748

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY11	LHA (R)	RAYTHEON/CRANE	FFP	VAR	VARIOUS	1	5,521

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY11	LHA (R)	JUN-18	37	18	NOV-13

V. COMPETITION/SECOND SOURCE INITIATIVES:

N/A

NOTE:

SHIPBUILDING AND CONVERSION, NAVY | **P-35 EXHIBIT**

MAJOR SHIP COMPONENT FACT SHEET | **FY 2014 President's Budget**

(Dollars in Thousands) | April 2013

Ship Type: **LHA REPLACEMENT**

Equipment Item: **C4ISR**

PARM Code: **3Z (PEO C4I)**

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

The Command, Control, Communication, Computer, Intelligence, Surveillance, and Reconnaissance (C4ISR) system provides the link between the ship, the command hierarchy and other units of the operation force. C4ISR consists of CDLMS/NGC2P, MOS, IA(CRYPTO), NAVMACS, ADNS, NAVSSI, DMR, CDLS, GBS, DWTS, EPLRS-DR, BFTN (SNR-HFIP), CANES (Hosted programs include GCCS-M, NTCSS,NSIPS, SCI NETWORKS, CENTRIXS, CVIS(Video Wall), NITES-Next, TCS, TBMCS , RADIANT MERCURY), CBSP, HF DAG, HF SAR, HSFB, MCCP, UHF SATCOM, SINCGARS, SMQ-11, TVS, TSS, TV-DTS, DCGS-N, NAVSSI, NMT
SMQ-11, SSEE INC F, JTT-M, ARC-210, SI COMMS, OA-9277, RCS/SSES Integration, C4I Design Integration, Distributed Systems Integration and AIT services.

II. CURRENT FUNDING:

P-35 Category	**FY 2011**	
	QTY	**COST**
Major Hardware	1	89,286
Technical Data and Documentation		1,079
Spares		3,781
System Engineering		13,250
Technical Engineering Services		14,897
Other Costs		11,896
Total		134,189

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY11	LHA (R)	VARIOUS	VARIOUS	VAR	VARIOUS	1	89,286

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY11	LHA (R)	JUN-18	VARIOUS	VARIOUS	

V. COMPETITION/SECOND SOURCE INITIATIVES:

N/A

NOTE:

There are multiple systems under C4ISR with varying delivery dates and leadtimes.

SHIPBUILDING AND CONVERSION, NAVY | **P-35 EXHIBIT**

MAJOR SHIP COMPONENT FACT SHEET | **FY 2014 President's Budget**

(Dollars in Thousands) | April 2013

Ship Type: **LHA REPLACEMENT**

Equipment Item: **CEC**

PARM Code: **3P (PEO IWS 2E)**

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

The AN/USG-2 Cooperative Engagement Capability (CEC) significantly improves Battle Force Anti-Air Warfare (AAW) capability (CEC) by coordinating all Battle Force AAW sensors into a single, real-time, composite track picture capable of fire control quality. CEC distributes sensor data from each ship and aircraft, or cooperating unit (CU), to all other CU's in the battle force through a real-time, line of sight, high data rate sensor and engagement data distribution network. CEC data is presented as a superset of the best AAW sensor capabilities from each CU, all of which are integrated into a single input to each CU's combat weapons system. Moreover, CEC will provide critical connectivity and integration of over-land air defense systems capable of countering emerging air threats, including land attack cruise missiles, in a complex littoral environment. CEC consists of the DATA Distribution System (DDS), the Cooperative Engagement Processor (CEP), and Combat System modifications. The DDS encodes and distributes own-ship sensor and providing a precision gridlocking and high throughput of data. The CEP is a high capacity distributed processor that is able to process force levels of data in a timely manner, allowing its output to be considered real-time fire control data.

II. CURRENT FUNDING:

P-35 Category	**FY 2011**	
	QTY	**COST**
Major Hardware	1	4,719
Spares		284
System Engineering		726
Technical Engineering Services		422
Other Costs		369
Total		6,520

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY11	LHA (R)	RAYTHEON	FFP	MAR-10	NEW	1	4,719

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY11	LHA (R)	JUN-18	37	18	NOV-13

V. COMPETITION/SECOND SOURCE INITIATIVES:

N/A

NOTE:

SHIPBUILDING AND CONVERSION, NAVY | **P-35 EXHIBIT**

MAJOR SHIP COMPONENT FACT SHEET | **FY 2014 President's Budget**

(Dollars in Thousands) | April 2013

Ship Type: **LHA REPLACEMENT**

Equipment Item: **SSDS**

PARM Code: **3X (PEO IWS 1A5)**

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

The Ship Self-Defense System (SSDS) is a combat system that intends to integrate and coordinate all of the existing sensors and weapons systems aboard a ship. SSDS provides selected ships with greater capability to defend themselves against Anti-Ship Cruise Missile (ASCM) attacks. SSDS includes embedded doctrine to provide an integrated detect-through-engage capability with options ranging from use as a tactical decision aid to use as an automatic weapon system to respond with hardkill and softkill systems. SSDS enhances target tracking by integrating the inputs from several different sensors to form a composite track. For example, SSDS will correlate target detections from individual radars, the electronic support measures (ESM) system (radar warning receiver), and the identification-friend or foe (IFF) system, combining these to build composite tracks on targets while identifying and prioritizing threats. SSDS integrates previously "stand-alone" sensor and engagement systems for amphibious warfare ships by providing a final layer of self protection against air threat "leakers" for individual ships. By ensuring such protection, SSDS contributes indirectly to the operational concept of precision engagement, in that strike operations against targets are executed from several of the platforms receiving SSDS.

II. CURRENT FUNDING:

P-35 Category	**FY 2011**	
	QTY	**COST**
Major Hardware	1	9,900
Technical Data and Documentation		1,772
Spares		733
System Engineering		4,638
Technical Engineering Services		1,983
Other Costs		14,658
Total		33,684

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY11	LHA (R)	VARIOUS	CPFF/FFP	VAR	TBD	1	9,900

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY11	LHA (R)	JUN-18	37	18	NOV-13

V. COMPETITION/SECOND SOURCE INITIATIVES:

N/A

NOTE:

SHIPBUILDING AND CONVERSION, NAVY | **P-35 EXHIBIT**

MAJOR SHIP COMPONENT FACT SHEET | **FY 2014 President's Budget**

(Dollars in Thousands) | April 2013

Ship Type: **LHA REPLACEMENT**

Equipment Item: **BFTT**

PARM Code: **3V (PEO IWS 1B)**

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

The Battle Force Tactical Trainer (BFTT) System provides standardized combat system team proficiency training opportunities for surface fleet personnel to achieve and maintain combat readiness within the surface forces. BFTT also supports joint/allied exercise interoperability. Shipboard BFTT systems can operate independently as unit-level combat system team trainers both in port and underway.

II. CURRENT FUNDING:

P-35 Category	**FY 2011**	
	QTY	**COST**
Major Hardware	1	6,496
Technical Data and Documentation		411
Spares		284
System Engineering		619
Technical Engineering Services		787
Other Costs		3,124
Total		11,721

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY11	LHA (R)	VARIOUS	VARIOUS	VAR	TBD	1	6,496

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY11	LHA (R)	JUN-18	37	12	MAY-14

V. COMPETITION/SECOND SOURCE INITIATIVES:

N/A

NOTE:

Multiple contracts with multiple award dates.

SHIPBUILDING AND CONVERSION, NAVY | **P-35 EXHIBIT**

MAJOR SHIP COMPONENT FACT SHEET | **FY 2014 President's Budget**

(Dollars in Thousands) | April 2013

Ship Type: **LHA REPLACEMENT**

Equipment Item: **IVN**

PARM Code: **WC (SEA 05W)**

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

The Integrated Voice Network (IVN) system provides replacement of current unsupportable, labor intensive shipboard tactical interior communication systems. IVN provides increased video, voice and data communications capability, and decreases the number of handsets and terminals in confined operational spaces onboard ship. IVN provides all interfaces to C4I installations onboard ship.

II. CURRENT FUNDING:

P-35 Category	**FY 2011**	
	QTY	**COST**
Major Hardware	1	13,414
Technical Data and Documentation		109
System Engineering		316
Technical Engineering Services		702
Other Costs		1,439
Total		15,980

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY11	LHA (R)	AVAYA	FFP	FEB-11	TBD	1	13,414

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY11	LHA (R)	JUN-18	9	7	FEB-17

V. COMPETITION/SECOND SOURCE INITIATIVES:

N/A

NOTE:

SHIPBUILDING AND CONVERSION, NAVY | **P-35 EXHIBIT**

MAJOR SHIP COMPONENT FACT SHEET | **FY 2014 President's Budget**

(Dollars in Thousands) | April 2013

Ship Type: **LHA REPLACEMENT**

Equipment Item: **MK-12 IFF**

PARM Code: **WA (NAVAIR PMA 213)**

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

Reliable and secure positive identification (ID) systems are essential elements of battle management in the naval environment. Identification Friend or Foe [IFF] procedures are the primary positive means of aircraft identification in Air Defense operations. Proper use of IFF procedures facilitates rapid engagement of enemy aircraft, conserves Air Defense assets, and reduces risk to friendly aircraft. Any time a plane flies, pilots put a code into their IFF system which others can identify as a friendly aircraft.

II. CURRENT FUNDING:

P-35 Category	**FY 2011**	
	QTY	**COST**
Major Hardware	1	6,409
Spares		190
System Engineering		659
Technical Engineering Services		158
Other Costs		425
Total		7,841

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY11	LHA (R)	VARIOUS	VARIOUS	TBD	NEW	1	6,409

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY11	LHA (R)	JUN-18	37	24	MAY-13

V. COMPETITION/SECOND SOURCE INITIATIVES:

N/A

NOTE:

SHIPBUILDING AND CONVERSION, NAVY | **P-35 EXHIBIT**

MAJOR SHIP COMPONENT FACT SHEET | **FY 2014 President's Budget**

(Dollars in Thousands) | April 2013

Ship Type: **LHA REPLACEMENT**

Equipment Item: **AN/SRC-55 (HYDRA)**

PARM Code: **WC (SEA 05W)**

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

AN/SRC-55 HYDRA provides critical wireless voice communications for the Land Mobile Radio (LMR) Vital System Services and the Personal Communication System (PCS) Non-Vital System Services in support of shipboard operations.

II. CURRENT FUNDING:

P-35 Category	**FY 2011**	
	QTY	**COST**
Major Hardware	1	3,396
Technical Data and Documentation		239
Spares		76
System Engineering		727
Technical Engineering Services		527
Other Costs		688
Total		5,653

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY11	LHA (R)	TBD	TBD	TBD	TBD	1	3,396

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY11	LHA (R)	JUN-18	23	6	JAN-16

V. COMPETITION/SECOND SOURCE INITIATIVES:

N/A

NOTE:

SHIPBUILDING AND CONVERSION, NAVY | **P-35 EXHIBIT**

MAJOR SHIP COMPONENT FACT SHEET | **FY 2014 President's Budget**

(Dollars in Thousands) | April 2013

Ship Type: **LHA REPLACEMENT**

Equipment Item: **AN/TPX-42 ATC**

PARM Code: **WA (NAVAIR PMA 213)**

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

The Interrogator Set AN/TPX42A(V)14 system is designed to provide numeric and symbolic displays of position, identity, altitude, emergency, communication failure, and hijack of aircraft in the terminal airspace on an operators PPI display. Identification Friend or Foe (IFF) and radar targets are automatically tracked by the system and can be electronically handed off to the Ship Self Defense System (SSDS).

II. CURRENT FUNDING:

P-35 Category	**FY 2011**	
	QTY	**COST**
Major Hardware	1	3,755
Spares		188
System Engineering		505
Technical Engineering Services		69
Other Costs		700
Total		5,217

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY11	LHA (R)	TBD	TBD	TBD	TBD	1	3,755

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY11	LHA (R)	JUN-18	18	24	DEC-14

V. COMPETITION/SECOND SOURCE INITIATIVES:

N/A

NOTE:

SHIPBUILDING AND CONVERSION, NAVY | **P-35 EXHIBIT**

MAJOR SHIP COMPONENT FACT SHEET | **FY 2014 President's Budget**

(Dollars in Thousands) | April 2013

Ship Type: **LHA REPLACEMENT**

Equipment Item: **AN/SPN-35C**

PARM Code: **WA (NAVAIR PMA 213)**

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

The AN/SPN-35C precision approach radar provides mode III localizer and glide slope guidance to Navy and Marine Corps aircraft. The system is used in conjunction with a Vertical/Short Take-off and Landing, Optical Landing System and the AN/SPN-41A Instrument Control Landing System for precision landing operations. It is also used for aircraft recovery during adverse weather and night conditions.

II. CURRENT FUNDING:

P-35 Category	**FY 2011**	
	QTY	**COST**
Major Hardware	1	3,576
System Engineering		518
Technical Engineering Services		71
Other Costs		640
Total		4,805

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY11	LHA (R)	TBD	TBD	TBD	TBD	1	3,576

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY11	LHA (R)	JUN-18	23	39	APR-13

V. COMPETITION/SECOND SOURCE INITIATIVES:

N/A

NOTE:

SHIPBUILDING AND CONVERSION, NAVY | **P-35 EXHIBIT**

MAJOR SHIP COMPONENT FACT SHEET | **FY 2014 President's Budget**

(Dollars in Thousands) | April 2013

Ship Type: **LHA REPLACEMENT**

Equipment Item: **AN/WSN-7 RLGN**

PARM Code: **4L (PEO IWS 6)**

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

The Ring Laser Gyro Navigation System (AN/WSN-7 RLGN) provides real-time navigation data for use by navigation and combat systems.

II. CURRENT FUNDING:

P-35 Category	**FY 2011**	
	QTY	**COST**
Major Hardware	1	3,573
Technical Data and Documentation		211
System Engineering		147
Technical Engineering Services		399
Other Costs		315
Total		4,645

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY11	LHA (R)	SPERRY MARINE	FFP	FEB-12	OPTION	1	3,573

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY11	LHA (R)	JUN-18	24	15	MAR-15

V. COMPETITION/SECOND SOURCE INITIATIVES:

N/A

NOTE:

SHIPBUILDING AND CONVERSION, NAVY | **P-35 EXHIBIT**

MAJOR SHIP COMPONENT FACT SHEET | **FY 2014 President's Budget**

(Dollars in Thousands) | April 2013

Ship Type: **LHA REPLACEMENT**

Equipment Item: **AN/SPS-48**

PARM Code: **WX (PEO IWS 2B)**

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

The AN/SPS-48 Air Search Radar is a medium-range, three-dimensional (height, range, and bearing) air search radar whose primary function is to provide target position data to a weapon system and a ship command and control system. It provides for detection of targets as high as 100,000 feet and over a distance of 2 to 200 miles. Collateral functions include air traffic and intercept control.

II. CURRENT FUNDING:

P-35 Category	**FY 2011**	
	QTY	**COST**
Major Hardware	1	10,293
Technical Data and Documentation		140
Spares		585
System Engineering		669
Technical Engineering Services		195
Other Costs		1,380
Total		13,262

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY11	LHA (R)	ITT GILFILLAN	FFP/CPFF	AUG-09	TBD	1	10,293

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY11	LHA (R)	JUN-18	37	30	NOV-12

V. COMPETITION/SECOND SOURCE INITIATIVES:

N/A

NOTE:

Refurbished Item

SHIPBUILDING AND CONVERSION, NAVY | **P-35 EXHIBIT**

MAJOR SHIP COMPONENT FACT SHEET | **FY 2014 President's Budget**

(Dollars in Thousands) | April 2013

Ship Type: **LHA REPLACEMENT**

Equipment Item: **AN/SPS-49A(V)1**

PARM Code: **WX (PEO IWS 2B)**

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

The AN/SPS-49 Air Search Radar is a long-range, two-dimensional (range, bearing) air search radar whose primary function is to provide target position data to a ship command and control system. It provides for detection of targets as high as 100,000 feet and over a distance of 2 to 300 miles. The AN/SPS-49 performs accurate centroiding of target range, azimuth, amplitude, ECM level background, and radial velocity with an associated confidence factor to produce contact data for command and control systems. In addition, contact range and bearing information is provided for display on standard plan position indicator consoles. The AN/SPS-49 uses a line-of-sight, horizon-stabilized antenna to provide acquisition of low-altitude targets in all sea states, and also utilizes an upspot feature to provide coverage for high diving threats in the high diver mode. In replacing some older radars which are nearing end-of-life, the AN/SPS-49 offers greatly improved operational performance, reliability and maintainability.

II. CURRENT FUNDING:

P-35 Category	**FY 2011**	
	QTY	**COST**
Major Hardware	1	5,413
Spares		300
System Engineering		565
Technical Engineering Services		125
Other Costs		1,925
Total		8,328

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY11	LHA (R)	NSWC CRANE	N/A	N/A	N/A	1	5,413

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY11	LHA (R)	JUN-18	36	30	DEC-12

V. COMPETITION/SECOND SOURCE INITIATIVES:

N/A

NOTE:

Refurbished Item- funding obligated December 2012

SHIPBUILDING AND CONVERSION, NAVY | **P-35 EXHIBIT**

MAJOR SHIP COMPONENT FACT SHEET | **FY 2014 President's Budget**

(Dollars in Thousands) | April 2013

Ship Type: **LHA REPLACEMENT**

Equipment Item: **CIWS MK15 MOD22**

PARM Code: **3D (PEO IWS 3)**

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

The MK 15 Phalanx Close-In Weapons System (CIWS) is a fast-reaction, rapid-fire 20-millimeter gun system that provides US Navy ships with a terminal defense against anti-ship missiles that have penetrated other fleet defenses. Designed to engage anti-ship cruise missiles and fixed-wing aircraft at short range, Phalanx automatically engages functions usually performed by separate, independent systems such as search, detection, threat evaluation, acquisition, track, firing, target destruction, kill assessment and cease fire. Each gun mount houses a fire control assembly and a gun subsystem. The fire control assembly is composed of a search radar for surveillance and detection of hostile targets and a track radar for aiming the gun while tracking a target. The unique closed-loop fire control system that tracks both the incoming target and the stream of outgoing projectiles gives CIWS the capability to correct its aim to hit fast-moving targets, including Anti-Ship Missiles (ASMs). The intent is to destroy the warhead on incoming missile. As a secondary measure, should it fail to hit the warhead, CIWS's rate of fire is intended to blow holes in the missile body, causing it to break up in air.

II. CURRENT FUNDING:

P-35 Category	**FY 2011**	
	QTY	**COST**
Major Hardware	2	9,817
Technical Data and Documentation		40
System Engineering		663
Technical Engineering Services		533
Other Costs		432
Total		11,485

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY11	LHA (R)	RAYTHEON	FFP	APR-10	NEW	2	4,909

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY11	LHA (R)	JUN-18	19	22	JAN-15

V. COMPETITION/SECOND SOURCE INITIATIVES:

N/A

NOTE:

SHIPBUILDING AND CONVERSION, NAVY | **P-35 EXHIBIT**

MAJOR SHIP COMPONENT FACT SHEET | **FY 2014 President's Budget**

(Dollars in Thousands) | April 2013

Ship Type: **LHA REPLACEMENT**

Equipment Item: **AN/SPQ-9B**

PARM Code: **WX (PEO IWS 2B)**

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

The AN/SPQ-9B is a multimode, X-Band, narrow beam, pulse Doppler radar that detects all known projected sea skimming missiles at the horizon in heavy clutter, while simultaneously providing detection and tracking of surface targets and beacon responses. The AN/SPQ-9B supports surface engagement capability in effectively detecting and tracking sea-skimming, low radar cross-section, high-speed targets in heavy clutter environments. It uses a high resolution, track-while-scan, X-Band, pulse Doppler radar to provide real time acquisition and automatic tracking of multiple targets.

II. CURRENT FUNDING:

P-35 Category	**FY 2011**	
	QTY	**COST**
Major Hardware	1	7,236
Technical Data and Documentation		103
Spares		120
System Engineering		330
Technical Engineering Services		400
Other Costs		657
Total		8,846

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY11	LHA (R)	NGES	FFP	MAR-11	TBD	1	7,236

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY11	LHA (R)	JUN-18	37	24	MAY-13

V. COMPETITION/SECOND SOURCE INITIATIVES:

N/A

NOTE:

SHIPBUILDING AND CONVERSION, NAVY | **P-35 EXHIBIT**

MAJOR SHIP COMPONENT FACT SHEET | **FY 2014 President's Budget**

(Dollars in Thousands) | April 2013

Ship Type: **LHA REPLACEMENT**

Equipment Item: **NATO SEASPARROW**

PARM Code: **Y1 (NATO NSSMS)**

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

The NATO SEASPARROW Surface Missile System (NSSMS) Mk 57 is a medium-range, rapid-reaction, missile weapon system that provides the capability of destroying hostile aircraft, anti-ship missiles, and airborne and surface missile platforms with surface-to-air missiles. The NSSMS can also be used to detect missile launchings by a surface vessel utilizing the NSSMS surveillance radar capability. The NSSMS consists of a Guided Missile Fire Control System (GMFCS) Mk 91 and a Guided Missile Launching System (GMLS) Mk 29.

II. CURRENT FUNDING:

P-35 Category	**FY 2011**	
	QTY	**COST**
Major Hardware	2	19,234
Spares		1,581
System Engineering		1,275
Technical Engineering Services		2,816
Other Costs		2,347
Total		27,253

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY11	LHA (R)	RAYTHEON	FFP	JUL-10	OPTION	2	9,617

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY11	LHA (R)	JUN-18	37	36	MAY-12

V. COMPETITION/SECOND SOURCE INITIATIVES:

N/A

NOTE:

SHIPBUILDING AND CONVERSION, NAVY | **P-35 EXHIBIT**

MAJOR SHIP COMPONENT FACT SHEET | **FY 2014 President's Budget**

(Dollars in Thousands) | April 2013

Ship Type: **LHA REPLACEMENT**

Equipment Item: **RAM**

PARM Code: **3D (PEO IWS 3B)**

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

The Rolling Airframe Missile MK31 MOD3 (RAM) is an effective, low-cost, lightweight, quick reaction, high firepower, self-defense missile system designed to provide anti-ship cruise missile defense. The system is comprised of a MK44 Guided Missile Round Pack (GMRP) and the MK49 Guided Missile Launching System (GMLS) which holds 21 RAM missiles. This system is designed to counter high density anti-ship cruise missile raids and provides for ship survivability with accurate terminal guidance, proven lethality and no fire control channel dependence.

II. CURRENT FUNDING:

P-35 Category	**FY 2011**	
	QTY	**COST**
Major Hardware	2	9,882
Technical Data and Documentation		700
Spares		135
System Engineering		2,114
Technical Engineering Services		196
Other Costs		2,409
Total		15,436

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY11	LHA (R)	RAYTHEON	FFP	AUG-11	TBD	2	4,941

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY11	LHA (R)	JUN-18	37	24	MAY-13

V. COMPETITION/SECOND SOURCE INITIATIVES:

N/A

NOTE:

SHIPBUILDING AND CONVERSION, NAVY | **P-35 EXHIBIT**

MAJOR SHIP COMPONENT FACT SHEET | **FY 2014 President's Budget**

(Dollars in Thousands) | April 2013

Ship Type: **LHA REPLACEMENT**

Equipment Item: **VSTOL**

PARM Code: **NAVAIR PMA 251**

I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

Used on amphibious assault ships, this Lakehurst-designed visual landing aid displays glide path and trend information to the Vertical Short Take-Off and Landing (VSTOL) pilot preparing to land on ship. The system can guide an aircraft to the ship from a distance of 0.8 nautical miles. The Optical Landing System (OLS) guides the aircraft to 50 feet above the flight deck up to the final approach phase.

II. CURRENT FUNDING:

P-35 Category	**FY 2011**	
	QTY	**COST**
Major Hardware	1	7,825
Technical Data and Documentation		154
Spares		360
System Engineering		218
Technical Engineering Services		678
Other Costs		658
Total		9,893

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
FY11	LHA (R) 7	LKE MFG	TBD	TBD	NEW	1	7,825

IV. DELIVERY DATE:

PROGRAM YEAR	SHIP TYPE	EARLIEST SHIP DELIVERY DATE	MONTHS REQUIRED BEFORE DELIVERY	PRODUCTION LEADTIME	REQUIRED AWARD DATE
FY11	LHA (R) 7	JUN-18	18	40	AUG-13

V. COMPETITION/SECOND SOURCE INITIATIVES:

N/A

NOTE:

CLASSIFICATION: UNCLASSIFIED

BUDGET ITEM JUSTIFICATION SHEET (P-40)

FY 2014 President's Budget

DATE: April 2013

APPROPRIATION/BUDGET ACTIVITY

SHIPBUILDING AND CONVERSION, NAVY/BA 3 Amphibious Ships

P-1 LINE ITEM NOMENCLATURE

JOINT HIGH SPEED VESSEL (JHSV)

BLI: 3043

(Dollars in Millions)	PRIOR YR	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	TO COMP	TOTAL PROG
QUANTITY	3	2	1	0	0	0	0	0	0	6
End Cost	549.4	372.3	211.2	0.0	0.0	0.0	0.0	0.0	0.0	1,132.9
Less Program Closeout/Support Cost	0.0	0.0	22.0	0.0	0.0	0.0	0.0	0.0	0.0	22.0
Plus Program Closeout/Support Cost	0.0	0.0	0.0	2.7	5.8	5.8	5.8	1.8	0.0	22.0
Full Funding TOA	549.4	372.3	189.2	2.7	5.8	5.8	5.8	1.8	0.0	1,132.9
Total Obligational Authority	549.4	372.3	189.2	2.7	5.8	5.8	5.8	1.8	0.0	1,132.8
Plus Outfitting / Plus Post Delivery	1.3	0.2	29.7	24.3	27.7	19.3	15.3	10.5	0.0	128.3
Total	550.7	372.5	218.9	27.0	33.5	25.1	21.1	12.3	0.0	1,261.1
Unit Cost (Ave. End Cost)	183.1	186.2	211.2	0.0	0.0	0.0	0.0	0.0	0.0	188.8

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 close out and support 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)		

	FY09	FY10	FY11	FY12	FY12	FY 13
Production Status	JHSV 0901	JHSV 1001	JHSV 1101	JHSV 1201	JHSV 1202	JHSV 1301
Award Planned (Month)	01/10	10/10	06/11	02/12	02/12	12/12
Months to Completion						
a) Award to Delivery	41 months	44 months	48 months	52 months	58 months	54 months
b) Construction Start to Delivery	33 months	25 months	22 months	22 months	22 months	22 months
Delivery Date	06/13	06/14	06/15	06/16	12/16	06/17
Completion of Fitting Out	09/13	09/14	09/15	09/16	03/17	09/17
Obligation Work Limiting Date	08/14	08/15	08/16	08/17	02/18	08/18

WEAPON SYSTEM COST ANALYSIS (EXHIBIT P-5)

(Dollars in Thousands)

BUDGET ACTIVITY: 3	**P-1 LINE ITEM NOMENCLATURE**	**BLI: 3043**
Amphibious Ships	**JOINT HIGH SPEED VESSEL (JHSV)**	

	FY 2009		**FY 2010**		**FY 2011**		**FY 2012**		**FY 2013**	
ELEMENT OF COST	**QTY**	**COST**	**QTY**	**COST**	**QTY**	**COST**	**QTY**	**COST**	**QTY**	**COST**
PLAN COSTS	1		1		1		2		1	
BASIC CONST/CONVERSION		168,813		153,850		156,223		323,156		167,603
CHANGE ORDERS		2,746		2,430		3,673		8,663		4,190
ELECTRONICS		11,514		12,008		12,271		23,767		12,194
HM&E		5,107		4,941		3,342		7,993		2,253
OTHER COST		4,080		4,178		4,197		8,753		2,956
PROGRAM CLOSEOUT/SUPPORT COST										22,014
TOTAL SHIP ESTIMATE		192,260		177,407		179,705		372,332		211,210
LESS PROGRAM CLOSEOUT/SUPPORT COST FY 14										2,732
LESS PROGRAM CLOSEOUT/SUPPORT COST FY 15										5,823
LESS PROGRAM CLOSEOUT/SUPPORT COST FY 16										5,810
LESS PROGRAM CLOSEOUT/SUPPORT COST FY 17										5,834
LESS PROGRAM CLOSEOUT/SUPPORT COST FY 18										1,815
NET P-1 LINE ITEM:		192,260		177,407		179,705		372,332		189,196

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	FY11 JHSV 1101	FY12 JHSV 1201	FY12 JHSV 1202	FY13 JHSV 1301
	A. Actual Award Date	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)
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	801	AUSTAL	2008	NOV-08	DEC-09	DEC-12
JHSV	901	AUSTAL	2009	JAN-10	SEP-10	JUN-13
JHSV	902	AUSTAL	2009	JAN-10	SEP-11	DEC-13
JHSV	1001	AUSTAL	2010	OCT-10	MAY-12	JUN-14
JHSV	1002	AUSTAL	2010	OCT-10	FEB-13	DEC-14
JHSV	1101	AUSTAL	2011	JUN-11	AUG-13	JUN-15
JHSV	1102	AUSTAL	2011	JUN-11	FEB-14	DEC-15
JHSV	1201	AUSTAL	2012	FEB-12	AUG-14	JUN-16
JHSV	1202	AUSTAL	2012	FEB-12	FEB-15	DEC-16
JHSV	1301	AUSTAL	2013	DEC-12	AUG-15	JUN-17

NOTE:

Outfitting and Post delivery costs for the former Army JHSV's: 902, 1002, 1102, and 1202 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 2012		FY 2013	
	QTY	COST	QTY	COST
ELECTRONICS				
a. P-35 Items				
C4ISR	2	18,703	1	9,586
Subtotal		18,703		9,586
b. Major Items				
VISUAL LANDING AIDE SUITE	2	4,193	1	2,159
MISC ELECTRONICS		871		449
Subtotal		5,064		2,608
c. Other ELECTRONICS				
Subtotal				
Total ELECTRONICS		23,767		12,194

SHIPBUILDING AND CONVERSION, NAVY

Analysis of Ship Cost Estimates - Major Equipment

(Dollars in Thousands)

Ship Type: JOINT HIGH SPEED VESSEL	FY 2012		FY 2013	
	QTY	COST	QTY	COST
HM&E				
a. P-35 Items				
Subtotal				
b. Major Items				
ENGINEERING SERVICES		4,492		1,262
SUPSHIP MATERIAL SERVICES		1,346		376
LOGISTICS SUPPORT SERVICES		839		248
TEST AND INSTRUMENTATION		1,316		367
Subtotal		7,993		2,253
c. Other HM&E				
Subtotal				
Total HM&E		7,993		2,253

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

P-35 EXHIBIT
FY 2014 President's Budget
April 2013

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 operational 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 2012 QTY	FY 2012 COST	FY 2013 QTY	FY 2013 COST
Major Hardware	2	11,620	1	5,956
Spares		1,126		568
System Engineering		3,420		1,755
Technical Engineering Services		976		505
Other Costs		1,561		802
Total		18,703		9,586

III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	PRIME CONTRACTOR	CONTRACT TYPE	AWARD DATE	NEW /OPTION	QTY	HARDWARE UNIT COST
12	JHSV 1201	VARIOUS	VARIOUS	VAR	VARIOUS	1	5,810
12	JHSV 1202	VARIOUS	VARIOUS	VAR	VARIOUS	1	5,810
13	JHSV 1301	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
12	JHSV 1201	MAR-16	VARIOUS	VARIOUS	
12	JHSV 1202	SEP-16	VARIOUS	VARIOUS	
13	JHSV 1301	MAR-17	VARIOUS	VARIOUS	

V. COMPETITION/SECOND SOURCE INITIATIVES:

NOTE:

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

CLASSIFICATION: UNCLASSIFIED

BUDGET ITEM JUSTIFICATION SHEET (P-40)
FY 2014 President's Budget

DATE:
April 2013

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

P-1 LINE ITEM NOMENCLATURE
AGOR OCEANOGRAPHIC CLASS
BLI: 5087 / SUBHEAD NO.

(Dollars in Millions)	PRIOR YR	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	TO COMP	TOTAL PROG
QUANTITY	2	1	0	0	0	0	0	0	0	3
End Cost	204.6	89.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	293.6
Full Funding TOA	204.6	89.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	293.6
Total Obligational Authority	204.6	89.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	293.6
Plus Outfitting / Plus Post Delivery	1.3	0.4	2.6	3.5	2.4	0.0	0.0	0.0	0.0	10.2
Total	205.9	89.4	2.6	3.5	2.4	0.0	0.0	0.0	0.0	303.8
Unit Cost (Ave. End Cost)	102.3	89.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	97.9

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 designated AGOR Ocean. These vessels 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	5,144 LT	2915 LT		
Draft	18 ft	15 ft		
	FY07	FY11	FY12	
PRODUCTION STATUS	TAGS-66	AGOR 27	AGOR 28	
Contract Award Date	12/09	10/11	02/12	
Months to Complete				
a) Contract Award to Delivery	49 months	36 months	38 months	
b) Construction Start to Delivery	40 months	28 months	28 months	
Delivery Date	01/14	10/14	04/15	
Completion of Fitting-Out	04/14	11/15	05/16	
Obligation Work Limiting Date	03/15	10/16	04/17	

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

BUDGET ACTIVITY: 5
Auxiliaries, Craft and Prior Year Program Costs

P-1 LINE ITEM NOMENCLATURE
AGOR OCEANOGRAPHIC CLASS

SUBHEAD NO. BLI: 5087

	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		75,791		71,016
CHANGE ORDERS		3,000		3,500		2,000
ELECTRONICS		13,856		5,781		6,084
HM&E		8,215		2,000		7,900
OTHER COST		1,900		1,000		2,000
TOTAL SHIP ESTIMATE		116,506		88,072		89,000
NET P-1 LINE ITEM:		116,506		88,072		89,000

P-5B Exhibit

SHIPBUILDING AND CONVERSION, NAVY

FY 2014 President's Budget

Analysis of Ship Cost Estimate - Basic/Escalation

DATE:

Ship Type: AGOR

April 2013

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 027	AGOR 028		
	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 027	AGOR 028		
	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	JAN-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	DATE: **April 2013**
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 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	TO COMP	TOTAL PROG
QUANTITY	0	0	0	0	1	0	1	0	0	2
End Cost	0.0	0.0	0.0	0.0	965.7	0.0	668.3	0.0	0.0	1,634.0
Less Advance Procurement	0.0	0.0	0.0	0.0	573.3	0.0	310.9	0.0	0.0	884.2
Full Funding TOA	0.0	0.0	0.0	0.0	392.4	0.0	357.4	0.0	0.0	749.8
Plus Advance Procurement	0.0	131.2	307.3	183.9	179.6	82.2	0.0	0.0	0.0	884.2
Total Obligational Authority	0.0	131.2	307.3	183.9	572.0	82.2	357.4	0.0	0.0	1,634.0
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	0.0	131.2	307.3	183.9	572.0	82.2	357.4	0.0	0.0	1,634.0
Unit Cost (Ave. End Cost)	0.0	0.0	0.0	0.0	965.7	0.0	668.3	0.0	0.0	817.0

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-10, Advance Procurement Requirements Analysis (Funding)									Date: **April 2013**			
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-701**			First System (BY1) Award Date and Completion Date **December 2012- December 2015**						Interval Between Systems			
BLI	PLT	When Req'd	Prior Years	FY12	FY13	FY14	FY15	FY16	FY17	FY18	TO COMP	TOTAL
Moored Training Ship				**131.2**	**307.3**	**134.8**						**573.3**
DESIGN				**93.0**	**114.4**	**67.4**						**274.8**
PLANS				**3.3**	**14.7**	**33.6**						**51.6**
GFE				**24.0**	**4.2**	**0.0**						**28.2**
MODULE				**8.0**	**159.7**	**0.0**						**167.7**
SUB-MODULE				**2.9**	**14.3**	**33.8**						**51.0**
Total Advanced Procurement				**131.2**	**307.3**	**134.8**						**573.3**

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

CLASSIFICATION:	UNCLASSIFIED								
Exhibit P-10, Advance Procurement Requirements Analysis (Budget Justification)								Date: **April 2013**	
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-701**		P-1 Line Item Nomenclature **Moored Training Ship**	
(TOA $ in Millions)				**FY14**					
	PLT	QPA	Unit Cost	Qty	Contract Forecast Date	Total Cost Request			
DESIGN					Oct-2013	**67.4**			
PLANS					Oct-2013	**33.6**			
GFE						**0.0**			
MODULE						**0.0**			
SUB-MODULE					Oct-2013	**33.8**			
						134.8			

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

CLASSIFICATION:	UNCLASSIFIED											
Exhibit P-10, Advance Procurement Requirements Analysis (Funding)									Date: **April 2013**			
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	FY12	FY13	FY14	FY15	FY16	FY17	FY18	TO COMP	Total
Moored Training Ship						**49.1**	**179.6**	**82.2**				**310.9**
DESIGN						**0.0**	**0**	**12.8**				**12.8**
PLANS						**0.0**	**9.9**	**34.1**				**44.0**
GFE						**22.4**	**4.3**	**0.0**				**26.7**
MODULE						**26.7**	**152.6**	**0.0**				**179.3**
SUB-MODULE						**0.0**	**12.8**	**35.3**				**48.1**
Total Advanced Procurement						**49.1**	**179.6**	**82.2**				**310.9**

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

CLASSIFICATION:	UNCLASSIFIED								
Exhibit P-10, Advance Procurement Requirements Analysis (Budget Justification)								Date: **April 2013**	
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)				**FY14**					
	PLT	QPA	Unit Cost	Qty	Contract Forecast Date	Total Cost Request			
DESIGN						**0.0**			
PLANS						**0.0**			
GFE					Dec-2013	**22.4**			
MODULE		1 shipset			first qtr	**26.7**			
SUB-MODULE						**0.0**			
Total Advance Procurement						**49.1**			

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: April 2013
FY 2014 President's Budget	
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 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	TO COMP	TOTAL PROG
Full Funding TOA-Outfitting	278.3	88.0	84.0	219.0	214.4	196.6	202.0	175.4	199.4	1,657.1
Full Funding TOA-Post Delivery	162.6	176.3	220.3	226.1	302.9	391.2	406.8	397.2	1,004.9	3,288.3
Full Funding TOA-First Destination	15.7	6.3	5.4	5.0	5.1	5.3	5.4	5.4	5.5	59.1
Total Obligational Authority	456.6	270.6	309.7	450.1	522.4	593.1	614.2	578.0	1,209.8	5,004.5

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.

CLASSIFICATION: UNCLASSIFIED

BUDGET ITEM JUSTIFICATION SHEET (P-29)
FY 2014 President's Budget

DATE
April 2013

APPROPRIATION/BUDGET ACTIVITY
SHIPBUILDING AND CONVERSION, NAVY/BA 5

P-1 LINE ITEM NOMENCLATURE
OUTFITTING
BLI: 5110

Ship Type	HULL NO	PROG YEAR	Contract Award	Start of Constr.	DEL DATE	CFO DATE	PSA START	PSA FINISH	OWLD	PRIOR YEARS	FY 2012	FY 2013	FY 2014	TO COMP	TOTAL
AGOR	27	11	OCT-11	JUN-12	OCT-14	NOV-15	NOV-15	DEC-15	OCT-16	0	0	925	174	0	1,099
AGOR	28	12	FEB-12	JUL-12	APR-15	MAY-16	MAY-16	MAY-16	APR-17	0	0	479	620	0	1,099
									AGOR Total	**0**	**0**	**1,404**	**794**	**0**	**2,198**
TAGS	66	07	DEC-09	SEP-10	JAN-14	APR-14	FEB-15	MAR-15	APR-15	0	41	1,233	387	0	1,661
									TAGS Total	**0**	**41**	**1,233**	**387**	**0**	**1,661**
LCAC SLEP	59	09	SEP-09	MAR-10	JUL-11	AUG-11	NOV-11	DEC-11	JUL-12	208	0	0	0	0	208
LCAC SLEP	62	09	SEP-09	JUN-10	DEC-11	JAN-12	APR-12	MAY-12	DEC-12	194	0	0	0	0	194
LCAC SLEP	67	09	AUG-09	MAY-11	JUN-12	JUL-12	JUL-12	JUL-12	JUN-13	203	0	0	0	0	203
LCAC SLEP	70	09	AUG-09	AUG-11	NOV-12	DEC-12	MAY-13	JUN-12	NOV-13	192	0	0	0	0	192
LCAC SLEP	71	09	AUG-09	NOV-10	MAR-12	APR-12	JUN-12	JUL-12	MAR-13	202	0	0	0	0	202
LCAC SLEP	79	09	SEP-09	SEP-10	MAR-12	APR-12	APR-12	MAY-12	MAR-13	0	231	0	0	0	231
LCAC SLEP	63	10	SEP-10	FEB-11	MAY-12	JUN-12	NOV-12	DEC-12	MAY-13	204	0	0	0	0	204
LCAC SLEP	72	10	SEP-10	MAY-11	SEP-12	OCT-12	NOV-12	DEC-12	SEP-13	195	0	0	0	0	195
LCAC SLEP	74	10	SEP-10	AUG-11	NOV-12	DEC-12	FEB-13	MAR-13	NOV-13	231	0	0	0	0	231
LCAC SLEP	27	11	FEB-12	FEB-12	MAR-13	APR-13	JUL-13	AUG-13	MAR-14	0	231	0	0	0	231
LCAC SLEP	38	11	FEB-12	MAY-12	JUL-13	AUG-13	OCT-13	NOV-13	JUL-14	0	231	0	0	0	231
LCAC SLEP	75	11	FEB-12	FEB-12	MAR-13	APR-13	SEP-13	NOV-13	MAR-14	0	231	0	0	0	231
LCAC SLEP	80	11	FEB-12	MAY-12	JUL-13	AUG-13	JAN-14	FEB-14	JUL-14	0	231	0	0	0	231
LCAC SLEP	55	12	FEB-12	OCT-12	NOV-13	DEC-13	FEB-14	MAR-14	NOV-14	0	0	232	0	0	232
LCAC SLEP	60	12	FEB-12	JAN-13	MAR-14	APR-14	JUN-14	JUL-14	MAR-15	0	0	232	0	0	232
LCAC SLEP	73	12	FEB-12	JAN-13	FEB-14	MAR-14	MAY-14	JUN-14	FEB-15	0	0	232	0	0	232
LCAC SLEP	82	12	FEB-12	OCT-12	NOV-13	DEC-13	MAY-14	JUN-14	NOV-14	0	0	232	0	0	232
LCAC SLEP	88	13	MAR-13	JUL-13	OCT-14	NOV-14	DEC-14	JAN-15	OCT-15	0	0	0	236	0	236
LCAC SLEP	89	13	MAR-13	NOV-13	FEB-15	MAR-15	APR-15	MAY-15	FEB-16	0	0	0	236	0	236
LCAC SLEP	78	14	FEB-14	JUL-14	OCT-15	NOV-15	DEC-15	JAN-16	OCT-16	0	0	0	173	67	240
LCAC SLEP	83	14	FEB-14	NOV-14	FEB-16	MAR-16	APR-16	MAY-16	FEB-17	0	0	0	0	240	240
LCAC SLEP	57	14	FEB-14	MAR-15	JUN-16	JUL-16	AUG-16	OCT-16	JUN-17	0	0	0	0	244	244
LCAC SLEP	52	14	FEB-14	JUL-15	OCT-16	NOV-16	DEC-16	JAN-17	OCT-17	0	0	0	0	244	244
LCAC SLEP	58	15	JAN-15	JUL-15	OCT-16	NOV-16	DEC-16	JAN-17	OCT-17	0	0	0	0	244	244
LCAC SLEP	64	15	JAN-15	NOV-15	FEB-17	MAR-17	APR-17	MAY-17	FEB-18	0	0	0	0	244	244
LCAC SLEP	84	15	JAN-15	JUL-15	OCT-16	NOV-16	DEC-16	JAN-17	OCT-17	0	0	0	0	244	244
LCAC SLEP	85	15	JAN-15	NOV-15	FEB-17	MAR-17	APR-17	MAY-17	FEB-18	0	0	0	0	244	244
LCAC SLEP	65	16	JAN-16	JUL-16	OCT-17	NOV-17	DEC-17	JAN-18	OCT-18	0	0	0	0	248	248
LCAC SLEP	76	16	JAN-16	NOV-16	FEB-18	MAR-18	APR-18	MAY-18	FEB-19	0	0	0	0	248	248
LCAC SLEP	86	16	JAN-16	JUL-16	OCT-17	NOV-17	DEC-17	JAN-18	OCT-18	0	0	0	0	248	248
LCAC SLEP	87	16	JAN-16	NOV-16	FEB-18	MAR-18	APR-18	MAY-18	FEB-19	0	0	0	0	248	248

CLASSIFICATION: UNCLASSIFIED

BUDGET ITEM JUSTIFICATION SHEET (P-29)
FY 2014 President's Budget

DATE
April 2013

APPROPRIATION/BUDGET ACTIVITY
SHIPBUILDING AND CONVERSION, NAVY/BA 5

P-1 LINE ITEM NOMENCLATURE
OUTFITTING
BLI: 5110

Ship Type	HULL NO	PROG YEAR	Contract Award	Start of Constr.	DEL DATE	CFO DATE	PSA START	PSA FINISH	OWLD	PRIOR YEARS	FY 2012	FY 2013	FY 2014	TO COMP	TOTAL
LCAC SLEP	77	17	JAN-17	JUL-17	OCT-18	NOV-18	DEC-18	JAN-19	OCT-19	0	0	0	0	252	252
LCAC SLEP	50	17	JAN-17	NOV-17	FEB-19	MAR-19	APR-19	MAY-19	FEB-20	0	0	0	0	252	252
LCAC SLEP	20	17	JAN-17	MAR-18	JUN-19	JUL-19	AUG-19	SEP-19	JUN-20	0	0	0	0	252	252
LCAC SLEP	35	17	JAN-17	JUL-18	OCT-19	NOV-19	DEC-19	JAN-20	OCT-20	0	0	0	0	209	209
									LCAC SLEP Total	**1,629**	**1,155**	**928**	**645**	**3,267**	**7,624**
JHSV	0901	09	JAN-10	SEP-10	JUN-13	SEP-13	MAY-14	JUL-14	AUG-14	1,256	202	2,640	0	0	4,098
JHSV	0902	09	JAN-10	SEP-11	DEC-13	MAR-14	NOV-14	JAN-15	FEB-15	0	0	2,998	1,100	0	4,098
JHSV	1001	10	OCT-10	MAY-12	JUN-14	SEP-14	MAY-15	JUL-15	AUG-15	0	0	2,845	1,327	0	4,172
JHSV	1002	10	OCT-10	FEB-13	DEC-14	MAR-15	NOV-15	JAN-16	FEB-16	0	0	2,588	1,584	0	4,172
JHSV	1101	11	JUN-11	AUG-13	JUN-15	SEP-15	MAY-16	JUL-16	AUG-16	0	0	0	476	3,771	4,247
JHSV	1102	11	JUN-11	FEB-14	DEC-15	MAR-16	NOV-16	JAN-17	FEB-17	0	0	0	179	4,068	4,247
JHSV	1201	12	FEB-12	AUG-14	JUN-16	SEP-16	MAY-17	JUL-17	AUG-17	0	0	0	0	4,324	4,324
JHSV	1202	12	FEB-12	FEB-15	DEC-16	MAR-17	NOV-17	JAN-18	FEB-18	0	0	0	0	4,324	4,324
JHSV	1301	13	DEC-12	AUG-15	JUN-17	SEP-17	MAY-18	JUL-18	AUG-18	0	0	0	0	4,401	4,401
									JHSV Total	**1,256**	**202**	**11,071**	**4,666**	**20,888**	**38,083**
LHA	6	07	JUN-07	JAN-08	MAR-14	OCT-14	APR-15	JUN-15	SEP-15	0	16,350	6,253	22,742	0	45,345
LHA	7	11	MAY-12	APR-13	JUN-18	JAN-19	AUG-19	OCT-19	DEC-19	0	0	0	0	61,896	61,896
									LHA Total	**0**	**16,350**	**6,253**	**22,742**	**61,896**	**107,241**
LPD	22	04	JUN-06	FEB-06	DEC-11	JUN-12	DEC-12	APR-13	MAY-13	23,159	3,752	0	0	0	26,911
LPD	23	05	JUN-06	MAR-07	SEP-12	JAN-13	AUG-13	DEC-13	DEC-13	18,218	5,704	0	0	0	23,922
LPD	24	06	NOV-06	AUG-07	DEC-12	MAY-13	DEC-13	APR-14	APR-14	17,284	6,338	0	0	0	23,622
LPD	25	08	DEC-07	APR-08	SEP-13	FEB-14	AUG-14	DEC-14	JAN-15	3,864	6,632	4,393	12,719	0	27,608
LPD	26	09	APR-11	MAY-11	FEB-16	JUL-16	NOV-16	JAN-17	JUN-17	0	0	0	0	24,463	24,463
LPD	27	12	JUL-12	AUG-12	JUN-17	DEC-17	NOV-17	JAN-18	NOV-18	0	0	0	0	24,066	24,066
									LPD Total	**62,525**	**22,426**	**4,393**	**12,719**	**48,529**	**150,592**
AFSB	1401	14	DEC-13	MAY-15	MAR-17	MAY-17	JAN-18	MAR-18	APR-18	0	0	0	0	31,800	31,800
									AFSB TOTAL	**0**	**0**	**0**	**0**	**31,800**	**31,800**
LCS	3	09	MAR-09	APR-09	JUN-12	AUG-12	MAR-13	JUN-13	JUL-13	5,136	2,896	311	0	0	8,343
LCS	4	09	MAY-09	OCT-09	JUL-13	NOV-13	JUN-14	SEP-14	OCT-14	2,265	3,300	5,038	0	0	10,603
LCS	5	10	DEC-10	AUG-11	JAN-15	MAY-15	JAN-16	APR-16	MAY-16	0	464	1,137	7,308	545	9,454
LCS	6	10	DEC-10	AUG-11	DEC-14	APR-15	NOV-15	FEB-16	MAR-16	0	10	1,136	7,016	838	9,000
LCS	7	11	MAR-11	MAR-12	AUG-15	DEC-15	JUL-16	OCT-16	NOV-16	0	0	500	6,807	1,587	8,894
LCS	8	11	MAR-11	MAY-12	JUN-15	OCT-15	MAY-16	AUG-16	SEP-16	0	0	0	6,295	2,599	8,894
LCS	9	12	MAR-12	JAN-13	JAN-16	MAR-16	NOV-16	JAN-17	MAR-17	0	0	0	0	8,811	8,811
LCS	10	12	MAR-12	MAR-13	DEC-15	FEB-16	SEP-16	DEC-16	JAN-17	0	0	0	0	8,811	8,811
LCS	11	12	MAR-12	SEP-13	JUL-16	SEP-16	MAY-17	JUL-17	AUG-17	0	0	0	0	8,811	8,811
LCS	12	12	MAR-12	JUL-13	JUN-16	AUG-16	MAR-17	JUN-17	JUL-17	0	0	0	0	8,811	8,811

CLASSIFICATION: UNCLASSIFIED

BUDGET ITEM JUSTIFICATION SHEET (P-29)
FY 2014 President's Budget

DATE
April 2013

APPROPRIATION/BUDGET ACTIVITY
SHIPBUILDING AND CONVERSION, NAVY/BA 5

P-1 LINE ITEM NOMENCLATURE
OUTFITTING
BLI: 5110

Ship Type	HULL NO	PROG YEAR	Contract Award	Start of Constr.	DEL DATE	CFO DATE	PSA START	PSA FINISH	OWLD	PRIOR YEARS	FY 2012	FY 2013	FY 2014	TO COMP	TOTAL
LCS	13	13	MAR-13	MAR-14	JAN-17	MAR-17	NOV-17	JAN-18	MAR-18	0	0	0	0	8,721	8,721
LCS	14	13	MAR-13	SEP-13	DEC-16	FEB-17	SEP-17	DEC-17	JAN-18	0	0	0	0	8,721	8,721
LCS	15	13	MAR-13	AUG-14	JUL-17	SEP-17	MAY-18	JUL-18	AUG-18	0	0	0	0	8,721	8,721
LCS	16	13	MAR-13	FEB-14	JUN-17	AUG-17	MAR-18	JUN-18	JUL-18	0	0	0	0	8,721	8,721
LCS	17	14	MAR-14	MAR-15	JAN-18	MAR-18	NOV-18	JAN-19	FEB-19	0	0	0	0	8,635	8,635
LCS	18	14	MAR-14	OCT-14	DEC-17	FEB-18	SEP-18	DEC-18	JAN-19	0	0	0	0	8,635	8,635
LCS	19	14	MAR-14	AUG-15	JUL-18	SEP-18	MAY-19	JUL-19	AUG-19	0	0	0	0	8,635	8,635
LCS	20	14	MAR-14	FEB-15	JUN-18	AUG-18	MAR-19	JUN-19	JUL-19	0	0	0	0	8,635	8,635
LCS	21	15	MAR-15	MAR-16	JAN-19	MAR-19	NOV-19	JAN-20	FEB-20	0	0	0	0	8,550	8,550
LCS	22	15	MAR-15	SEP-15	DEC-18	FEB-19	SEP-19	DEC-19	JAN-20	0	0	0	0	8,550	8,550
LCS	23	15	MAR-15	AUG-16	JUL-19	SEP-19	MAY-20	JUL-20	AUG-20	0	0	0	0	8,550	8,550
LCS	24	15	MAR-15	FEB-16	JUN-19	AUG-19	MAR-20	JUN-20	JUL-20	0	0	0	0	8,550	8,550
									LCS Total	**7,401**	**6,670**	**8,122**	**27,426**	**144,437**	**194,056**
YP	704	06	JUN-07	JUN-08	FEB-11	APR-11	N/A	N/A	MAR-12	290	0	0	0	0	290
YP	705	07	DEC-07	SEP-08	JUL-12	SEP-12	N/A	N/A	AUG-13	312	0	0	0	0	312
YP	706	08	JUN-08	JUN-09	AUG-12	OCT-12	N/A	N/A	SEP-13	338	0	0	0	0	338
YP	707	09	MAR-09	SEP-09	JUL-13	SEP-13	N/A	N/A	AUG-14	270	257	0	0	0	527
YP	708	09	MAR-09	NOV-09	DEC-13	FEB-14	N/A	N/A	JAN-15	276	307	0	0	0	583
									YP Total	**1,196**	**564**	**0**	**0**	**0**	**1,760**
DDG	110	05	SEP-02	MAY-07	FEB-11	MAY-11	JAN-12	APR-12	JUN-12	14,943	548	0	0	0	15,491
DDG	111	05	SEP-02	APR-07	APR-11	SEP-11	MAY-12	AUG-12	AUG-12	17,709	235	0	0	0	17,944
DDG	112	05	SEP-02	FEB-08	MAY-12	SEP-12	MAY-13	AUG-13	AUG-13	11,850	5,766	397	0	0	18,013
DDG	113	10	JUN-11	SEP-12	FEB-16	JUN-16	FEB-17	MAY-17	MAY-17	0	0	0	7,988	6,427	14,415
DDG	114	11	SEP-11	JUN-13	SEP-16	JAN-17	SEP-17	DEC-17	DEC-17	0	0	0	516	15,466	15,982
DDG	115	11	SEP-11	FEB-12	FEB-16	JUN-16	FEB-17	MAY-17	MAY-17	0	0	0	515	15,467	15,982
DDG	116	12	FEB-12	JAN-13	AUG-17	DEC-17	AUG-18	NOV-18	NOV-18	0	0	0	0	16,268	16,268
DDG	117	13	MAY-13	APR-14	JAN-19	MAY-19	JAN-20	APR-20	APR-20	0	0	0	0	16,565	16,565
DDG	118	13	MAY-13	APR-14	JAN-19	MAY-19	JAN-20	APR-20	APR-20	0	0	0	0	16,565	16,565
DDG	119	14	MAY-13	APR-15	JAN-20	MAY-20	JAN-21	APR-21	APR-21	0	0	0	0	16,863	16,863
									DDG Total	**44,502**	**6,549**	**397**	**9,019**	**103,621**	**164,088**
DDG 1000	1000	07	FEB-08	FEB-09	JUL-14	SEP-15	FEB-16	MAY-16	AUG-16	0	4,276	10,630	13,393	12,744	41,043
DDG 1000	1001	07	FEB-08	MAR-10	DEC-15	DEC-16	JUL-17	SEP-17	NOV-17	0	0	0	5,011	37,160	42,171
DDG 1000	1002	09	SEP-11	APR-12	FEB-18	FEB-19	SEP-19	NOV-19	JAN-20	0	0	0	0	44,131	44,131
									DDG 1000 Total	**0**	**4,276**	**10,630**	**18,404**	94,035	**127,345**
SSBN ERO	734	09	FEB-07	JAN-09	JUL-11	JUL-11	N/A	N/A	JUN-12	3,623	19	0	0	0	3,642
									SSBN ERO Total	**3,623**	**19**	**0**	**0**	**0**	**3,642**

CLASSIFICATION: UNCLASSIFIED

BUDGET ITEM JUSTIFICATION SHEET (P-29) FY 2014 President's Budget	DATE April 2013
APPROPRIATION/BUDGET ACTIVITY **SHIPBUILDING AND CONVERSION, NAVY/BA 5**	**P-1 LINE ITEM NOMENCLATURE** **OUTFITTING** **BLI: 5110**

Ship Type	HULL NO	PROG YEAR	Contract Award	Start of Constr.	DEL DATE	CFO DATE	PSA START	PSA FINISH	OWLD	PRIOR YEARS	FY 2012	FY 2013	FY 2014	TO COMP	TOTAL
VIRGINIA	780	05	JAN-04	FEB-05	JUL-10	JUL-10	JAN-11	JAN-12	OCT-12	14,405	550	0	0	0	14,955
VIRGINIA	781	06	JAN-04	FEB-06	AUG-11	AUG-11	JAN-12	JAN-13	MAR-13	13,678	749	1,415	0	0	15,842
VIRGINIA	782	07	JAN-04	FEB-07	MAY-12	MAY-12	JAN-13	DEC-13	MAR-14	13,350	443	1,808	526	0	16,127
VIRGINIA	783	08	JAN-04	FEB-08	JUN-13	APR-14	FEB-14	DEC-14	MAR-15	10,452	1,921	2,025	2,440	0	16,838
VIRGINIA	784	09	DEC-08	MAR-09	AUG-14	AUG-14	JAN-15	JUN-15	JUL-15	12,573	724	4,607	4,442	0	22,346
VIRGINIA	785	10	DEC-08	MAR-10	JUL-15	AUG-15	JAN-16	JUN-16	JUL-16	0	8,566	7,194	4,528	1,990	22,278
VIRGINIA	786	11	DEC-08	MAR-11	JUN-16	AUG-16	JAN-17	JUN-17	JUL-17	0	0	3,495	1,936	17,248	22,679
VIRGINIA	787	11	DEC-08	SEP-11	OCT-16	FEB-17	APR-17	SEP-17	JAN-18	0	0	271	6,895	15,513	22,679
VIRGINIA	788	12	DEC-08	MAR-12	MAR-17	AUG-17	SEP-17	FEB-18	JUL-18	0	0	2,265	5,132	15,690	23,087
VIRGINIA	789	12	DEC-08	SEP-12	SEP-17	FEB-18	FEB-18	JUL-18	JAN-19	0	0	0	838	22,249	23,087
VIRGINIA	790	13	DEC-08	MAR-13	MAR-18	AUG-18	SEP-18	FEB-19	JUL-19	0	0	0	473	23,029	23,502
VIRGINIA	791	13	DEC-08	SEP-13	SEP-18	FEB-19	FEB-19	JUL-19	JAN-20	0	0	0	0	23,502	23,502
VIRGINIA	792	14	OCT-13	MAR-14	MAY-19	MAY-19	SEP-19	FEB-20	APR-20	0	0	0	0	22,106	22,106
VIRGINIA	793	14	OCT-13	SEP-14	SEP-19	SEP-19	JAN-20	JUN-20	AUG-20	0	0	0	0	22,106	22,106
VIRGINIA	794	15	OCT-13	MAR-15	JUL-20	JUL-20	SEP-20	FEB-21	JUN-21	0	0	0	0	22,755	22,755
VIRGINIA	795	15	OCT-13	SEP-15	JAN-21	JAN-21	MAR-21	AUG-21	DEC-21	0	0	0	0	22,755	22,755
VIRGINIA	796	16	OCT-13	MAR-16	JUL-21	JUL-21	SEP-21	FEB-22	JUN-22	0	0	0	0	23,572	23,572
VIRGINIA	797	16	OCT-13	SEP-16	JAN-22	JAN-22	MAR-22	AUG-22	DEC-22	0	0	0	0	23,572	23,572
									VIRGINIA Total	**64,458**	**12,953**	**23,080**	**27,210**	**256,087**	**383,788**
CVN-RCOH	71	09	AUG-09	AUG-09	JUN-13	SEP-13	JUN-13	OCT-13	AUG-14	65,775	9,652	6,630	1,668	0	83,725
CVN-RCOH	72	12	FEB-13	FEB-13	OCT-16	DEC-16	DEC-16	FEB-17	NOV-17	0	0	0	29,448	42,596	72,044
CVN-RCOH	73	16	AUG-16	AUG-16	MAY-20	JUL-20	JUL-20	SEP-20	JUN-21	0	0	0	0	77,549	77,549
									CVN-RCOH Total	**65,775**	**9,652**	**6,630**	**31,116**	**120,145**	**233,318**
CVN	78	08	SEP-08	AUG-05	SEP-15	NOV-15	APR-16	SEP-16	OCT-16	0	0	23	53,986	51,724	105,733
									CVN Total	**0**	**0**	**23**	**53,986**	**51,724**	**105,733**
PUBS	N/A	08	N/A	N/A	N/A	N/A	N/A	N/A	N/A	25,962	7,187	9,788	9,933	51,284	104,154
									PUBS Total	**25,962**	**7,187**	**9,788**	**9,933**	51,284	104,154
									Full Funding TOA-Outfitting Total	**278,327**	**88,044**	**83,952**	**219,047**	**987,713**	**1,657,083**

CLASSIFICATION: UNCLASSIFIED

BUDGET ITEM JUSTIFICATION SHEET(P-30)
FY 2014 President's Budget

DATE
April 2013

APPROPRIATION/BUDGET ACTIVITY
SHIPBUILDING AND CONVERSION, NAVY/BA 5

P-1 LINE ITEM NOMENCLATURE
OUTFITTING
BLI: 5110

Ship Type	HULL NO	PROG YEAR	Contract Award	Start of Constr.	DEL DATE	CFO DATE	PSA START	PSA FINISH	OWLD	PRIOR YEARS	FY 2012	FY 2013	FY 2014	TO COMP	TOTAL
AGOR	27	11	OCT-11	JUN-12	OCT-14	NOV-15	NOV-15	DEC-15	OCT-16	0	0	0	402	1,175	1,577
AGOR	28	12	FEB-12	JUL-12	APR-15	MAY-16	MAY-16	MAY-16	APR-17	0	0	0	376	1,175	1,551
									AGOR Total	**0**	**0**	**0**	**778**	**2,350**	**3,128**
TAGS	66	07	DEC-09	SEP-10	JAN-14	APR-14	FEB-15	MAR-15	APR-15	0	0	0	1,578	0	1,578
									TAGS Total	**0**	**0**	**0**	**1,578**	**0**	**1,578**
LCAC SLEP	62	09	SEP-09	JUN-10	DEC-11	JAN-12	APR-12	MAY-12	DEC-12	0	0	0	0	0	0
LCAC SLEP	67	09	AUG-09	MAY-11	JUN-12	JUL-12	JUL-12	JUL-12	JUN-13	0	86	0	0	0	86
LCAC SLEP	70	09	AUG-09	AUG-11	NOV-12	DEC-12	MAY-13	JUN-12	NOV-13	0	0	0	0	0	0
LCAC SLEP	71	09	AUG-09	NOV-10	MAR-12	APR-12	JUN-12	JUL-12	MAR-13	0	86	0	0	0	86
LCAC SLEP	79	09	SEP-09	SEP-10	MAR-12	APR-12	APR-12	MAY-12	MAR-13	0	0	0	0	0	0
LCAC SLEP	63	10	SEP-10	FEB-11	MAY-12	JUN-12	NOV-12	DEC-12	MAY-13	0	61	0	0	0	61
LCAC SLEP	72	10	SEP-10	MAY-11	SEP-12	OCT-12	NOV-12	DEC-12	SEP-13	0	105	0	0	0	105
LCAC SLEP	74	10	SEP-10	AUG-11	NOV-12	DEC-12	FEB-13	MAR-13	NOV-13	0	148	0	0	0	148
LCAC SLEP	27	11	FEB-12	FEB-12	MAR-13	APR-13	JUL-13	AUG-13	MAR-14	0	0	104	0	0	104
LCAC SLEP	38	11	FEB-12	MAY-12	JUL-13	AUG-13	OCT-13	NOV-13	JUL-14	0	0	104	0	0	104
LCAC SLEP	75	11	FEB-12	FEB-12	MAR-13	APR-13	SEP-13	NOV-13	MAR-14	0	0	104	0	0	104
LCAC SLEP	80	11	FEB-12	MAY-12	JUL-13	AUG-13	JAN-14	FEB-14	JUL-14	0	0	104	0	0	104
LCAC SLEP	55	12	FEB-12	OCT-12	NOV-13	DEC-13	FEB-14	MAR-14	NOV-14	0	0	0	105	0	105
LCAC SLEP	60	12	FEB-12	JAN-13	MAR-14	APR-14	JUN-14	JUL-14	MAR-15	0	0	0	105	0	105
LCAC SLEP	73	12	FEB-12	JAN-13	FEB-14	MAR-14	MAY-14	JUN-14	FEB-15	0	0	0	105	0	105
LCAC SLEP	82	12	FEB-12	OCT-12	NOV-13	DEC-13	MAY-14	JUN-14	NOV-14	0	0	0	106	0	106
LCAC SLEP	88	13	MAR-13	JUL-13	OCT-14	NOV-14	DEC-14	JAN-15	OCT-15	0	0	0	0	107	107
LCAC SLEP	89	13	MAR-13	NOV-13	FEB-15	MAR-15	APR-15	MAY-15	FEB-16	0	0	0	0	107	107
LCAC SLEP	78	14	FEB-14	JUL-14	OCT-15	NOV-15	DEC-15	JAN-16	OCT-16	0	0	0	0	109	109
LCAC SLEP	83	14	FEB-14	NOV-14	FEB-16	MAR-16	APR-16	MAY-16	FEB-17	0	0	0	0	110	110
LCAC SLEP	57	14	FEB-14	MAR-15	JUN-16	JUL-16	AUG-16	OCT-16	JUN-17	0	0	0	0	111	111
LCAC SLEP	52	14	FEB-14	JUL-15	OCT-16	NOV-16	DEC-16	JAN-17	OCT-17	0	0	0	0	111	111
LCAC SLEP	58	15	JAN-15	JUL-15	OCT-16	NOV-16	DEC-16	JAN-17	OCT-17	0	0	0	0	111	111
LCAC SLEP	64	15	JAN-15	NOV-15	FEB-17	MAR-17	APR-17	MAY-17	FEB-18	0	0	0	0	113	113
LCAC SLEP	84	15	JAN-15	JUL-15	OCT-16	NOV-16	DEC-16	JAN-17	OCT-17	0	0	0	0	112	112
LCAC SLEP	85	15	JAN-15	NOV-15	FEB-17	MAR-17	APR-17	MAY-17	FEB-18	0	0	0	0	113	113
LCAC SLEP	65	16	JAN-16	JUL-16	OCT-17	NOV-17	DEC-17	JAN-18	OCT-18	0	0	0	0	113	113
LCAC SLEP	76	16	JAN-16	NOV-16	FEB-18	MAR-18	APR-18	MAY-18	FEB-19	0	0	0	0	114	114
LCAC SLEP	86	16	JAN-16	JUL-16	OCT-17	NOV-17	DEC-17	JAN-18	OCT-18	0	0	0	0	116	116
LCAC SLEP	87	16	JAN-16	NOV-16	FEB-18	MAR-18	APR-18	MAY-18	FEB-19	0	0	0	0	116	116

CLASSIFICATION: UNCLASSIFIED															
BUDGET ITEM JUSTIFICATION SHEET(P-30) FY 2014 President's Budget														DATE April 2013	
APPROPRIATION/BUDGET ACTIVITY SHIPBUILDING AND CONVERSION, NAVY/BA 5								P-1 LINE ITEM NOMENCLATURE OUTFITTING BLI: 5110							
Ship Type	HULL NO	PROG YEAR	Contract Award	Start of Constr.	DEL DATE	CFO DATE	PSA START	PSA FINISH	OWLD	PRIOR YEARS	FY 2012	FY 2013	FY 2014	TO COMP	TOTAL
LCAC SLEP	77	17	JAN-17	JUL-17	OCT-18	NOV-18	DEC-18	JAN-19	OCT-19	0	0	0	0	118	118
LCAC SLEP	50	17	JAN-17	NOV-17	FEB-19	MAR-19	APR-19	MAY-19	FEB-20	0	0	0	0	118	118
LCAC SLEP	20	17	JAN-17	MAR-18	JUN-19	JUL-19	AUG-19	SEP-19	JUN-20	0	0	0	0	118	118
LCAC SLEP	35	17	JAN-17	JUL-18	OCT-19	NOV-19	DEC-19	JAN-20	OCT-20	0	0	0	0	161	161
									LCAC SLEP Total	**0**	**486**	**416**	**421**	**1,799**	**3,122**
JHSV	0901	09	JAN-10	SEP-10	JUN-13	SEP-13	MAY-14	JUL-14	AUG-14	0	0	9,428	1,030	0	10,458
JHSV	0902	09	JAN-10	SEP-11	DEC-13	MAR-14	NOV-14	JAN-15	FEB-15	0	0	9,231	1,227	0	10,458
JHSV	1001	10	OCT-10	MAY-12	JUN-14	SEP-14	MAY-15	JUL-15	AUG-15	0	0	0	8,918	1,723	10,641
JHSV	1002	10	OCT-10	FEB-13	DEC-14	MAR-15	NOV-15	JAN-16	FEB-16	0	0	0	8,462	2,180	10,642
JHSV	1101	11	JUN-11	AUG-13	JUN-15	SEP-15	MAY-16	JUL-16	AUG-16	0	0	0	0	10,837	10,837
JHSV	1102	11	JUN-11	FEB-14	DEC-15	MAR-16	NOV-16	JAN-17	FEB-17	0	0	0	0	10,837	10,837
JHSV	1201	12	FEB-12	AUG-14	JUN-16	SEP-16	MAY-17	JUL-17	AUG-17	0	0	0	0	11,032	11,032
JHSV	1202	12	FEB-12	FEB-15	DEC-16	MAR-17	NOV-17	JAN-18	FEB-18	0	0	0	0	11,032	11,032
JHSV	1301	13	DEC-12	AUG-15	JUN-17	SEP-17	MAY-18	JUL-18	AUG-18	0	0	0	0	4,310	4,310
									JHSV Total	**0**	**0**	**18,659**	**19,637**	**51,951**	**90,247**
LHA	6	07	JUN-07	JAN-08	MAR-14	OCT-14	APR-15	JUN-15	SEP 15	0	0	0	14,513	5,494	20,007
LHA	7	11	MAY-12	APR-13	JUN-18	JAN-19	AUG-19	OCT-19	DEC-19	0	0	0	0	25,117	25,117
									LHA Total	**0**	**0**	**0**	**14,513**	**30,611**	**45,124**
LPD	22	04	JUN-06	FEB-06	DEC-11	JUN-12	DEC-12	APR-13	MAY-13	27,959	34,827	3,985	0	0	66,771
LPD	23	05	JUN-06	MAR-07	SEP-12	JAN-13	AUG-13	DEC-13	DEC-13	3,869	16,328	14,590	0	0	34,787
LPD	24	06	NOV-06	AUG-07	DEC-12	MAY-13	DEC-13	APR-14	APR-14	1,355	9,084	31,750	0	0	42,189
LPD	25	08	DEC-07	APR-08	SEP-13	FEB-14	AUG-14	DEC-14	JAN-15	0	0	4,649	32,329	1,971	38,949
LPD	26	09	APR-11	MAY-11	FEB-16	JUL-16	NOV-16	JAN-17	JUN-17	0	0	0	0	43,208	43,208
LPD	27	12	JUL-12	AUG-12	JUN-17	DEC-17	NOV-17	JAN-18	NOV-18	0	0	0	0	46,933	46,933
									LPD Total	**33,183**	**60,239**	**54,974**	**32,329**	**92,112**	**272,837**
AFSB	1401	14	DEC-13	MAY-15	MAR-17	MAY-17	JAN-18	MAR-18	APR-18	0	0	0	0	15,871	15,871
									AFSB TOTAL	**0**	**0**	**0**	**0**	**15,871**	**15,871**
LCS	3	09	MAR-09	APR-09	JUN-12	AUG-12	MAR-13	JUN-13	JUL-13	0	19,316	28,345	0	0	47,661
LCS	4	09	MAY-09	OCT-09	JUL-13	NOV-13	JUN-14	SEP-14	OCT-14	0	0	23,586	23,958	0	47,544
LCS	5	10	DEC-10	AUG-11	JAN-15	MAY-15	JAN-16	APR-16	MAY-16	0	0	0	25,471	20,825	46,296
LCS	6	10	DEC-10	AUG-11	DEC-14	APR-15	NOV-15	FEB-16	MAR-16	0	0	0	2,968	43,328	46,296
LCS	7	11	MAR-11	MAR-12	AUG-15	DEC-15	JUL-16	OCT-16	NOV-16	0	0	0	0	45,372	45,372
LCS	8	11	MAR-11	MAY-12	JUN-15	OCT-15	MAY-16	AUG-16	SEP-16	0	0	0	0	45,372	45,372
LCS	9	12	MAR-12	JAN-13	JAN-16	MAR-16	NOV-16	JAN-17	MAR-17	0	0	0	0	44,469	44,469
LCS	10	12	MAR-12	MAR-13	DEC-15	FEB-16	SEP-16	DEC-16	JAN-17	0	0	0	0	44,470	44,470
LCS	11	12	MAR-12	SEP-13	JUL-16	SEP-16	MAY-17	JUL-17	AUG-17	0	0	0	0	44,469	44,469
LCS	12	12	MAR-12	JUL-13	JUN-16	AUG-16	MAR-17	JUN-17	JUL-17	0	0	0	0	44,469	44,469

CLASSIFICATION: UNCLASSIFIED

BUDGET ITEM JUSTIFICATION SHEET(P-30) FY 2014 President's Budget											DATE April 2013					
APPROPRIATION/BUDGET ACTIVITY SHIPBUILDING AND CONVERSION, NAVY/BA 5								P-1 LINE ITEM NOMENCLATURE OUTFITTING BLI: 5110								
Ship Type	HULL NO	PROG YEAR	Contract Award	Start of Constr.	DEL DATE	CFO DATE	PSA START	PSA FINISH	OWLD	PRIOR YEARS	FY 2012	FY 2013	FY 2014	TO COMP	TOTAL
LCS	13	13	MAR-13	MAR-14	JAN-17	MAR-17	NOV-17	JAN-18	MAR-18	0	0	0	0	43,385	43,385
LCS	14	13	MAR-13	SEP-13	DEC-16	FEB-17	SEP-17	DEC-17	JAN-18	0	0	0	0	43,385	43,385
LCS	15	13	MAR-13	AUG-14	JUL-17	SEP-17	MAY-18	JUL-18	AUG-18	0	0	0	0	43,385	43,385
LCS	16	13	MAR-13	FEB-14	JUN-17	AUG-17	MAR-18	JUN-18	JUL-18	0	0	0	0	43,385	43,385
LCS	17	14	MAR-14	MAR-15	JAN-18	MAR-18	NOV-18	JAN-19	FEB-19	0	0	0	0	43,547	43,547
LCS	18	14	MAR-14	OCT-14	DEC-17	FEB-18	SEP-18	DEC-18	JAN-19	0	0	0	0	43,547	43,547
LCS	19	14	MAR-14	AUG-15	JUL-18	SEP-18	MAY-19	JUL-19	AUG-19	0	0	0	0	43,547	43,547
LCS	20	14	MAR-14	FEB-15	JUN-18	AUG-18	MAR-19	JUN-19	JUL-19	0	0	0	0	43,547	43,547
LCS	21	15	MAR-15	MAR-16	JAN-19	MAR-19	NOV-19	JAN-20	FEB-20	0	0	0	0	42,627	42,627
LCS	22	15	MAR-15	SEP-15	DEC-18	FEB-19	SEP-19	DEC-19	JAN-20	0	0	0	0	42,627	42,627
LCS	23	15	MAR-15	AUG-16	JUL-19	SEP-19	MAY-20	JUL-20	AUG-20	0	0	0	0	42,627	42,627
LCS	24	15	MAR-15	FEB-16	JUN-19	AUG-19	MAR-20	JUN-20	JUL-20	0	0	0	0	42,627	42,627
									LCS Total	**0**	**19,316**	**51,931**	**52,397**	**851,010**	**974,654**
YP	704	06	JUN-07	JUN-08	FEB-11	APR-11	N/A	N/A	MAR-12	0	264	0	0	0	264
YP	705	07	DEC-07	SEP-08	JUL-12	SEP-12	N/A	N/A	AUG-13	0	0	266	0	0	266
YP	706	08	JUN-08	JUN-09	AUG-12	OCT-12	N/A	N/A	SEP-13	0	0	266	0	0	266
YP	707	09	MAR-09	SEP-09	JUL-13	SEP-13	N/A	N/A	AUG-14	0	0	266	0	0	266
YP	708	09	MAR-09	NOV-09	DEC-13	FEB-14	N/A	N/A	JAN-15	0	0	0	259	0	259
									YP Total	**0**	**264**	**798**	**259**	**0**	**1,321**
DDG	110	05	SEP-02	MAY-07	FEB-11	MAY-11	JAN-12	APR-12	JUN-12	29,648	1,439	0	0	0	31,087
DDG	111	05	SEP-02	APR-07	APR-11	SEP-11	MAY-12	AUG-12	AUG-12	34,681	8,884	0	0	0	43,565
DDG	112	05	SEP-02	FEB-08	MAY-12	SEP-12	MAY-13	AUG-13	AUG-13	2,220	32,268	7,123	0	0	41,611
DDG	113	10	JUN-11	SEP-12	FEB-16	JUN-16	FEB-17	MAY-17	MAY-17	0	0	0	0	34,393	34,393
DDG	114	11	SEP-11	JUN-13	SEP-16	JAN-17	SEP-17	DEC-17	DEC-17	0	0	0	0	34,390	34,390
DDG	115	11	SEP-11	FEB-12	FEB-16	JUN-16	FEB-17	MAY-17	MAY-17	0	0	0	0	34,582	34,582
DDG	116	12	FEB-12	JAN-13	AUG-17	DEC-17	AUG-18	NOV-18	NOV-18	0	0	0	0	41,317	41,317
DDG	117	13	MAY-13	APR-14	JAN-19	MAY-19	JAN-20	APR-20	APR-20	0	0	0	0	41,106	41,106
DDG	118	13	MAY-13	APR-14	JAN-19	MAY-19	JAN-20	APR-20	APR-20	0	0	0	0	41,106	41,106
DDG	119	14	MAY-13	APR-15	JAN-20	MAY-20	JAN-21	APR-21	APR-21	0	0	0	0	41,549	41,549
									DDG Total	**66,549**	**42,591**	**7,123**	**0**	**268,443**	**384,706**
DDG 1000	1000	07	FEB-08	FEB-09	JUL-14	SEP-15	FEB-16	MAY-16	AUG-16	0	0	0	30,042	60,287	90,329
DDG 1000	1001	07	FEB-08	MAR-10	DEC-15	DEC-16	JUL-17	SEP-17	NOV-17	0	0	0	0	89,718	89,718
DDG 1000	1002	09	SEP-11	APR-12	FEB-18	FEB-19	SEP-19	NOV-19	JAN-20	0	0	0	0	92,500	92,500
									DDG 1000 Total	**0**	**0**	**0**	**30,042**	**242,505**	**272,547**

CLASSIFICATION: UNCLASSIFIED

BUDGET ITEM JUSTIFICATION SHEET(P-30) FY 2014 President's Budget	DATE April 2013
APPROPRIATION/BUDGET ACTIVITY: SHIPBUILDING AND CONVERSION, NAVY/BA 5	P-1 LINE ITEM NOMENCLATURE: OUTFITTING; BLI: 5110

Ship Type	HULL NO	PROG YEAR	Contract Award	Start of Constr.	DEL DATE	CFO DATE	PSA START	PSA FINISH	OWLD	PRIOR YEARS	FY 2012	FY 2013	FY 2014	TO COMP	TOTAL
VIRGINIA	780	05	JAN-04	FEB-05	JUL-10	JUL-10	JAN-11	JAN-12	OCT-12	49,191	150	0	0	0	49,341
VIRGINIA	781	06	JAN-04	FEB-06	AUG-11	AUG-11	JAN-12	JAN-13	MAR-13	11,462	44,990	2,823	0	0	59,275
VIRGINIA	782	07	JAN-04	FEB-07	MAY-12	MAY-12	JAN-13	DEC-13	MAR-14	2,170	7,336	37,422	5,175	0	52,103
VIRGINIA	783	08	JAN-04	FEB-08	JUN-13	APR-14	FEB-14	DEC-14	MAR-15	0	0	7,590	47,628	0	55,218
VIRGINIA	784	09	DEC-08	MAR-09	AUG-14	AUG-14	JAN-15	JUN-15	JUL-15	0	0	800	21,000	33,373	55,173
VIRGINIA	785	10	DEC-08	MAR-10	JUL-15	AUG-15	JAN-16	JUN-16	JUL-16	0	0	0	370	51,446	51,816
VIRGINIA	786	11	DEC-08	MAR-11	JUN-16	AUG-16	JAN-17	JUN-17	JUL-17	0	0	0	0	48,469	48,469
VIRGINIA	787	11	DEC-08	SEP-11	OCT-16	FEB-17	APR-17	SEP-17	JAN-18	0	0	0	0	48,489	48,489
VIRGINIA	788	12	DEC-08	MAR-12	MAR-17	AUG-17	SEP-17	FEB-18	JUL-18	0	0	0	0	48,864	48,864
VIRGINIA	789	12	DEC-08	SEP-12	SEP-17	FEB-18	FEB-18	JUL-18	JAN-19	0	0	0	0	47,908	47,908
VIRGINIA	790	13	DEC-08	MAR-13	MAR-18	AUG-18	SEP-18	FEB-19	JUL-19	0	0	0	0	49,290	49,290
VIRGINIA	791	13	DEC-08	SEP-13	SEP-18	FEB-19	FEB-19	JUL-19	JAN-20	0	0	0	0	58,789	58,789
VIRGINIA	792	14	OCT-13	MAR-14	MAY-19	MAY-19	SEP-19	FEB-20	APR-20	0	0	0	0	59,633	59,633
VIRGINIA	793	14	OCT-13	SEP-14	SEP-19	SEP-19	JAN-20	JUN-20	AUG-20	0	0	0	0	59,633	59,633
VIRGINIA	794	15	OCT-13	MAR-15	JUL-20	JUL-20	SEP-20	FEB-21	JUN-21	0	0	0	0	59,633	59,633
VIRGINIA	795	15	OCT-13	SEP-15	JAN-21	JAN-21	MAR-21	AUG-21	DEC-21	0	0	0	0	61,205	61,205
VIRGINIA	796	16	OCT-13	MAR-16	JUL-21	JUL-21	SEP-21	FEB-22	JUN-22	0	0	0	0	59,863	59,863
VIRGINIA	797	16	OCT-13	SEP-16	JAN-22	JAN-22	MAR-22	AUG-22	DEC-22	0	0	0	0	60,878	60,878
VIRGINIA Total										**62,823**	**52,476**	**48,635**	**74,173**	**747,473**	**985,580**
CVN-RCOH	71	09	AUG-09	AUG-09	JUN-13	SEP-13	JUN-13	OCT-13	AUG-14	0	952	37,733	0	0	38,685
CVN-RCOH	72	12	FEB-13	FEB-13	OCT-16	DEC-16	DEC-16	FEB-17	NOV-17	0	0	0	0	54,493	54,493
CVN-RCOH	73	16	AUG-16	AUG-16	MAY-20	JUL-20	JUL-20	SEP-20	JUN-21	0	0	0	0	56,020	56,020
CVN-RCOH Total										**0**	**952**	**37,733**	**0**	**110,513**	**149,198**
CVN	78	08	SEP-08	AUG-05	SEP-15	NOV-15	APR-16	SEP-16	OCT-16	0	0	0	0	88,303	88,303
CVN Total										**0**	**0**	**0**	**0**	**88,303**	**88,303**
Full Funding TOA-Post Delivery Total										**162,555**	**176,324**	**220,269**	**226,127**	**2,502,941**	**3,288,216**
Full Funding TOA-First Destination Transportation Total										**15,721**	**6,271**	**5,427**	**4,989**	**26,605**	**59,013**
Full Funding TOA-Outfitting Total										**278,327**	**88,044**	**83,952**	**219,047**	**987,713**	**1,657,083**
Total Obligational Authority Total										**456,603**	**270,639**	**309,648**	**450,163**	**3,517,259**	**5,004,312**
NET P-1 Total										**456,603**	**270,639**	**309,648**	**450,163**	**3,517,259**	**5,004,312**

CLASSIFICATION: UNCLASSIFIED

BUDGET ITEM JUSTIFICATION SHEET (P-40)
FY 2014 President's Budget

DATE:
April 2013

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

P-1 LINE ITEM NOMENCLATURE
SERVICE CRAFT
BLI: 5113

(Dollars in Millions)	PRIOR YR	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	TO COMP	TOTAL PROG
QUANTITY	36	1	0	0	0	3	3	3	0	46
End Cost	102.2	3.9	0.0	0.0	0.0	31.0	31.5	32.1	0.0	200.7
Full Funding TOA	102.2	3.9	0.0	0.0	0.0	31.0	31.5	32.1	0.0	200.7
Total Obligational Authority	102.2	3.9	0.0	0.0	0.0	31.0	31.5	32.1	0.0	200.7
Plus Outfitting / Plus Post Delivery	0.9	0.8	0.8	0.3	0.0	0.0	0.0	0.0	0.0	2.8
Total	103.1	4.7	0.8	0.3	0.0	31.0	31.5	32.1	0.0	203.5
Unit Cost (Ave. End Cost)	2.8	3.9	0.0	0.0	0.0	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: 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.

Characteristics:	Armament	Electronics
Hull Various - Multiple Craft	N/A	N/A

	FY09	FY09	FY11	FY12	FY11	FY11
Production Status	YP - 707	YP - 708	YON - 335	YON - 336	YON - 337	YON - 338
Contract Award Date	03/09	03/09	11/11	05/12	04/14	04/14
Month(s) to Completion						
(a) Contract Award to Delivery	52 months	57 months	20 months	14 months	20 months	20 months
(b) Construction Start to Delivery	46 months	49 months	18 months	11 months	18 months	14 months
Delivery Date	07/13	12/13	07/13	07/13	12/15	12/15
Completion of Fitting Out	09/13	02/14	09/13	09/13	12/15	12/15
Obligation Work Limiting Date	08/14	01/15	08/14	08/14	11/16	11/16

Note: The Department will not procure the FY 11 YP (YP 709) service craft shown in the FY 13 President's Budget. The Department will use these funds to procure two fuel oil barges using the FY 11 funding. Funds programmed for the FY 14 (1 YON) and FY 15 (1 YON) were eliminated to account for this change.

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 2010**		**FY 2011**		**FY 2012**	
ELEMENT OF COST	**QTY**	**COST**	**QTY**	**COST**	**QTY**	**COST**	**QTY**	**COST**
PLAN COSTS	5		2		3		1	
BASIC CONST/CONVERSION		45,310		7,870		13,694		3,863
CHANGE ORDERS		338						
HM&E		493						
OTHER COST		1,802						
TOTAL SHIP ESTIMATE		47,943		7,870		13,694		3,863
NET P-1 LINE ITEM:		47,943		7,870		13,694		3,863

	FY 2009		**FY 2010**		**FY 2011**		**FY 2012**	
	1-YON	4,950	2-YON	7,870	3-YON	13,694	1-YON	3,863
	2-YT	22,047	2	7,870	3	13,694	1	3,863
	2-YP	20,976						
	5	47,973						

SHIP TYPE	HULL NUMBER	SHIPBUILDER	FISCAL YEAR AUTHORIZED	CONTRACT AWARD	START OF CONSTRUCTION	DELIVERY DATE
YON	335	MAYBANK	11	NOV-11	JAN-12	JUL-13
YON	336	MAYBANK	12	MAY-12	AUG-12	JUL-13
YON	337	TBD	11	APR-14	JUN-14	DEC-15
YON	338	TBD	11	APR-14	OCT-14	DEC-15
YON	1601	TBD	16	JUL-16	SEP-16	NOV-17
YON	1701	TBD	17	JUL-17	TBD	TBD
YON	1801	TBD	18	JUL-18	TBD	TBD
YP	707	C&G BOAT WORKS	09	MAR-09	SEP-09	JUL-13
YP	708	C&G BOAT WORKS	09	MAR-09	NOV-09	DEC-13
YT	1601	TBD	16	JUL-16	TBD	TBD
YT	1602	TBD	16	JUL-16	TBD	TBD
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

CLASSIFICATION: UNCLASSIFIED

BUDGET ITEM JUSTIFICATION SHEET (P-40)

FY 2014 President's Budget

DATE: April 2013

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 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	TO COMP	TOTAL PROG
QUANTITY	46	4	2	4	4	4	4	4	0	72
End Cost	960.3	84.1	47.9	81.0	83.6	85.1	87.3	88.8	0.0	1,518.1
Less Advance Procurement	27.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	27.9
Less Transfer	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5
Less Cost To Complete	14.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14.0
Less Katrina Supplemental	19.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	19.8
Full Funding TOA	897.1	84.1	47.9	81.0	83.6	85.1	87.3	88.8	0.0	1,454.9
Plus Advance Procurement	27.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	27.9
Plus Transfer Cost	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5
Plus Cost To Complete	14.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14.0
Total Obligational Authority	960.3	84.1	47.9	81.0	83.6	85.1	87.3	88.8	0.0	1,518.1
Plus Outfitting / Plus Post Delivery	4.7	1.6	1.3	1.1	0.7	1.4	1.4	1.4	0.5	14.1
Plus Katrina Supplement	19.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	19.8
Total	965.0	85.7	49.2	82.1	84.3	86.5	88.7	90.2	0.5	1,532.2
Unit Cost (Ave. End Cost)	20.9	21.0	24.0	20.3	20.9	21.3	21.8	22.2	0.0	21.1

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**		**FY 2013**		**FY 2014**	
ELEMENT OF COST	**QTY**	**COST**	**QTY**	**COST**	**QTY**	**COST**	**QTY**	**COST**
PLAN COSTS	4		4		2		4	
BASIC CONST/CONVERSION		35,869		36,694		18,770		33,714
ELECTRONICS		7,655		7,757		4,176		7,428
HM&E		35,454		35,946		21,234		36,196
OTHER COST		3,598		3,679		3,750		3,649
TOTAL SHIP ESTIMATE		82,576		84,076		47,930		80,987
NET P-1 LINE ITEM:		82,576		84,076		47,930		80,987

SHIPBUILDING AND CONVERSION, NAVY

Analysis of Ship Cost Estimate - Basic/Escalation

Ship Type: LCAC

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	N/A	N/A		
	Contract Design	OCT 2011	JUN 2012		
	Detail Design	N/A	N/A		
	Request for Proposals	NOV 2012	DEC 2012		
	Design Agent	BOSTON PLANNING YARD	BOSTON PLANNING YARD		

II.	**Classification of Cost Estimate**	N/A	
III.	**Basic Construction/Conversion**	**FY11/12 SLEP**	**FY13 SLEP**
	A. Actual Award Date	FEB 2012	MAR 2013 (PLANNED)
	B. Contract Type (and Share Line if applicable)	FFP	FFP
IV.	**Escalation**		
	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**

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. PART (I.) INFORMATION IS ASSOCIATED WITH FY13 SLEP ONLY.

SHIP TYPE	HULL NUMBER	SHIPBUILDER	FISCAL YEAR AUTHORIZED	CONTRACT AWARD	START OF CONSTRUCTION	DELIVERY DATE
LCAC SLEP	027	L-3 UNIDYNE, INC.	11	FEB-12	FEB-12	MAR-13
LCAC SLEP	038	L-3 UNIDYNE, INC.	11	FEB-12	MAY-12	JUL-13
LCAC SLEP	075	L-3 UNIDYNE, INC.	11	FEB-12	FEB-12	MAR-13
LCAC SLEP	080	L-3 UNIDYNE, INC.	11	FEB-12	MAY-12	JUL-13
LCAC SLEP	055	L-3 UNIDYNE, INC.	12	FEB-12	OCT-12	NOV-13
LCAC SLEP	060	L-3 UNIDYNE, INC.	12	FEB-12	JAN-13	MAR-14
LCAC SLEP	082	L-3 UNIDYNE, INC.	12	FEB-12	OCT-12	NOV-13
LCAC SLEP	073	L-3 UNIDYNE, INC.	12	FEB-12	JAN-13	FEB-14
LCAC SLEP	088	TBD	13	MAR-13	JUL-13	OCT-14
LCAC SLEP	089	TBD	13	MAR-13	NOV-13	FEB-15
LCAC SLEP	078	TBD	14	FEB-14	JUL-14	OCT-15
LCAC SLEP	083	TBD	14	FEB-14	NOV-14	FEB-16
LCAC SLEP	057	TBD	14	FEB-14	MAR-15	JUN-16
LCAC SLEP	052	TBD	14	FEB-14	JUL-15	OCT-16
LCAC SLEP	058	TBD	15	JAN-15	JUL-15	OCT-16
LCAC SLEP	064	TBD	15	JAN-15	NOV-15	FEB-17
LCAC SLEP	084	TBD	15	JAN-15	JUL-15	OCT-16
LCAC SLEP	085	TBD	15	JAN-15	NOV-15	FEB-17
LCAC SLEP	065	TBD	16	JAN-16	JUL-16	OCT-17
LCAC SLEP	076	TBD	16	JAN-16	NOV-16	FEB-18
LCAC SLEP	086	TBD	16	JAN-16	JUL-16	OCT-17
LCAC SLEP	087	TBD	16	JAN-16	NOV-16	FEB-18
LCAC SLEP	077	TBD	17	JAN-17	JUL-17	OCT-18
LCAC SLEP	050	TBD	17	JAN-17	NOV-17	FEB-19
LCAC SLEP	020	TBD	17	JAN-17	MAR-18	JUN-19
LCAC SLEP	035	TBD	17	JAN-17	JUL-18	OCT-19
LCAC SLEP	066	TBD	18	JAN-18	JUL-18	OCT-19
LCAC SLEP	014	TBD	18	JAN-18	JUL-18	OCT-19
LCAC SLEP	081	TBD	18	JAN-18	NOV-18	FEB-20
LCAC SLEP	090	TBD	18	JAN-18	MAR-19	JUN-20

CLASSIFICATION: UNCLASSIFIED

BUDGET ITEM JUSTIFICATION SHEET (P-40)
FY 2014 President's Budget

DATE: April 2013

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 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	TO COMP	TOTAL PROG
Cost to Complete										
LPD 17 Class	0.0	0.0	80.9	0.0	0.0	0.0	0.0	0.0	0.0	80.9
LHA(R)	0.0	0.0	156.7	37.7	0.0	0.0	0.0	0.0	0.0	194.4
CVN	0.0	0.0	0.0	588.1	729.0	0.0	0.0	0.0	0.0	1,317.1
CVN RCOH	0.0	0.0	135.0	0.0	0.0	0.0	0.0	0.0	0.0	135.0
Total	0.0	0.0	372.6	625.8	729.0	0.0	0.0	0.0	0.0	1,727.4

LPD 17 Class (Note 1):

Funding in FY13 is required to pay for the remaining Government liabilities to contract ceiling on LPD 25 ($68.7M)

Additionally, funds are required for economic price adjustments (EPA) and facilities cost of money, and other shipbuilding contract liabilities for LPD 25 ($12.2M)

LHA(R):

Funds in FY13 are required for cost impacts resulting from the Pension Protection Act (PPA) of 2006 ($66.1M), and to pay for the remaining government liabilities to contract ceiling on LHA-6 ($90.6M). FY14 funds are required for Economic Price Adjustment (EPA) ($37.7M), with the entire $37.7M change due to the EPA for Direct Material Costs.

CVN 78:

Funds in FY14 are required to support drawing completion and work package development ($330.0M) additional integration costs for Dual Band Radar ($169.0M), and to cover special tooling and test equipment ($89.1M)

CVN 71 RCOH (Note 2):

Funds are required to cover performance and schedule delays associated with significant, unexpected growth work discovered during execution with structural repairs (forward peak tanks and other various tank repairs and coating systems replacement). Shipbuilder performance has been unable to meet the original schedule, and ship re-delivery is now estimated for June 2013 ($135.0M).

Note 1: Due to the Special Transfer Authority notification for LPD 25 ($49.0M) submitted to the Congressional Defense Committees on February 6, 2013, the FY 13 Completion of Prior Year Shipbuilding Programs funding request for LPD may be reduced by $49.0M to a requirement of $32.0M to reflect this Special Transfer Authority notification action.

Note 2: Due to the FY 12 Prior Approval Reprogramming Action of $68.0M in FY 12, the FY 13 Completion of Prior Year Shipbuilding Programs funding request of $135.0M may be reduced by $68.0M to a requirement of $67.0M to reflect this Prior Approval Reprogramming Action.

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 2012 COST**	**FY 2013 COST**	**FY 2014 COST**
TOTAL SHIP ESTIMATE			
LPD 17 Class (Note 1):			
Contract Ceiling	0	68,658	0
Contract Escalation and FCCM	0	12,230	0
Total LPD 17 Class	0	80,888	0
LHA 6:			
Pension Protection Act	0	66,085	0
Contract Ceiling	0	90,600	0
Economic Price Adjustment	0	0	37,700
Total LHA 6	0	156,685	37,700
CVN 78:			
Drawing Completion and Work Package Development	0	0	330,000
Dual Band Radar	0	0	169,000
Special Tooling and Test Equipment	0	0	89,100
Total CVN 78	0	0	588,100
CVN 71 RCOH (Note 2):			
Performance and Schedule Delays	0	135,000	0
Total CVN 71 RCOH	0	135,000	0
Total Completion of Prior Year Shipbuilding Programs	0	372,573	625,800

Note 1: Due to the Special Transfer Authority notification for LPD 25 ($48,960K) submitted to the Congressional Defense Committees on February 6, 2013, the FY 13 Completion of Prior Year Shipbuilding Programs funding request for LPD may be reduced by $48,960K to a requirement of $31,928K to reflect this Special Transfer Authority notification action.

Note 2: Due to the FY 12 Prior Approval Reprogramming Action of $68,000K for CVN 71 RCOH in FY 12, the FY 13 Completion of Prior Year Shipbuilding Programs funding request of $135M may be reduced by $68,000K to a requirement of $67,000K to reflect this Prior Approval Reprogramming Action.

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