# DEPARTMENT OF THE NAVY FISCAL YEAR (FY) 2013 BUDGET ESTIMATES



# JUSTIFICATION OF ESTIMATES FEBRUARY 2012

SHIPBUILDING AND CONVERSION, NAVY

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# Department of Defense Appropriations Act, 2013

# 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: \$13,579,845,000, to remain available for obligation until September 30, 2017: *Provided,* That additional obligations may be incurred after September 30, 2017, 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 2013 President's Budget Exhibit P-1 FY 2013 President's Budget Total Obligational Authority (Dollars in Thousands)

27 Jan 2012

Appropriation	FY 2011 Actuals	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Shipbuilding & Conversion, Navy	15,341,440	14,919,114		14,919,114
Total Department of the Navy	15,341,440	14,919,114		14,919,114

# Department of the Navy FY 2013 President's Budget Exhibit P-1 FY 2013 President's Budget Total Obligational Authority (Dollars in Thousands)

27 Jan 2012

Appropriation	FY 2013 Base	FY 2013 OCO	FY 2013 Total
Shipbuilding & Conversion, Navy	13,579,845		13,579,845
Total Department of the Navy	13,579,845		13,579,845

# Department of the Navy FY 2013 President's Budget Exhibit P-1 FY 2013 President's Budget Total Obligational Authority

al Obligational Authority 27 Jan 2012 (Dollars in Thousands)

Appropriation: Shipbuilding & Conversion, Navy

Budget Activity	FY 2011 Actuals	FY 2012 Base	FY 2012 OCO	FY 2012 Total
02. Other Warships	13,745,826	10,057,377		10,057,377
03. Amphibious Ships	1,117,335	4,282,959		4,282,959
05. Auxiliaries, Craft, and Prior-Year Program Costs	478,279	578,778		578,778
Total Shipbuilding & Conversion, Navy	15,341,440	14,919,114		14,919,114

# Department of the Navy FY 2013 President's Budget Exhibit P-1 FY 2013 President's Budget Total Obligational Authority

Total Obligational Authority 27 Jan 2012 (Dollars in Thousands)

Appropriation: Shipbuilding & Conversion, Navy

Budget Activity	FY 2013 Base	FY 2013 OCO	FY 2013 Total
02. Other Warships	12,353,198		12,353,198
03. Amphibious Ships	189,196		189,196
05. Auxiliaries, Craft, and Prior-Year Program Costs	1,037,451		1,037,451
Total Shipbuilding & Conversion, Navy	13,579,845		13,579,845

# Department of the Navy FY 2013 President's Budget Exhibit P-1 FY 2013 President's Budget Total Obligational Authority

Total Obligational Authority 27 Jan 2012 (Dollars in Thousands)

Appropriation: 1611N Shipbuilding & Conversion, Navy

Line	Ident	FY 2011 Actuals	FY 2012 Base	FY 2012 OCO	FY 2012 S Total e
No Item Nomenclature	Code	Quantity Cost	Quantity Cost	Quantity Cost	Quantity Cost c
Budget Activity 02: Other Warships					
Other Warships					
1 Carrier Replacement Program Less: Advance Procurement (PY) Less: Subsequent Full Funding (FY)	A				บ บ บ
Subsequent Full Funding (CY)		1,712,459			U
2 Carrier Replacement Program Advance Procurement (CY)		903,297	554,798		554,798 U
3 Virginia Class Submarine Less: Advance Procurement (PY)	В	2 (5,314,392) (-1,902,994)	2 (5,128,360) (-1,907,046)		2 (5,128,360) U (-1,907,046) U
		3,411,398	3,221,314		3,221,314
4 Virginia Class Submarine Advance Procurement (CY)		1,681,896	1,461,361		1,461,361 U
5 CVN Refueling Overhauls Less: Advance Procurement (PY) Less: Subsequent Full Funding (FY)	A				ט ט ט
Subsequent Full Funding (CY)		1,242,101			Ū
6 CVN Refueling Overhauls Advance Procurement (CY)		405,783	529,652		529,652 U
7 SSBN Ero Less: Advance Procurement (PY)		(5,221) (-5,221)			ט ט
8 DDG 1000	A	247,084	453,727		453,727 U

# Department of the Navy FY 2013 President's Budget Exhibit P-1 FY 2013 President's Budget Total Obligational Authority

Total Obligational Authority 27 Jan 2012 (Dollars in Thousands)

Appropriation: 1611N Shipbuilding & Conversion, Navy

Line	Ident	FY 2013 Base	FY 2013 OCO	FY 2013 S Total e
No Item Nomenclature	Code	Quantity Cost	Quantity Cost	Quantity Cost c
Budget Activity 02: Other Warships				
Other Warships				
1 Carrier Replacement Program Less: Advance Procurement (PY) Less: Subsequent Full Funding (FY)	A	1 (10,404,454) (-3,327,874) (-6,468,385)		1 (10,404,454) U (-3,327,874) U (-6,468,385) U
		608,195		608,195
Subsequent Full Funding (CY)				U
2 Carrier Replacement Program Advance Procurement (CY)				U
3 Virginia Class Submarine Less: Advance Procurement (PY)	В	2 (5,174,883) (-1,957,282)		2 (5,174,883) U (-1,957,282) U
		3,217,601		3,217,601
4 Virginia Class Submarine Advance Procurement (CY)		874,878		874,878 U
5 CVN Refueling Overhauls Less: Advance Procurement (PY) Less: Subsequent Full Funding (FY)	A	1 (4,515,716) (-1,153,919) (-1,748,405)		1 (4,515,716) U (-1,153,919) U (-1,748,405) U
		1,613,392		1,613,392
Subsequent Full Funding (CY)				U
6 CVN Refueling Overhauls Advance Procurement (CY)		70,010		70,010 U
7 SSBN Ero Less: Advance Procurement (PY)				บ บ 
8 DDG 1000	А	669,222		669,222 U

### Department of the Navy FY 2013 President's Budget Exhibit P-1 FY 2013 President's Budget Total Obligational Authority

al Obligational Authority 27 Jan 2012 (Dollars in Thousands)

Appropriation: 1611N Shipbuilding & Conversion, Navy

Line No Item Nomenclature	Ident Code	FY 2011 Actuals Quantity Cost	FY 2012 Base Quantity Cost	FY 2012 OCO Quantity Cost	FY 2012 S Total e Quantity Cost c
9 DDG-51 Less: Advance Procurement (PY)	А	2 (3,429,822) (-577,210)	1 (2,028,428) (-47,719)		1 (2,028,428) U (-47,719) U
		2,852,612	1,980,709		1,980,709
10 DDG-51 Advance Procurement (CY)		47,719	100,723		100,723 U
11 Littoral Combat Ship Less: Advance Procurement (PY)	А	2 (1,162,528)	4 (1,834,042) (-78,949)		4 (1,834,042) U (-78,949) U
		1,162,528	1,755,093		1,755,093
12 Littoral Combat Ship Advance Procurement (CY)		78,949			U 
Total Other Warships		13,745,826	10,057,377		10,057,377
Budget Activity 03: Amphibious Ships  Amphibious Ships  13 LPD-17 Less: Advance Procurement (PY)	A		1 (2,021,430) (-183,986)		1 (2,021,430) U (-183,986) U
Completion of Drice Year Chinhuilding (CV)			1,837,444		1,837,444
Completion of Prior Year Shipbuilding (CY)  14 LHA Replacement Less: Advance Procurement (PY) Less: Subsequent Full Funding (FY)	А	1 (3,284,064) (-347,243) (-1,999,191)  937,630	73,992		73,992 U U U U
Subsequent Full Funding (CY)			1,999,191		1,999,191 U
15 Joint High Speed Vessel	A	1 179,705	2 372,332		2 372,332 U
Total Amphibious Ships		1,117,335	4,282,959		4,282,959

# Department of the Navy FY 2013 President's Budget Exhibit P-1 FY 2013 President's Budget Total Obligational Authority

Total Obligational Authority 27 Jan 2012 (Dollars in Thousands)

Appropriation: 1611N Shipbuilding & Conversion, Navy

Line	Ident	FY 2	013 se	FY 20 OCC		FY 20 Tota		S e
No Item Nomenclature	Code	Quantity		Quantity	Cost	Quantity	Cost	
9 DDG-51 Less: Advance Procurement (PY)	А	( -	149,381) 100,723)			(-1	.49,381) .00,723)	) U
			048,658				)48,658	•
10 DDG-51 Advance Procurement (CY)			466,283			4	166,283	U
11 Littoral Combat Ship Less: Advance Procurement (PY)	А		784,959)				784,959)	U
			784,959				784,959	•
12 Littoral Combat Ship Advance Procurement (CY)								U
Total Other Warships			353,198				353,198	•
Budget Activity 03: Amphibious Ships								
Amphibious Ships								
13 LPD-17 Less: Advance Procurement (PY)	А							U
Less. Advance Procurement (PI)								
Completion of Prior Year Shipbuilding (CY)								Ū
14 LHA Replacement Less: Advance Procurement (PY)	А							U
Less: Subsequent Full Funding (FY)								Ū
Subsequent Full Funding (CY)								U
15 Joint High Speed Vessel	А		189,196				89,196	
Total Amphibious Ships			189,196			1	89,196	

# Department of the Navy FY 2013 President's Budget Exhibit P-1 FY 2013 President's Budget Total Obligational Authority

Total Obligational Authority 27 Jan 2012 (Dollars in Thousands)

Appropriation: 1611N Shipbuilding & Conversion, Navy

Line	Ident		2011 uals		2012 ase	FY 20			2012 tal	S e
No Item Nomenclature	Code	Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	C -
Budget Activity 05: Auxiliaries, Craft, and Prior-	Year Progra	nm Costs								
Auxiliaries, Craft and Prior Yr Program Cost										
16 Oceanographic Ships	А	1	88,072	1	89,000			1	89,000	U
17 Moored Training Ship Advance Procurement (CY)					131,200				131,200	U
18 Outfitting	А		293,937		270,639				270,639	U
19 Service Craft	А		13,694		3,863				3,863	U
20 LCAC SLEP	А	4	82,576	4	84,076			4	84,076	U
21 Completion of PY Shipbuilding Programs	В									U
LHA R (MEMO NON ADD)										U
CVN RCOH (MEMO NON ADD)										U
LPD 17 (MEMO NON ADD)										U
Total Auxiliaries, Craft, and Prior-Year Program Co	sts	-	478,279		578,778			-	578,778	-
Total Shipbuilding & Conversion, Navy		15	,341,440	14	,919,114			14	,919,114	-

# Department of the Navy FY 2013 President's Budget Exhibit P-1 FY 2013 President's Budget Total Obligational Authority

Total Obligational Authority 27 Jan 2012 (Dollars in Thousands)

Appropriation: 1611N Shipbuilding & Conversion, Navy

Line	Ident		2013 ase	FY 20		FY 20 Tota		S e
No Item Nomenclature	Code	Quantity		Quantity	Cost		Cost	
Budget Activity 05: Auxiliaries, Craft, and Prior-Ye	ear Progra	am Costs						
Auxiliaries, Craft and Prior Yr Program Cost  16 Oceanographic Ships	A							U
17 Moored Training Ship Advance Procurement (CY)			307,300			:	307,300	U
18 Outfitting	A		309,648			:	309,648	U
19 Service Craft	A							U
20 LCAC SLEP	A	2	47,930			2	47,930	U
21 Completion of PY Shipbuilding Programs	В		372,573			:	372,573	U
LHA R (MEMO NON ADD)			(156,685)			( :	156,685	) U
CVN RCOH (MEMO NON ADD)			(135,000)			( :	135,000	) U
LPD 17 (MEMO NON ADD)			(80,888)				(80,888)	
Total Auxiliaries, Craft, and Prior-Year Program Cost	s		,037,451				037,451	
Total Shipbuilding & Conversion, Navy		13	,579,845			13,	579,845	-

E	SUDGET ITEM JUSTIFIC	CATION SHEET (P	-40)				DATE:			
	FY 2013 Preside	ent's Budget					February 2012			
APPROPRIATION/BUDGET ACTIVITY					P-1 LINE ITEM NO	MENCLATURE				
SHIPBUILDING AND CONVERSION, NAVY/BA 2 Other Warships					CARRIER REPLAC	EMENT PROGRA	M			
					BLI: 2001					
Dollars in Millions)	PRIOR YR	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	TO COMP	TOTAL PROG
QUANTITY	1	0	0	1	0	0	0	0	1	
End Cost	12,323.2	0.0	0.0	11,411.0	0.0	0.0	0.0	0.0	13,874.2	37,608
Less Advance Procurement	3,693.2	0.0	0.0	3,327.9	0.0	0.0	0.0	0.0	1,726.7	8,747
Less Cost to Complete	811.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	811
Less Subsequent Year FF	5,134.0	0.0	0.0	7,474.9	0.0	0.0	0.0	0.0	9,768.6	22,377.
Plus Subsequent Year FF	3,421.6	1,712.5	0.0	0.0	666.1	2,999.1	979.4	1,823.8	1,006.5	12,609
Full Funding TOA	6,106.6	1,712.5	0.0	608.2	666.1	2,999.1	979.4	1,823.8	2,378.9	17,274
Plus Advance Procurement	5,562.9	903.3	554.8	0.0	0.0	0.0	682.8	1,043.8	0.0	8,747
Plus Cost to Complete	0.0	0.0	0.0	0.0	449.0	362.0	0.0	0.0	0.0	811
Total Obligational Authority	11,669.5	2,615.8	554.8	608.2	1,115.1	3,361.1	1,662.2	2,867.6	13,154.0	37,608
Plus Outfitting / Plus Post Delivery	0.0	0.0	0.0	0.0	28.2	103.3	33.4	32.1	491.8	688
Total	11,669.5	2,615.8	554.8	608.2	1,143.3	3,464.4	1,695.6	2,899.7	13,645.8	38,297
Jnit Cost ( Ave. End Cost)	12,323.2	0.0	0.0	11,411.0	0.0	0.0	0.0	0.0	13,874.2	37,608

10/23

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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.

Obligation Work Limiting Date

Characteristics: CVN 78/79

Obligation Work Limiting Date

 Hull:
 Major Electronics/Ordnance:

 Length overall: 1092'
 Ship Self Defense System (SSDS)

Beam: 134' Electromagnetic Aircraft Launching 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:

10/16

Contract Award 09/08 Contract Award 07/13
Months to Complete: Months to Complete:

a) Contract Award to Delivery 84 Months a) Contract Award to Delivery 110 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

> CLASSIFICATION: UNCLASSIFIED

APPROPRIATION: SHIPBUILDING AND CONVERSION, NAVY

P-5 EXHIBIT FY 2013 President's Budget February 2012

# WEAPON SYSTEM COST ANALYSIS (EXHIBIT P-5)

(Dollars in Thousands)

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

Other Warships	CARRIER REF	LACLMENTIN	OOKAM	
	FY 20	800	FY 20	13
ELEMENT OF COST	QTY	COST	QTY	COST
PLAN COSTS	1	3,278,258	1	802,402
BASIC CONST/CONVERSION		5,430,788		5,550,499
CHANGE ORDERS		230,106		267,745
ELECTRONICS		345,207		517,990
PROPULSION EQUIPMENT		1,515,612		2,044,582
HM&E		35,970		45,083
OTHER COST		68,695		106,087
ORDNANCE		1,418,558		1,414,579
ESCALATION				662,033
TOTAL SHIP ESTIMATE		12,323,194		11,411,000
LESS ADVANCE PROCUREMENT FY01		21,668		
LESS ADVANCE PROCUREMENT FY02		135,341		
LESS ADVANCE PROCUREMENT FY03		395,493		
LESS ADVANCE PROCUREMENT FY04		1,162,905		
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				666,129
LESS SUBSEQUENT FULL FUNDING FY15				2,999,085
LESS SUBSEQUENT FULL FUNDING FY16				979,368
LESS SUBSEQUENT FULL FUNDING FY17				1,823,803
LESS SUBSEQUENT FULL FUNDING FY18				1,006,546
LESS COST TO COMPLETE FY14		449,000		,
LESS COST TO COMPLETE FY15		362,000		
NET P-1 LINE ITEM:		2,685,021		608,195
		_,000,021		555,.55

# SHIPBUILDING AND CONVERSION, NAVY

Analysis of Ship Cost Estimate - Basic/Escalation Ship Type: CARRIER REPLACEMENT PROGRAM

<u>l.</u>	Design/Schedule	Start/Issue	Complete	Reissue	Complete
<u></u>	<u>Design/Deriedule</u>	<u>Otar trissac</u>	/Response	Keissae	/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	INGALLS			
II.	Classification of Cost Estimate	С			
III.	Basic Construction/Conversion		FY 2008		FY 2013
	A. Actual Award Date		SEP 08		JUL 13
	B. Contract Type		CPIF		FPI
	C. Request for proposals:				
	Start/Issue:		JUL 07		APR 12
	Complete/Response		OCT 07		JUL 12
IV.	<b>Escalation</b>				
	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%
٧.	Other Basic(Reserves/Miscellaneous)		<u>Amount</u>		<u>Amount</u>

#### P-5B Exhibit

FY 2013 President's Budget

DATE:

February 2012

# SHIPBUILDING AND CONVERSION, NAVY

SHIP PRODUCTION SCHEDULE

**EXHIBIT P-27** 

FY 2013 President's Budget

DATE:

February 2012

SHIP TYPE	HULL NUMBER	SHIPBUILDER	FISCAL YEAR AUTHORIZED	CONTRACT AWARD	START OF CONSTRUCTION	DELIVERY DATE
CVN	78	HUNTINGTON INGALLS INDUSTRIES	2008	SEP-08	AUG-05	SEP-15
CVN	79	HUNTINGTON INGALLS INDUSTRIES	2013	JUL-13	FEB-11	SEP-22

# P-8A EXHIBIT FY 2013 President's Budget

February 2012

# SHIPBUILDING AND CONVERSION, NAVY

Ship Type: CARRIER REPLACEMENT PROGRAM		FY 2008		2013
	<u>QTY</u>	COST	<b>QTY</b>	COST
ELECTRONICS				
a. P-35 Items				
AN/USQ-T46X(V)X, BATTLE FORCE TACTICAL TRAINING SYSTEM (BFTT)	1	5,920	1	7,561
CANES	1	18,012	1	28,976
AN/USG-2, COOPERATIVE ENGAGEMENT CAPABILITY (CEC)	1	8,910	1	10,099
DIGITAL MODULAR RADIO (DMR) ULTRA HIGH FREQUENCY/VERY HIGH FREQUENCY LINE OF SIGHT (EHF/VHF LOS) SATCOM	1	11,512	1	14,333
AN/UPX-29(V), INTERROGATOR FRIEND OR FOE (IFF) W/MK XII	1	6,462	1	19,525
SPN-46, AUTOMATIC CARRIER LANDING SYSTEM	1	10,920	1	17,700
SHIP SELF DEFENSE SYSTEM (SSDS)	1	90,265	1	90,944
AN/TPX-42A(V)14, CARRIER AIR TRAFFIC CONTROL CENTER - DIRECT ALTITUDE AND IDENTIFY READOUT (CATCC-DAIR)	1	5,499	1	6,639
NAVY MULTI-BAND TERMINAL (NMT)	1	6,105	1	8,014
ELECTRONIC SURVEILLANCE SUITE, SEWIP BLOCK 2 (EWS)	1	22,333	1	21,301
AN/SRQ-6/MCS-21, SHIPS SIGNAL EXPLOITATION EQUIPMENT INCREMENT F (SSEE)	1	8,878	1	13,048
ELECTRONIC CONSOLIDATED AUTOMATED SUPPORT SYSTEM (eCASS)			1	39,246
ELECTRONIC SURVEILLANCE SUITE, SEWIP BLOCK 3			1	36,506
HIGH FREQUENCY RADIO GROUP (HFRG)	1	3,166	1	6,905
SEA-BASED JOINT PRECISION APPROACH & LANDING SYSTEM (JPALS)	1	6,711	1	10,468
Subtotal		204,693		331,265
b. Major Items				
AN/USQ-155(V)1 TACTICAL VARIANT SWITCH	1	3,690	1	3,129
INFORMATION ASSURANCE (IA)		2,596		2,689
MAST CLAMP CURRENT PROBE (MCCP) UPGRADE	1	2,173	1	2,210
AN/URC-141X(V), MULTI-FUNCTION INFORMATION DISTRIBUTION SYSTEM (MIDS)-ON-SHIP (MOS)	1	1,939	1	2,339
AN/SLQ-25A DUAL, SURFACE SHIP TORPEDO DEFENSE SYSTEM, NIXIE	1	2,316	1	10,907
AN/SMQ-11, METEOROLOGICAL/OCEANOGRAPHIC (METOC) SATELLITE RECEIVER - RECORD SET	1	1,394	1	1,704
SHIPBOARD AIR TRAFFIC CONTROL COMMUNICATIONS (SATCC)	1	1,978	1	2,984
SHIP TEST AND INTEGRATION PROGRAMS		1,582		4,944
AN/WSN-7(V)3, RING LASER GYRO NAVIGATOR (RLGN)	1	2,411	1	3,106
DISTRIBUTED SYSTEMS DESIGN INTEGRATION SERVICES	1	6,187	1	11,688
C4I INTEGRATION & COORDINATION		8,933	1	9,692

P-8A EXHIBIT FY 2013 President's Budget

February 2012

# SHIPBUILDING AND CONVERSION, NAVY

hip Type: CARRIER REPLACEMENT PROGRAM		FY 2008		FY 2013	
	<u>QTY</u>	COST	QTY	COST	
DISTRIBUTED COMMON GROUND STATION - NAVY (DCGS-N)	1	1,936	1	2,084	
AN/USQ-144K AUTOMATED DIGITAL NETWORK SYSTEM (ADNS)	1	1,535	1	1,584	
AN/UYQ-86 CDLMS WITH NGC2P	1	1,845	1	2,116	
OA-9277 UHF MULTICOUPLER	1	2,032	1	2,519	
ARC-210 CATCC-PRIFLY-LSO SYSTEM	1	1,406	1	1,679	
WARFARE SYSTEM INTEGRATION		30,204		25,482	
NET-ENABLED COMMAND CAPABILITY (NECC)	1	953	1	1,382	
COMMERCIAL BROADBAND SATELLITE PROGRAM (CBSP-FLV)	1	1,299	1	1,984	
AN/SSN-6(V)X BLOCK 4, NAVIGATION SENSOR SYSTEM INTERFACE (NAVSSI)	1	4,203	1	2,570	
AN/SPS-73(V)X LITE SYSTEM	2	3,661	2	2,358	
INTEGRATED STRIKE PLANNING & EXECUTION SYSTEMS (ISP&E)	1	13,335	1	10,444	
AN/USQ-123(V), COMMUNICATIONS DATA LINK-SYSTEM (CDL-S)	1	2,080	1	3,488	
AN/SPN-41(V), INSTRUMENT LANDING SYSTEM (ILS)	1	3,338	1	6,346	
SHIP SIGNAL EXPLOITATION SPACE (SSES/SI) COMMUNICATIONS	1	4,285	1	4,687	
TURNKEY RADIO COMMUNICATIONS SYSTEM (RCS)	1	17,677	1	20,060	
NULKA			1	6,156	
MK 38			4	7,675	
Subtotal		124,988		158,006	
c. Other ELECTRONICS					
		15,526		28,719	
Subtotal		15,526		28,719	
Total ELECTRONICS		345,207		517,990	

P-8A EXHIBIT

FY 2013 President's Budget

February 2012

# SHIPBUILDING AND CONVERSION, NAVY

Ship Type: CARRIER REPLACEMENT PROGRAM			FY 2013	
	<u>QTY</u>	COST	<u>QTY</u>	COST
ORDNANCE				
a. P-35 Items				
ELECTROMAGNETIC AIRCRAFT LAUNCHING SYSTEM (EMALS)	1	675,583	1	846,613
DUAL BAND RADAR (DBR) (SPY-3 AND VOLUME SEARCH RADAR (VSR))	1	491,797	1	242,500
ADVANCED ARRESTING GEAR (AAG)	1	164,330	1	211,647
PHALANX BLOCK 1B MK 15 MOD 21 & 22, CLOSE - IN WEAPONS SYSTEM (CIWS)	3	18,160	3	26,984
AN/SQQ-34, CARRIER-TACTICAL SUPPORT CENTER (CV-TSC)	1	7,131	1	7,585
MK29 MOD 5, GUIDED MISSILE LAUNCHING SYSTEM (GMLS)	2	14,597	2	16,361
AVIATION DATA MANAGEMENT AND CONTROL SYSTEM (ADMACS)	1	7,353	1	8,656
INTEGRATED LAUNCH AND RECOVERY TELEVISION SYSTEM (ILARTS)	1	6,292	1	5,096
MK 49, MOD 3 ROLLING AIRFRAME MISSILE (RAM)	2	13,935	2	17,697
IMPROVED FRESNEL LENS OPTICAL LANDING SYSTEM (IFLOLS)	1	3,590	1	9,528
Subtotal		1,402,768		1,392,667
b. Major Items				
LANDING SIGNAL OFFICER DISPLAY SYSTEM (LSODS)	1	1,743	1	2,701
MORIAH BLOCK 2	1	1,501	1	2,005
SHIP TEST AND INTEGRATION PROGRAMS	1	3,163		
JET BLAST DEFLECTORS (JBD)	1	886	1	1,056
JOINT STRIKE FIGHTER AUTONOMIC LOGISTICS INFORMATION SYSTEM (JSF ALIS)	1	1,441	1	3,957
Subtotal		8,734		9,719
c. Other ORDNANCE				
		7,056		12,193
Subtotal		7,056		12,193
Total ORDNANCE		1,418,558		1,414,579

CLASSIFICATION: UNCLASSIFIED P-8A EXHIBIT

# FY 2013 President's Budget

February 2012

# SHIPBUILDING AND CONVERSION, NAVY

Ship Type: CARRIER REPLACEMENT PROGRAM		FY 2008		13
	<u>QTY</u>	COST	<u>QTY</u>	COST
HM&E				
a. P-35 Items				
Subtotal				
b. Major Items				
HM&E ENGINEERING SERVICES		19,227		30,227
INTEGRATED LOGISTICS SUPPORT		2,403		662
LIFE RAFTS		2,252		3,078
SUPSHIP MATERIAL AND GFE		2,358		3,471
TEST & INTEGRATION		6,901		
TRUCKS (FORKLIFTS)		500		4,602
Subtotal		33,641		42,040
c. Other HM&E				
		2,329		3,043
Subtotal		2,329		3,043
Total HM&E		35,970		45,083

#### SHIPBUILDING AND CONVERSION, NAVY

MAJOR SHIP COMPONENT FACT SHEET (Dollars in Thousands)

FY 2013 President's Budget

P-35 EXHIBIT February 2012

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 2	013
	<u>QTY</u>	COST	QTY	COST
Major Hardware	1	2,637	1	4,387
Technical Data and Documentation		250		0
Spares		129		139
Systems Engineering		862		1,111
Technical Engineering Services		474		513
Other Costs		1,568		1,411
Total		5,920		7,561

#### III. CONTRACT DATA:

PROGRAM	SHIP	PRIME	CONTRACT	AWARD	NEW		HARDWARE
YEAR	TYPE	CONTRACTOR	<u>TYPE</u>	DATE	<u>/OPTION</u>	<u>QTY</u>	UNIT COST
FY 08	CVN 78	TBD	TBD	TBD		1	2,637
FY 13	CVN 79	TBD	TBD	TBD		1	4,387

### IV. DELIVERY DATE:

PROGRAM	SHIP	EARLIEST SHIP	MONTHS REQUIRED	PRODUCTION	REQUIRED
<u>YEAR</u>	<u>TYPE</u>	<b>DELIVERY DATE</b>	BEFORE DELIVERY	<b>LEADTIME</b>	AWARD DATE
FY 08	CVN 78	SEP-15	25	12	AUG-12
FY 13	CVN 79	SEP-22	TBD	TBD	TBD

#### V. COMPETITION/SECOND SOURCE INITIATIVES:

None

#### SHIPBUILDING AND CONVERSION, NAVY

MAJOR SHIP COMPONENT FACT SHEET

(Dollars in Thousands)

P-35 EXHIBIT FY 2013 President's Budget February 2012

Ship Type: CARRIER REPLACEMENT PROGRAM

Equipment Item: CANES
PARM Code: PMW 750

#### I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

CANES will provide the Navy tactical/non-tactical information environment and infrastructure necessary to enable hosting, extended services reach-back and reach-forward, and relay functions. These capabilities will support real time and non-real time tactical/non-tactical edge connected, connectionless, and ad-hoc voice, video and data information exchange requirements. CANES is the technology replacement for the following existing afloat networks: Combined Enterprise Regional Information Exchange System-Maritime (CENTRIXS-M), limited shipboard Internal Voice (IC), Integrated Shipboard Networking System (ISNS), Sensitive Compartmented Information (SCI) Networks, to include the Top Secret enclave, and Video Information eXchange System (VIXS). CANES will incrementally collapse Unclassified, Secret, Secret-Releasable, and SCI enclaves. CANES Increment 1 is the current POR for CVN 78. The CVN 79 estimate includes potential to collapse additional networks

#### II. CURRENT FUNDING:

P-35 Category	FY 2008			013		
	<u>QTY</u>	COST	<u>QTY</u>	COST		
Major Hardware	1	12,250	1	20,843		
Ancillary Equipment		0		95		
Technical Data and Documentation		0		136		
Spares		277		405		
Systems Engineering		2,928		4,733		
Technical Engineering Services		547		479		
Other Costs		2,010		2,285		
Total		18,012		28,976		

#### III. CONTRACT DATA:

PROGRAM	SHIP	PRIME	CONTRACT	AWARD	NEW		HARDWARE
<u>YEAR</u>	<u>TYPE</u>	CONTRACTOR	<u>TYPE</u>	<u>DATE</u>	/OPTION	<u>QTY</u>	UNIT COST
FY 08	CVN 78	TBD	TBD	TBD		1	12,250
FY 13	CVN 79	TBD	TBD	TBD		1	20,843

#### IV. DELIVERY DATE:

PROGRAM	SHIP	EARLIEST SHIP	MONTHS REQUIRED	PRODUCTION	REQUIRED
YEAR	<u>TYPE</u>	DELIVERY DATE	BEFORE DELIVERY	<b>LEADTIME</b>	AWARD DATE
FY 08	CVN 78	SEP-15	20	12	JAN-13
FY 13	CVN 79	SEP-22	TBD	TBD	TBD

#### V. COMPETITION/SECOND SOURCE INITIATIVES:

None

#### SHIPBUILDING AND CONVERSION, NAVY

MAJOR SHIP COMPONENT FACT SHEET

(Dollars in Thousands)

P-35 EXHIBIT FY 2013 President's Budget

February 2012

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			2013
	QTY	COST	<u>QTY</u>	COST
Major Hardware	1	4,745	1	5,485
Spares		390		864
Systems Engineering		1,130		1,561
Technical Engineering Services		194		418
Other Costs		2,451		1,771
Total		8,910		10,099

### III. CONTRACT DATA:

PROGRAM	SHIP	PRIME	CONTRACT	AWARD	NEW		HARDWARE
YEAR	<u>TYPE</u>	CONTRACTOR	<u>TYPE</u>	DATE	/OPTION	<u>QTY</u>	UNIT COST
FY 08	CVN 78	RAYTHEON	FFP	TBD	OPTION	1	4,745
FY 13	CVN 79	TBD	TBD	TBD		1	5.485

#### IV. DELIVERY DATE:

PROGRAM	SHIP	EARLIEST SHIP	MONTHS REQUIRED	PRODUCTION	REQUIRED
YEAR	<u>TYPE</u>	DELIVERY DATE	BEFORE DELIVERY	<u>LEADTIME</u>	AWARD DATE
FY 08	CVN 78	SEP-15	30	18	SEP-11
FY 13	CVN 79	SEP-22	TBD	TBD	TBD

#### V. COMPETITION/SECOND SOURCE INITIATIVES:

None

#### SHIPBUILDING AND CONVERSION, NAVY

MAJOR SHIP COMPONENT FACT SHEET

P-35 EXHIBIT FY 2013 President's Budget

(Dollars in Thousands) February 2012

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	9,911	1	11,780		
Technical Data and Documentation		31		31		
Spares		50		50		
Systems Engineering		553		1,313		
Technical Engineering Services		345		479		
Other Costs		622		680		
Total		11,512		14,333		

#### III. CONTRACT DATA:

PROGRAM	SHIP	PRIME	CONTRACT	AWARD	NEW		HARDWARE
YEAR	TYPE	CONTRACTOR	<u>TYPE</u>	DATE	/OPTION	<u>QTY</u>	UNIT COST
FY 08	CVN 78	VARIOUS	VARIOUS	TBD		1	9,911
FY 13	CVN 79	TBD	TBD	TBD		1	11 780

# IV. DELIVERY DATE:

PROGRAM	SHIP	EARLIEST SHIP	MONTHS REQUIRED	PRODUCTION	REQUIRED
<u>YEAR</u>	<u>TYPE</u>	DELIVERY DATE	BEFORE DELIVERY	<b>LEADTIME</b>	AWARD DATE
FY 08	CVN 78	SEP-15	30	18	SEP-11
FY 13	CVN 79	SEP-22	TBD	TBD	TBD

# V. COMPETITION/SECOND SOURCE INITIATIVES:

None

#### SHIPBUILDING AND CONVERSION, NAVY

MAJOR SHIP COMPONENT FACT SHEET (Dollars in Thousands)

P-35 EXHIBIT February 2012

FY 2013 President's Budget

CARRIER REPLACEMENT PROGRAM Ship Type:

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	
	<u>QTY</u>	COST	QTY	COST
Major Hardware	1	6,124	1	14,738
Ancillary Equipment		72		83
Spares		32		103
Systems Engineering		163		2,614
Technical Engineering Services		71		624
Other Costs		0		1,363
Total		6,462		19,525

#### III. CONTRACT DATA:

PROGRAM	SHIP	PRIME	CONTRACT	AWARD	NEW		HARDWARE
<u>YEAR</u>	<u>TYPE</u>	CONTRACTOR	<u>TYPE</u>	<u>DATE</u>	/OPTION	<u>QTY</u>	UNIT COST
		NORTHROP GRUMMAN-BAE					
FY 08	CVN 78	SYSTEMS	SS/FP	VARIOUS		1	6,124
FY 13	CVN 79	TBD	TBD	TBD		1	14,738

#### **IV. DELIVERY DATE:**

PROGRAM	SHIP	EARLIEST SHIP	MONTHS REQUIRED	PRODUCTION	REQUIRED
YEAR	TYPE	<b>DELIVERY DATE</b>	BEFORE DELIVERY	<u>LEADTIME</u>	AWARD DATE
FY 08	CVN 78	SEP-15	47	24	OCT-09
FY 13	CVN 79	SEP-22	TBD	TBD	TBD

#### V. COMPETITION/SECOND SOURCE INITIATIVES:

None

#### SHIPBUILDING AND CONVERSION, NAVY

MAJOR SHIP COMPONENT FACT SHEET

(Dollars in Thousands)

P-35 EXHIBIT

FY 2013 President's Budget

February 2012

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		FY 2013	
	QTY	COST	<u>QTY</u>	COST
Major Hardware	1	6,558	1	12,436
Systems Engineering		1,111		1,017
Other Costs		3,251		4,247
Total		10,920		17,700

#### III. CONTRACT DATA:

PROGRAM	SHIP	PRIME	CONTRACT	AWARD	NEW		HARDWARE
<u>YEAR</u>	<u>TYPE</u>	CONTRACTOR	<u>TYPE</u>	DATE	/OPTION	<u>QTY</u>	UNIT COST
FY 08	CVN 78	VARIOUS	VARIOUS	APR-08		1	6,558
FY 13	CVN 79	TBD	TBD	TBD		1	12,436

# IV. DELIVERY DATE:

PROGRAM	SHIP	EARLIEST SHIP	MONTHS REQUIRED	PRODUCTION	REQUIRED
<u>YEAR</u>	<u>TYPE</u>	DELIVERY DATE	BEFORE DELIVERY	<u>LEADTIME</u>	AWARD DATE
FY 08	CVN 78	SEP-15	25	64	APR-08
FY 13	CVN 79	SEP-22	TBD	TBD	TBD

#### V. COMPETITION/SECOND SOURCE INITIATIVES:

None

# SHIPBUILDING AND CONVERSION, NAVY

MAJOR SHIP COMPONENT FACT SHEET

P-35 EXHIBIT FY 2013 President's Budget February 2012

(Dollars in Thousands)

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 2	2013
	<u>QTY</u>	COST	QTY	COST
Major Hardware	1	12,945	1	17,369
Technical Data and Documentation		1,294		1,064
Spares		1,014		1,445
Systems Engineering		11,784		15,555
Technical Engineering Services		1,628		1,477
Other Costs		61,600		54,034
Total		90,265		90,944

#### III. CONTRACT DATA:

PROGRAM	SHIP	PRIME	CONTRACT	AWARD	NEW		HARDWARE
<u>YEAR</u>	<u>TYPE</u>	CONTRACTOR	<u>TYPE</u>	<u>DATE</u>	/OPTION	<u>QTY</u>	UNIT COST
FY 08	CVN 78	RAYTHEON/GEN DYNAMICS	FFP	SEP-08	NEW	1	12,945
FY 13	CVN 79	TBD	TBD	TBD		1	17.369

#### IV. DELIVERY DATE:

PROGRAM	SHIP	EARLIEST SHIP	MONTHS REQUIRED	PRODUCTION	REQUIRED
<u>YEAR</u>	<u>TYPE</u>	<b>DELIVERY DATE</b>	BEFORE DELIVERY	<b>LEADTIME</b>	AWARD DATE
FY 08	CVN 78	SEP-15	22	24	NOV-11
FY 13	CVN 79	SEP-22	TBD	TBD	TBD

# V. COMPETITION/SECOND SOURCE INITIATIVES:

None

#### SHIPBUILDING AND CONVERSION, NAVY

P-35 EXHIBIT

AWARD DATE

NOV-09

TBD

MAJOR SHIP COMPONENT FACT SHEET (Dollars in Thousands)

FY 2013 President's Budget February 2012

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.

**DELIVERY DATE** 

SEP-15

SEP-22

#### **II. CURRENT FUNDING:**

P-35 Category			FY 2008	8	FY 2	013			
		QTY	<u> </u>	COST	<u>YT</u>	COST			
Major Hardware			1	3,007	1	3,005			
Spares				228		0			
Systems Engineering				1,609		2,342			
Technical Engineering Services				42		0			
Other Costs				613		1,292			
Total				5,499		6,639			
III. CONTRACT DATA:									
PROGRAM	SHIP	PRIME		CONTRACT		AWARD	NEW		HARDWARE
<u>YEAR</u>	TYPE	CONTRACTOR		TYPE		DATE	/OPTION	QTY	UNIT COST
FY 08	CVN 78	NAVAIR		VARIOUS		NOV-09		1	3,007
FY 13	CVN 79	TBD		TBD		TBD		1	3,005
IV. DELIVERY DATE:									
PROGRAM	SHIP	EARLIEST SHIP	N	MONTHS REQU	RED	PRODUCTION	REQUIRED		

BEFORE DELIVERY

46

TBD

**LEADTIME** 

24

TBD

#### V. COMPETITION/SECOND SOURCE INITIATIVES:

**TYPE** 

**CVN 78** 

CVN 79

None

NOTE:

YEAR

FY 08

FY 13

### SHIPBUILDING AND CONVERSION, NAVY

MAJOR SHIP COMPONENT FACT SHEET

(Dollars in Thousands)

P-35 EXHIBIT FY 2013 President's Budget

February 2012

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		
	<u>QTY</u>	COST	<u>QTY</u>	COST	
Major Hardware	1	5,226	1	6,419	
Ancillary Equipment		0		48	
Spares		329		329	
Systems Engineering		140		598	
Technical Engineering Services		135		270	
Other		275		350	
Total		6,105		8,014	

#### III. CONTRACT DATA:

PROGRAM	SHIP	PRIME	CONTRACT	AWARD	NEW		HARDWARE
<u>YEAR</u>	<u>TYPE</u>	CONTRACTOR	<u>TYPE</u>	DATE	/OPTION	<u>QTY</u>	UNIT COST
FY 08	CVN 78	RAYTHEON	FFP	OCT-11		1	5,226
FY13	CVN 79	TBD	TBD	TBD		1	6 419

### IV. DELIVERY DATE:

PROGRAM	SHIP	EARLIEST SHIP	MONTHS REQUIRED	PRODUCTION	REQUIRED
<u>YEAR</u>	<u>TYPE</u>	<b>DELIVERY DATE</b>	BEFORE DELIVERY	<b>LEADTIME</b>	AWARD DATE
FY 08	CVN 78	SEP-15	28	18	NOV-11
FY13	CVN 79	SEP-22	TBD	TBD	TBD

#### V. COMPETITION/SECOND SOURCE INITIATIVES:

None

#### SHIPBUILDING AND CONVERSION, NAVY

MAJOR SHIP COMPONENT FACT SHEET

(Dollars in Thousands)

P-35 EXHIBIT FY 2013 President's Budget February 2012

Ship Type: CARRIER REPLACEMENT PROGRAM

Equipment Item: ELECTRONIC SURVEILLANCE SUITE, SEWIP BLOCK 2 (EWS)

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			FY 2013		
	<u>QTY</u>	COST	QTY	COST		
Major Hardware	1	12,880	1	17,129		
Ancillary Equipment		180		75		
Spares		812		276		
System Engineering		3,251		1,467		
Technical Engineering Services		1,816		1,414		
Other Costs		3,394		940		
Total		22,333		21,301		

#### III. CONTRACT DATA:

PROGRAM	SHIP	PRIME	CONTRACT	AWARD	NEW		HARDWARE
<u>YEAR</u>	<u>TYPE</u>	CONTRACTOR	<u>TYPE</u>	DATE	/OPTION	QTY	UNIT COST
FY 08	CVN 78	TBD	TBD	TBD		1	12,880
FY 13	CVN 79	TBD	TBD	TBD		1	17 129

#### IV. DELIVERY DATE:

PROGRAM	SHIP	EARLIEST SHIP	MONTHS REQUIRED	PRODUCTION	REQUIRED
<u>YEAR</u>	<u>TYPE</u>	DELIVERY DATE	BEFORE DELIVERY	<u>LEADTIME</u>	AWARD DATE
FY 08	CVN 78	SEP-15	21	18	JUN-12
FY 13	CVN 79	SEP-22	TBD	TBD	TBD

#### V. COMPETITION/SECOND SOURCE INITIATIVES:

#### SHIPBUILDING AND CONVERSION, NAVY

MAJOR SHIP COMPONENT FACT SHEET

P-35 EXHIBIT FY 2013 President's Budget

February 2012

(Dollars in Thousands)

Ship Type: CARRIER REPLACEMENT PROGRAM

Equipment Item: AN/SRQ-6/MCS-21, SHIPS SIGNAL EXPLOITATION EQUIPMENT INCREMENT F (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	
	<u>QTY</u>	COST	QTY	COST
Major Hardware	1	4,305	1	7,865
Ancillary Equipment		0		69
Technical Data and Documentation		214		0
Spares		306		319
System Engineering		999		2,081
Technical Engineering Services		912		473
Other Costs		2,142		2,241
Total		8,878		13,048

#### III. CONTRACT DATA:

PROGRAM	SHIP	PRIME	CONTRACT	AWARD	NEW		HARDWARE
<u>YEAR</u>	TYPE	CONTRACTOR	<u>TYPE</u>	DATE	/OPTION	QTY	UNIT COST
FY 08	CVN 78	ARGON	VARIOUS	TBD		1	4,305
FY 13	CVN 79	TBD	TBD	TBD		1	7 865

#### IV. DELIVERY DATE:

PROGRAM	SHIP	EARLIEST SHIP	MONTHS REQUIRED	PRODUCTION	REQUIRED
<u>YEAR</u>	<u>TYPE</u>	DELIVERY DATE	BEFORE DELIVERY	<u>LEADTIME</u>	AWARD DATE
FY 08	CVN 78	SEP-15	21	18	JUN-12
FY 13	CVN 79	SEP-22	TBD	TBD	TBD

#### V. COMPETITION/SECOND SOURCE INITIATIVES:

None

#### SHIPBUILDING AND CONVERSION, NAVY

MAJOR SHIP COMPONENT FACT SHEET

ENT FACT SHEET FY 2013 President's Budget busands) February 2012

P-35 EXHIBIT

(Dollars in Thousands)

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		
	QTY		COST
Major Hardware		1	33,197
System Engineering			2,046
Technical Engineering Services			616
Other Costs			3,387
Total			39,246

#### III. CONTRACT DATA:

PROGRAM	SHIP	PRIME	CONTRACT	AWARD	NEW		HARDWARE
YEAR	<u>TYPE</u>	CONTRACTOR	<u>TYPE</u>	DATE	/OPTION	<u>QTY</u>	UNIT COST
FY 13	CVN 79	TBD	TBD	TBD		1	33 197

#### IV. DELIVERY DATE:

PROGRAM	SHIP	EARLIEST SHIP	MONTHS REQUIRED	PRODUCTION	REQUIRED
YEAR	<u>TYPE</u>	DELIVERY DATE	BEFORE DELIVERY	<b>LEADTIME</b>	AWARD DATE
FY 13	CVN 79	SEP-22	TRD	TRD	TRD

#### V. COMPETITION/SECOND SOURCE INITIATIVES:

#### SHIPBUILDING AND CONVERSION, NAVY

MAJOR SHIP COMPONENT FACT SHEET FY 2013 President's Budget

(Dollars in Thousands)

P-35 EXHIBIT FY 2013 Presid February 2012

Ship Type: CARRIER REPLACEMENT PROGRAM

Equipment Item: ELECTRONIC SURVEILLANCE SUITE, 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 2	2013
	<u>QTY</u>	COST
Major Hardware	1	25,644
Ancillary Equipment		133
Spares		1,160
System Engineering		4,740
Technical Engineering Services		2,081
Other Costs		2,748
Total		36,506

#### III. CONTRACT DATA:

PROGRAM	SHIP	PRIME	CONTRACT	AWARD	NEW		HARDWARE
<u>YEAR</u>	<u>TYPE</u>	CONTRACTOR	<u>TYPE</u>	DATE	/OPTION	<u>QTY</u>	<b>UNIT COST</b>
FY 13	CVN 79	TBD	TBD	TBD		1	25 644

### IV. DELIVERY DATE:

PROGRAM	SHIP	EARLIEST SHIP	MONTHS REQUIRED	PRODUCTION	REQUIRED
YEAR	TYPE	<b>DELIVERY DATE</b>	BEFORE DELIVERY	<u>LEADTIME</u>	AWARD DATE
FY 13	CVN 79	SEP-22	TBD	TBD	TBD

#### V. COMPETITION/SECOND SOURCE INITIATIVES:

# SHIPBUILDING AND CONVERSION, NAVY

MAJOR SHIP COMPONENT FACT SHEET (Dollars in Thousands)

P-35 EXHIBIT FY 2013 President's Budget

February 2012

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TBD

12

TBD

CARRIER REPLACEMENT PROGRAM Ship Type: Equipment Item: HIGH FREQUENCY RADIO GROUP (HFRG)

PARM Code: PMW 170

#### I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

HRFG support 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.

SEP-15

SEP-22

#### II. CURRENT FUNDING:

II. CONNENT TONDING.								
P-35 Category		F	Y 2008	FY 20	013			
		<u>QTY</u>	COST	<u>QTY</u>	COST			
Major Hardware			1 1,373	1	5,550			
Technical Data and Documentation			100		100			
Spares			40		0			
System Engineering			415		435			
Technical Engineering Services			1,092		330			
Other Costs			146		490			
Total			3,166		6,905			
III. CONTRACT DATA:								
PROGRAM	SHIP	PRIME	CONTRACT	Г	AWARD	NEW		HARDWARE
YEAR	<u>TYPE</u>	CONTRACTOR	<u>TYPE</u>		<u>DATE</u>	/OPTION	<u>QTY</u>	UNIT COST
FY 08	CVN 78	HARRIS CORP	VARIOUS		SEP-08		1	1,373
FY 13	CVN 79	TBD	TBD		TBD		1	5,550
IV. DELIVERY DATE:								
PROGRAM	SHIP	EARLIEST SHIP	MONTHS REQU	IRED	PRODUCTION	REQUIRED		
YEAR	<u>TYPE</u>	DELIVERY DATE	BEFORE DELIV	<u>ERY</u>	<b>LEADTIME</b>	AWARD DATE		

29

TBD

#### V. COMPETITION/SECOND SOURCE INITIATIVES:

CVN 78

CVN 79

NOTE:

FY 08

FY 13

## SHIPBUILDING AND CONVERSION, NAVY

MAJOR SHIP COMPONENT FACT SHEET (Dollars in Thousands)

P-35 EXHIBIT

February 2012

MAY 13

TBD

FY 2013 President's Budget

Ship Type: CARRIER REPLACEMENT PROGRAM

Equipment Item: SEA-BASED JOINT PRECISION APPROACH & LANDING SYSTEM (JPALS)

**CVN 80** 

CVN 79

PARM Code:

### 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.

SEP-15

SEP-22

### II. CURRENT FUNDING:

QTY         COST         QTY         COST           sijor Hardware         1         2,648         1         4,247           cillary Equipment         0         12         12           chnical Data and Documentation         101         95         940           ares         453         940         1,022           stem Engineering         627         268         1,022           chnical Engineering Services         2,135         3,884         1,0468           tal         6,711         10,468         1,0468           CONTRACT DATA:           PROGRAM         SHIP         PRIME         CONTRACT         AWARD         NEW           YEAR         TYPE         CONTRACTOR         TYPE         DATE         OPTION           FY 08         CVN 78         TBD	II. CONNENT I CHEMICO.					
1   2,648   1   4,247	P-35 Category		F	Y 2008	FY 2013	
cillary Equipment         0         12           chnical Data and Documentation         101         95           ares         453         940           stem Engineering         747         1,022           chnical Engineering Services         627         268           her Costs         2,135         3,884           tal         6,711         10,468    CONTRACT DATA:  PROGRAM SHIP PRIME CONTRACT AWARD NEW YEAR TYPE CONTRACTOR TYPE DATE (OPTION FY 08 CVN 78 TBD			QTY	COST C	COST COST	
Contract Data   Contract Dat	Major Hardware			1 2,648	1 4,247	
ares         453         940           stem Engineering         747         1,022           chnical Engineering Services         627         268           her Costs         2,135         3,884           tall         6,711         10,468    CONTRACT DATA:  PROGRAM SHIP PRIME CONTRACT AWARD NEW YEAR YEAR TYPE CONTRACTOR TYPE DATE OPTION FY 08 CVN 78 TBD	Ancillary Equipment			0	12	
T47   1,022	Technical Data and Documentation			101	95	
CONTRACT DATA:    PROGRAM	Spares			453	940	
PROGRAM	System Engineering			747	1,022	
6,711         10,468           CONTRACT DATA:           PROGRAM         SHIP         PRIME         CONTRACT         AWARD         NEW           YEAR         TYPE         CONTRACTOR         TYPE         DATE         (OPTION)           FY 08         CVN 78         TBD         TBD         TBD           FY 13         CVN 79         TBD         TBD         TBD           DELIVERY DATE:           PROGRAM         SHIP         EARLIEST SHIP         MONTHS REQUIRED         PRODUCTION         REQUIRED	Technical Engineering Services			627	268	
CONTRACT DATA:  PROGRAM SHIP PRIME CONTRACT AWARD NEW YEAR TYPE DATE (OPTION FY 08 CVN 78 TBD	Other Costs			2,135	3,884	
PROGRAM     SHIP     PRIME     CONTRACT     AWARD     NEW       YEAR     TYPE     CONTRACTOR     TYPE     DATE     (OPTION       FY 08     CVN 78     TBD     TBD     TBD       FY 13     CVN 79     TBD     TBD     TBD       DELIVERY DATE:       PROGRAM     SHIP     EARLIEST SHIP     MONTHS REQUIRED     PRODUCTION     REQUIRED	Total			6,711	10,468	
PROGRAM     SHIP     PRIME     CONTRACT     AWARD     NEW       YEAR     TYPE     CONTRACTOR     TYPE     DATE     (OPTION       FY 08     CVN 78     TBD     TBD     TBD       FY 13     CVN 79     TBD     TBD     TBD       DELIVERY DATE:       PROGRAM     SHIP     EARLIEST SHIP     MONTHS REQUIRED     PRODUCTION     REQUIRED						
YEAR     TYPE     CONTRACTOR     TYPE     DATE     (OPTION       FY 08     CVN 78     TBD     TBD     TBD       FY 13     CVN 79     TBD     TBD     TBD       DELIVERY DATE:       PROGRAM     SHIP     EARLIEST SHIP     MONTHS REQUIRED     PRODUCTION     REQUIRED						
FY 08 CVN 78 TBD TBD TBD FY 13 CVN 79 TBD TBD TBD  DELIVERY DATE: PROGRAM SHIP EARLIEST SHIP MONTHS REQUIRED PRODUCTION REQUIRE						
FY 13 CVN 79 TBD TBD TBD  DELIVERY DATE: PROGRAM SHIP EARLIEST SHIP MONTHS REQUIRED PRODUCTION REQUIRE	<u>YEAR</u>	<u>TYPE</u>	CONTRACTOR	TYPE	DATE	<u>/OPTION</u>
<u>DELIVERY DATE:</u> PROGRAM SHIP EARLIEST SHIP MONTHS REQUIRED PRODUCTION REQUIRE	FY 08	CVN 78	TBD	TBD	TBD	
PROGRAM SHIP EARLIEST SHIP MONTHS REQUIRED PRODUCTION REQUIRE	FY 13	CVN 79	TBD	TBD	TBD	
	V. DELIVERY DATE:					
YEAR TYPE DELIVERY DATE BEFORE DELIVERY LEADTIME AWARD DA	PROGRAM	SHIP	EARLIEST SHIP	MONTHS REQUI	RED PRODUCT	ION REQUIRED
	YEAR	TYPE	DELIVERY DATE	BEFORE DELIV	ERY LEADTIN	ME AWARD DATE

24

TBD

TBD

### V. COMPETITION/SECOND SOURCE INITIATIVES:

NOTE:

FY 08

FY 13

### SHIPBUILDING AND CONVERSION, NAVY

MAJOR SHIP COMPONENT FACT SHEET (Dollars in Thousands)

FY 2013 President's Budget

February 2012

P-35 EXHIBIT

Ship Type: CARRIER REPLACEMENT PROGRAM

Equipment Item: ELECTROMAGNETIC AIRCRAFT LAUNCHING SYSTEM (EMALS)

PARM Code: PMA 251

### I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

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

### **II. CURRENT FUNDING:**

P-35 Category	FY 2008		FY 2013	
	<u>QTY</u>	COST	QTY	COST
Major Hardware	1	616,125	1	773,723
Technical Data and Documentation		514		1,016
Systems Engineering		11,931		17,176
Technical Engineering Services		14,314		25,300
Other Costs		32,699		29,398
Total		675,583		846,613

### III. CONTRACT DATA:

PROGRAM	SHIP	PRIME	CONTRACT	AWARD	NEW		HARDWARE
<u>YEAR</u>	<u>TYPE</u>	CONTRACTOR	<u>TYPE</u>	DATE	/OPTION	<u>QTY</u>	UNIT COST
FY 08	CVN 78	GENERAL ATOMICS	FFP	JUN-10		1	616,125
FY 13	CVN 79	GENERAL ATOMICS	TBD	TBD		1	773,723

### IV. DELIVERY DATE:

PROGRAM	SHIP	EARLIEST SHIP	MONTHS REQUIRED	PRODUCTION	REQUIRED
YEAR	<u>TYPE</u>	DELIVERY DATE	BEFORE DELIVERY	<u>LEADTIME</u>	AWARD DATE
FY 08	CVN 78	SEP-15	52	22	JUL-09
FY 13	CVN 79	SEP-22	TBD	TBD	TBD

### V. COMPETITION/SECOND SOURCE INITIATIVES:

None

## SHIPBUILDING AND CONVERSION, NAVY

MAJOR SHIP COMPONENT FACT SHEET

P-35 EXHIBIT February 2012

FY 2013 President's Budget

(Dollars in Thousands)

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 2	013
	<u>QTY</u>	COST	<u>QTY</u>	COST
Major Hardware	1	315,056	1	171,600
Technical Data and Documentation		125		0
Spares		2,625		2,400
Systems Engineering		145,991		54,700
Technical Engineering Services		8,200		2,900
Other Costs		19,800		10,900
Total		491,797		242,500

### III. CONTRACT DATA:

PROGRAM	SHIP	PRIME	CONTRACT	AWARD	NEW		HARDWARE
<u>YEAR</u>	<u>TYPE</u>	CONTRACTOR	TYPE	DATE	/OPTION	QTY	UNIT COST
FY 08	CVN 78	RAYTHEON	CPIF	VARIOUS		1	315,056
FY 13	CVN 79	TBD	TBD	TBD		1	171.600

### IV. DELIVERY DATE:

PROGRAM	SHIP	EARLIEST SHIP	MONTHS REQUIRED	PRODUCTION	REQUIRED
YEAR	TYPE	DELIVERY DATE	BEFORE DELIVERY	LEADTIME	AWARD DATE
FY 08	CVN 78	SEP-15	53	34	JUN-08
FY 13	CVN 79	SEP-22	TBD	TBD	TBD

### V. COMPETITION/SECOND SOURCE INITIATIVES:

None

### NOTE:

The June 2010 Nunn McCurdy Certification for DDG 1000 program de-scoped VSR from the third DDG 1000 class ship. The Department provided the 3 VSR arrays previously procured for the third DDG 1000 class ship to the CVN 79 and reduced the CVN 79 funding for this effort to account for the transfer.

CVN 78 Hardware costs consist of the following:

DBR (includes SPY-3 arrays and below deck electronic cabinets) 109,565 VSR (Volume Search Radar) 108,840 CAPS/CACS 59,385 Misc hardware 9.466 High Power Interface 27.800

Production Lead Time:

CAPS/CACS 24 months VSR 34 months MFR (part of VSR) 30 months

CLASSIFICATION: UNCLASSIFIED

### SHIPBUILDING AND CONVERSION, NAVY

MAJOR SHIP COMPONENT FACT SHEET

(Dollars in Thousands)

P-35 EXHIBIT FY 2013 President's Budget

February 2012

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 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 2	013
	<u>QTY</u>	COST	<u>QTY</u>	COST
Major Hardware	1	146,090	1	183,812
Technical Data and Documentation		427		165
Spares		2,302		2,777
Systems Engineering		6,150		6,961
Technical Engineering Services		1,095		8,873
Other Costs		8,266		9,059
Total		164,330		211,647

### III. CONTRACT DATA:

PROGRAM	SHIP	PRIME	CONTRACT	AWARD	NEW		HARDWARE
YEAR	<u>TYPE</u>	CONTRACTOR	<u>TYPE</u>	DATE	/OPTION	<u>QTY</u>	UNIT COST
FY 08	CVN 78	GENERAL ATOMICS	FFP	JUN-10		1	146,090
FY 13	CVN 79	GENERAL ATOMICS	TBD	TBD		1	183.812

### IV. DELIVERY DATE:

PROGRAM	SHIP	EARLIEST SHIP	MONTHS REQUIRED	PRODUCTION	REQUIRED
<u>YEAR</u>	<u>TYPE</u>	<b>DELIVERY DATE</b>	BEFORE DELIVERY	<u>LEADTIME</u>	AWARD DATE
FY 08	CVN 78	SEP-15	37	33	NOV-09
FY 13	CVN 79	SEP-22	TBD	TBD	TBD

### V. COMPETITION/SECOND SOURCE INITIATIVES:

None

### SHIPBUILDING AND CONVERSION, NAVY

MAJOR SHIP COMPONENT FACT SHEET (Dollars in Thousands)

FY 2013 President's Budget

P-35 EXHIBIT February 2012

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	20,708
Ancillary Equipment		199		219
Spares		240		260
Systems Engineering		1,744		3,819
Technical Engineering Services		638		691
Other Costs		1,281		1,287
Total		18,160		26,984

### III. CONTRACT DATA:

PROGRAM	SHIP	PRIME	CONTRACT	AWARD	NEW		HARDWARE
<u>YEAR</u>	TYPE	CONTRACTOR	<u>TYPE</u>	<u>DATE</u>	/OPTION	<u>QTY</u>	UNIT COST
FY 08	CVN 78	RAYTHEON	FFP	DEC-09		3	4,686
FY 13	CVN 79	TBD	TBD	TBD		3	6.903

### IV. DELIVERY DATE:

PROGRAM	SHIP	EARLIEST SHIP	MONTHS REQUIRED	PRODUCTION	REQUIRED
<u>YEAR</u>	TYPE	DELIVERY DATE	BEFORE DELIVERY	<u>LEADTIME</u>	AWARD DATE
FY 08	CVN 78	SEP-15	20	22	MAR-12
FY 13	CVN 79	SEP-22	TBD	TBD	TBD

### V. COMPETITION/SECOND SOURCE INITIATIVES:

None

### SHIPBUILDING AND CONVERSION, NAVY

MAJOR SHIP COMPONENT FACT SHEET

(Dollars in Thousands)

P-35 EXHIBIT FY 2013 President's Budget

February 2012

Ship Type: CARRIER REPLACEMENT PROGRAM

Equipment Item: AN/SQQ-34, CARRIER-TACTICAL SUPPORT CENTER

PARM Code: PEO IWS 5E

### I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

CV-TSC provides for carrier organic Anti-submarine Warfare (ASW), Mine Warfare (MIW), Surface Warfare (SUW), and other composite warfare area sensor data processing, tactical command and control, and organic/battle-group aircraft mission support. CV-TSC supports both ship self defense and embarked Destroyer Squadron (DESRON) missions. This system is Open Architecture Computing Environment (OACE), Joint Fires Network (JFN), and FORCEnet compliant, and includes redesign to maximize introduction of expected transformational technologies such as 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		
	<u>QTY</u>	COST	QTY	COST		
Major Hardware	1	2,995	1	3,779		
Ancillary Equipment		0		20		
Technical Data and Documentation		0		309		
Spares		125		35		
Systems Engineering		1,670		1,658		
Technical Engineering Services		720		249		
Other Costs		1,621		1,535		
Total		7,131		7,585		

### III. CONTRACT DATA:

PROGRAM	SHIP	PRIME	CONTRACT	AWARD	NEW		HARDWARE
YEAR	TYPE	CONTRACTOR	<u>TYPE</u>	DATE	/OPTION	<u>QTY</u>	UNIT COST
FY 08	CVN 78	NUWC KEYPORT	WR	MAR-09		1	2,995
FY 13	CVN 79	TBD	TBD	TBD		1	3,779

### IV. DELIVERY DATE:

PROGRAM	SHIP	EARLIEST SHIP	MONTHS REQUIRED	PRODUCTION	REQUIRED
YEAR	TYPE	DELIVERY DATE	BEFORE DELIVERY	<u>LEADTIME</u>	AWARD DATE
FY 08	CVN 78	SEP-15	26	21	OCT-11
FY 13	CVN 79	SEP-22	TBD	TBD	TBD

### V. COMPETITION/SECOND SOURCE INITIATIVES:

None

### SHIPBUILDING AND CONVERSION, NAVY

MAJOR SHIP COMPONENT FACT SHEET (Dollars in Thousands)

P-35 EXHIBIT FY 2013 President

FY 2013 President's Budget February 2012

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	7,807	2	9,739
Ancillary Equipment		327		350
Technical Data and Documentation		56		0
Spares		530		580
Systems Engineering		1,503		2,722
Technical Engineering Services		515		1,065
Other Costs		3,859		1,905
Total		14,597		16,361

## III. CONTRACT DATA:

PROGRAM	SHIP	PRIME	CONTRACT	AWARD	NEW		HARDWARE
<u>YEAR</u>	<u>TYPE</u>	CONTRACTOR	<u>TYPE</u>	DATE	/OPTION	<u>QTY</u>	UNIT COST
FY 08	CVN 78	RAYTHEON	FFP	JUN-11	NEW	2	3,903
FY 13	CVN 79	TBD	TBD	TBD		2	4.870

### IV. DELIVERY DATE:

PROGRAM	SHIP	EARLIEST SHIP	MONTHS REQUIRED	PRODUCTION	REQUIRED
<u>YEAR</u>	<u>TYPE</u>	DELIVERY DATE	BEFORE DELIVERY	<u>LEADTIME</u>	AWARD DATE
FY 08	CVN 78	SEP-15	22	29	JUN-11
FY 13	CVN 79	SEP-22	TBD	TBD	TBD

### V. COMPETITION/SECOND SOURCE INITIATIVES:

None

### SHIPBUILDING AND CONVERSION, NAVY

MAJOR SHIP COMPONENT FACT SHEET (Dollars in Thousands)

FY 2013 President's Budget

P-35 EXHIBIT

February 2012

Ship Type: CARRIER REPLACEMENT PROGRAM

Equipment Item: AVIATION DATA MANAGEMENT AND CONTROL SYSTEM (ADMACS)

TYPE

**CVN 78** 

CVN 79

PARM Code: PMA 251

### I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

ADMACS is a virtual, seamless, data sharing, knowledge based data system that provides interface for all aviation data systems. It is a tactical real-time information management system maintaining data integrity throughout the ship spaces that manage aircraft launch and recovery operations on board the carrier. ADMACS includes data from launch and recovery equipment, air traffic control, aviation maintenance, landing signaling officer, etc. The CVN 78 and CVN 79 versions are ADMACS Block 3.

DELIVERY DATE

SEP-15

SEP-22

### **II. CURRENT FUNDING:**

P-35 Category		F	Y 2008	FY 2	2013			
		<u>QTY</u>	COST	QTY	COST			
Major Hardware			1 5,065	1	5,702			
Technical Data and Documentation			97		0			
Systems Engineering			656		1,248			
Technical Engineering Services			548		387			
Other Costs			987		1,319			
Total			7,353		8,656			
III. CONTRACT DATA:								
PROGRAM	SHIP	PRIME	CONTRAC	CT	AWARD	NEW		HARDWARE
<u>YEAR</u>	<u>TYPE</u>	<b>CONTRACTOR</b>	<u>TYPE</u>		<u>DATE</u>	/OPTION	<u>QTY</u>	UNIT COST
FY 08	CVN 78	NAVAIR	VARIOU	3	VARIOUS	NEW	1	5,065
FY 13	CVN 79	TBD	TBD		TBD		1	5,702
IV. DELIVERY DATE:								
PROGRAM	SHIP	EARLIEST SHIP	MONTHS REQ	UIRED	PRODUCTION	REQUIRED		

BEFORE DELIVERY

26

TBD

LEADTIME

12

TBD

AWARD DATE

JUL-12

TBD

### V. COMPETITION/SECOND SOURCE INITIATIVES:

NONE

YEAR

FY 08

FY 13

### SHIPBUILDING AND CONVERSION, NAVY

MAJOR SHIP COMPONENT FACT SHEET (Dollars in Thousands)

P-35 EXHIBIT FY 2013 President's Budget

February 2012

REQUIRED

AWARD DATE

FEB-11

TBD

Ship Type: CARRIER REPLACEMENT PROGRAM

Equipment Item: INTEGRATED LAUNCH AND RECOVERY TELEVISION SYSTEM (ILARTS)

SHIP

**TYPE** 

**CVN 78** 

CVN 79

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.

EARLIEST SHIP

**DELIVERY DATE** 

SEP-15

SEP-22

### **II. CURRENT FUNDING:**

PROGRAM

YEAR

FY 08

FY 13

P-35 Category			FY 2	2008	FY 2	2013			
			<b>QTY</b>	COST	<b>QTY</b>	COST			
Major Hardware			1	3,605	1	2,777			
Systems Engineering				1,504		1,318			
Technical Engineering Services				246		339			
Other Costs				937		662			
Total				6,292		5,096			
III. CONTRACT DATA:									
PROGRAM	SHIP	PRIME		CONTRAC	т	AWARD	NEW		HARDWARE
YEAR	<u>TYPE</u>	CONTRACTO	<u>R</u>	TYPE		DATE	/OPTION	QTY	UNIT COST
FY 08	CVN 78	NAVAIR		VARIOUS	3	VARIOUS	NEW	1	3,605
FY 13	CVN 79	TBD		TBD		TBD		1	2,777
IV. DELIVERY DATE:									

MONTHS REQUIRED

BEFORE DELIVERY

19

TBD

PRODUCTION

LEADTIME

36

TBD

### V. COMPETITION/SECOND SOURCE INITIATIVES:

None

### SHIPBUILDING AND CONVERSION, NAVY

MAJOR SHIP COMPONENT FACT SHEET

(Dollars in Thousands)

P-35 EXHIBIT

FY 2013 President's Budget February 2012

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			2013
	<u>QTY</u>	COST	<b>QTY</b>	COST
Major Hardware	2	6,816	2	7,777
Ancillary Equipment		1,191		1,806
Technical Data and Documentation		30		37
Spares		121		138
Systems Engineering		1,897		3,543
Technical Engineering Services		332		383
Other Costs		3,548		4,013
Total		13,935		17,697

## III. CONTRACT DATA:

PROGRAM	SHIP	PRIME	CONTRACT	AWARD	NEW		HARDWARE
<u>YEAR</u>	<u>TYPE</u>	CONTRACTOR	<u>TYPE</u>	<u>DATE</u>	/OPTION	<u>QTY</u>	UNIT COST
FY 08	CVN 78	RAYTHEON	FFP	NOV-08		2	3,408
FY 13	CVN 79	TBD	TBD	TBD		2	3.889

### IV. DELIVERY DATE:

PROGRAM	SHIP	EARLIEST SHIP	MONTHS REQUIRED	PRODUCTION	REQUIRED
YEAR	<u>TYPE</u>	DELIVERY DATE	BEFORE DELIVERY	<u>LEADTIME</u>	AWARD DATE
FY 08	CVN 78	SEP-15	20	21	APR-12
FY 13	CVN 79	SEP-22	TBD	TBD	TBD

### V. COMPETITION/SECOND SOURCE INITIATIVES:

None

## SHIPBUILDING AND CONVERSION, NAVY

MAJOR SHIP COMPONENT FACT SHEET (Dollars in Thousands)

FY 2013 President's Budget

P-35 EXHIBIT February 2012

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	
	<u>QTY</u>	COST	<u>QTY</u>	COST	
Major Hardware	1	1,793	1	6,820	
System Engineering		913		1,649	
Technical Engineering Services		258		280	
Other Costs		626		779	
Total		3,590		9,528	

### III. CONTRACT DATA:

PROGRAM	SHIP	PRIME	CONTRACT	AWARD	NEW		HARDWARE
YEAR	TYPE	CONTRACTOR	TYPE	DATE	/OPTION	QTY	UNIT COST
FY 08	CVN 78	NORTH ISLAND / LAKEHURST	VARIOUS	FEB-11		1	1,793
FY 13	CVN 79	TBD	TBD	TBD		1	6,820

### IV. DELIVERY DATE:

PROGRAM	SHIP	EARLIEST SHIP	MONTHS REQUIRED	PRODUCTION	REQUIRED
<u>YEAR</u>	TYPE	<b>DELIVERY DATE</b>	BEFORE DELIVERY	<u>LEADTIME</u>	AWARD DATE
FY 08	CVN 78	SEP-15	36	24	SEP-10
FY 13	CVN 79	SEP-22	TBD	TBD	TBD

### V. COMPETITION/SECOND SOURCE INITIATIVES:

CLASSIFICATION: UNCLASSIFIED										
BUDGET ITEM JUSTIFICATION SH	,			Presidents Budget Sub	mission					DATE: February 2012
APPROPRIATION/BUDGET ACTIVI Ship and Conversion, Navy/BA#2 O		P-1 ITEM NOMENCLA Virginia Class Submarii						-	-	BLI: 2013
	PRIOR YEARS	FY2011	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	TO COMPLETE	TOTAL PROGRAM
QUANTITY	12	2	2	2	1	2	2	2	5	3
End Cost	30926.0	5314.4	5124.3	5107.9	2973.6	5669.7	5783.2	5940.0	16769.3	83608
Less Advance Procurement	8471.4	1509.3	1413.0	1405.1	835.1	1641.6	1693.8	1748.8	4885.2	23603
Less Transfer / Cost to Complete	1617.7									1617
Less EOQ	667.9	393.7	490.0	485.2		190.0	430.0	579.9	579.7	3816
Full Funding	20169.0	3411.4	3221.3	3217.6	2138.6	3838.1	3659.4	3611.4	11304.3	54571
Plus Advance Procurement	10894.6	1431.0	1461.4	874.9	1708.3	1724.4	1767.3	1917.1	1824.2	23603
Plus Transfer / Cost to Complete	1617.7									1617
Plus EOQ	1786.0	250.9	.0	.0	759.8	719.8	300.0	.0	.0	3816
Total Obligational Authority	34467.3	5093.3	4682.7	4092.5	4606.6	6282.4	5726.8	5528.4	13128.5	83608
Plus Cost to Complete Planned										
Plus Outfitting and Post Delivery	521.5	78.7	55.9	71.7	77.3	71.1	77.7	89.2	1354.1	2397
Total	34988.7	5172.0	4738.6	4164.2	4683.9	6353.5	5804.4	5617.7	14482.6	86005
Unit Cost (Ave. End Cost)	2577.2	2657.2	2562.2	2554.0	2973.6	2834.8	2891.6	2970.0	3353.9	2786

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

NOTE: These VA Class Exhibits reflect a FY09 - FY13 MYP strategy with EOQ in FY09-FY11 and a FY14-FY18 MYP strategy with EOQ in FY14-FY16. Comensurate with the PB13, the Department will request Congressional approval for a MYP contract for Block IV (FY14-FY18).

**Major Electronics:** 

Characteristics:

Armament:

Hull Length overall 377' Beam 34' Displacement 7830 Tons Draft 32'	34' - Twenty-three Subsystems			Vertical Launch Tubes - Open System Architecture - Twenty-three Subsystems			- Open System Architecture					
Production Status:	FY11	FY11	FY12	FY12	FY13	FY13						
Multi Year Procurement Contract	SSN 786	SSN 787	SSN 788	SSN 789	SSN 790	SSN 791						
Contract Award Date	Dec-08	Dec-08	Dec-08	Dec-08	Dec-08	Dec-08						
Months to Completion												
<ul> <li>a)Option Award Date to Delivery</li> </ul>	68 months	70 months	68 months	73 months	68 months	73 months						
<ul><li>b) Construction Start to Delivery</li></ul>	66 months	66 months	66 months	66 months	66 months	66 months						
Option Award Date	Jan-11	Apr-11	Jan-12	Jan-12	Jan-13	Jan-13						
Start of Construction Date	Mar-11	Sep-11	Mar-12	Sep-12	Mar-13	Sep-13						
Delivery Date	Aug-16	Feb-17	Aug-17	Feb-18	Aug-18	Feb-19						
Completion of Fitting Out	Aug-16	Feb-17	Aug-17	Feb-18	Aug-18	Feb-19						
Obligation Work Limiting Date	Jul-17	Jan-18	Jul-18	Jan-19	Jul-19	Jan-20						

FY2013 Presidents Budget Submission February 2012

BLI: 2013

APPROPRIATION: SHIPBUILDING AND CONVERSION, NAVY

2

WEAPON SYSTEM COST ANALYSIS (EXHIBIT P-5)

BUDGET ACTIVITY:

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P-1 ITEM NOMENCLATURE: Virginia Class Submarine

OTHER WARSHIPS

-	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
	F1 2007	F1 2008	F1 2009	F1 2010	F1 2011	FT 2012	F1 2013
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 68,296	1 72,903	1 114,805	1 98,882	2 184,659	2 176,536	2 183,597
BASIC CONST/CONVERSION	1,692,622	1,646,470	1,775,064	1,699,521	3,384,964	3,306,362	3,232,704
CHANGE ORDERS	51,000	50,240	49,102	50,675	100,644	98,600	96,777
TECHNOLOGY INSERTION	47,206	89,700	111,267	81,323	80,000	25,600	45,500
ELECTRONICS	226,578	238,695	263,351	262,829	529,217	489,947	499,746
PROPULSION EQUIPMENT	445,000	456,000	462,931	474,000	887,000	878,000	896,000
HM&E	44,699	46,752	48,901	51,557	99,738	100,116	102,476
OTHER COST	29,033	30,713	31,300	31,713	48,170	49,158	51,124
TOTAL SHIP ESTIMATE	2,604,434	2,631,473	2,856,721	2,750,500	5,314,392	5,124,319	5,107,924
LESS ADVANCE PROCUREMENT FY05	445,000						
LESS ADVANCE PROCUREMENT FY06	200,874	456,520					
LESS ADVANCE PROCUREMENT FY07		210,795	462,931				
LESS ADVANCE PROCUREMENT FY08			293,043	474,749	513,884		
LESS ADVANCE PROCUREMENT FY09				235,776	563,000		
LESS ADVANCE PROCUREMENT FY10					432,400	914,000	
LESS ADVANCE PROCUREMENT FY11						498,961	932,000
LESS ADVANCE PROCUREMENT FY12							473,115
LESS EOQ FY04	63,294	63,294					
LESS EOQ FY05	77,872	79,676					
LESS EOQ FY06	49,418	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
NET P-1 LINE ITEM	1,767,976	1,773,996	2,100,747	1,958,118	3,411,398	3,221,314	3,217,601

### P-5B EXHIBIT

FY2013 Presidents Budget Submission

February 2012 BLI: 2013

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

Fiscal Year: 2012/2013 Ship Type: VIRGINIA CLASS

CLASSIFICATION: UNCLASSIFIED

I.	Design Schedule: Issue Date for TLR Issue Date for TLS Preliminary Design Contract Design Detail Design Request for Proposals	Start/Issue N/A N/A Oct-93 Oct-94 Jan-96 N/A		Complete/Response N/A N/A Sep-95 Sep-96 Jun-04 N/A	Reissue Complete/Response
	Design Agent	Electric Boat			
II.	Classification of Cost Estimate	C	;		
III.	Basic Construction/Conversion  A. Award Date		FY2012 Dec-08	<u>FY2013</u> Dec-08	
	<ul><li>B. Contract Type</li><li>C. Request for Proposals:</li></ul>		FPI	FPI	Multi Year Procurement with EOQ.
	Start/Issue: Complete/Response:		Feb-08 May-08	Feb-08 May-08	
IV.	Escalation				
	Base Date		N/A	N/A	
	Escalation Target Date		N/A	N/A	
	Escalation Termination Date		N/A	N/A	
	Escalation Requirement (\$K)		N/A	N/A	
	Labor/Material Split		N/A	N/A	
	Allowable Overhead Rate		N/A	N/A	
V.	Other Basic (Reserves/Miscellaneous)	<u> </u>	mount	<u>Amount</u>	
	Item		N/A	N/A	

# SHIPBUILDING AND CONVERSION, NAVY SHIP PRODUCTION SCHEDULE

EXHIBIT P-27 February 2012 FY2013 Presidents Budget Submission

BLI: 2013

SHIP TYPE	SHIPBUILDER	FISCAL YEAR AUTHORIZED	CONTRACT AWARD	START OF CONSTRUCTION	DELIVERY DATE
SSN782	EB/NNS	07	Jan-04	Feb-07	Apr-13
SSN783	EB/NNS	08	Jan-04	Feb-08	Apr-14
SSN784	EB/NNS	09	Dec-08	Mar-09	Aug-14
SSN785	EB/NNS	10	Dec-08	Mar-10	Aug-15
SSN786	EB/NNS	11	Dec-08	Mar-11	Aug-16
SSN787	EB/NNS	11	Dec-08	Sep-11	Feb-17
SSN788	EB/NNS	12	Dec-08	Mar-12	Aug-17
SSN789	EB/NNS	12	Dec-08	Sep-12	Feb-18
SSN790	EB/NNS	13	Dec-08	Mar-13	Aug-18
SSN791	EB/NNS	13	Dec-08	Sep-13	Feb-19
SSN792	TBD	14	TBD	TBD	TBD
SSN793	TBD	15	TBD	TBD	TBD
SSN794	TBD	15	TBD	TBD	TBD
SSN795	TBD	16	TBD	TBD	TBD
SSN796	TBD	16	TBD	TBD	TBD
SSN797	TBD	17	TBD	TBD	TBD
SSN798	TBD	17	TBD	TBD	TBD

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

P-8A EXHIBIT FY2013 Presidents Budget Submission February 2012 BLI: 2013

CLASSIFICATION: UNCLASSIFIED

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

Ship Type:

VIRGINIA CLASS FY11 FY12 FY13

	QTY TOTAL COST 2	QTY TOTAL COST 2	QTY TOTAL COST 2
ELECTRONICS EQUIPMENT a. P-35 Items			
Sonar, Combat Control & Architecture	\$194,530	\$197,307	\$201,254
2. ESM	\$57,952	\$53,896	\$54,974
3. Photonics Masts	\$38,978	\$36,250	\$36,975
4. UMMs	\$20,517	\$20,672	\$21,085
5. ECS Recurring	\$48,998	\$48,902	\$49,880
Subtotal	\$360,975	\$357,027	\$364,168
b. Major Items			
System Level Activities	\$67,772	\$40,109	\$40,912
2. AN/BPS-16	\$11,494	\$11,112	\$11,334
3. Navigation	\$6,714	\$6,311	\$6,437
4. ECS Non-Recurring	\$8,051	\$0	\$0
5. CWITT	\$40,904	\$41,040	\$41,860
6. NPES SE&I	\$31,150	\$32,117	\$32,759
Subtotal	\$166,085	\$130,689	\$133,302
c. Other Electronics			
Misc Electronics	\$2,157	\$2,231	\$2,276
TOTAL ELECTRONICS	\$529,217	\$489,947	\$499,746

The Navy has set a cost reduction goal for the VIRGINIA Class program to achieve \$2 billion (FY05 dollars) per hull by FY12. System Level includes funding for Block III Cost Reduction Non-Recurring Engineering (NRE) efforts in FY09 through FY11. The funding is for non-recurring efforts designed to reduce recurring costs for ships in FY12 and beyond. The FY12/13 ships will be procured at the TI-14 hardware baseline so funding for Non-Recurring Engineering efforts would be required in FY09 through FY11.

ECS Non-Recurring costs for VIRGINIA Class Block III include efforts associated with required changes to adapt ECS to VIRGINIA Class and are spread over the FY09 through FY11 submarines.

Starting with VIRGINIA Class Submarine Block III (FY09 Ship), the Automated Identification System (AIS) has been added to the as-delivered baseline. The cost for AIS is in the Misc Electronics line.

P-35 ITEM:

SONAR, COMBAT, CONTROL & ARCHITECTURE

EXHIBIT P-35 FY2013 Presidents Budget Submission February 2012

BLI: 2013

### I. DESCRIPTION/CHARACTERISTICS/PURPOSE

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

Quantity of 1 per hull

### II. CURRENT FUNDING:

SHIP:	FY11	FY12	FY13
MAJOR HARDWARE	\$158,344	\$160,878	\$164,096
TECH ENGINEERING SERVICES	\$2,863	\$2,882	\$2,940
OTHER COSTS	\$33,323	\$33,547	\$34,218
TOTAL	\$194,530	\$197,307	\$201,254

### III. CONTRACT DATA:

PROGRAM YEAR	SHIP TYPE	CONTRACTOR	QTY	HARDWARE UNIT COST	CONTRACT AWARD DATE	CONTRACT TYPE	NEW / OPTION
11	SSN786 / 787	LMMSS	2 Shipsets	\$43,946	Dec-10	SS/CPIF	Option
12	SSN788 / 789	LMMSS	2 Shipsets	\$43,892	Jun-12	C/CPIF	New
13	SSN790 / 791	LMMSS	2 Shipsets	\$44,857	Jan-13	C/CPIF	Option

### IV. DELIVERY DATA:

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

### V. COMPETITION/SECOND SOURCE INITIATIVES:

Starting in FY12, Sonar and Combat Control / Architecture subsystems will be procured via competitive contracts.

P-35 ITEM:

ELECTRONIC SUPPORT MEASURES SUBSYSTEM

FY2013 Presidents Budget Submission

February 2012

BLI: 2013

**EXHIBIT P-35** 

#### I. DESCRIPTION/CHARACTERISTICS/PURPOSE

The VIRGINIA Class Command, Control, Communications and Intelligence (C3I) System is the electronics suite which will provide required operational and warfighting capability for the Navy's newest attack submarine. The C3I System includes 15 subsystems (23 if all electronically interfaced subsystems are included) integrated by an overarching Architecture Subsystem. This P-35 covers the procurement requirements for the following: Electronic Support Measures subsystem Prime Contractor Furnished Equipment, and associated Government Furnished Equipment; technical data documentation; sparses; systems engineering services; computer program support; system test & evaluation; field engineering services; management support services; shipboard certification efforts; quality assurance and reliability/maintainability assurance 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:	FY11	FY12	FY13
MAJOR HARDWARE	\$43,944	\$40,868	\$41,686
TECH ENGINEERING SERVICES	\$2,463	\$2,291	\$2,336
OTHER COSTS	\$11,545	\$10,737	\$10,952
TOTAL	\$57,952	\$53,896	\$54,974

### III. CONTRACT DATA:

PROGRAM				HARDWARE	CONTRACT	CONTRACT	NEW / OPTION
YEAR	SHIP TYPE	CONTRACTOR	QTY	UNIT COST	AWARD DATE	TYPE	
11	SSN786 / 787	LM, Syracuse	2 Shipsets	\$21,972	Jun-11	SS / FFP	Option
12	SSN788 / 789	LM, Syracuse	2 Shipsets	\$20,434	Jun-12	SS / FFP	Option
13	SSN790 / 791	LM, Syracuse	2 Shipsets	\$20,843	Jun-13	SS / FFP	Option

### IV. DELIVERY DATA:

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

#### V. COMPETITION/SECOND SOURCE INITIATIVES:

P-35 ITEM:

PHOTONICS MAST

EXHIBIT P-35 FY2013 Presidents Budget Submission February 2012

### 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

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CONTRACTOR OF CONTRACTOR			
SHIP:	FY11	FY12	FY13
MAJOR HARDWARE	\$26,941	\$25,056	\$25,557
TECH ENGINEERING SERVICES	\$1,212	\$1,127	\$1,150
OTHER COSTS	\$10,825	\$10,067	\$10,268
TOTAL	\$38,978	\$36,250	\$36,975

### III. CONTRACT DATA:

PROGRAM				HARDWARE	CONTRACT	CONTRACT	NEW / OPTION
YEAR	SHIP TYPE	CONTRACTOR	QTY	UNIT COST	AWARD DATE	TYPE	
11	SSN786 / 787	Kollmorgen	2 Shipsets	\$13,471	Dec-10	SS / FFP	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

### IV. DELIVERY DATA:

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

### V. COMPETITION/SECOND SOURCE INITIATIVES:

P-35 ITEM:

UNIVERSAL MODULAR MAST

EXHIBIT P-35 FY2013 Presidents Budget Submission

February 2012

### I. DESCRIPTION/CHARACTERISTICS/PURPOSE

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

### Quantity of 1 per hull

#### II. CURRENT FUNDING:

SHIP:	FY11	FY12	FY13
MAJOR HARDWARE	\$14,924	\$15,404	\$15,712
TECH ENGINEERING SERVICES	\$2,715	\$2,557	\$2,608
OTHER COSTS	\$2,878	\$2,711	\$2,765
TOTAL	\$20.517	\$20,672	\$21.085
IOIAI	\$20.517	\$20.672	\$21.085

### III. CONTRACT DATA:

PROGRAM				HARDWARE	CONTRACT	CONTRACT	NEW / OPTION
YEAR	SHIP TYPE	CONTRACTOR	QTY	UNIT COST	AWARD DATE	TYPE	
11	SSN786 / 787	Kollmorgen	2 Shipsets	\$7,462	Oct-10	SS / FP	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

### IV. DELIVERY DATA:

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

### V. COMPETITION/SECOND SOURCE INITIATIVES:

P-35 ITEM:

EXTERIOR COMMUNICATION SYSTEM RECURRING

EXHIBIT P-35 FY2013 Presidents Budget Submission

> February 2012 BLI: 2013

### I. DESCRIPTION/CHARACTERISTICS/PURPOSE

The VIRGINIA Class Command, Control, Communications and Intelligence (C3I) System is the electronics suite which will provide required operational and warfighting capability for the Navy's newest attack submarine. The C3I System includes 15 subsystems (23 if all electronically interfaced subsystems are included) integrated by an overarching Architecture Subsystem. 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:	FY11	FY12	FY13
MAJOR HARDWARE	\$32,204	\$32,798	\$33,454
TECH ENGINEERING SERVICES	\$5,461	\$5,562	\$5,673
OTHER COSTS	\$11,333	\$10,542	\$10,753
TOTAL	\$48,998	\$48,902	\$49,880

### III. CONTRACT DATA:

PROGRAM				HARDWARE	CONTRACT	CONTRACT	NEW / OPTION
YEAR	SHIP TYPE	CONTRACTOR	QTY	UNIT COST	AWARD DATE	TYPE	
11	SSN786 / 787	Stanley Associates, North Charleston	2 Shipsets	\$16,102	Apr-11	Competitive/IDIQ	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

### IV. DELIVERY DATA:

		EARLIEST SHIP	MONTHS REQUIRED	PRODUCTION	REQUIRED
FY	SHIP TYPE	DELIVERY DATE	BEFORE DELIVERY	LEAD TIME	AWARD DATE
11	SSN786 / 787	Aug-16 / Feb-17	28	9	Jul-13 / Jan-14
12	SSN788 / 789	Aug-17 / Feb-18	28	9	Jul-14 / Jan-15
13	SSN790 / 791	Aug-18 / Feb-19	28	9	.lul-15 / .lan-16

V. COMPETITION/SECOND SOURCE INITIATIVES:

### P-8A EXHIBIT FY2013 Presidents Budget Submission February 2012 BLI: 2013

CLASSIFICATION: UNCLASSIFIED

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

Ship Type:

VIRGINIA CLASS FY11 FY12 FY13

HM&E EQUIPMENT	QTY TOTAL COST 2	QTY TOTAL COST	QTY TOTAL COST 2
a. P-35 Items			
Propulsor	\$67,326	\$68,662	\$70,378
b. Major Items			
1. CSA MK2	\$2,960	\$2,992	\$3,068
c. Other			
HM&E Installation and testing	\$18,398	\$17,780	\$18,136
2. T&E	\$8,970	\$8,668	\$8,840
	. ,		
SUPSHIP responsible material	\$2,084	\$2,014	\$2,054
Subtotal	\$29,452	\$28,462	\$29,030
TOTAL HM&E	\$99,738	\$100,116	\$102,476

P-35

ITEM: PROPULSOR

EXHIBIT P-35
FY2013 Presidents Budget Submission
February 2012
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:	FY11	FY12	FY13
MAJOR HARDWARE	57,322	58,438	59,898
TECH ENGINEERING SERVICES	10,004	10,224	10,480
OTHER COSTS			
TOTAL	67,326	68,662	70,378

### III. CONTRACT DATA:

PROGRAM				HARDWARE	CONTRACT	CONTRACT	
YEAR	SHIP TYPE	CONTRACTOR	QTY	UNIT COST	AWARD DATE	TYPE	NEW / OPTION
11	SSN786 / 787	BAE Systems	2 Shipsets	16,550	May-10	FP	Option
12	SSN788 / 789	BAE Systems	2 Shipsets	17,245	May-11	FP	Option
13	SSN790 / 791	BAE Systems	2 Shipsets	17,850	Mar-12	FP	Option

#### IV. DELIVERY DATA:

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

### V. COMPETITION/SECOND SOURCE INITIATIVES:

Exhibit P-10, Advance Procurement Requirements Analysis (Page 1 - Funding)											FY2013 Presiden	nts Budget Submission February 2012
Appropriation (Treasury)Code/CC/BA/BSA/Item Control Number 1711 Shipbuilding and Conversion, Navy / BA 02 / BLI 2013	FY	2013 Presidents Bu	udget Submissior	ı				P-1 Line Item N VIRGINIA CLAS	omenclature SS SUBMARINE			. 05/04/7 20/1
Weapon System VIRGINIA Class Submarines				First System (B	Y1) Award Date	Various		First System (B)	Y1) Completion [	Date	Various	
(\$ in Millions) BLI: 201300	PLT	When Reg'd	Prior Years	FY11	FY12	FY13	FY14	FY15	FY16	FY17	To Complete	Total
NUCLEAR PROPULSION PLANT EQUIPMENT (1)	30-72	Various	7,061.2	896.0	910.2	535.0	1,035.0	1,066.0	1,109.0	1,159.0	660.0	14,431.4
ELECTRONICS EQUIPMENT (2)	37-43	Various	175.0	24.4	24.9	13.0	26.6	27.2	27.8	28.4	58.9	406.2
NON-NUCLEAR PROPULSION PLANT EQUIPMENT (3) Propulsor	36	Various	687.9 206.8	32.0 32.0	34.1 34.1	19.0 19.0	40.8 40.8	41.3 41.3	43.0 43.0	44.8 44.8	71.1 71.1	1,013.9 532.8
Various (Heat Exchanger; Main Condensers; Main Propulsion Complex)	18-66	Various	481.1									481.1
LONG LEAD-TIME CFE (4)	24 - 42	Various	2,486.7	478.6	492.2	307.9	605.9	589.9	587.5	684.9	1,034.2	7,267.7
DETAIL DESIGN/DESIGN TRANSFER/SHIPBUILDER INTEGRATION			480.6								.0	480.6
OTHER (5)			3.2								.0	3.2
EOQ (6)			1,786.0	250.9			759.8	719.8	300.0		.0	3,816.5
Total AP			12,680.6	1,681.9	1,461.4	874.9	2,468.1	2,444.2	2,067.3	1,917.1	1,824.2	27,419.6

\*This Advance Procurement funding profile differs from the profile in the FY 2012 President's Budget request after delaying the procurement of 1 submarine from FY 2014 to FY 2018. The FY 2013 funding level assumes that the amount appropriated in FY 2012 is available to procure LLTM for the first FY15 submarine.

### 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 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.

Note: VIRGINIA class 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 time times require purchase early in order to reduce the overall procurement lead-time of the major end item.

Exhibit P-10, Advance Procurement Funding

Exhibit P-10, Advance Procurement Requirements Analysis	FY2013 Presidents Budget Submission						
(Page 2 - Budget Justification)						February 2012	
Appropriation (Treasury)Code/CC/BA/SBA/Item Control Number				Weapon System		P-1 Line Item Nomenclature VIRGINIA CLASS	
1711 Shipbuilding and Conversion, Navy / BA 02 / BLI 2013				VIRGINIA Class Submarin	es		
(TOA, \$ in Millions)			FY12			FY13	
			Contract	Total		Contract	Total
	PLT	Qty	Forecast Date	Cost Request	Qty	Forecast Date	Cost Request
BLI: 201300 End Item							
NUCLEAR PROPULSION PLANT EQUIPMENT (1)	30-72	2 Shipsets	1st Qtr	910.2	1 Shipset	1st Qtr	535.0
ELECTRONICS EQUIPMENT (2)	37-43	2 Shipsets	various	24.9	1 Shipset	various	13.0
PROPULSOR (3)	36	2 Shipsets	various	34.1	1 Shipset	various	19.0
LONG LEAD-TIME CFE (4)	24 - 42	2 Shipsets	various	492.2	1 Shipset	various	307.9
EOQ				.0			.0
			<del> </del>				
Total AP			+	1,461.4			874.9
Description:							

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

Note: VIRGINIA class 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 time times require purchase early in order to reduce the overall procurement lead-time of the major end item.

Exhibit MYP-1, Multiyear Procurement Criteria	Date: February 2012	
Appropriation / Budget Activity: 1611 Shipbuilding and Conversion - Navy / Other Warships (BA-02)	P-1 Item Nomenclature: VIRGINIA Class Submarine	

### 1. Multiyear Procurement Description:

The VIRGINIA Class Submarine Program deploys a more affordable nuclear-powered attack submarine with multi-mission capability, SEAWOLF or better stealth, and enhanced performance in littoral areas. The program is currently executing a Multi-Year Procurement (MYP) contract with a build rate of one ship per year in FY10 and two ships per year in FY11 through FY13. The Future Years Defense Plan (FYDP) in the FY13 Authorization Act assumes enactment of the FY14 Appropriations Act with MYP authority and includes a nine-ship, five-year MYP strategy with a build profile of one ship in FY14 and two per year from FY15 through FY18. Due to complexity of shipbuilding contracts, much of the proposal development, as well as negotiations between the Department of the Navy (DON) and the shipbuilders, will take place in FY2013. Receiving MYP authority in FY13 will help facilitate negotiation efforts. In order to achieve the cost savings afforded through this strategy, Economic Order Quantity (EOQ) funding for the twentieth through the twenty-seventh ships is required in FY14-FY16 in the amounts of \$760M, \$720M, and \$300M, respectively. The Navy's ability to sustain its \$2 billion (FY05 dollars) per hull cost reduction goal for the program is predicated on MYP contracting and sustained build rate of two ships per year.

The Congressionally mandated shipbuilder teaming arrangement between General Dynamics Electric Boat (GDEB) and Huntington Ingalls Industries Newport News Shipbuilding (HII-NNS) is assumed to continue for the duration of the MYP.

This submission is intended to satisfy congressional notification requirements.

## 2. Benefit to the Government:

### a. Substantial Savings:

The overall savings are achieved through lowered hardware costs resulting from escalation/inflation avoidance, large lot procurement of shipbuilder material and major equipment, improved manufacturing efficiencies, and lower production man-hours and overhead costs. Achieving these savings requires funding stability.

### b. Stability of Requirement:

The VIRGINIA Class program is an affordable replacement for retiring LOS ANGELES Class attack submarines. The VIRGINIA Class is optimized to be a more capable submarine meeting both the peacetime and warfighting requirements of the 21st century. The VIRGINIA Class is a 30 submarine program, of which fourteen ships are either delivered or under construction and four more are under contract as part of the FY09-FY13 MYP contract currently being executed. All EOQ funds have been received to procure MYP items for ships under the Block III contract. In addition, advance procurement funding for nuclear and long lead items has been received for the eleventh through the eighteenth ships. EOQ material buys, Contractor Furnished Equipment (CFE) procurements and combat system integration and test requirements were approved, funded, and placed in FY09-FY11. EOQ in FY14-FY16 is required for future similar purchases under the FY14-FY18 MYP contract.

### c. Stability of Funding:

The VIRGINIA Class MYP is a critical component of the Navy's FYDP. The VIRGINIA Class is one of the Navy's largest ship procurement programs. The Department is committed to fund this MYP at the required level throughout the contract period, as it is the most economical means of meeting the attack submarine requirement cited

P-1 Shopping List - Item No 01-2013

Exhibit MYP-1, Multiyear Procurement Criteria	Date: February 2012	
Appropriation / Budget Activity:	P-1 Item Nomenclature:	
1611 Shipbuilding and Conversion - Navy / Other Warships (BA-02)	VIRGINIA Class Submarine	
above.		

### d. Stable Configuration:

The VIRGINIA Class program technology is mature. The design, including supporting technical logistics products, is complete and stable. The Integrated Production Process Development (IPPD) application utilizing computer-aided design identified potential construction problems before construction efforts began, resulting in the most successful ship or submarine design program in the Navy's history. Eight ships have been delivered, six are under construction, and four more are under contract. The first four ships of the Block III contract, NORTH DAKOTA (SSN 784), JOHN WARNER (SSN 785), SSN 786 and SSN 787 are under construction. The program has begun the increased production to two ships per year in FY11 with the construction start of SSN 787 on 2 September 2011. The VIRGINIA class submarine program reached a significant benchmark with the approval of Milestone III, authorization of Full Rate Production, and the declaration of Full Operational Capability in September 2010. USS VIRGINIA (SSN 774) started Extended Dry-docking Selected Restricted Availability (EDSRA) on 1 October 2010.

### e. Realistic Cost Estimate:

The cost estimates shown in these exhibits are based on historical shipbuilding and submarine program experience; the IPPD contract structure and actual performance on the first submarines under construction. There is a high degree of confidence the VIRGINIA Class program can achieve the projected savings and complete the ships procured under the MYP within the funding identified.

In support of the Milestone III Full Rate Production decision the Navy prepared a Service Cost Position (SCP), which was approved by the Cost Review Board on 14 June 2010. The Office of the Secretary of Defense Cost Assessment and Program Evaluation (CAPE) also completed an Independent Cost Estimate (ICE). The total acquisition cost delta between the SCP and the ICE was \$80 million in the FYDP (FY12-16). Taken together, the similarity in the CAPE and SCP estimates and the historical program experience, demonstrates the program has realistic cost estimates.

## f. National Security:

Production of VIRGINIA Class submarines is needed to maintain the required attack submarine fleet force level. The Navy's MYP strategy as discussed herein is the most cost-effective way to meet national security requirements.

## 3. Source of Savings:

Manufacturing – Construction schedule reduction to 60 months will result in savings identified in the table above. This is dependent on material in-yard-need dates being met and process improvements. EOQ funds allow for shipbuilders to ensure that material is available to support a shortened construction span. Shipbuilder studies indicate that traditional one-year Advance Procurement (AP) will not be sufficient to ensure in-yard-need dates are met for a reduced construction span build plan. Initiatives such as Lean and Capital Expenditures (CAPEX) support the process improvements needed to realize a 60 month construction schedule.

Other/Workload Savings – Under an MYP contract, the shipbuilders are assured of the build rate over the five years of the contract (FY14-18) which reduces risk of workload

P-1 Shopping List - Item No 01-2013

Exhibit MYP-1, Multiyear Procurement Criteria	Date: February 2012	
Appropriation / Budget Activity:	P-1 Item Nomenclature:	
1611 Shipbuilding and Conversion - Navy / Other Warships (BA-02)		
	11.34775	

fluctuations. Reduced risk of workload fluctuation is estimated to reduce costs for a nine-ship MYP contract compared to a standard contract with options.

Material – Material savings has two components: vendor procurement and inflation adjustment. The CFE portion of the material savings is based on an extrapolation of the vendor studies conducted in support of the FY04-08 and FY09-13 MYP contracts. The commitment of a MYP contract allows the shipbuilders to place purchase orders for all nine shipsets of major components and meet vendor cash flow requirements with EOQ funds. The Government Furnished Equipment (GFE) savings is based on the savings achieved in the FY04-08 and FY09-13 MYP contracts.

Vendor Procurement – The MYP permits EOQ procurement, which reduces the cost of subcontractor effort, material and components. The long-term commitment offered by MYP stabilizes the shipbuilder and GFE industrial base resulting in:

- increased competition through market entry attractiveness
- shipyard negotiating leverage with vendor base
- less disruption of vendor delivery schedules
- stable employment levels and retention of skilled labor

Inflation Adjustment – These savings result from buying out-year ship material and component requirements earlier as part of EOQ purchases. The avoidance of the OSD portion of the inflation (without vendor base adjustment) indicates savings attributed to inflation.

	<b>\$</b> i	<u>in Millions</u>
Inflation	\$	1,225.000
Vendor Procurement	\$	2,163.000
Manufacturing	\$	404.000
Design/Engineering	\$	0.000
Tool Design	\$	0.000
Support Equipment	\$	0.000
Other	\$	696.000
Workload Savings	\$	0.000
Total	\$	4,488.000

## 4. Advantages of the MYP:

The Navy achieves substantially reduced costs from this strategy of a nine-ship, five-year MYP with EOQ material procurement. The Navy, the shipbuilders, and the industrial base all benefit from reduced hardware costs due to inflation avoidance, large lot vendor procurement of shipbuilder material and major equipment, and improved procurement stability.

Exhibit MYP-1, Multiyear Procurement Criteria	Date: February 2012	
Appropriation / Budget Activity: 1611 Shipbuilding and Conversion - Navy / Other Warships (BA-02)	P-1 Item Nomenclature: VIRGINIA Class Submarine	

## 5. Impact on Defense Industrial Base:

Market Entry Attractiveness – The manufacture of submarine equipment represents a niche market for many suppliers. Profiles of single or partial submarine acquisitions per year have historically prevented suppliers from entering the marketplace due to the inability to confidently project recovery of start-up costs. The FY14-FY18 MYP contracting strategy will solidify the Navy's commitment to a stable submarine production program.

Enhanced Investment - The FY14-FY18 MYP provides a firm business base to facilitate production planning at VIRGINIA Class shipbuilders and second and third-tier vendors. Both VIRGINIA Class shipbuilders have achieved significant productivity improvements through the VIRGINIA Class Submarine's Integrated Production Process Development (IPPD, Design-Build) contract. The FY14-FY18 MYP contract will provide sufficient stability to justify capital investments, similar to the CAPEX investments used in the Block II contract, needed to continue productivity improvements at both yards and within the vendor base.

Improvement in Skill Levels - The MYP allows the shipbuilders greater flexibility in scheduling and workload planning. This enables the shipbuilder to achieve a more stable prime and subcontractor workforce, resulting in enhanced productivity, lower training costs and attractive job opportunities for new employees. The manufacture of submarine equipment requires a labor force that possesses unique skill sets not routinely found in the shipbuilding industry. Use of MYP contracting should result in higher retention rates and increased skill levels, while enhancing productivity in both the shipbuilders and in the vendor base. The potential benefits are reflected in the MYP savings identified in these exhibits.

Training Program – Since the MYP allows the shipbuilders greater flexibility in scheduling and workload planning, the shipbuilders should realize increased workforce stability. This should improve worker retention and skill levels and reduce hiring costs and training requirements. Where training is required, the benefits (i.e., productivity improvements, new or improved skill levels) are potentially greater when compared to an annual procurement environment. Apprenticeship and trainee programs become more cost effective for a larger, more stable MYP program. Additionally, multiyear contracting should enable contractors to offer greater job security to employees, particularly at the subcontractor or vendor level.

Use of Multiyear Contracts for Vendor Equipment - The government will enter into a single multiyear contract with the teamed shipbuilders: Electric Boat Corporation, a General Dynamics Company, and Newport News Shipbuilding, a division of Huntington Industries. This will decrease the shipbuilders' risk in entering into multiyear contracts with their vendors. Multiyear contracting authority will also create opportunities for the Navy to enter multiyear equipment contracts for government furnished equipment. Preliminary estimates indicate the Navy will be able to achieve equivalent savings for government furnished equipment to those expected by the shipbuilder.

Increased Production Capacity – The production rates during the multiyear period are executable. Only minor increases in production capacity for jigs and fixtures is anticipated or required. Delivery of submarines under the FY14-FY18 MYP is geared toward stabilizing workload and reducing overall ship end cost.

P-1 Shopping List - Item No 01-2013

## **6. Multiyear Procurement Summary:**

	<u>Annual</u>	<u>MultiYear</u>
	<b>Contracts</b>	<b>Contract</b>
Quantity	9	9
Total Contract Price	\$ 31,096.739	\$ 26,609.157
Cancellation Ceiling (highest point)		
Funded		\$ 0.000
Unfunded		\$ 0.000
\$ Cost Avoidance Over Annual		\$ 4,487.582
% Cost Avoidance Over Annual		14.4 %

	ding Plan (NA\	· · <i>)</i>				Date		bruary 20								
PROCUREMENT						P-1 l	_ine Iter	n Nomen	clature	- VIRGIN	VIA Clas	ss Subma	arine (N	AVY)		
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	TOTAL
Procurement Quantity			1	2	2	2	2									
Annual Procurement																
Gross Cost			3312.1	6461.2	6820.4	7031.0	7472.0									31096.
Less PY Adv Procurement			(858.4)	(1669.6)	(1768.5)	(1829.7)	(1909.2)									(8035.
Net Procurement (= P-1)			2453.7	4791.6	5051.9	5201.3	5562.8									23061.
Plus CY Adv Procurement	988.2	915.6	1744.0	1803.1	1881.5	703.2										8035.
Weapon System Cost	988.2	915.6	4197.7	6594.7	6933.3	5904.5	5562.8									31096.
Multiyear Procurement																
Gross Cost (P-1)			2973.6	5669.7	5783.2	5940.0	6242.6									26609.
Less PY Adv Procurement			(835.1)	(1831.6)	(2123.8)		(2423.8)									(9542.
Net Procurement (= P-1)			2138.6	3838.1	3659.4	3611.4	3818.8									17066.
Advance Procurement																
'For FY14	559.2	275.8														835.
'For FY15	429.0	599.1	803.5													1831.
'For FY16			1284.8	839.0												2123.
'For FY17			189.9	1365.4	773.3											2328.
'For FY18			189.9	239.8	1294.0	700.1										2423.
Plus CY Adv Procurement	988.2	874.9	2468.1	2444.2	2,067.3	700.1										9542.
Weapon System Cost	988.2	874.9	4606.6	6282.4	5726.8	4311.4	3818.8									26609.
MultiyearSavings (\$)		40.7	(409.0)	312.3	1206.6	1593.0	1743.9									4487.
Multiyear Savings (%) (total only)																14.4
Cancellation Ceiling, Funded																
Cancellation Ceiling, Unfunded																
OUTLAYS																
Annual	58.1	253.5	655.8	1609.8	3001.3	4229.2	5006.4	5291.5	4356.8	3067.0	2017.1	1087.1	285.6	174.3	3.1	31096.
Multiyear	58.1	251.1	1386.7	2188.8	2917.8	3531.8	4006.0	4112.9	3306.8	2286.2	1464.6	772.0	204.4	119.8	2.2	
Savings		2.4	(730.9)	(579.0)	83.5	697.5	1000.5	1178.5	1050.1	780.8	552.5	315.1	81.2	54.5	1.0	

<sup>\*</sup> Numbers may not add due to rounding.

Exhibit MYP-3 Total Contract Fund	aing Pian (NA)	/Y)				Date		bruary 20								
PROCUREMENT						P-1 l	_ine Iter	n Nomen	clature	- VIRGIN	VIA Clas	ss Subma	arine (N	AVY)		
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	TOTAL
Procurement Quantity			1	2	2	2	2									
Annual Procurement																
Gross Cost			3312.1	6461.2	6820.4	7031.0	7472.0									31096.
Less PY Adv Procurement			(858.4)	(1669.6)	(1768.5)	(1829.7)	(1909.2)									(8035.
Net Procurement (= P-1)			2453.7	4791.6	5051.9	5201.3	5562.8									23061.
Plus CY Adv Procurement	988.2	915.6	1744.0	1803.1	1881.5	703.2										8035.
Contract Price	988.2	915.6	4197.7	6594.7	6933.3	5904.5	5562.8									31096.
Multiyear Procurement																
Gross Cost (P-1)			2973.6	5669.7	5783.2	5940.0	6242.6									26609.
Less PY Adv Procurement			(835.1)	(1831.6)	(2123.8)		(2423.8)									(9542.
Net Procurement (= P-1)			2138.6	3838.1	3659.4	3611.4	3818.8									17066.
Advance Procurement																
'For FY14	559.2	275.8														835.
'For FY15	429.0	599.1	803.5													1831.
'For FY16			1284.8	839.0												2123.
'For FY17			189.9	1365.4	773.3											2328.
'For FY18			189.9	239.8	1294.0	700.1										2423.
Plus CY Adv Procurement	988.2	874.9	2468.1	2444.2	2,067.3	700.1										9542.
Contract Price	988.2	874.9	4606.6	6282.4	5726.8	4311.4	3818.8									26609.
MultiyearSavings (\$)		40.7	(409.0)	312.3	1206.6	1593.0	1743.9									4487.
Multiyear Savings (%) (total only)																14.4
Cancellation Ceiling, Funded																
Cancellation Ceiling, Unfunded																
OUTLAYS																
Annual	58.1	253.5	655.8	1609.8	3001.3	4229.2	5006.4	5291.5	4356.8	3067.0	2017.1	1087.1	285.6	174.3	3.1	31096.
Multiyear	58.1	251.1	1386.7	2188.8	2917.8	3531.8	4006.0	4112.9	3306.8	2286.2	1464.6	772.0	204.4	119.8	2.2	26609.
Savings		2.4	(730.9)	(579.0)	83.5	697.5	1000.5	1178.5	1050.1	780.8	552.5	315.1	81.2	54.5	1.0	

<sup>\*</sup> Numbers may not add due to rounding.

Exhibit MYP-4 Present Value Analysis (NAVY)							Fe	bruary 20	)12								
PROCUREMENT						P-1 I	P-1 Line Item Nomenclature - VIRGINIA Class Submarine (NAVY)										
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	TOTAL	
Annual Proposal																	
Then Year Cost	58.1	253.5	655.8	1609.8	3001.3	4229.2	5006.4	5291.5	4356.8	3067.0	2017.1	1087.1	285.6	174.3	3.1	31096.7	
Constant Year Cost	58.1	249.2	633.7	1528.7	2800.1	3876.5	4508.4	4681.5	3787.0	2619.1	1692.3	896.0	231.3	138.7	2.5	27703.1	
Present Value	57.7	244.1	612.1	1456.1	2630.3	3591.1	4118.8	4217.9	3364.9	2295.0	1462.4	763.6	194.4	115.0	2.0	25125.5	
Multiyear Proposal																	
Then Year Cost	58.1	251.1	1386.7	2188.8	2917.8	3531.8	4006.0	4112.9	3306.8	2,286.2	1464.6	772.0	204.4	119.8	2.2	26609.2	
Constant Year Cost	58.1	246.9	1340.1	2078.5	2722.2	3237.2	3607.4	3638.8	2874.2	1952.3	1228.7	636.3	165.5	95.3	1.7	23883.5	
Present Value	57.7	241.8	1294.3	1979.8	2557.1	2998.9	3295.7	3278.5	2553.9	1710.8	1061.8	542.3	139.1	79.0	1.4	21792.2	
Difference																	
Then Year Cost		2.4	(730.9)	(579.0)	83.5	697.5	1000.5	1178.5	1050.1	780.8	552.5	315.1	81.2	54.5	1.0	4487.6	
Constant Year Cost		2.4	(706.3)	(549.9)	77.9	639.3	900.9	1042.7	912.7	666.8	463.6	259.7	65.8	43.4	0.8	3819.6	
Present Value		2.3	(682.2)	(523.7)	73.2	592.2	823.1	939.4	811.0	584.3	400.6	221.3	55.3	35.9	0.6	3333.3	
Multiyear Savings (\$)		2.4	(730.9)	(579.0)	83.5	697.5	1000.5	1178.5	1050.1	780.8	552.5	315.1	81.2	54.5	1.0	4487.6	

**NOTE:** MYP Procurement Period is 15 years. Real Interest Rate for MYP Procurement Period of 15 years is 1.01400000%. (OMB Circular No. A-94, February 3, 2011)

<sup>\*</sup> Numbers may not add due to rounding.

	BUDGET ITEM JUSTIFICATION FY 2013 President's Bu						DATE: February 2012							
SHIPBUILDING AND CONVERSION, NAVY/BA 2 Other Warships						P-1 LINE ITEM NOMENCLATURE CVN REFUELING OVERHAULS BLI: 2086								
(Dollars in Millions)	PRIOR YR	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	TO COMP	TOTAL PROG				
QUANTITY	4	0	0	1	0	0	1	0	1					
End Cost	13,464.1	0.0	0.0	4,515.7	0.0	0.0	4,986.0	0.0	6,092.3	29,058				
Less Advance Procurement	3,318.0	0.0	0.0	1,153.9	0.0	0.0	858.0	0.0	1,622.3	6,952				
Less Transfer	128.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	128				
Less Subsequent Year FF	5,017.8	0.0	0.0	1,748.4	0.0	0.0	2,044.2	0.0	4,470.0	13,280				
Plus Subsequent Year FF	2,509.3	1,242.1	0.0	0.0	1,748.4	0.0	0.0	2,044.2	0.0	7,544				
Full Funding TOA	7,637.6	1,242.1	0.0	1,613.4	1,748.4	0.0	2,083.8	2,044.2	0.0	16,369				
Plus Advance Procurement	2,689.1	405.8	529.7	70.0	246.0	581.2	217.8	644.9	0.0	5,384				
Plus Cost to Complete	0.0	0.0	0.0	135.0	0.0	0.0	0.0	0.0	0.0	135				
Total Obligational Authority	10,326.7	1,647.9	529.7	1,818.4	1,994.4	581.2	2,301.6	2,689.1	0.0	21,889				
Plus Outfitting / Plus Post Delivery	23.9	32.6	16.5	44.8	31.1	30.0	81.3	82.7	62.3	405				
Total	10,350.6	1,680.5	546.3	1,863.2	2,025.5	611.2	2,383.0	2,771.8	62.3	22,294				
Unit Cost ( Ave. End Cost)	3,366.0	0.0	0.0	4,515.7	0.0	0.0	4,986.0	0.0	6,092.3	4,151				
MISSION:  To support and operate aircraft to engage in attacks on targets afloat and ashore reactors and repair and ungrading the main propulsion equipments will provide for						of the								

eactors 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
Overall Length	1092'
Max Beam	134'
Displacement	91,878 TONS
Draft	38.7'
	51/10
Production Status	FY13
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
l .	

Armament

FY13 CVN 72: FY13 CVN 72:
NSSMS MK 57 Mods ESSM Upgrade
AN/SPS-48G(V)1 ROAR
AN/SPS-49A(V)1 Radar
AN/SPQ-98 Radar
AN/SQQ-34C(V) Carrier Tactical Support Center (CV-TSC)
LAN Radar Display & Distribution (LRADDS)
EW Decoy Launching System

Major Electronics:

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

APPROPRIATION: SHIPBUILDING AND CONVERSION, NAVY

P-5 EXHIBIT FY 2013 President's Budget February 2012

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

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

	FY 20	13
ELEMENT OF COST	QTY	COST
PLAN COSTS	1	42,745
BASIC CONST/CONVERSION		3,710,163
ELECTRONICS		278,285
PROPULSION EQUIPMENT		137,650
HM&E		98,089
OTHER COST		95,160
ORDNANCE		153,624
TOTAL SHIP ESTIMATE		4,515,716
LESS ADVANCE PROCUREMENT FY09		21,325
LESS ADVANCE PROCUREMENT FY10		211,167
LESS ADVANCE PROCUREMENT FY11		405,783
LESS ADVANCE PROCUREMENT FY12		515,644
LESS SUBSEQUENT FULL FUNDING FY14		1,748,405
NET P-1 LINE ITEM:		1,613,392

## SHIPBUILDING AND CONVERSION, NAVY

SHIP PRODUCTION SCHEDULE

**EXHIBIT P-27** 

FY 2013 President's Budget

DATE:

February 2012

SHIF	TYPE HU	JLL NUMBER	SHIPBUILDER	FISCAL YEAR AUTHORIZED	CONTRACT AWARD	START OF CONSTRUCTION	DELIVERY DATE
CV	N 71	71	NEWPORT NEWS SHIPBUILDING	09	AUG-09	AUG-09	JUN-13
CV	N 72	72	NEWPORT NEWS SHIPBUILDING	13	FEB-13	FEB-13	OCT-16
CV	N 73	73	NEWPORT NEWS SHIPBUILDING	16	AUG-16	AUG-16	MAY-20

CLASSIFICATION: UNCLASSIFIED P-8A EXHIBIT

# FY 2013 President's Budget

February 2012

## 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	2013
	<u>QTY</u>	COST
ELECTRONICS		
a. P-35 Items		
C4ISR	1	89,713
INTEGRATED COMMUNICATION NETWORK (ICAN / DDCN & IVCN)	1	50,479
SSDS MK2	1	47,668
COOPERATIVE ENGAGEMENT CAPABILITY (CEC)	1	9,664
NAVAL STRIKE WARFARE PLANNING CENTER (NSWPC)	1	8,570
AN/SPN-46 OVERHAUL/UPGRADE	1	8,545
IFF INTERROGATOR SET (AN/UPX-29)	1	8,570
BATTLE FORCE TACTICAL TRAINER (BFTT)	1	7,130
READY ROOM TRANSFORMATIONAL TECHNOLOGIES UPGRADE	1	3,256
JOINT PRECISION APPROACH AND LANDING SYSTEM (JPALS)	1	6,994
AN/SPN-41 REFURBISHMENT	1	3,535
Subtotal		244,124
b. Major Items		
AN/SPN-43C REFURBISHMENT	1	2,343
AN/SPN-41 REFURBISHMENT		
AN/SLQ-32 REFURBISHMENT	1	2,436
AN/TPX-42(V)15 UPGRADE	1	1,734
Subtotal		6,513
c. Other ELECTRONICS		
MISCELLANEOUS ELECTRONICS, TEST & CERTIFICATIONS		9,848
CARRIER AIR DEFENSE IMPROVEMENT PROGRAM (CADIP)	1	17,800
Subtotal		27,648
Total ELECTRONICS		278,285

CLASSIFICATION: UNCLASSIFIED P-8A EXHIBIT

# FY 2013 President's Budget

February 2012

## SHIPBUILDING AND CONVERSION, NAVY

Analysis of Ship Cost Estimates - Major Equipment

(Dollars in Thousands)

Ship Type: CVN-68 CLASS NUCLEAR REFUELING COMPLEX OVERHAUL (RCOH)		2013
	<u>QTY</u>	COST
ORDNANCE		
a. P-35 Items		
AVIATION EQUIPMENT & SUPPORT	1	42,360
NATO SEASPARROW MISSILE SYSTEM (NSSMS)	1	39,871
AN/SPS-48G (V1) ROAR	1	12,871
AN/SPS-49(V)5 UPGRADE/REPAIR	1	10,174
AN/SPQ-9B RADAR	1	10,878
ADVANCED SENSOR DISTRIBUTION SYSTEM (ASDS)	1	4,403
AN/SQQ-34C(V) CARRIER TACTICAL SUPPORT CENTER	1	5,902
MK38 MOD 2 GUN SYSTEM	1	7,275
EW DECOY LAUNCHING SYSTEM	1	4,553
Subtotal		138,287
b. Other ORDNANCE		
MISCELLANEOUS ORDNANCE, TEST & CERTIFICATIONS		15,496
Subtotal		15,496
Total ORDNANCE		153,783

CLASSIFICATION: UNCLASSIFIED P-8A EXHIBIT

# FY 2013 President's Budget

February 2012

# SHIPBUILDING AND CONVERSION, NAVY

Analysis of Ship Cost Estimates - Major Equipment

(Dollars in Thousands)

Ship Type: CVN-68 CLASS NUCLEAR REFUELING COMPLEX OVERHAUL (RCOH)		
	<u>QTY</u>	COST
HM&E		
a. P-35 Items		
LOW PRESSURE AIR PLANT (LPAP)	1	3,542
EMERGENCY ESCAPE BREATHING DEVICE (EEBD)	1	3,058
AFT CREW MESS	1	4,415
DECK EDGE AND HANGAR DIVISIONAL DOORS	1	5,458
WEAPONS ELEVATORS	1	5,477
AIRCRAFT ELEVATORS	1	10,865
AIR CONDITIONING (AC) PLANT	1	5,473
Subtotal		38,288
b. Major Items		
SECONDARY STEAM PLANT LESLIE PILOTS	1	1,102
CARRIER TRUNK SAFETY NET IMPROVEMENTS	1	1,503
OXYGEN / NITROGEN (O2N2) SYSTEM	1	2,785
TG AUTOMATIC VOLTAGE REGULATOR	1	1,967
VENDING IN A BOX	1	2,744
DISTILLING UNIT (DU) BRINE OVERBOAD PUMPS	1	2,150
MEDICAL FACILITY REQUIREMENTS	1	1,460
DRYER LAUNDRY REPLACEMENT	1	2,594
Subtotal		16,305
c. Other HM&E		
MISCELLANEOUS HM&E, ENGINEERING, TEST & CERTIFICATIONS		43,496
Subtotal		43,496
Total HM&E		98,089

#### SHIPBUILDING AND CONVERSION, NAVY

MAJOR SHIP COMPONENT FACT SHEET

(Dollars in Thousands)

P-35 EXHIBIT

FY 2013 President's Budget

February 2012

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 2013			
	QTY	COST		
Major Hardware	1	36,252		
Ancillary Equipment		2,169		
Technical Data and Documentation		874		
Spares		1,244		
Systems Engineering		11,238		
Technical Engineering Services		20,731		
Other Costs		17,205		
Engr/ILS/Mgmt Spt		0		
Total		89,713		

#### **III. CONTRACT DATA:**

PROGRAM	SHIP	PRIME	CONTRACT	AWARD	NEW		HARDWARE
<u>YEAR</u>	<u>TYPE</u>	<u>CONTRACTOR</u>	<u>TYPE</u>	<u>DATE</u>	/OPTION	QTY	<b>UNIT COST</b>
FY-13	CVN 72 RCOH	VARIOUS	VARIOUS	VAR		1 SHIPSET	36,252

#### **IV. DELIVERY DATE:**

PROGRAM	SHIP	EARLIEST SHIP	MONTHS REQUIRED	PRODUCTION	REQUIRED
<u>YEAR</u>	<u>TYPE</u>	<b>DELIVERY DATE</b>	BEFORE DELIVERY	<u>LEADTIME</u>	AWARD DATE
FY-13	CVN 72 RCOH	OCT-16	VARIOUS	VARIOUS	

#### V. COMPETITION/SECOND SOURCE INITIATIVES:

NONE

# SHIPBUILDING AND CONVERSION, NAVY

MAJOR SHIP COMPONENT FACT SHEET

(Dollars in Thousands)

P-35 EXHIBIT FY 2013 President's Budget February 2012

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

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 2	FY 2013		
	<u>QTY</u>	COST		
Major Hardware	1	816		
Technical Engineering Services		2,120		
Other Costs		320		
Total		3,256		

#### **III. CONTRACT DATA:**

PROGRAM	SHIP	PRIME	CONTRACT	AWARD	NEW		HARDWARE
YEAR	TYPE	CONTRACTOR	<u>TYPE</u>	DATE	/OPTION	<u>QTY</u>	UNIT COST
FY-13	CVN 72 RCOH	NAWCAD	WR	AUG-14		1 SHIPSET	816

# IV. DELIVERY DATE:

PROGRAM	SHIP	EARLIEST SHIP	MONTHS REQUIRED	PRODUCTION	REQUIRED
<u>YEAR</u>	<u>TYPE</u>	<b>DELIVERY DATE</b>	BEFORE DELIVERY	<b>LEADTIME</b>	AWARD DATE
FY-13	CVN 72 RCOH	OCT-16	15	6	JAN-15

## V. COMPETITION/SECOND SOURCE INITIATIVES:

# SHIPBUILDING AND CONVERSION, NAVY

MAJOR SHIP COMPONENT FACT SHEET

(Dollars in Thousands)

P-35 EXHIBIT

FY 2013 President's Budget

February 2012

Ship Type: CVN-68 CLASS NUCLEAR REFUELING COMPLEX OVERHAUL (RCOH) Equipment Item: JOINT PRECISION APPROACH AND LANDING SYSTEM (JPALS)

PARM Code: PMA 2131

## I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

Joint Precision Approach and Landing System (JPALS) is a GPS-based Precision Approach and Landing System which will be the replacement for the AN/SPN-46. JPALS will eventually be installed

on all air-capable ships.

## **II. CURRENT FUNDING:**

P-35 Category	FY 2013	
	<u>QTY</u>	COST
Major Hardware	1	3,193
Technical Data and Documentation		103
Spares		428
System Engineering		405
Technical Engineering Services		545
Other Costs		2,320
Total		6,994

## **III. CONTRACT DATA:**

PROGRAM	SHIP	PRIME	CONTRACT	AWARD	NEW		HARDWARE
<u>YEAR</u>	<u>TYPE</u>	<u>CONTRACTOR</u>	<u>TYPE</u>	<u>DATE</u>	/OPTION	<u>QTY</u>	UNIT COST
FY-13	CVN 72 RCOH	RAYTHEON	TBD	SEP-14	NEW	1 SHIPSET	3,193

## **IV. DELIVERY DATE:**

PROGRAM	SHIP	EARLIEST SHIP	MONTHS REQUIRED	PRODUCTION	REQUIRED
YEAR	<u>TYPE</u>	<b>DELIVERY DATE</b>	BEFORE DELIVERY	<b>LEADTIME</b>	AWARD DATE
FY-13	CVN 72 RCOH	OCT-16	14	6	FEB-15

# V. COMPETITION/SECOND SOURCE INITIATIVES:

## SHIPBUILDING AND CONVERSION, NAVY

MAJOR SHIP COMPONENT FACT SHEET

(Dollars in Thousands)

P-35 EXHIBIT FY 2013 President's Budget

February 2012

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 2013			
	<u>QTY</u>	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	SHIP	PRIME	CONTRACT	AWARD	NEW		HARDWARE
<u>YEAR</u>	<u>TYPE</u>	CONTRACTOR	<u>TYPE</u>	<u>DATE</u>	/OPTION	QTY	UNIT COST
FY-13	CVN 72 RCOH	NAWCAD	WR	DEC-11	N/A	1 SHIPSET	1.722

## IV. DELIVERY DATE:

PROGRAM	SHIP	EARLIEST SHIP	MONTHS REQUIRED	PRODUCTION	REQUIRED
<u>YEAR</u>	<u>TYPE</u>	<b>DELIVERY DATE</b>	BEFORE DELIVERY	<b>LEADTIME</b>	AWARD DATE
FY-13	CVN 72 RCOH	OCT-16	14	39	MAY-12

## V. COMPETITION/SECOND SOURCE INITIATIVES:

#### NOTE:

Work accomplished via Government Alteration Installation Team (AIT).

## SHIPBUILDING AND CONVERSION, NAVY

MAJOR SHIP COMPONENT FACT SHEET

(Dollars in Thousands)

FY 2013 President's Budget

P-35 EXHIBIT February 2012

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 2013
	QTY COST
Major Hardware	1 2,713
Ancillary Equipment	20
Technical Data and Documentation	253
Spares	35
System Engineering	903
Technical Engineering Services	925
Other Costs	1,053
Total	5.902

#### **III. CONTRACT DATA:**

PROGRAM	SHIP	PRIME	CONTRACT	AWARD	NEW		HARDWARE
<u>YEAR</u>	<u>TYPE</u>	<u>CONTRACTOR</u>	<u>TYPE</u>	<u>DATE</u>	/OPTION	<u>QTY</u>	UNIT COST
FY-13	CVN 72 RCOH	LOCKHEED MARTIN	CPFF	TBD		1 SHIPSET	2.713

## IV. DELIVERY DATE:

PROGRAM	SHIP	EARLIEST SHIP	MONTHS REQUIRED	PRODUCTION	REQUIRED
<u>YEAR</u>	<u>TYPE</u>	<b>DELIVERY DATE</b>	BEFORE DELIVERY	<u>LEADTIME</u>	AWARD DATE
FY-13	CVN 72 RCOH	OCT-16	18	18	OCT-13

## V. COMPETITION/SECOND SOURCE INITIATIVES:

# SHIPBUILDING AND CONVERSION, NAVY

MAJOR SHIP COMPONENT FACT SHEET

(Dollars in Thousands)

P-35 EXHIBIT

FY 2013 President's Budget

February 2012

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 2013			
	<u>QTY</u>	COST		
Major Hardware	1	5,100		
Technical Data and Documentation		140		
Spares		355		
System Engineering		710		
Technical Engineering Services		970		
Total		7,275		

## III. CONTRACT DATA:

PROGRAM	SHIP	PRIME	CONTRACT	AWARD	NEW		HARDWARE
<u>YEAR</u>	<u>TYPE</u>	CONTRACTOR	<u>TYPE</u>	<u>DATE</u>	<u>/OPTION</u>	<u>QTY</u>	UNIT COST
FY-13	CVN 72 RCOH	BAE SYSTEMS	FFP	NOV-12	NEW	1 SHIPSET	5.100

#### V. DELIVERY DATE

PROGRAM	SHIP	EARLIEST SHIP	MONTHS REQUIRED	PRODUCTION	REQUIRED
YEAR	<u>TYPE</u>	<b>DELIVERY DATE</b>	BEFORE DELIVERY	<b>LEADTIME</b>	AWARD DATE
FY-13	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

FY 2013 President's Budget

February 2012

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		
	<u>QTY</u>	COST	
Major Hardware	1	1,040	
Ancillary Equipment		55	
Technical Data and Documentation		60	
Spares		920	
System Engineering		1,810	
Technical Engineering Services		668	
Total		4,553	

## **III. CONTRACT DATA:**

PROGRAM	SHIP	PRIME	CONTRACT	AWARD	NEW		HARDWARE
<u>YEAR</u>	<u>TYPE</u>	<u>CONTRACTOR</u>	<u>TYPE</u>	<u>DATE</u>	/OPTION	QTY	<b>UNIT COST</b>
FY-13	CVN 72 RCOH	SECHAN ELECTRONICS	FFP	NOV-11	NEW	1 SHIPSET	1,040

## **IV. DELIVERY DATE:**

PROGRAM	SHIP	EARLIEST SHIP	MONTHS REQUIRED	PRODUCTION	REQUIRED
YEAR	<u>TYPE</u>	<b>DELIVERY DATE</b>	BEFORE DELIVERY	<b>LEADTIME</b>	AWARD DATE
FY-13	CVN 72 RCOH	OCT-16	39	18	JAN-12

# V. COMPETITION/SECOND SOURCE INITIATIVES:

#### SHIPBUILDING AND CONVERSION, NAVY

MAJOR SHIP COMPONENT FACT SHEET

(Dollars in Thousands)

P-35 EXHIBIT FY 2013 President's Budget

February 2012

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:

Ship Type:

P-35 Category	FY	FY 2013			
	<u>QTY</u>	COST			
Major Hardware	1	2,317			
Spares		37			
System Engineering		837			
Technical Engineering Services		360			
Other Costs		852			
Total		4,403			

#### III. CONTRACT DATA:

PROGRAM	SHIP	PRIME	CONTRACT	AWARD	NEW		HARDWARE
<u>YEAR</u>	<u>TYPE</u>	CONTRACTOR	<u>TYPE</u>	<u>DATE</u>	/OPTION	QTY	<b>UNIT COST</b>
FY-13	CVN 72 RCOH	FRONTIER ELECTRONIC SYS	IDIQ	JAN-14	NEW	1 SHIPSET	2.317

## IV. DELIVERY DATE:

PROGRAM	SHIP	EARLIEST SHIP	MONTHS REQUIRED	PRODUCTION	REQUIRED
<u>YEAR</u>	<u>TYPE</u>	<b>DELIVERY DATE</b>	BEFORE DELIVERY	<b>LEADTIME</b>	AWARD DATE
FY-13	CVN 72 RCOH	OCT-16	16	12	JUN-14

#### V. COMPETITION/SECOND SOURCE INITIATIVES:

Ship Type: Equipment Item: SHIPBUILDING AND CONVERSION, NAVY MAJOR SHIP COMPONENT FACT SHEET

P-35 EXHIBIT

FY 2013 President's Budget February 2012

(Dollars in Thousands)

CVN-68 CLASS NUCLEAR REFUELING COMPLEX OVERHAUL (RCOH)
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/O 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 2013			
	<u>QTY</u>	COST		
Major Hardware	1	17,474		
Ancillary Equipment		1,524		
Technical Data & Documentation		1,161		
Spares		1,127		
Systems Engineering		11,464		
Technical Engineering Services		10,021		
Other Costs		7,708		
Engr/ILS/Mgmt Spt		0		
Total		50,479		

#### III. CONTRACT DATA:

PROGRAM	SHIP	PRIME	CONTRACT	AWARD	NEW		HARDWARE
YEAR	TYPE	CONTRACTOR	TYPE	DATE	/OPTION	QTY	UNIT COST
FY-13	CVN 72 RCOH	VARIOUS	VARIOUS		VARIOUS	1 SHIPSET	17,474

CONTRACT

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## IV. DELIVERY DATE:

PROGRAM	SHIP	EARLIEST SHIP	MONTHS REQUIRED	PRODUCTION	REQUIRED
YEAR	<u>TYPE</u>	DELIVERY DATE	BEFORE DELIVERY	<b>LEADTIME</b>	AWARD DATE
FY-13	CVN 72 RCOH	OCT-16	34	6	JUN-13

#### V. COMPETITION/SECOND SOURCE INITIATIVES:

NONE

NOTE:

CLASSIFICATION: UNCLASSIFIED

## SHIPBUILDING AND CONVERSION, NAVY

MAJOR SHIP COMPONENT FACT SHEET

(Dollars in Thousands)

P-35 EXHIBIT

FY 2013 President's Budget

February 2012

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 2013				
	<u>QTY</u>	COST			
Major Hardware	1	11,481			
Technical Data and Documentation		3,946			
Spares		1,030			
Systems Engineering		7,829			
Technical Engineering Services		2,730			
Other Costs		20,652			
Engr/ILS/Mgmt Spt		0			
Technical Support Services		0			
Total		47,668			

#### III. CONTRACT DATA:

PROGRAM	SHIP	PRIME	CONTRACT	AWARD	NEW		HARDWARE
<u>YEAR</u>	<u>TYPE</u>	CONTRACTOR	<u>TYPE</u>	<u>DATE</u>	/OPTION	<u>QTY</u>	<b>UNIT COST</b>
FY-13	CVN 72 RCOH	RAYTHEON/LOCKHEED	CPFF/FFP	JAN-12	OPTION	1 SHIPSET	11,481

## IV. DELIVERY DATE:

PROGRAM	SHIP	EARLIEST SHIP	MONTHS REQUIRED	PRODUCTION	REQUIRED
YEAR	<u>TYPE</u>	<b>DELIVERY DATE</b>	BEFORE DELIVERY	<b>LEADTIME</b>	AWARD DATE
FY-13	CVN 72 RCOH	OCT-16	18	34	JUN-12

#### V. COMPETITION/SECOND SOURCE INITIATIVES:

NONE

#### SHIPBUILDING AND CONVERSION, NAVY

MAJOR SHIP COMPONENT FACT SHEET

(Dollars in Thousands)

FY 2013 President's Budget

February 2012

P-35 EXHIBIT

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 2013		
	<u>QTY</u>	COST	
Major Hardware	1	3,115	
Spares		130	
System Engineering		40	
Technical Engineering Services		120	
Other Costs		137	
Total		3,542	

## III. CONTRACT DATA:

PROGRAM	SHIP	PRIME	CONTRACT	AWARD	NEW		HARDWARE
<u>YEAR</u>	<u>TYPE</u>	<u>CONTRACTOR</u>	<u>TYPE</u>	<u>DATE</u>	/OPTION	QTY	<b>UNIT COST</b>
FY-13	CVN 72 RCOH	RIX INDUSTRIES	FFP	JUL-11	OPTION	1 SHIPSET	3,115

## IV. DELIVERY DATE:

PROGRAM	SHIP	EARLIEST SHIP	MONTHS REQUIRED	PRODUCTION	REQUIRED
<u>YEAR</u>	<u>TYPE</u>	DELIVERY DATE	BEFORE DELIVERY	<u>LEADTIME</u>	<b>AWARD DATE</b>
FY-13	CVN 72 RCOH	OCT-16	38	12	AUG-12

## V. COMPETITION/SECOND SOURCE INITIATIVES:

#### SHIPBUILDING AND CONVERSION, NAVY

MAJOR SHIP COMPONENT FACT SHEET

(Dollars in Thousands)

FY 2013 President's Budget

February 2012

P-35 EXHIBIT

CVN-68 CLASS NUCLEAR REFUELING COMPLEX OVERHAUL (RCOH) Ship Type:

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			
	<u>QTY</u>	COST		
Major Hardware	1	207		
Technical Data and Documentation		120		
System Engineering		350		
Technical Engineering Services		2,256		
Other Costs		125		
Total		3,058		

## III. CONTRACT DATA:

PROGRAM	SHIP	PRIME	CONTRACT	AWARD	NEW		HARDWARE
<u>YEAR</u>	<u>TYPE</u>	CONTRACTOR	<u>TYPE</u>	<u>DATE</u>	/OPTION	QTY	<b>UNIT COST</b>
FY-13	CVN 72 RCOH	VARIOUS	CPFF	MAY-12		1 SHIPSET	207

## IV. DELIVERY DATE:

PROGRAM	SHIP	EARLIEST SHIP	MONTHS REQUIRED	PRODUCTION	REQUIRED
<u>YEAR</u>	<u>TYPE</u>	<b>DELIVERY DATE</b>	BEFORE DELIVERY	<b>LEADTIME</b>	AWARD DATE
FY-13	CVN 72 RCOH	OCT-16	37	11	OCT-12

## V. COMPETITION/SECOND SOURCE INITIATIVES:

## SHIPBUILDING AND CONVERSION, NAVY

MAJOR SHIP COMPONENT FACT SHEET

(Dollars in Thousands)

FY 2013 President's Budget February 2012

P-35 EXHIBIT

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Ship Type: CVN-68 CLASS NU 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 2013		
	<u>QTY</u>	COST	
Technical Data and Documentation	1	100	
System Engineering		350	
Technical Engineering Services		3,895	
Other Costs		70	
Total		4,415	

CVN-68 CLASS NUCLEAR REFUELING COMPLEX OVERHAUL (RCOH)

# III. CONTRACT DATA:

PROGRAM	SHIP	PRIME	CONTRACT	AWARD	NEW		HARDWARE
<u>YEAR</u>	<u>TYPE</u>	CONTRACTOR	<u>TYPE</u>	<u>DATE</u>	/OPTION	QTY	UNIT COST
FY-13	CVN 72 RCOH	NSWC	WR	APR-12	N/A	1 SHIPSET	0

#### **IV. DELIVERY DATE:**

PROGRAM	SHIP	EARLIEST SHIP	MONTHS REQUIRED	PRODUCTION	REQUIRED
<u>YEAR</u>	<u>TYPE</u>	DELIVERY DATE	BEFORE DELIVERY	<b>LEADTIME</b>	AWARD DATE
FY-13	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)

FY 2013 President's Budget

P-35 EXHIBIT February 2012

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 2	FY 2013	
	<u>QTY</u>	COST	
Major Hardware	1	2,840	
Technical Data and Documentation		250	
System Engineering		718	
Technical Engineering Services		990	
Other Costs		660	
Total		5,458	

## III. CONTRACT DATA:

PROGRAM	SHIP	PRIME	CONTRACT	AWARD	NEW		HARDWARE
<u>YEAR</u>	<u>TYPE</u>	<u>CONTRACTOR</u>	<u>TYPE</u>	<u>DATE</u>	/OPTION	QTY	UNIT COST
FY-13	CVN 72 RCOH	ROCKWELL CORP	IDIQ	AUG-12	OPTION	1 SHIPSET	2.840

## IV. DELIVERY DATE:

PROGRAM	SHIP	EARLIEST SHIP	MONTHS REQUIRED	PRODUCTION	REQUIRED
<u>YEAR</u>	<u>TYPE</u>	<b>DELIVERY DATE</b>	BEFORE DELIVERY	<b>LEADTIME</b>	AWARD DATE
FY-13	CVN 72 RCOH	OCT-16	41	8	SEP-12

#### V. COMPETITION/SECOND SOURCE INITIATIVES:

## SHIPBUILDING AND CONVERSION, NAVY

MAJOR SHIP COMPONENT FACT SHEET

(Dollars in Thousands)

FY 2013 President's Budget

February 2012

P-35 EXHIBIT

Ship Type: CVN-68 CLASS NUCLEAR REFUELING COMPLEX OVERHAUL (RCOH)

Equipment Item: WEAPONS ELEVATORS

PARM Code: NAVSSES 912

# I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

This effort provides required modifications to the ship's weapons elevators.

# **II. CURRENT FUNDING:**

P-35 Category	FY 2013	
	<u>QTY</u>	COST
Major Hardware	1	748
Technical Data and Documentation		378
System Engineering		778
Technical Engineering Services		2,958
Other Costs		615
Total		5,477

## III. CONTRACT DATA:

PROGRAM	SHIP	PRIME	CONTRACT	AWARD	NEW		HARDWARE
<u>YEAR</u>	<u>TYPE</u>	<u>CONTRACTOR</u>	<u>TYPE</u>	<u>DATE</u>	/OPTION	QTY	<b>UNIT COST</b>
FY-13	CVN 72 RCOH	NSWC	WR	APR-12	N/A	1 SHIPSET	748

## IV. DELIVERY DATE:

PROGRAM	SHIP	EARLIEST SHIP	MONTHS REQUIRED	PRODUCTION	REQUIRED
<u>YEAR</u>	<u>TYPE</u>	DELIVERY DATE	BEFORE DELIVERY	<u>LEADTIME</u>	AWARD DATE
FY-13	CVN 72 RCOH	OCT-16	41	12	MAY-12

## V. COMPETITION/SECOND SOURCE INITIATIVES:

#### SHIPBUILDING AND CONVERSION, NAVY

MAJOR SHIP COMPONENT FACT SHEET

(Dollars in Thousands)

FY 2013 President's Budget February 2012

P-35 EXHIBIT

Ship Type: CVN-68 CLASS NUCLEAR REFUELING COMPLEX OVERHAUL (RCOH)

Equipment Item: AIRCRAFT ELEVATORS

PARM Code: NAVSSES 912

## I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

This effort provides required modifications to the ship's aircraft elevators.

#### **II. CURRENT FUNDING:**

P-35 Category	FY 2013			
	<u>QTY</u>	COST		
Major Hardware	1	6,371		
Technical Data and Documentation		1,071		
System Engineering		801		
Technical Engineering Services		1,808		
Other Costs		814		
Total		10,865		

## III. CONTRACT DATA:

PROGRAM	SHIP	PRIME	CONTRACT	AWARD	NEW		HARDWARE
<u>YEAR</u>	<u>TYPE</u>	<u>CONTRACTOR</u>	<u>TYPE</u>	<u>DATE</u>	<u>/OPTION</u>	<u>QTY</u>	UNIT COST
FY-13	CVN 72 RCOH	ROCKWELL CORP	IDIQ	AUG-12	OPTION	1 SHIPSET	6.371

## IV. DELIVERY DATE:

PROGRAM	SHIP	EARLIEST SHIP	MONTHS REQUIRED	PRODUCTION	REQUIRED
<u>YEAR</u>	<u>TYPE</u>	<b>DELIVERY DATE</b>	BEFORE DELIVERY	<b>LEADTIME</b>	AWARD DATE
FY-13	CVN 72 RCOH	OCT-16	41	8	SEP-12

## V. COMPETITION/SECOND SOURCE INITIATIVES:

## SHIPBUILDING AND CONVERSION, NAVY

MAJOR SHIP COMPONENT FACT SHEET

(Dollars in Thousands)

P-35 EXHIBIT

FY 2013 President's Budget

February 2012

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 2013			
	<u>QTY</u>	COST		
Major Hardware	1	1,128		
System Engineering		220		
Technical Engineering Services		3,895		
Other Costs		230		
Total		5,473		

#### **III. CONTRACT DATA:**

PROGRAM	SHIP	PRIME	CONTRACT	AWARD	NEW		HARDWARE
<u>YEAR</u>	<u>TYPE</u>	<u>CONTRACTOR</u>	TYPE	<u>DATE</u>	/OPTION	<u>QTY</u>	UNIT COST
FY-13	CVN 72 RCOH	QED	CPFF	SEP-11	NEW	1 SHIPSET	1.128

## IV. DELIVERY DATE:

PROGRAM	SHIP	EARLIEST SHIP	MONTHS REQUIRED	PRODUCTION	REQUIRED
<u>YEAR</u>	<u>TYPE</u>	<b>DELIVERY DATE</b>	BEFORE DELIVERY	<b>LEADTIME</b>	AWARD DATE
FY-13	CVN 72 RCOH	OCT-16	41	12	MAY-12

#### V. COMPETITION/SECOND SOURCE INITIATIVES:

#### SHIPBUILDING AND CONVERSION, NAVY

MAJOR SHIP COMPONENT FACT SHEET

(Dollars in Thousands)

P-35 EXHIBIT

FY 2013 President's Budget

February 2012

CVN-68 CLASS NUCLEAR REFUELING COMPLEX OVERHAUL (RCOH) Ship Type:

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 2013			
	<u>QTY</u>	COST		
Major Hardware	1	4,775		
Technical Data & Documentatiom		2,303		
Spares		283		
Systems Engineering		637		
Technical Engineering services		331		
Other Costs		1,335		
Engr/ILS/Mgmt Spt		0		
Total		9,664		

## **III. CONTRACT DATA:**

PROGRAM	SHIP	PRIME	CONTRACT	AWARD	NEW		HARDWARE
<u>YEAR</u>	<u>TYPE</u>	CONTRACTOR	<u>TYPE</u>	<u>DATE</u>	/OPTION	QTY	UNIT COST
FY-13	CVN 72 RCOH	RAYTHEON/SECHAN	FFP	APR-11	NEW	1 SHIPSET	4,775

#### IV. DELIVERY DATE:

PROGRAM	SHIP	EARLIEST SHIP	MONTHS REQUIRED	PRODUCTION	REQUIRED
YEAR	<u>TYPE</u>	<b>DELIVERY DATE</b>	BEFORE DELIVERY	<b>LEADTIME</b>	AWARD DATE
FY-13	CVN 72 RCOH	OCT-16	35	18	MAY-12

#### V. COMPETITION/SECOND SOURCE INITIATIVES:

NONE

## SHIPBUILDING AND CONVERSION, NAVY

MAJOR SHIP COMPONENT FACT SHEET

(Dollars in Thousands)

P-35 EXHIBIT FY 2013 President's Budget

February 2012

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:

implementation of the revised CVIC general arrangement.

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

## **II. CURRENT FUNDING:**

P-35 Category	FY 2013			
	<u>QTY</u>	COST		
Major Hardware	1	399		
Technical Data & Documentation		165		
Spares		0		
Systems Engineering		5,981		
Technical Engineering Services		1,886		
Other Costs		139		
Engr/ILS/Mgmt Spt		0		
Technical Support Services		0		
Total		8,570		

#### **III. CONTRACT DATA:**

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

#### **IV. DELIVERY DATE:**

PROGRAM	SHIP	EARLIEST SHIP	MONTHS REQUIRED	PRODUCTION	REQUIRED
<u>YEAR</u>	<u>TYPE</u>	<b>DELIVERY DATE</b>	BEFORE DELIVERY	<u>LEADTIME</u>	AWARD DATE
FY-13	CVN 72 RCOH	OCT-16	13	6	MAR-15

#### V. COMPETITION/SECOND SOURCE INITIATIVES:

NONE

## SHIPBUILDING AND CONVERSION, NAVY

MAJOR SHIP COMPONENT FACT SHEET

(Dollars in Thousands)

P-35 EXHIBIT

FY 2013 President's Budget

February 2012

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 201		
	<b>QTY</b>		COST	
Major Hardware		1	5,768	
System Engineering			596	
Technical Engineering Services			203	
Other Costs			1,978	
Total			8,545	

## **III. CONTRACT DATA:**

PROGRAM	SHIP	PRIME	CONTRACT	AWARD	NEW		HARDWARE
<u>YEAR</u>	TYPE	CONTRACTOR	<u>TYPE</u>	DATE	/OPTION	<u>QTY</u>	UNIT COST
FY-13	CVN 72 RCOH	NAWCAD	WR	DEC-10	N/A	1 SHIPSET	5.768

## IV. DELIVERY DATE:

PROGRAM	SHIP	EARLIEST SHIP	MONTHS REQUIRED	PRODUCTION	REQUIRED
<u>YEAR</u>	<u>TYPE</u>	<b>DELIVERY DATE</b>	BEFORE DELIVERY	<b>LEADTIME</b>	AWARD DATE
FY-13	CVN 72 RCOH	OCT-16	23	39	AUG-11

## V. COMPETITION/SECOND SOURCE INITIATIVES:

NONE

## SHIPBUILDING AND CONVERSION, NAVY

MAJOR SHIP COMPONENT FACT SHEET

(Dollars in Thousands)

P-35 EXHIBIT

FY 2013 President's Budget

February 2012

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 2013			
	<u>QTY</u>		COST	
Major Hardware		1	6,857	
Ancillary Equipment			43	
Spares			59	
System Engineering			726	
Technical Engineering Services			290	
Other Costs			595	
Total			8,570	

#### III. CONTRACT DATA:

PROGRAM	SHIP	PRIME	CONTRACT	AWARD	NEW		HARDWARE
<u>YEAR</u>	<u>TYPE</u>	<u>CONTRACTOR</u>	<u>TYPE</u>	<u>DATE</u>	/OPTION	<u>QTY</u>	<b>UNIT COST</b>
FY-13	CVN 72 RCOH	LITTON & BAE	SS / FP	SEP-11	NEW	1 SHIPSET	6,857

#### **IV. DELIVERY DATE:**

PROGRAM	SHIP	EARLIEST SHIP	MONTHS REQUIRED	PRODUCTION	REQUIRED
<u>YEAR</u>	<u>TYPE</u>	<b>DELIVERY DATE</b>	BEFORE DELIVERY	<u>LEADTIME</u>	AWARD DATE
FY-13	CVN 72 RCOH	OCT-16	36	32	FFB-11

#### V. COMPETITION/SECOND SOURCE INITIATIVES:

## SHIPBUILDING AND CONVERSION, NAVY

MAJOR SHIP COMPONENT FACT SHEET

(Dollars in Thousands)

P-35 EXHIBIT

FY 2013 President's Budget

February 2012

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 2013			
		<b>QTY</b>		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	SHIP	PRIME	CONTRACT	AWARD	NEW		HARDWARE
<u>YEAR</u>	<u>TYPE</u>	CONTRACTOR	<u>TYPE</u>	<u>DATE</u>	/OPTION	<u>QTY</u>	UNIT COST
FY-13	CVN 72 RCOH	MULTIPLE	FFP	AUG-11	NEW	1 SHIPSET	3,193

#### **IV. DELIVERY DATE:**

PROGRAM	SHIP	EARLIEST SHIP	MONTHS REQUIRED	PRODUCTION	REQUIRED
<u>YEAR</u>	<u>TYPE</u>	<b>DELIVERY DATE</b>	BEFORE DELIVERY	<b>LEADTIME</b>	AWARD DATE
FY-13	CVN 72 RCOH	OCT-16	41	12	MAY-12

#### V. COMPETITION/SECOND SOURCE INITIATIVES:

# SHIPBUILDING AND CONVERSION, NAVY

MAJOR SHIP COMPONENT FACT SHEET

(Dollars in Thousands)

P-35 EXHIBIT

FY 2013 President's Budget

February 2012

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 2013			
	<u>QTY</u>	COST		
Major Hardware	1	26,724		
Technical Data and Documentation		358		
Spares		82		
Systems Engineering		2,204		
Technical Engineering Services		8,998		
Other Costs		3,994		
Engr/ILS/Mgmt Spt		0		
Total		42,360		

# III. CONTRACT DATA:

PROGRAM	SHIP	PRIME	CONTRACT	AWARD	NEW		HARDWARE
<u>YEAR</u>	<u>TYPE</u>	<u>CONTRACTOR</u>	<u>TYPE</u>	<u>DATE</u>	/OPTION	<u>QTY</u>	UNIT COST
FY-13	CVN 72 RCOH	VARIOUS	VARIOUS	DEC-10	VARIOUS	1 SHIPSET	26,724

## IV. DELIVERY DATE:

PROGRAM	SHIP	EARLIEST SHIP	MONTHS REQUIRED	PRODUCTION	REQUIRED
<u>YEAR</u>	<u>TYPE</u>	<b>DELIVERY DATE</b>	BEFORE DELIVERY	<b>LEADTIME</b>	AWARD DATE
FY-13	CVN 72 RCOH	OCT-16	33	32	MAY-11

#### V. COMPETITION/SECOND SOURCE INITIATIVES:

NONE

## SHIPBUILDING AND CONVERSION, NAVY

MAJOR SHIP COMPONENT FACT SHEET

(Dollars in Thousands)

P-35 EXHIBIT

FY 2013 President's Budget

February 2012

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 20	FY 2013			
	<u>QTY</u>	COST			
Major Hardware	1	31,486			
Ancillary Equipment		339			
Spares		1,527			
Systems Engineering		1,604			
Technical Engineering Services		3,495			
Other Costs		1,420			
Spares		0			
Engr/ILS/Mgmt Spt		0			
Technical Support Services		0			
Total		39,871			

#### **III. CONTRACT DATA:**

PROGRAM	SHIP	PRIME	CONTRACT	AWARD	NEW		HARDWARE
YEAR	<u>TYPE</u>	CONTRACTOR	<u>TYPE</u>	DATE	/OPTION	<u>QTY</u>	<b>UNIT COST</b>
FY-13	CVN 72 RCOH	RAYTHEON	FFP	JAN-12		1 SHIPSET	31,486

## **IV. DELIVERY DATE:**

PROGRAM	SHIP	EARLIEST SHIP	MONTHS REQUIRED	PRODUCTION	REQUIRED
<u>YEAR</u>	<u>TYPE</u>	<b>DELIVERY DATE</b>	BEFORE DELIVERY	<b>LEADTIME</b>	AWARD DATE
FY-13	CVN 72 RCOH	OCT-16	37	29	APR-11

#### V. COMPETITION/SECOND SOURCE INITIATIVES:

NONE

## SHIPBUILDING AND CONVERSION, NAVY

MAJOR SHIP COMPONENT FACT SHEET

(Dollars in Thousands)

P-35 EXHIBIT

FY 2013 President's Budget

February 2012

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 2013	FY 2013			
	QTY	COST			
Major Hardware	1	7,825			
Technical Data & Documentation		30			
Spares		335			
Systems Engineering		687			
Technical Engineering Services		3,244			
Other Costs		750			
Engr/ILS/Mgmt Spt		0			
Technical Support Services		0			
Total		12,871			

## **III. CONTRACT DATA:**

PROGRAM	SHIP	PRIME	CONTRACT	AWARD	NEW		HARDWARE
<u>YEAR</u>	<u>TYPE</u>	<u>CONTRACTOR</u>	TYPE	DATE	/OPTION	QTY	<b>UNIT COST</b>
FY-13	CVN 72 RCOH	ITT GILFILLAN	FFP	APR-12	OPTION	1 SHIPSET	7,825

# IV. DELIVERY DATE:

PROGRAM	SHIP	EARLIEST SHIP	MONTHS REQUIRED	PRODUCTION	REQUIRED
YEAR	<u>TYPE</u>	<b>DELIVERY DATE</b>	BEFORE DELIVERY	<b>LEADTIME</b>	AWARD DATE
FY-13	CVN 72 RCOH	OCT-16	24	31	MAR-12

## V. COMPETITION/SECOND SOURCE INITIATIVES:

NONE

## SHIPBUILDING AND CONVERSION, NAVY

MAJOR SHIP COMPONENT FACT SHEET

(Dollars in Thousands)

P-35 EXHIBIT

FY 2013 President's Budget

February 2012

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 2013			
		<u>QTY</u>		COST	
	Major Hardware		1	6,160	
	Technical Data and Documentation			134	
	Spares			100	
	System Engineering			588	
	Technical Engineering Services			2,459	
	Other Costs			733	
	Total			10,174	

#### **III. CONTRACT DATA:**

PROGRAM	SHIP	PRIME	CONTRACT	AWARD	NEW		HARDWARE
<u>YEAR</u>	TYPE	CONTRACTOR	TYPE	DATE	/OPTION	<u>QTY</u>	UNIT COST
FY-13	CVN 72 RCOH	NSWC CRANE	WR	JUL-11	N/A	1 SHIPSET	6,160

## **IV. DELIVERY DATE:**

PROGRAM	SHIP	EARLIEST SHIP	MONTHS REQUIRED	PRODUCTION	REQUIRED
YEAR	<u>TYPE</u>	<b>DELIVERY DATE</b>	BEFORE DELIVERY	<b>LEADTIME</b>	AWARD DATE
FY-13	CVN 72 RCOH	OCT-16	30	29	NOV-11

## V. COMPETITION/SECOND SOURCE INITIATIVES:

## SHIPBUILDING AND CONVERSION, NAVY

MAJOR SHIP COMPONENT FACT SHEET

(Dollars in Thousands)

P-35 EXHIBIT

FY 2013 President's Budget

February 2012

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 2013			
	<u>QTY</u>	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	SHIP	PRIME	CONTRACT	AWARD	NEW		HARDWARE
<u>YEAR</u>	<u>TYPE</u>	CONTRACTOR	<u>TYPE</u>	DATE	/OPTION	<u>QTY</u>	<b>UNIT COST</b>
FY-13	CVN 72 RCOH	NORTHROP GRUMMAN	FFP	MAY-11		1 SHIPSET	5,998

#### **IV. DELIVERY DATE:**

PROGRAM	SHIP	EARLIEST SHIP	MONTHS REQUIRED	PRODUCTION	REQUIRED
<u>YEAR</u>	<u>TYPE</u>	<b>DELIVERY DATE</b>	BEFORE DELIVERY	<b>LEADTIME</b>	<b>AWARD DATE</b>
FY-13	CVN 72 RCOH	OCT-16	24	45	JAN-11

## V. COMPETITION/SECOND SOURCE INITIATIVES:

CLASSIFICATION:		UNCLASSIF	IED										
Exhibit P-10, Advance Procurement Requireme							Date:						
(Funding)							February 20	February 2012					
Appropriation (Treasury)Code/CC/BA/BSA/Item Control Number							P-1 Line Item	Nomenclatur	е				
SHIPBUILDING AND CONVERSION, NAVY / 2				CVN REFUE	LING OVERH	AULS							
Weapon System	First System (	(BY1) Award [	Date and Com	pletion Date			Interval Between	een Systems					
CVN 73 RCOH			AUGUST 201	6 - MAY 2020	)								
BLI	PLT	When Req'd	Prior Years	FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18	To Complete	Total
CVN 73			0.00	0.00	14.00	70.10	246.00	528.00	0.00	0.00	0.00	0.00	858.10
Plans			0.00	0.00	0.00	1.00	18.00	20.00	0.00	0.00	0.00	0.00	39.00
Basic			0.00	0.00	0.70	2.70	132.10	342.20	0.00	0.00	0.00	0.00	477.70
Other			0.00	0.00	0.00	1.00	8.00	11.00	0.00	0.00	0.00	0.00	20.00
Propulsion Equipment			0.00	0.00	13.30	64.70	47.90	9.80	0.00	0.00	0.00	0.00	135.70
HM&E			0.00	0.00	0.00	0.10	5.00	25.00	0.00	0.00	0.00	0.00	30.10
Electronics			0.00	0.00	0.00	0.30	20.00	80.00	0.00	0.00	0.00	0.00	100.30
Ordnance			0.00	0.00	0.00	0.30	15.00	40.00	0.00	0.00	0.00	0.00	55.30
Total AP			0.00	0.00	14.00	70.10	246.00	528.00	0.00	0.00	0.00	0.00	858.10

#### Description:

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

Note: CVN RCOH Advance Procurement is compliant with sections 010107.2 and 010202.B.3 of the DoD FMR which limits advance procurement funding to "components whose long lead time 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 Ar	Exhibit P-10, Advance Procurement Requirements Analysis					Date:			
(Budget Justification)						February 2012			
Appropriation (Treasury)Code/CC/BA/BSA/Item Control Number					Weapon System	P-1 Line Item Nomenclature			
SHIPBUILDING AND CONVERSION, NAVY / 2 / Other Warships / BLI 2086					CVN 73 RCOH			CVN REFUELING OVERHAULS	
(TOA \$ in Millions)					FY13				
	PLT	QPA	Unit Cost	Qty	Contract Forecast Date	Total Cost Request			
Plans						1.00			
Basic		1 Shipset		1 Shipset	September 2013	2.70			
Other						1.00			
Propulsion Equipment						64.70			
HM&E			·			0.10			
Electronics						0.30			
Ordnance						0.30			

## 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) FARMOUT, and Technical Support

Other Program Management Plans, Budget Development, Work Package Review, Crew Berthing, 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 GFI/GFE and Technical Support Services

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

DIII	OCET ITEM ILIETIEICATION	LICHEET (D. 40)					DATE:			
DUI	DGET ITEM JUSTIFICATION FY 2013 President's E						February 2012			
APPROPRIATION/BUDGET ACTIVITY SHIPBUILDING AND CONVERSION, NAVY/BA 2 Other Warships	BLI: 2119 / SUBHEAD NO.									
(Dollars in Millions)	PRIOR YR	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	TO COMP	TOTAL PROG
QUANTITY	3	0	0	0	0	0	0	0	0	3
End Cost	9,604.8	247.1	453.7	669.2	173.2	322.1	0.0	0.0	0.0	11,470.
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	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	8,444.7	247.1	453.7	669.2	173.2	322.1	0.0	0.0	0.0	10,310.0
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	9,604.8	247.1	453.7	669.2	173.2	322.1	0.0	0.0	0.0	11,470.
Plus Outfitting / Plus Post Delivery	0.0	18.4	4.7	10.0	79.0	75.5	22.9	20.8	193.4	424.7
Total	9,604.8	265.5	458.5	679.2	252.2	397.6	22.9	20.8	193.4	11,894.8
Unit Cost (Ave End Cost)	3,201.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3,201.6

This Budget Submission is based on a DDG 1000 of 15,482 tons displacement with two Advanced Gun Systems (AGS) including a total magazine capacity of 600 rounds. DDG 1000, a multi-mission surface combatant will serve as a versatile asset in the context of future Naval Strategy. Armed with an array of weapons, DDG 1000 will provide the Joint Force Commander with precision strike and volume fires. Designed with sustainable payload, multi-spectral stealth and optimal manning, DDG 1000 will take the fight to the enemy with unprecedented striking power, sustainability, survivability and information dominance. FY13 is critical for procurement of major GFE systems to ensure the construction schedule remains intact.

Characteristics: Hull Length Overall Beam Displacement (LT) Draft (Navigation) Speed Installed Power Crew Size (including air detachment) Hull Superstructure	610' 80.7' 15,482 27.6' 30 kts 78.4 MW 148 Wave-piercing tumblehome Composite structure	Weapons: 2 Advanced Gun Systems 155mm 80 Mk 57 Vertical Launch cells 2 57mm Close-In Gun Systems	Sensors: Multi-Function Radar Acoustic Sensor Suite EO / IR System	Integrated Power System:  2 Main Gas Turbine Generators  2 Auxiliary Gas Turbine Generators  2 Propulsion Motors	Aviation: MH60R (Capacity for 2) 3 VTUAVs  Boats: 2 7m RHIBs (Sized for 2 11m RHIBs)
Production Status:	FY07 DDG 1000	FY07 DDG 1001	FY09 DDG 1002		
Contract Award Date Months to Completion a)Award to Delivery b)Construction Start to Delivery Delivery Date Completion of Fitting Out Obligation Work Limit Date	02/08 77 65 07/14 09/15 08/16	02/08 (Re-award 09/11) 94 69 12/15 12/16 11/17	09/11 77 70 02/18 02/19 01/20		

APPROPRIATION: SHIPBUILDING AND CONVERSION, NAVY

P-5 EXHIBIT FY2013 President's Budget February 2012

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

BUDGET ACTIVITY: 2 Other Warships	P-1 LINE ITEM DDG 1000	NOMENCLATURE		IEAD NO. BLI: 2119	
ELEMENT OF COST	QTY	FY 2007 COST	QTY	FY 2009 COST	
PLAN COSTS	2	1,494,659	1	445,264	
BASIC CONST/CONVERSION		2,809,058		1,285,577	
CHANGE ORDERS		302,057		116,457	
ELECTRONICS		1,944,217		1,418,925	
HM&E		161,082		58,525	
OTHER COST		386,643		106,233	
ORDNANCE		697,527		243,916	
TOTAL SHIP ESTIMATE		7,795,243		3,674,897	
LESS: ADVANCE PROCUREMENT FY05		304,048			
LESS: ADVANCE PROCUREMENT FY06		706,240			
LESS: ADVANCE PROCUREMENT FY08				149,830	
LESS: SUBSEQUENT YEAR FUNDING FY08		3,004,629			
LESS: SUBSEQUENT YEAR FUNDING FY10		309,636		1,068,896	
LESS: SUBSEQUENT YEAR FUNDING FY11 (1)		247,084		0	
LESS: SUBSEQUENT YEAR FUNDING FY12		184,300		269,427	
LESS: SUBSEQUENT YEAR FUNDING FY13		233,503		435,719	
LESS: SUBSEQUENT YEAR FUNDING FY14		116,116		57,094	
LESS: SUBSEQUENT YEAR FUNDING FY15		132,420		189,634	
NET P-1 LINE ITEM:		2,557,267		1,504,297	

<sup>(1)</sup> Reflects the Navy's reprogramming of FY11 \$170M from RDT&E,N (0204202N - DDG-1000) to SCN (2119).

N/A

## SHIPBUILDING AND CONVERSION, NAVY

Analysis of Ship Cost Estimate - Basic/Escalation

Ship Type: DDG 1000

<u>l.</u>	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 BUDG	ET ESTIMATE		
III.	Basic Construction/Conversion	2008	2008	2009	
	A. Actual Award Date	2/08	2/08 and 9/11 CPAF/IF AND	9/11*	
	B. Contract Type ( and Share Line if applicable )  * DDG1002 DECKHOUSE, HANGAR AND AFT PVLS CONTRACT IN NEGOTIATION	CPAF/IF	FPIC	FPIC	
IV.	<b>Escalation</b>	N/A - FORWARD	PRICED		
	Escalation Termination Date				
	Escalation Requirement				
	Labor/Material Split				
	Allowable Overhead Rate				
٧.	Other Basic(Reserves/Miscellaneous)	<u>Amount</u>			

P-5B Exhibit

FY2013 President's Budget

DATE:

February 2012

# SHIPBUILDING AND CONVERSION, NAVY SHIP PRODUCTION SCHEDULE

EXHIBIT P-27

FY2013 President's Budget

DATE:

February 2012

_	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 (Reaward)	MAR-10	DEC-15	
	DDG 1000	1002	BIW	09	SFP-11	APR-12	FFB-18	

CLASSIFICATION: UNCLASSIFIED

P-8A EXHIBIT

FY2013 President's Budget

February 2012

## SHIPBUILDING AND CONVERSION, NAVY

Analysis of Ship Cost Estimates - Major Equipment (Dollars in Thousands)

Ship Type: DDG 1000		2007	FY 2009	
	<u>QTY</u>	COST	<u>QTY</u>	COST
ELECTRONICS				
a. P-35 Items				
EXCOMMS (SHIPSET)	2	390,113	1	85,800
INTEGRATED UNDERSEA WARFARE (IUSW) SYSTEM	2	106,165	1	20,000
MULTI FUNCTION RADAR (MFR)	2	433,197	1	166,160
COMMON ARRAY POWER SYSTEM (CAPS)	2	85,931	1	18,200
TOTAL SHIP COMPUTING ENVIRONMENT (TSCE)	2	257,085	1	117,731
ELECTRO-OPTICAL / INFRARED (EO/IR)	2	92,271	1	20,000
IDENTIFICATION FRIEND OR FOE (IFF)	2	21,944	1	8,100
COMMON ARRAY COOLING SYSTEM (CACS)	2	16,022	1	5,600
SHIP CONTROL SYSTEM (SCS)	2	140,323	1	38,268
COOPERATIVE ENGAGEMENT CAPABILITY (CEC)	2	16,025	1	7,800
Subtotal		1,559,076		487,659
b. Major Items				
Subtotal				
LESS: SUBSEQUENT YEAR FULL FUNDING FY08				
MISSION SYSTEM ENGR INTEGR & TEST (MSEIT)		385,141		931,266
LESS: SUBSEQUENT YEAR FULL FUNDING FY11				
Subtotal		385,141		931,266
Total ELECTRONICS		1,944,217		1,418,925

CLASSIFICATION: UNCLASSIFIED P-8A EXHIBIT

## FY2013 President's Budget

February 2012

## SHIPBUILDING AND CONVERSION, NAVY

Analysis of Ship Cost Estimates - Major Equipment (Dollars in Thousands)

Ship Type: DDG 1000		2007	FY 2009	
	<u>QTY</u>	COST	<u>QTY</u>	COST
ORDNANCE				
a. P-35 Items				
ADVANCED GUN SYSTEM (AGS)	4	443,165	2	201,103
VERTICAL LAUNCHING SYSTEM (VLS) MK 57 4-CELL MODULES	40	191,655	20	22,813
CLOSE-IN GUN SYSTEM (CIGS)	4	55,706	2	20,000
Subtotal		690,526		243,916
b. Major Items				
Subtotal				
c. Other ORDNANCE				
		7,001		
Subtotal		7,001		
Total ORDNANCE		697,527		243,916

CLASSIFICATION: UNCLASSIFIED

P-8A EXHIBIT

FY2013 President's Budget

February 2012

## SHIPBUILDING AND CONVERSION, NAVY

Analysis of Ship Cost Estimates - Major Equipment (Dollars in Thousands)

Ship Type: DDG 1000	FY 2007		FY 2009	
	<u>QTY</u>	COST	<u>QTY</u>	COST
HM&E				
a. P-35 Items				
MAIN TURBINE GENERATOR (MTG)	4	78,125	2	39,412
Subtotal		78,125		39,412
b. Major Items				
RIGID HULL INFLATABLE BOAT (RHIB)	4	2,100	2	1,100
Subtotal		2,100		1,100
c. Other HM&E *				
		80,857		18,013
Subtotal		80,857		18,013
Total HM&E		161,082		58,525

Note: Includes HM&E tests, Night Guided Visual Landing Aids (NGVLA) [Advanced Flight Deck Lighting (AFDL), Advanced Stabilized Glide Slope Indicator (ASGSI) and Multi Function Display (MFD)]

## SHIPBUILDING AND CONVERSION, NAVY

MAJOR SHIP COMPONENT FACT SHEET (Dollars in Thousands)

P-35 EXHIBIT FY2013 President's Budget February 2012

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	
		COST	<u>QTY</u>	COST
Major Hardware	2	183,458	1	85,800
Technical Support Services		20,606		0
Government Legacy Systems* (POR)		41,844		0
Other Costs (NRE)		144,205		0
Total		390,113		85,800

## III. CONTRACT DATA:

PROGRAM	SHIP	PRIME	CONTRACT	AWARD	NEW		HARDWARE
<u>YEAR</u>	<u>TYPE</u>	CONTRACTOR	<u>TYPE</u>	<u>DATE</u>	/OPTION	<u>QTY</u>	UNIT COST
FY07	DDG-1000	Raytheon	CPAF/IF	MAY-08		2	91,729
FY09	DDG-1000	Raytheon	CPAF/IF	MAY-12		1	85,800

## **IV. DELIVERY DATE:**

ROGRAM	SHIP	EARLIEST SHIP	MONTHS REQUIRED	PRODUCTION	REQUIRED
YEAR	TYPE	<b>DELIVERY DATE</b>	BEFORE DELIVERY	<b>LEADTIME</b>	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

## SHIPBUILDING AND CONVERSION, NAVY

MAJOR SHIP COMPONENT FACT SHEET (Dollars in Thousands)

P-35 EXHIBIT FY2013 President's Budget February 2012

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		009
		COST	<u>QTY</u>	COST
Major Hardware	2	12,000	1	6,800
System Engineering		0		0
Technical Engineering Services		885		1,000
Software		1,400		0
Logistics Support		300		0
Technical Support Services		1,440		0
Total		16,025		7,800

## III. CONTRACT DATA:

PROGRAM	SHIP	PRIME	CONTRACT	AWARD	NEW		HARDWARE
<u>YEAR</u>	TYPE	CONTRACTOR	TYPE	<u>DATE</u>	/OPTION	<u>QTY</u>	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	SHIP	EARLIEST SHIP	MONTHS REQUIRED	PRODUCTION	REQUIRED
YEAR	<u>TYPE</u>	<b>DELIVERY DATE</b>	BEFORE DELIVERY	<b>LEADTIME</b>	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

## SHIPBUILDING AND CONVERSION, NAVY

MAJOR SHIP COMPONENT FACT SHEET (Dollars in Thousands)

P-35 EXHIBIT FY2013 President's Budget February 2012

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, and Software.

## **II. CURRENT FUNDING:**

P-35 Category	FY 2007			FY 2009		
	<u>QTY</u>	COST	<u>QTY</u>	COST		
Major Hardware	2	58,034	1	20,000		
Technical Support Services		3,878		0		
Other Costs (NRE)		44,253		0		
Total		106,165		20,000		

#### **III. CONTRACT DATA:**

PROGRAM	SHIP	PRIME	CONTRACT	AWARD	NEW		HARDWARE
YEAR	<u>TYPE</u>	CONTRACTOR	<u>TYPE</u>	<u>DATE</u>	/OPTION	<u>QTY</u>	<b>UNIT COST</b>
FY07	DDG-1000	Raytheon	CPAF/IF	MAY-08		2	29,017
FY09	DDG-1000	Ravtheon	CPAF/IF	OCT-12		1	20.000

## **IV. DELIVERY DATE:**

PROGRAM	SHIP	EARLIEST SHIP	MONTHS REQUIRED	PRODUCTION	REQUIRED
<u>YEAR</u>	<u>TYPE</u>	<b>DELIVERY DATE</b>	BEFORE DELIVERY	<b>LEADTIME</b>	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

## SHIPBUILDING AND CONVERSION, NAVY

MAJOR SHIP COMPONENT FACT SHEET (Dollars in Thousands)

P-35 EXHIBIT FY2013 President's Budget February 2012

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		
	<u>QTY</u>	COST	<u>QTY</u>	COST		
Major Hardware	2	256,687	1	166,160		
Technical Support Services		30,468		0		
Other Costs (NRE)		146,042		0		
Total		433,197		166,160		

## III. CONTRACT DATA:

PROGRAM	SHIP	PRIME	CONTRACT	AWARD	NEW		HARDWARE
<u>YEAR</u>	<u>TYPE</u>	CONTRACTOR	<u>TYPE</u>	<u>DATE</u>	/OPTION	<u>QTY</u>	UNIT COST
FY07	DDG-1000	Raytheon	CPAF/IF	MAR-08		2	128,344
FY09	DDG-1000	Raytheon	CPAF/IF	OCT-12		1	166,160

## IV. DELIVERY DATE:

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

#### V. COMPETITION/SECOND SOURCE INITIATIVES:

N/A

NOTE:

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

## SHIPBUILDING AND CONVERSION, NAVY

MAJOR SHIP COMPONENT FACT SHEET (Dollars in Thousands)

P-35 EXHIBIT FY2013 President's Budget February 2012

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 Dual Band Radar (DBR), Identification of Friend or Foe (IFF), EW/Cryptology and External Communications (EXCOMMs) Elements. The CAPS is a distributed power system designed to operate from the ship-supplied medium voltage distribution Integrated Power System's (IPS) 13.8 kV AC power source. The

CAPS consists of two Power Distribution Units (PDUs) and six Power Conversion Units (PCUs).

## II. CURRENT FUNDING:

P-35 Category	FY 2	FY 2009		
	<u>QTY</u>	COST	<u>QTY</u>	COST
Major Hardware	2	52,898	1	18,200
Technical Support Services		4,700		0
Other Costs (NRE)		28,333		0
Total		85,931		18,200

## **III. CONTRACT DATA:**

PROGRAM	SHIP	PRIME	CONTRACT	AWARD	NEW		HARDWARE
<u>YEAR</u>	TYPE	CONTRACTOR	<u>TYPE</u>	<u>DATE</u>	/OPTION	<u>QTY</u>	UNIT COST
FY07	DDG-1000	Raytheon	CPAF/IF	MAR-08		2	26,449
FY09	DDG-1000	Raytheon	CPAF/IF	NOV-12		1	18,200

## IV. DELIVERY DATE:

PROGRAM	SHIP	EARLIEST SHIP	MONTHS REQUIRED	PRODUCTION	REQUIRED
YEAR	<u>TYPE</u>	DELIVERY DATE	BEFORE DELIVERY	<b>LEADTIME</b>	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

## SHIPBUILDING AND CONVERSION, NAVY

MAJOR SHIP COMPONENT FACT SHEET (Dollars in Thousands)

P-35 EXHIBIT FY2013 President's Budget February 2012

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	
	<u>QTY</u>	COST	<u>QTY</u>	COST	
Major Hardware	2	199,458	1	117,731	
Technical Support Services		17,604		0	
Other Costs (NRE)		40,023		0	
Total		257,085		117,731	

## **III. CONTRACT DATA:**

PROGRAM	SHIP	PRIME	CONTRACT	AWARD	NEW		HARDWARE
<u>YEAR</u>	<u>TYPE</u>	CONTRACTOR	TYPE	DATE	/OPTION	QTY	UNIT COST
FY07	DDG-1000	Raytheon	CPAF/IF	MAY-08		2	99,729
FY09	DDG-1000	Raytheon	CPAF/IF	OCT-12		1	117,731

## IV. DELIVERY DATE:

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

#### V. COMPETITION/SECOND SOURCE INITIATIVES:

## SHIPBUILDING AND CONVERSION, NAVY

MAJOR SHIP COMPONENT FACT SHEET (Dollars in Thousands)

P-35 EXHIBIT FY2013 President's Budget February 2012

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	
	<u>QTY</u>	COST	<u>QTY</u>	COST	
Major Hardware	2	46,422	1	16,000	
Technical Support Services		2,023		1,000	
Other Costs (NRE)		43,826		3,000	
Total		92,271		20,000	

## **III. CONTRACT DATA:**

PROGRAM	SHIP	PRIME	CONTRACT	AWARD	NEW		HARDWARE
YEAR	TYPE	CONTRACTOR	TYPE	<u>DATE</u>	/OPTION	<u>QTY</u>	UNIT COST
FY07	DDG-1000	Raytheon	CPAF/IF	MAY-08		2	23,211
FY09	DDG-1000	Raytheon	CPAF/IF	NOV-12		1	16,000

## IV. DELIVERY DATE:

PROGRAM	SHIP	EARLIEST SHIP	MONTHS REQUIRED	PRODUCTION	REQUIRED
<u>YEAR</u>	<u>TYPE</u>	<b>DELIVERY DATE</b>	BEFORE DELIVERY	<b>LEADTIME</b>	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

## SHIPBUILDING AND CONVERSION, NAVY

MAJOR SHIP COMPONENT FACT SHEET (Dollars in Thousands)

P-35 EXHIBIT FY2013 President's Budget February 2012

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	
	<u>QTY</u>	COST	<u>QTY</u>	COST	
Major Hardware	2	12,358	1	8,100	
Technical Support Services		1,470		0	
Other Costs (NRE)		8,116		0	
Total		21,944		8,100	

## **III. CONTRACT DATA:**

PROGRAM	SHIP	PRIME	CONTRACT	AWARD	NEW		HARDWARE
YEAR	<u>TYPE</u>	CONTRACTOR	<u>TYPE</u>	<u>DATE</u>	/OPTION	<u>QTY</u>	UNIT COST
FY07	DDG-1000	Raytheon	CPAF/IF	MAY-08		2	6,179
FY09	DDG-1000	Ravtheon	CPAF/IF	DEC-12		1	8.100

## IV. DELIVERY DATE:

PROGRAM	SHIP	EARLIEST SHIP	MONTHS REQUIRED	PRODUCTION	REQUIRED
YEAR	<u>TYPE</u>	DELIVERY DATE	BEFORE DELIVERY	<b>LEADTIME</b>	<b>AWARD DATE</b>
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

## SHIPBUILDING AND CONVERSION, NAVY

MAJOR SHIP COMPONENT FACT SHEET (Dollars in Thousands)

P-35 EXHIBIT FY2013 President's Budget February 2012

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	FY 2007		
	<u>QTY</u>	COST	<u>QTY</u>	COST
Major Hardware	2	10,524	1	5,600
Other Costs (NRE)		5,498		0
Total		16,022		5,600

## **III. CONTRACT DATA:**

PROGRAM	SHIP	PRIME	CONTRACT	AWARD	NEW		HARDWARE
YEAR	<u>TYPE</u>	CONTRACTOR	TYPE	<u>DATE</u>	/OPTION	<u>QTY</u>	UNIT COST
FY07	DDG-1000	Raytheon	CPAF/IF	MAY-08		2	5,262
FY09	DDG-1000	Ravtheon	CPAF/IF	NOV-12		1	5.600

#### **IV. DELIVERY DATE:**

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

## V. COMPETITION/SECOND SOURCE INITIATIVES:

N/A

NOTE:

CACS Technical Services are incorporated into DBR Technical Services.

## SHIPBUILDING AND CONVERSION, NAVY

MAJOR SHIP COMPONENT FACT SHEET (Dollars in Thousands)

P-35 EXHIBIT FY2013 President's Budget February 2012

Ship Type: DDG 1000

Equipment Item: SHIP CONTROL SYSTEM (SCS)

PARM Code:

## 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 2	FY 2	FY 2009	
	<u>QTY</u>	COST	<u>QTY</u>	COST
Major Hardware	2	78,174	1	38,268
Technical Support Services		6,254		0
Other Costs (NRE)		55,895		0
Total		140,323		38,268

## III. CONTRACT DATA:

PROGRAM	SHIP	PRIME	CONTRACT	AWARD	NEW		HARDWARE
<u>YEAR</u>	<u>TYPE</u>	CONTRACTOR	<u>TYPE</u>	DATE	/OPTION	<u>QTY</u>	UNIT COST
FY07	DDG-1000	Raytheon	CPAF/IF	MAY-08		2	39,087
FY09	DDG-1000	Raytheon	CPAF/IF	MAY-12		1	38,268

## IV. DELIVERY DATE:

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

## V. COMPETITION/SECOND SOURCE INITIATIVES:

N/A

## SHIPBUILDING AND CONVERSION, NAVY

MAJOR SHIP COMPONENT FACT SHEET (Dollars in Thousands)

P-35 EXHIBIT FY2013 President's Budget February 2012

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	
	<b>QTY</b>	COST	<u>QTY</u>	COST
Major Hardware	4	218,390	2	134,059
Technical Support Services		8,934		0
Other Costs (NRE)		215,841		67,044
Total		443,165		201,103

## **III. CONTRACT DATA:**

PROGRAM	SHIP	PRIME	CONTRACT	AWARD	NEW		HARDWARE
<u>YEAR</u>	<u>TYPE</u>	CONTRACTOR	<u>TYPE</u>	DATE	/OPTION	QTY	UNIT COST
FY07	DDG-1000	BAE	CPAF/IF	APR-08		4	54,598
FY09	DDG-1000	BAE	TBD	APR-12		2	67.030

## **IV. DELIVERY DATE:**

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

## V. COMPETITION/SECOND SOURCE INITIATIVES:

## SHIPBUILDING AND CONVERSION, NAVY

MAJOR SHIP COMPONENT FACT SHEET (Dollars in Thousands)

P-35 EXHIBIT FY2013 President's Budget February 2012

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 encanistered missiles are stowed within the launching systems below-deck cells. DDG-1000 will have 80 total cells grouped into 20 four cell modules. Flight 1 missiles to be carried include: Enhanced SeaSparrow Missile (ESSM), Standard Missile-2 (SM-2) Blk III, Tomahawk Land Attack Missile (TLAM) Blk III/IV, and Vertical Launch Anti-Submarine Rocket (VLA).

## **II. CURRENT FUNDING:**

P-35 Category	FY 2	007	FY 2	2009	
	<u>QTY</u>	COST	<u>QTY</u>	COST	
Major Hardware	40	124,052	20	20,000	
Technical Support Services		11,204		2,813	
Other Costs (NRE)		56,399		0	
Total		191,655		22,813	

#### **III. CONTRACT DATA:**

PROGRAM	SHIP	PRIME	CONTRACT	AWARD	NEW		HARDWARE
YEAR	<u>TYPE</u>	CONTRACTOR	<u>TYPE</u>	DATE	/OPTION	<u>QTY</u>	UNIT COST
FY07	DDG-1000	Raytheon	CPAF/IF	MAY-08		40	3,101
FY09	DDG-1000	Raytheon	CPAF/IF	OCT-12		20	1,000

## **IV. DELIVERY DATE:**

PROGRAM	SHIP	EARLIEST SHIP	MONTHS REQUIRED	PRODUCTION	REQUIRED
<u>YEAR</u>	<u>TYPE</u>	<b>DELIVERY DATE</b>	BEFORE DELIVERY	<b>LEADTIME</b>	<b>AWARD DATE</b>
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 FY2013 President's Budget February 2012

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

## II. CURRENT FUNDING:

P-35 Category	FY 2007				
	<u>QTY</u>	COST	<u>QTY</u>	COST	
Major Hardware	4	40,000	2	20,000	
Technical Support Services		5,142		0	
Other Costs (NRE)		10,564		0	
Total		55,706		20,000	

#### **III. CONTRACT DATA:**

PROGRAM	SHIP	PRIME	CONTRACT	AWARD	NEW		HARDWARE
<u>YEAR</u>	<u>TYPE</u>	CONTRACTOR	<u>TYPE</u>	<u>DATE</u>	/OPTION	<u>QTY</u>	<b>UNIT COST</b>
FY07	DDG-1000	BAE	CPAF/IF	JAN-10		4	10,000
FY09	DDG-1000	BAE	CPAF/IF	JAN-11		2	10.000

**IV. DELIVERY DATE:** 

PROGRAM	SHIP	EARLIEST SHIP	MONTHS REQUIRED	PRODUCTION	REQUIRED
<u>YEAR</u>	<u>TYPE</u>	<b>DELIVERY DATE</b>	BEFORE DELIVERY	<b>LEADTIME</b>	AWARD DATE
FY07	DDG-1000	JUL-14	40	36	SEP-08
FY09	DDG-1000	FEB-18	40	36	OCT-11

#### V. COMPETITION/SECOND SOURCE INITIATIVES:

## SHIPBUILDING AND CONVERSION, NAVY

MAJOR SHIP COMPONENT FACT SHEET (Dollars in Thousands)

P-35 EXHIBIT FY2013 President's Budget February 2012

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 35.25MWm, at 3600 rpm power turbine speed at the standard rating conditions defined in the American Bureau of Shipbuilding (ABS) Naval Vessel Rules (NVR).

## **II. CURRENT FUNDING:**

P-35 Category	FY 2	FY 2009		
	<u>QTY</u>	COST	<u>QTY</u>	COST
Major Hardware	4	73,262	2	39,412
Technical Support Services		1,485		0
Other Costs (NRE)		3,378		0
Total		78,125		39,412

## **III. CONTRACT DATA:**

PROGRAM	SHIP	PRIME	CONTRACT	AWARD	NEW		HARDWARE
<u>YEAR</u>	TYPE	CONTRACTOR	<u>TYPE</u>	DATE	/OPTION	<u>QTY</u>	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	SHIP	EARLIEST SHIP	MONTHS REQUIRED	PRODUCTION	REQUIRED
YEAR	<u>TYPE</u>	DELIVERY DATE	BEFORE DELIVERY	<b>LEADTIME</b>	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

CLASSIFICATION: UNCLASSIFIED										
	ITEM JUSTIFICATIO						DATE:			
	FY 2013 President's	Budget			February 2012					
APPROPRIATION/BUDGET ACTIVITY					P-1 LINE ITEM NO	MENCLATURE				
SHIPBUILDING AND CONVERSION, NAVY/BA 2 Other Warships					DDG-51					
					BLI: 2122					
(Dollars in Millions)	PRIOR YR	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	TO COMP	TOTAL PROG
QUANTITY	63	2	1	2	1	2	2	2	0	75
End Cost	58,908.2	3,429.8	2,028.4	3,149.4	1,739.0	3,185.2	3,883.8	4,231.1	0.0	80,555.0
Less Advance Procurement	1,815.2	577.2	47.7	100.7	114.1	298.4	375.4	183.0	0.0	3,511.8
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 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
Less Escalation	48.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	48.2
Full Funding TOA	55,867.8	2,852.6	1,980.7	3,048.6	1,624.8	2,886.8	3,508.4	4,048.1	0.0	75,818.0
Plus Advance Procurement	2,392.4	47.7	100.7	466.3	389.5	115.2	0.0	0.0	0.0	3,511.8
Plus Transfer	218.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	218.5
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 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	59,485.4	2,900.3	2,081.4	3,514.9	2,014.3	3,002.0	3,508.4	4,048.1	0.0	80,555.0
Plus Outfitting / Plus Post Delivery	2,080.3	86.2	31.1	7.5	10.2	32.2	57.4	71.1	608.7	2,984.7
Total	61,565.7	2,986.4	2,112.5	3,522.4	2,024.5	3,034.2	3,565.8	4,119.2	608.7	83,539.7
Unit Cost ( Ave. End Cost)	935.1	1,714.9	2,028.4	1,574.7	1,738.9	1,592.6	1,941.9	2,115.6	0.0	1,074.1

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) Commensurate with submission of the FY 2013 President's Budget, the Department is requesting Congressional approval for a FY13-17 Multiyear Procurement Contract.

Characteristics: Hull Length overall Beam Displacement	FLIGHT IIA 471' 59' 9217 TONS		Production Sta Contract Plans Award Planned Months to Co a) Award to De	d (Month) Implete			AEGIS WEAPON SYSTEM (SPY-D(V)) VLS MK41/SM-2 5'62 MK 45 Gun Tomahawk	AN/SQQ-89 (V) 15 AN/SLQ-32 AN/USQ-82 (GEDMS) EXCOMM MK 12 IFF
Production Status Contract Plans	FY 2010 DDG 113	FY 2011 DDG 114	FY 2011 DDG 115	FY 2012 DDG 116	FY 2013 DDG 117	FY 2013 DDG 118	CIWS MK 32 MOD 7 Torpedo Tubes	SSEE MIDS
Award Planned (Month) Months to Complete	6/11	9/11	9/11	2/12	3/13	3/13		
a)Award to Delivery	56	62	62	69	68	68		
b)Construction Start to Delivery	41	41	57	TBD	TBD	TBD		
Delivery Date	2/16	11/16	11/16	11/17	11/18	11/18		
Commissionig Date	TBD	TBD	TBD	TBD	TBD	TBD		
Completion of Fitting Out	TBD	TBD	TBD	TBD	TBD	TBD		

Electronics:

Ordnance:

APPROPRIATION: SHIPBUILDING AND CONVERSION, NAVY

P-5 EXHIBIT FY 2013 President's Budget

February 2012

## WEAPON SYSTEM COST ANALYSIS (EXHIBIT P-5)

(Dollars in Thousands)

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

	FY 2	2005	FY	2006	FY	2007	FY	2008	FY 2	2009
ELEMENT OF COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
PLAN COSTS	3	44,410		26,913		40,349				
BASIC CONST/CONVERSION		1,764,517				1,274				
CHANGE ORDERS		83,156								
ELECTRONICS		464,260								
HM&E		41,280								
OTHER COST		91,819		20,696		54,827				
ORDNANCE		1,035,426		98,832		95,151				
TOTAL SHIP ESTIMATE		3,524,868		146,441		191,601				
LESS HURRICANE KATRINA SUPPLEMENTAL FY06		36,584								
LESS ADVANCE PROCUREMENT FY01		60,000								
NET P-1 LINE ITEM:		3,428,284		146,441		191,601				

APPROPRIATION: SHIPBUILDING AND CONVERSION, NAVY

P-5 EXHIBIT FY 2013 President's Budget February 2012

## WEAPON SYSTEM COST ANALYSIS (EXHIBIT P-5)

(Dollars in Thousands)

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

	FY 20	10	FY	2011	FY	2012	FY	2013
ELEMENT OF COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
PLAN COSTS	1	95,354	2	97,174	1	155,109	2	75,719
BASIC CONST/CONVERSION		830,569		1,633,553		767,978		1,499,961
CHANGE ORDERS		41,528		81,678		38,399		44,999
ELECTRONICS		223,352		369,789		219,437		384,588
HM&E		115,282		166,220		87,918		154,369
OTHER COST		70,558		76,081		72,427		77,273
ORDNANCE		835,725		1,005,327		687,160		912,472
TOTAL SHIP ESTIMATE		2,212,368		3,429,822		2,028,428		3,149,381
LESS ADVANCE PROCUREMENT FY07		128,597						
LESS ADVANCE PROCUREMENT FY09		199,403						
LESS ADVANCE PROCUREMENT FY10				577,210				
LESS ADVANCE PROCUREMENT FY11						47,719		
LESS ADVANCE PROCUREMENT FY12								100,723
NET P-1 LINE ITEM:		1,884,368		2,852,612		1,980,709		3,048,658

SHIPBUILDING AND CONVERSION, NAVY FY 2013 President's Budget Analysis of Ship Cost Estimate - Basic/Escalation DATE: Ship Type: DDG 51 February 2012

P-5B Exhibit

	Design/Schedule	Start/Issue	Complete Reissue		Complete		
			/Response		/Response		
	Issue date for TLR	6/83					
	Issue date for TLS						
	Preliminary Design	3/82	12/82				
	Contract Design	5/83	6/84				
	Detail Design						
	Request for Proposals						
	Design Agent	BIW					
II.	Classification of Cost Estimate	CLASS C BUDGE	T ESTIMATE				
III.	Basic Construction/Conversion	FY 2002-2005	FY2010	FY2011	FY2012	FY2013	
	A. Actual Award Date	09/02	06/11	09/11	TBD	TBD	
	B. Contract Type ( and Share Line if applicable )	MULTIYEAR PROCUREMENT/ FIXED PRICE INCENTIVE	ANNUAL /FPI	ANNUAL WITH OPTION/FPI	OPTION	MULTIYEAR PROCUREMENT/ FPI	
	C. RFP Response Date		4/10	8/11	08/11	TBD	

## IV. Escalation

**Escalation Termination Date** 

SHIPBUILDING CONTRACTS ARE FORWARD PRICED

**Escalation Requirement** 

Labor/Material Split

Allowable Overhead Rate

BASE DATE

V. Other Basic(Reserves/Miscellaneous) **Amount** 

N/A

## SHIPBUILDING AND CONVERSION, NAVY SHIP PRODUCTION SCHEDULE

**EXHIBIT P-27** 

FY 2013 President's Budget

DATE:

February 2012

SHIP TYPE	HULL NUMBER	SHIPBUILDER	FISCAL YEAR AUTHORIZED	CONTRACT AWARD	START OF CONSTRUCTION	DELIVERY DATE
DDG	112	BIW	05	SEP-02	FEB-08	MAY-12
DDG	113	HII	10	JUN-11	SEP-12	FEB-16
DDG	114	HII	11	SEP-11	JUN-13	NOV-16
DDG	115	BIW	11	SEP-11	FEB-12	NOV-16
DDG	116	TBD	12	FEB-12	FEB-13	NOV-17
DDG	117	TBD	13	MAR-13	FEB-14	NOV-18
DDG	118	TBD	13	MAR-13	FEB-14	NOV-18
DDG	119	TBD	14	MAR-13	FEB-15	NOV-19
DDG	120	TBD	15	MAR-13	FEB-16	NOV-20
DDG	121	TBD	15	MAR-13	FEB-16	NOV-20
DDG	122	TBD	16	MAR-13	FEB-17	NOV-21
DDG	123	TBD	16	MAR-13	FEB-17	NOV-21
DDG	124	TBD	17	MAR-13	FEB-18	NOV-22
DDG	125	TBD	17	MAR-13	FEB-18	NOV-22

CLASSIFICATION: UNCLASSIFIED P-8A EXHIBIT

## FY 2013 President's Budget

February 2012

## SHIPBUILDING AND CONVERSION, NAVY

Analysis of Ship Cost Estimates - Major Equipment (Dollars in Thousands)

Ship Type: DDG-51 AEGIS DESTROYERS	FY 2010		FY 2011		FY 2012		FY 2013	
	<u>QTY</u>	COST	<u>QTY</u>	COST	<u>QTY</u>	COST	<u>QTY</u>	COST
ELECTRONICS								
a. P-35 Items								
AN/SQQ-89 (V) COMBAT SYSTEM	1	56,236	2	82,285	1	44,353	2	82,255
SLQ-32B(V)2/MK 53 NULKA	1	8,099	2	15,671	1	11,749	2	37,605
AN/USQ 82(V) GEDMS	1	17,450	2	24,924	1	18,066	2	25,825
EXCOMM	1	56,406	2	93,376	1	57,231	2	91,854
Subtotal		138,191		216,256		131,399		237,539
b. Major Items								
NAVIGATION SYSTEM	1	2,428	2	3,889	1	6,357	2	7,209
MK-12 IFF	1	5,546	2	11,258	1	7,149	2	12,687
SLQ 25 NIXIE	1	2,409	2	3,118	1	1,459	2	3,231
SRQ 4 LAMPS III	1	2,735	2	5,968	1	2,856	2	7,937
SSEE	1	16,389	2	31,346	1	16,346	2	27,609
MIDS	1	3,801	2	7,032	1	3,935	2	6,194
CEC BLK II	1	7,567	2	10,486	1	6,178	2	10,866
Subtotal		40,875		73,097		44,280		75,733
c. Other ELECTRONICS								
MISC. ELECTRONICS	1	44,286	2	80,436	1	43,758	2	71,316
Subtotal		44,286		80,436		43,758		71,316
Total ELECTRONICS		223,352		369,789		219,437		384,588

CLASSIFICATION: UNCLASSIFIED P-8A EXHIBIT

FY 2013 President's Budget

February 2012

## SHIPBUILDING AND CONVERSION, NAVY

Analysis of Ship Cost Estimates - Major Equipment

(Dollars in	Thousands)
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Ship Type: DDG-51 AEGIS DESTROYERS	FY 2010		FY 20	FY 2011		FY 2012		013
	QTY	COST	<u>QTY</u>	COST	<u>QTY</u>	COST	<u>QTY</u>	COST
HM&E								
a. P-35 Items								
STC 3 IVCS	1	7,856	2	14,360	1	7,272	2	14,880
MAIN REDUCTION GEAR	1	48,440	2	82,846	1	40,368	2	78,484
Subtotal		56,296		97,206		47,640		93,364
b. Major Items								
MACHINERY CONTROL SYSTEM	1	13,026	2	12,669	1	6,124	2	10,023
INTEGRATED BRIDGE NAVIGATION SYSTEM	1	10,444	2	13,198	1	6,773	2	10,703
Subtotal		23,470		25,867		12,897		20,726
c. Other HM&E								
MISC. HM&E	1	35,516	2	43,147	1	27,381	2	40,279
Subtotal		35,516		43,147		27,381		40,279
Total HM&E		115,282		166,220		87,918		154,369

CLASSIFICATION: UNCLASSIFIED P-8A EXHIBIT
FY 2013 President's Budget

February 2012

## SHIPBUILDING AND CONVERSION, NAVY

Analysis of Ship Cost Estimates - Major Equipment (Dollars in Thousands)

FY 2010		FY 2011		FY 2012		FY 2013	
<u>QTY</u>	COST	<u>QTY</u>	COST	<u>QTY</u>	COST	QTY	COST
1	382,774	2	495,416	1	361,203	2	451,255
1	94,628	2	140,106	1	86,787	2	107,047
1	27,334	2	51,232	1	27,160	2	36,767
1	43,406	2	28,905	1	18,235	2	25,459
1	6,755	2	13,712	1	8,126	2	16,545
	554,897		729,371		501,511		637,073
1	2,626	2	5,387	1	2,719	2	5,582
1	3,429	2	6,868	1	3,550	2	5,905
1	9,932	2	6,799	1	3,501	2	6,142
1	14,920	2	15,785	1	6,522	2	12,228
	30,907		34,839		16,292		29,857
1	249,921	2	241,117	1	169,357	2	245,542
	249,921		241,117		169,357		245,542
	835,725		1,005,327		687,160		912,472
	QTY  1 1 1 1 1 1 1 1	QTY     COST       1     382,774       1     94,628       1     27,334       1     43,406       1     6,755       554,897       1     2,626       1     3,429       1     9,932       1     14,920       30,907       1     249,921       249,921	QTY     COST     QTY       1     382,774     2       1     94,628     2       1     27,334     2       1     43,406     2       1     6,755     2       554,897     2       1     2,626     2       1     9,932     2       1     14,920     2       30,907     2       1     249,921     2       249,921     2	QTY         COST         QTY         COST           1         382,774         2         495,416           1         94,628         2         140,106           1         27,334         2         51,232           1         43,406         2         28,905           1         6,755         2         13,712           554,897         729,371         729,371           1         2,626         2         5,387           1         3,429         2         6,868           1         9,932         2         6,799           1         14,920         2         15,785           30,907         34,839           1         249,921         2         241,117           249,921         2         241,117	QTY         COST         QTY         COST         QTY           1         382,774         2         495,416         1           1         94,628         2         140,106         1           1         27,334         2         51,232         1           1         43,406         2         28,905         1           1         6,755         2         13,712         1           554,897         729,371         729,371         1           1         3,429         2         6,868         1           1         9,932         2         6,799         1           1         14,920         2         15,785         1           30,907         34,839         1         1           1         249,921         2         241,117         1	QTY         COST         QTY         COST         QTY         COST           1         382,774         2         495,416         1         361,203           1         94,628         2         140,106         1         86,787           1         27,334         2         51,232         1         27,160           1         43,406         2         28,905         1         18,235           1         6,755         2         13,712         1         8,126           554,897         729,371         501,511           1         2,626         2         5,387         1         2,719           1         3,429         2         6,868         1         3,550           1         9,932         2         6,799         1         3,501           1         14,920         2         15,785         1         6,522           30,907         34,839         16,292           1         249,921         2         241,117         1         169,357           1         6,939         1         16,292         16,292         16,292         16,292         16,292         16,292         16,292 <td>QTY         COST         QTY         COST         QTY         COST         QTY           1         382,774         2         495,416         1         361,203         2           1         94,628         2         140,106         1         86,787         2           1         27,334         2         51,232         1         27,160         2           1         43,406         2         28,905         1         18,235         2           1         6,755         2         13,712         1         8,126         2           554,897         729,371         501,511         501,511         2           1         2,626         2         5,387         1         2,719         2           1         9,932         2         6,868         1         3,550         2           1         14,920         2         15,785         1         6,522         2           30,907         34,839         16,292         2           1         249,921         241,117         1 169,357         2</td>	QTY         COST         QTY         COST         QTY         COST         QTY           1         382,774         2         495,416         1         361,203         2           1         94,628         2         140,106         1         86,787         2           1         27,334         2         51,232         1         27,160         2           1         43,406         2         28,905         1         18,235         2           1         6,755         2         13,712         1         8,126         2           554,897         729,371         501,511         501,511         2           1         2,626         2         5,387         1         2,719         2           1         9,932         2         6,868         1         3,550         2           1         14,920         2         15,785         1         6,522         2           30,907         34,839         16,292         2           1         249,921         241,117         1 169,357         2

## SHIPBUILDING AND CONVERSION, NAVY

MAJOR SHIP COMPONENT FACT SHEET (Dollars in Thousands)

P-35 EXHIBIT FY 2013 President's Budget February 2012

Ship Type: DDG-51 AEGIS DESTROYERS Equipment Item: AN/SQQ-89 (V) COMBAT SYSTEM

PARM Code:

## I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

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

## **II. CURRENT FUNDING:**

P-35 Category	FY 2010		FY 2011		FY 2012		FY 2013	
	<b>QTY</b>	COST	<u>QTY</u>	COST	<u>QTY</u>	COST	<u>QTY</u>	COST
Major Hardware	1	34,758	2	49,272	1	26,652	2	50,952
Spares		462		894		467		924
System Engineering		4,540		7,501		4,257		7,757
Technical Engineering Services		2,296		4,356		2,554		4,505
Other Costs		14,180		20,262		10,423		18,117
Total		56,236		82,285		44,353		82,255

## III. CONTRACT DATA:

PROGRAM	SHIP	PRIME	CONTRACT	AWARD	NEW		HARDWARE
<u>YEAR</u>	<u>TYPE</u>	<u>CONTRACTOR</u>	<u>TYPE</u>	<u>DATE</u>	<u>/OPTION</u>	<u>QTY</u>	<b>UNIT COST</b>
FY10	DDG 51	LOCKHEED MARTIN	FFP	JUN-11		1	34,758
FY11	DDG 51	LOCKHEED MARTIN	FFP	JUN-11		2	24,636
FY12	DDG 51	LOCKHEED MARTIN	FFP	JAN-12		1	26,652
FY13	DDG 51	COMPETITIVE	FFP	JAN-13		2	25.476

## IV. DELIVERY DATE:

PROGRAM	SHIP	EARLIEST SHIP	MONTHS REQUIRED	PRODUCTION	REQUIRED
<u>YEAR</u>	<u>TYPE</u>	<b>DELIVERY DATE</b>	BEFORE DELIVERY	<u>LEADTIME</u>	AWARD DATE
FY10	DDG 51	NOV-15	14	24	SEP-12
FY11	DDG 51	NOV-16	14	24	SEP-13
FY12	DDG 51	NOV-17	14	24	SEP-14
FY13	DDG 51	NOV-18	14	24	SEP-15

## V. COMPETITION/SECOND SOURCE INITIATIVES:

Competitive

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

FY 2013 President's Budget February 2012

P-35 EXHIBIT

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

PARM Code:

## I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

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

## II. CURRENT FUNDING:

13
COST
32,687
1,441
750
611
2,116
37,605
1-

## **III. CONTRACT DATA:**

PROGRAM	SHIP	PRIME	CONTRACT	AWARD	NEW		HARDWARE
<u>YEAR</u>	<u>TYPE</u>	CONTRACTOR	<u>TYPE</u>	<u>DATE</u>	/OPTION	<u>QTY</u>	<b>UNIT COST</b>
FY10	DDG 51	RAYTHEON/CRANE	FFP	JUL-11		1	7,295
FY11	DDG 51	RAYTHEON/CRANE	FFP	JUL-11		2	7,065
FY12	DDG 51	RAYTHEON/CRANE	FFP	JUL-12		1	8,823
FY13	DDG 51	RAYTHEON/CRANE	FFP	JUL-13		2	16.344

#### IV. DELIVERY DATE:

PROGRAM	SHIP	EARLIEST SHIP	MONTHS REQUIRED	PRODUCTION	REQUIRED
<u>YEAR</u>	<u>TYPE</u>	<b>DELIVERY DATE</b>	BEFORE DELIVERY	<u>LEADTIME</u>	AWARD DATE
FY10	DDG 51	NOV-15	16	24	JUL-12
FY11	DDG 51	NOV-16	16	24	JUL-13
FY12	DDG 51	NOV-17	16	24	JUL-14
FY13	DDG 51	NOV-18	16	24	JUL-15

## V. COMPETITION/SECOND SOURCE INITIATIVES:

Sole Source/Competitive

NOTE:

AN/SLQ-32 shared restoration between Raytheon and NSWC/Crane. MK 53 NULKA current vendor is SECHAN. FY13 introduces SLQ-32(V)6 with full SEWIP.

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

P-35 EXHIBIT FY 2013 President's Budget February 2012

Ship Type: DDG-51 AEGIS DESTROYERS Equipment Item:

PARM Code:

AN/USQ 82(V) GEDMS

## I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

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

## **II. CURRENT FUNDING:**

P-35 Category	FY 2	010	FY 2	011	FY 2	012	FY 20	013
	<u>QTY</u>	COST	<u>QTY</u>	COST	<u>QTY</u>	COST	<b>QTY</b>	COST
Major Hardware	1	6,800	2	12,920	1	7,040	2	13,411
Technical Data and Documentation		1,150		1,190		1,191		1,231
System Engineering		2,800		2,885		2,899		2,983
Technical Engineering Services		350		485		362		502
Other Costs		6,350		7,444		6,574		7,698
Total		17,450		24,924		18,066		25,825

## III. CONTRACT DATA:

PROGRAM	SHIP	PRIME	CONTRACT	AWARD	NEW		HARDWARE
<u>YEAR</u>	<u>TYPE</u>	CONTRACTOR	<u>TYPE</u>	DATE	/OPTION	<u>QTY</u>	UNIT COST
FY10	DDG 51	DRS	FFP	DEC-10		1	6,800
FY11	DDG 51	COMPETITIVE	FFP	JUN-12		2	6,460
FY12	DDG 51	COMPETITIVE	FFP	JUN-13		1	7,040
FY13	DDG 51	COMPETITIVE	FFP	JUN-14		2	6,706

## **IV. DELIVERY DATE:**

PROGRAM	SHIP	EARLIEST SHIP	MONTHS REQUIRED	PRODUCTION	REQUIRED
<u>YEAR</u>	<u>TYPE</u>	<b>DELIVERY DATE</b>	BEFORE DELIVERY	<b>LEADTIME</b>	AWARD DATE
FY10	DDG 51	NOV-15	25	18	APR-12
FY11	DDG 51	NOV-16	25	18	APR-13
FY12	DDG 51	NOV-17	25	18	APR-14
FY13	DDG 51	NOV-18	25	18	APR-15

## V. COMPETITION/SECOND SOURCE INITIATIVES:

Competitive

## SHIPBUILDING AND CONVERSION, NAVY

MAJOR SHIP COMPONENT FACT SHEET (Dollars in Thousands)

P-35 EXHIBIT FY 2013 President's Budget February 2012

Ship Type: DDG-51 AEGIS DESTROYERS

Equipment Item: EXCOMM

PARM Code:

## I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

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

## II. CURRENT FUNDING:

P-35 Category	FY 20	010	FY 2	011	FY 2	012	FY 2	013	
	QTY	COST	QTY	COST	<b>QTY</b>	COST	<b>QTY</b>	COST	
Major Hardware	1	21,597	2	43,680	1	21,316	2	53,569	
Technical Data and Documentation		120		212		124		219	
Spares		467		396		483		410	
System Engineering		5,675		6,023		5,875		6,228	
Technical Engineering Services		1,612		3,134		1,669		3,241	
Assembly & Integration		17,516		28,544		18,013		16,676	
Other Costs		9,419		11,387		9,751		11,511	
Total		56,406		93,376		57,231		91,854	

## III. CONTRACT DATA:

PROGRAM	SHIP	PRIME	CONTRACT	AWARD	NEW		HARDWARE
<u>YEAR</u>	<u>TYPE</u>	<u>CONTRACTOR</u>	<u>TYPE</u>	<u>DATE</u>	<u>/OPTION</u>	<u>QTY</u>	<b>UNIT COST</b>
FY10	DDG 51	VARIOUS	VAR	VAR		1	21,597
FY11	DDG 51	VARIOUS	VAR	VAR		2	21,840
FY12	DDG 51	VARIOUS	VAR	VAR		1	21,316
FY13	DDG 51	VARIOUS	VAR	VAR		2	26,785

## IV. DELIVERY DATE:

PROGRAM	SHIP	EARLIEST SHIP	MONTHS REQUIRED	PRODUCTION	REQUIRED
YEAR	<u>TYPE</u>	<b>DELIVERY DATE</b>	BEFORE DELIVERY	<b>LEADTIME</b>	AWARD DATE
FY10	DDG 51	NOV-15	15	9	NOV-13
FY11	DDG 51	NOV-16	15	9	NOV-14
FY12	DDG 51	NOV-17	15	9	NOV-15
FY13	DDG 51	NOV-18	15	9	NOV-16

## V. COMPETITION/SECOND SOURCE INITIATIVES:

Numerous contract arrangements (sole source/competitive)

NOTE:

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

## SHIPBUILDING AND CONVERSION, NAVY MAJOR SHIP COMPONENT FACT SHEET

(Dollars in Thousands)

P-35 EXHIBIT FY 2013 President's Budget February 2012

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

PARM Code:

## I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

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

## II. CURRENT FUNDING:

P-35 Category	FY 2	010	FY 20	011	FY 20	)12	FY 20	013
	<u>QTY</u>	COST	QTY	COST	<u>QTY</u>	COST	<u>QTY</u>	COST
Major Hardware	1	30,400	2	50,800	1	27,299	2	52,917
Spares		3,660		7,320		0		0
System Engineering		6,590		13,600		6,877		14,062
Technical Engineering Services		4,875		8,196		4,168		8,475
Other Costs		2,915		2,930		2,024		3,030
Total		48,440		82,846		40,368		78,484

## III. CONTRACT DATA:

PROGRAM	SHIP	PRIME	CONTRACT	AWARD	NEW		HARDWARE
<u>YEAR</u>	<u>TYPE</u>	<u>CONTRACTOR</u>	TYPE	<u>DATE</u>	/OPTION	<u>QTY</u>	<b>UNIT COST</b>
FY10	DDG 51	PHILADELPHIA GEAR	FFP	JUN-10		1	30,400
FY11	DDG 51	PHILADELPHIA GEAR	FFP	JUN-10		2	25,400
FY12	DDG 51	PHILADELPHIA GEAR	FFP	MAR-12		1	27,299
FY13	DDG 51	PHILADLPHIA GEAR	FFP	MAR-13		2	26,459

## IV. DELIVERY DATE:

PROGRAM	SHIP	EARLIEST SHIP	MONTHS REQUIRED	PRODUCTION	REQUIRED
<u>YEAR</u>	<u>TYPE</u>	<b>DELIVERY DATE</b>	BEFORE DELIVERY	<b>LEADTIME</b>	AWARD DATE
FY10	DDG 51	NOV-15	39	25	JUL-10
FY11	DDG 51	NOV-16	39	23	SEP-11
FY12	DDG 51	NOV-17	39	23	SEP-12
FY13	DDG 51	NOV-18	39	23	SEP-13

## V. COMPETITION/SECOND SOURCE INITIATIVES:

COMPETITIVE

## SHIPBUILDING AND CONVERSION, NAVY

MAJOR SHIP COMPONENT FACT SHEET (Dollars in Thousands)

FY 2013 President's Budget February 2012

P-35 EXHIBIT

Ship Type: DDG-51 AEGIS DESTROYERS

Equipment Item: STC 3 IVCS

PARM Code:

## I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

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

## **II. CURRENT FUNDING:**

P-35 Category	FY:	2010	FY 20	011	FY 20	12	FY 20	13
	<b>QTY</b>	COST	<u>QTY</u>	COST	<u>QTY</u>	COST	<u>QTY</u>	COST
Major Hardware	1	4,642	2	9,562	1	4,863	2	9,888
Spares		229		471		239		487
System Engineering		1,075		1,632		829		1,688
Technical Engineering Services		270		416		212		430
Other Costs		1,640		2,279		1,129		2,387
Total		7,856		14,360		7,272		14,880

## III. CONTRACT DATA:

PROGRAM	SHIP	PRIME	CONTRACT	AWARD	NEW		HARDWARE
<u>YEAR</u>	<u>TYPE</u>	<b>CONTRACTOR</b>	<u>TYPE</u>	<u>DATE</u>	/OPTION	<u>QTY</u>	<b>UNIT COST</b>
FY10	DDG 51	DRS	FFP	AUG-11		1	4,642
FY11	DDG 51	DRS	FFP	AUG-11		2	4,781
FY12	DDG 51	DRS	FFP	AUG-12		1	4,863
FY13	DDG 51	DRS	FFP	AUG-13		2	4,944

## IV. DELIVERY DATE:

PROGRAM	SHIP	EARLIEST SHIP	MONTHS REQUIRED	PRODUCTION	REQUIRED
<u>YEAR</u>	<u>TYPE</u>	<b>DELIVERY DATE</b>	BEFORE DELIVERY	<b>LEADTIME</b>	AWARD DATE
FY10	DDG 51	NOV-15	30	16	JAN-12
FY11	DDG 51	NOV-16	30	16	JAN-13
FY12	DDG 51	NOV-17	30	16	JAN-14
FY13	DDG 51	NOV-18	30	16	JAN-15

## V. COMPETITION/SECOND SOURCE INITIATIVES:

Competitive

## SHIPBUILDING AND CONVERSION, NAVY MAJOR SHIP COMPONENT FACT SHEET

MAJOR SHIP COMPONENT FACT SHEE (Dollars in Thousands) P-35 EXHIBIT FY 2013 President's Budget February 2012

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

PARM Code:

## I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

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

#### II. CURRENT FUNDING:

P-35 Category	FY 2010		FY 2011		FY 2012		FY 2013	
	<u>QTY</u>	COST	<u>QTY</u>	COST	<u>QTY</u>	COST	<u>QTY</u>	COST
Major Hardware	1	223,664	2	310,860	1	203,565	2	273,424
System Integration		57,120		84,230		57,048		77,281
Logistics Support		34,540		35,919		30,759		37,219
Technical Engineering Services		16,800		15,114		17,393		12,254
Technical Support Services		0		0		0		0
System Engineering		5,965		5,140		6,176		5,326
Other		44,685		44,153		46,262		45,751
Total		382,774		495,416		361,203		451,255

## III. CONTRACT DATA:

PROGRAM	SHIP	PRIME	CONTRACT	AWARD	NEW		HARDWARE
YEAR	<u>TYPE</u>	CONTRACTOR	<u>TYPE</u>	DATE	<u>/OPTION</u>	<u>QTY</u>	<b>UNIT COST</b>
FY10	DDG 51	LOCKHEED MARTIN/RAYTHEON	FPI	SEP-09		1	223,664
FY11	DDG 51	LOCKHEED MARTIN/RAYTHEON	FPI	APR-10		2	155,430
FY12	DDG 51	LOCKHEED MARTIN/RAYTHEON	FPI	JAN-12		1	203,565
FY13	DDG 51	LOCKHEED MARTIN/RAYTHEON	FPI	JAN-13		2	136,712

## IV. DELIVERY DATE:

PROGRAM	SHIP	EARLIEST SHIP	MONTHS REQUIRED	PRODUCTION	REQUIRED
<u>YEAR</u>	<u>TYPE</u>	<b>DELIVERY DATE</b>	BEFORE DELIVERY	<b>LEADTIME</b>	<b>AWARD DATE</b>
FY10	DDG 51	NOV-15	16	54	JAN-10
FY11	DDG 51	NOV-16	15	36	AUG-12
FY12	DDG 51	NOV-17	15	36	AUG-13
FY13	DDG 51	NOV-18	15	36	AUG-14

## V. COMPETITION/SECOND SOURCE INITIATIVES:

Sole Source

NOTE:

MDA will procure hardware in FY12/13 to repay diverted DDG 116 asset. Procurement in FY13 meets all AWS needs with no shipbuilding interruption.

Contract Data Notes:

Antenna and Signal Processors - Contractor: Lockheed Martin

Spy Transmitter and Fire Control System Transmitter - Contractor: Raytheon

Director/Director Controller - General Dynamics

Note: FY13 is the first year of a Multiyear Procurement

## SHIPBUILDING AND CONVERSION, NAVY MAJOR SHIP COMPONENT FACT SHEET

MAJOR SHIP COMPONENT FACT SHEE (Dollars in Thousands)

P-35 EXHIBIT FY 2013 President's Budget February 2012

Ship Type: DDG-51 AEGIS DESTROYERS

Equipment Item: VLS MK 41

PARM Code:

## I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

The VLS is a Missile Launching System which provides Surface Combatants with a launcher to carry, prepare for launch and fire, Anti-Air Warfare, Strike/Surface Warfare, and Anti-Submarine

Warfare weapons. The Flight IIA MK-41 VLS Launchers consist of twelve modules comprised of eight cells each.

## II. CURRENT FUNDING:

P-35 Category	FY 2010		FY 2011		FY 2012		FY 2013	
	<u>QTY</u>	COST	<u>QTY</u>	COST	<b>QTY</b>	COST	<b>QTY</b>	COST
Major Hardware	1	64,045	2	106,276	1	55,124	2	72,062
Ancillary Equip.		1,390		2,830		1,439		2,957
Tech Data/Doc		490		500		507		517
Technical Engineering Services		9,365		11,600		9,696		11,966
System Engineering		13,203		12,580		13,669		13,009
Other Costs		6,135		6,320		6,352		6,536
Total		94,628		140,106		86,787		107,047

## III. CONTRACT DATA:

PROGRAM	SHIP	PRIME	CONTRACT	AWARD	NEW		HARDWARE
<u>YEAR</u>	<u>TYPE</u>	CONTRACTOR	TYPE	<u>DATE</u>	/OPTION	<u>QTY</u>	UNIT COST
FY10	DDG 51	LOCKHEED MARTIN/BAE	TBD	MAY-11		1	64,045
FY11	DDG 51	LOCKHEED MARTIN/BAE	TBD	MAY-11		2	53,138
FY12	DDG 51	LOCKHEED MARTIN/BAE	TBD	MAR-12		1	55,124
FY13	DDG 51	LOCKHEED MARTIN/BAE	TBD	MAR-13		2	36,031

## IV. DELIVERY DATE:

PROGRAM	SHIP	EARLIEST SHIP	MONTHS REQUIRED	PRODUCTION	REQUIRED
YEAR	<u>TYPE</u>	<b>DELIVERY DATE</b>	BEFORE DELIVERY	<b>LEADTIME</b>	AWARD DATE
FY10	DDG 51	NOV-15	18	24	MAY-12
FY11	DDG 51	NOV-16	18	24	MAY-13
FY12	DDG 51	NOV-17	18	24	MAY-14
FY13	DDG 51	NOV-18	18	24	MAY-15

## V. COMPETITION/SECOND SOURCE INITIATIVES:

Sole Source

NOTE:

FY13 is the first ship of a Multiyear Procurement

## SHIPBUILDING AND CONVERSION, NAVY

MAJOR SHIP COMPONENT FACT SHEET (Dollars in Thousands)

P-35 EXHIBIT FY 2013 President's Budget February 2012

Ship Type: DDG-51 AEGIS DESTROYERS Equipment Item: 5" 62 CALIBER MK 45 GUN

PARM Code:

## I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

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

## **II. CURRENT FUNDING:**

P-35 Category	FY 2010		FY 2011		FY 2012		FY 2013	
	<u>QTY</u>	COST	<u>QTY</u>	COST	<u>QTY</u>	COST	<u>QTY</u>	COST
Major Hardware	1	18,715	2	34,996	1	18,237	2	24,244
Spares		979		1,162		1,014		307
System Engineering		2,587		5,317		2,678		4,330
Technical Engineering Services		1,389		2,855		1,438		2,324
Other Costs		3,664		6,902		3,793		5,562
Total		27,334		51,232		27,160		36,767

## III. CONTRACT DATA:

PROGRAM	SHIP	PRIME	CONTRACT	AWARD	NEW		HARDWARE
<u>YEAR</u>	<u>TYPE</u>	CONTRACTOR	TYPE	<u>DATE</u>	/OPTION	<u>QTY</u>	<b>UNIT COST</b>
FY10	DDG 51	BAE AD/MCNALLY	FFP	SEP-10		1	18,715
FY11	DDG 51	BAE AD/MCNALLY	FFP	JUN-11		2	17,498
FY12	DDG 51	BAE AD/MCNALLY	FFP	JUN-12		1	18,237
FY13	DDG 51	BAE AD/MCNALLY	FFP	JUN-13		2	12.122

## IV. DELIVERY DATE:

PROGRAM	SHIP	EARLIEST SHIP	MONTHS REQUIRED	PRODUCTION	REQUIRED
<u>YEAR</u>	<u>TYPE</u>	<b>DELIVERY DATE</b>	BEFORE DELIVERY	<b>LEADTIME</b>	AWARD DATE
FY10	DDG 51	NOV-15	18	24	MAY-12
FY11	DDG 51	NOV-16	18	24	MAY-13
FY12	DDG 51	NOV-17	18	24	MAY-14
FY13	DDG 51	NOV-18	18	24	MAY-15

## V. COMPETITION/SECOND SOURCE INITIATIVES:

NOTE:

Contract Data notes:

Gun Mount contract: BAE Armament Division - Sole Source

Lower Hoist contract: McNally - Sole Source

## SHIPBUILDING AND CONVERSION, NAVY MAJOR SHIP COMPONENT FACT SHEET

MAJOR SHIP COMPONENT FACT SHEE (Dollars in Thousands) P-35 EXHIBIT FY 2013 President's Budget February 2012

Ship Type: Equipment Item: DDG-51 AEGIS DESTROYERS TOMAHAWK (TTWCS)

PARM Code:

## I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

The Tactical Tomahawk Weapon Control System (TTWCS) is an open system architecture of work stations, processors, printers, fiber optic Local Area Network (LAN) and the Navy Standard Mass

Measurement storage device which provides target data management, engagement planning, weapon selection and initiation and launch functions for the TOMAHAWK cruise missile.

NOV-18

## II. CURRENT FUNDING:

P-35 Category		FY	′ 2010	FY 20	011	FY 2	012	FY 20	013	
		<u>QTY</u>	COST	<b>QTY</b>	COST	<u>QTY</u>	COST	QTY	COST	
Major Hardware		1	21,656	2	7,925	1	4,534	2	8,195	
Spares			5,179		1,288		655		1,332	
System Engineering			4,747		4,977		3,305		4,147	
Technical Engineering Services			2,918		3,808		3,021		3,938	
Other Costs			8,906		10,907		6,720		7,847	
Total			43,406		28,905		18,235		25,459	
III. CONTRACT DATA:										
PROGRAM	SHIP	PRIME	CONTRAC	Т	AWARD		NEW			HARDWARE
<u>YEAR</u>	<u>TYPE</u>	<u>CONTRACTOR</u>	<u>TYPE</u>		<u>DATE</u>		/OPTION		<u>QTY</u>	<b>UNIT COST</b>
FY10	DDG 51	NSWC PT HUENEME	FFP		MAR-10				1	21,656
FY11	DDG 51	NSWC PT HUENEME	FFP		MAY-11				2	3,963
FY12	DDG 51	NSWC PT HUENEME	FFP		APR-12				1	4,534
FY13	DDG 51	NSWC PT HUENEME	FFP		APR-13				2	4,098
IV. DELIVERY DATE:										
PROGRAM	SHIP	EARLIEST SHIP	MONTHS REQU	JIRED	PRODUCTIO	N	REQUIRED	)		
<u>YEAR</u>	<u>TYPE</u>	<u>DELIVERY DATE</u>	BEFORE DELIV	/ERY	<u>LEADTIME</u>	<u>.</u>	AWARD DAT	<u>ΓΕ</u>		
FY10	DDG 51	NOV-15	19		8		AUG-13			
FY11	DDG 51	NOV-16	19		8		AUG-14			
FY12	DDG 51	NOV-17	19		8		AUG-15			

19

8

AUG-16

## V. COMPETITION/SECOND SOURCE INITIATIVES:

**DDG 51** 

Competitive

FY13

## SHIPBUILDING AND CONVERSION, NAVY MAJOR SHIP COMPONENT FACT SHEET

(Dollars in Thousands)

P-35 EXHIBIT FY 2013 President's Budget February 2012

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

PARM Code:

## I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

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

NOV-16

NOV-17

NOV-18

## II. CURRENT FUNDING:

P-35 Category		F	Y 2010	FY 2	2011	FY 2	2012	FY 2	013	
		QTY	COST	<u>QTY</u>	COST	<b>QTY</b>	COST	<b>QTY</b>	COST	
Major Hardware			1 5,143	2	10,402	1	6,187	2	12,573	
System Engineering			318		750		382		776	
Technical Engineering Services			567		840		682		1,386	
Other Costs			727		1,720		875		1,810	
Total			6,755		13,712		8,126		16,545	
III. CONTRACT DATA:										
PROGRAM	SHIP	PRIME	CONTR	ACT	AWARI	)	NEW			HARDWARE
<u>YEAR</u>	<u>TYPE</u>	CONTRACTOR	TYP	<u> </u>	DATE		/OPTIOI	<u> </u>	<u>QTY</u>	UNIT COST
FY10	DDG 51	RAYTHEON	FFF		MAR-10	0			1	5,143
FY11	DDG 51	RAYTHEON	FFF		MAY-1	1			2	5,201
FY12	DDG 51	RAYTHEON	FFF		DEC-1	1			1	6,187
FY13	DDG 51	RAYTHEON	FFF		DEC-13	3			1	6,287
IV. DELIVERY DATE:										
PROGRAM	SHIP	EARLIEST SHIP	MONTHS RE	QUIRED	PRODUCT	ION	REQUIRE	ĒD		
<u>YEAR</u>	<u>TYPE</u>	<b>DELIVERY DATE</b>	BEFORE DE	LIVERY	LEADTIN	<u> ИЕ</u>	AWARD D	ATE		
FY10	DDG 51	NOV-15	25		22		DEC-11	l		

25

25

25

22

22

22

DEC-12

DEC-13

DEC-14

## V. COMPETITION/SECOND SOURCE INITIATIVES:

**DDG 51** 

**DDG 51** 

**DDG 51** 

Sole Source

FY11

FY12

FY13

CLASSIFICATION:		UNCLASSIF	TED									
Exhibit P-10, Advance Procurement Requirements Analysis	3								Date:			-
(Funding)									February 20	12		
Appropriation (Treasury)Code/CC/BA/BSA/Item Control Nu	mher						P-1 Line Item	Nomenclatur				
SHIPBUILDING AND CONVERSION, NAVY / 2 / Other W.		2122					DDG 51					
Weapon System	arompo / BE		Firet System	(BY1) Award [	Tate and Com		2200.		Interval Betw	oon Systems		
DDG 51 CLASS			VARIOUS	(DTT) Award t	Jaic and Com	piction bate			VARIOUS	con cystems	,	
BLI	PLT	Whon Pogld	Prior Years	FY11	FY12	FY13	FY14	FY15	FY16	FY17	To Complete	Total
ADVANCE PLANNING (1)	FLI	willell ixequ	61.0	1111	8.2	1113	19.1	115.2	1110	1117	10 Complete	203.5
PRODUCTION ENGINEERING (2)			29.6		0.2		13.1	110.2			+	29.6
SHIPBUILDER CLASS STANDARD EQUIPMENT (3)			362.1								1	362.1
CRP Propeller (3)	25	VAR	18.9								1	18.9
Crane Handling System (3)	28	Jan-13	2.3								1	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								1	109.7
Fuel Oil Purifier (3)	17	Oct-12	2.7							<b> </b>	+ +	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)	20	1NUV-12	10.1								+	10.1
60HZ Main Switchboard (3)			6.9									6.9
OTHER SHIPBUILDING MATERIAL (4)	VAR	VAR	36.5									36.5
SHIPBUILDER EQQ (5)	VAR	VAR	36.5			229.8	158.8				+	388.6
GFE - ELECTRONICS (6)	VAR	VAR	20.5	1.6	40.0	4.8	158.8				+	
IFF (OE-120A Antenna) (6)	- 00	VAR	28.5	1.6	<b>13.8</b> 5.8	4.8					+	<b>48.7</b> 9.3
SLQ-32 (6)	20	VAR	3.5 1.1		5.8						+	1.1
C&D Peripheral (6)	12	VAR	0.1	1.6								1.7
Tubes (6)	12	VAR	1.0	1.0								1.0
JTT (6)	12	May-12	1.0		1.1						+	1.1
MIDS (6)	24	Jun-12			2.7							2.7
TVS (6)	12	Jun-12	1		1.9						+	1.9
ADNS (6)	12	May-12			1.5							1.5
OE-570A (6)	12	Jun-12			0.9						1	0.9
EXCOMM Equipment (6)	VAR	VAR	22.8		0.9						1	22.8
CBSP (6)	VAR	VAR	22.0			4.8					+	4.8
GFE - ORDNANCE (7)	VAIX	VAIX	312.0	21.2	3.8	231.7	211.6				+	780.2
AEGIS Weapon System (7)	36	VAR	234.4	21.2	5.0	231.7	211.0					466.1
Tomahawk (7)	3	VAR	1.1		0.2	201.1						1.3
Vertical Launch System (VLS) (7)	24	VAR	76.5	21.2	0.2		211.6				1	309.3
SVTT (7)	12	Feb-12	7 0.0	211.2	3.6		211.0					3.6
COMBAT SYSTEM ENGINEERING (8)	<del>                                     </del>	1 00 12	16.0		3.0						1	16.0
GFE - Hull, Mechanical and Electrical (H,M,&E) (9)			59.5	24.9	74.9						1 1	159.3
WSN-7 (9)	15	Feb-12	00.0	21.0	4.1						1	4.1
Engine Controller (9)	26	VAR			3.9						1	3.9
Repair Station Console (9)	18	VAR	3.0		1.8						1	4.8
Digital Video Surveillance System (9)	24	VAR	3.0		1.2						1 1	4.2
Main Reduction Gear (9)	24	VAR	53.5	24.9	52.1						1	130.5
Machinery Control System (9)	24	VAR	30.0	24.5	5.5						† †	5.5
Integrated Bridge Navigation System (9)	18	VAR			6.3						1 1	6.3
Total AP	10	7/313	905.2	47.7	100.7	466.3	389.5	115.2	0.0	0.0		2,024.5
		·	303.2	77.7	100.7	700.3	503.5	113.2	0.0	. 0.		2,024.0

#### 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 effor 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) Shipbuilder EOQ Shipbuilder 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.
- (6) GFE Electronics FY12 GFE Electronics AP is required to satisfy in-yard need dates for ship production and FY13 AP is for Long Lead Time Material (LLTM) 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 LLTM 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:		UNCLASSIF	FIED							
Exhibit P-10, Advance Procurement Requirements Analysi	S							Date:		
(Budget Justification)								February 2012		
Appropriation (Treasury)Code/CC/BA/BSA/Item Control Nu	reasury)Code/CC/BA/BSA/Item Control Number Weapon System P-1 Line Item Nomenclature								ire	
SHIPBUILDING AND CONVERSION, NAVY / 2 / Other W	DING AND CONVERSION, NAVY / 2 / Other Warships / BLI 2122 DDG 51 CLASS							DDG 51		
(TOA \$ in Millions)	(TOA \$ in Millions)							FY13		
	PLT	QPA	Unit Cost	Qty	Contract Forecast Date	Total Cost Request	Qty	Contract Forecast Date	Total Cost Request	
ADVANCE PLANNING (1)					Feb-12	8.2				
SHIPBUILDER EOQ (2)							7 shipsets	Feb-13	229.8	
GFE - ELECTRONICS (3)						13.8			4.8	
IFF (OE-120A Antenna) (3)	20	2 shipsets		2 shipsets	Feb-12	5.8				
JTT (3)	12	2 shipsets		2 shipsets	May-12	1.1				
MIDS (3)	24	2 shipsets		2 shipsets	Jun-12	2.7				
TVS (3)	12	2 shipsets		2 shipsets	Jun-12	1.9				
ADNS (3)	12	2 shipsets		2 shipsets	May-12	1.5				
OE-570A (3)	12	2 shipsets		2 shipsets	Jun-12	0.9				
CBSP (3)							7 shipsets	Feb-13	4.8	
GFE - ORDNANCE (4)						3.8			231.7	
AEGIS Weapon System (4)	36						4 shipsets	Feb-13	231.7	
Tomahawk (4)	3	2 shipsets		2 shipsets	Feb-12	0.2				
SVTT (4)	12	2 shipsets		2 shipsets	Feb-12	3.6				
GFE - Hull, Mechanical and Electrical (H,M,&E) (5)						74.9				
WSN-7 (5)	15	2 shipsets		2 shipsets	Feb-12	4.1				
Engine Controller (5)	26	2 shipsets		2 shipsets	Sep-12	3.9				
Repair Station Console (5)	18	2 shipsets		2 shipsets	Sep-12	1.8				
Digital Video Surveillance System (5)	24	2 shipsets		2 shipsets	Sep-12	1.2				
Main Reduction Gear (5)	24	2 shipsets		2 shipsets	Jan-12	52.1				
Machinery Control System (5)	24	2 shipsets		2 shipsets	Sep-12	5.5				
Integrated Bridge Navigation System (5)	18	2 shipsets		2 shipsets	Sep-12	6.3				
Total Advance Procurement						100.7			466.3	

#### Description:

- (1) Advance Planning Advance Planning AP is required to fund production planning and procurement management for the continuation of the DDG 51 Program.
- (2) Shipbuilder EOQ Shipbuilder 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 FY12 GFE Electronics AP is required to satisfy in-yard need dates for ship production and FY13 AP is for Long Lead Time Material (LLTM) to support FY13-17 MYP.
- (4) GFE Ordnance FY12 GFE Ordnance AP is required to satisfy in-yard need dates for ship production. FY13 AP is for LLTM to support FY13-17 MYP.
- (5) 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.

Exhibit MYP-1, Multiyear Procurement Criteria		Date: February 2012
Appropriation / Budget Activity: 1611 Shipbuilding and Conversion - Navy / Other Warships (BA-02)	P-1 Item Nomenclature: DDG-51	

#### 1. Multiyear Procurement Description:

The DDG 51 Class acquisition provides for the rebuilding of the battle force surface combatant fleet. The proposed Multi-Year Procurement (MYP) acquisition strategy provides funding for nine ships (DDGs 117-125) between FY13-FY17. The nine ships will be awarded to Bath Iron Works (BIW) and Huntington Ingalls, Inc (formerly Northrop Grumman Ship Building (NGSB). The DDG 51 Class Program has awarded 62 ships (34 to BIW and 28 to NGSB) between 1985 and 2005. The last 34 ships awarded were Flight IIA ships. The FY98-FY01 (13 ships) and the FY02-FY05 (11 ships) ships were awarded as a MYP that produced over \$1B in savings. After a 5 year production gap the DDG 51 Program was re-started in FY10 and four additional ships (DDGs 113-116) are planned for award before award of this proposed MYP. The current MYP plan is to contract for a total of nine Flight IIA ships in FY13; however, the Navy intends to introduce Flight III capability on one FY16 and two FY17 ships via ECP. Therefore, in total, the Department intends to procure six more Flight IIA ships in FY13-FY16 that provide Ballistic Missile Defense (BMD) capability. These ships will be able to track ballistic missiles of all ranges including Intercontinental Ballistic Missiles (ICBMs) and to intercept and destroy short- and medium-range ballistic missiles. These BMD equipped ships will operate with other BMD assets to provide advance warning for the defense of the nation, deployed U.S Forces, and U.S allies. One FY16 ship and two FY17 ships, in the Flight III configuration, will bring the capabilities of the Air and Missile Defense Radar to this platform.

The Navy's nine ship MYP acquisition strategy spans five years (FY13-FY17) and includes ship construction, AEGIS Weapon System (AWS) procurements, Vertical Launch System procurements, and Commercial Broadband Satellite Program. In order to achieve the savings afforded through the DDG 51 multi-year contracting strategy and avoid disruptions to Economic Order Quantity (EOQ) equipment production, the FY13 Budget Submission includes \$466M of FY13 AP funding, \$390M of FY14 AP, and \$115M of FY15 AP (total \$971M) to continue the MYP acquisition strategy through FY17 and complete Flight III design. The savings achieved through the MYP are estimated to be \$1.538B compared to annual pricing. The MYP procurements represent a 8.7% savings over annual procurement prices.

#### 2. Benefit to the Government:

## a. Substantial Savings:

Savings and Cost Avoidance: A modified version of the Profit Related to Offers (PRO) concept, whereby work is allocated among the shipbuilders but competitive pressure is maintained to achieve realistic pricing, was central to the DDG 51 ship construction FY98-FY01 and FY02-FY05 MYP approach. PRO was successfully implemented on the FY 96/97 contracts as well. PRO has provided significant savings to the government. The DDG 51 Program intends to use competitive procurement for the future. The FY13-17 MYP will save the government approximately \$1.538B compared to annual procurements.

#### b. Stability of Requirement:

The DDG 51 Class acquisition is structured to provide for timely replacement of battle force surface combatants. The Navy awarded 62 DDG 51 Class ships between 1985-2005. On January 26, 2009, OUSD(AT&L) Memorandum directed that the DDG 51 Program increase from 62 to 65 ships, with one ship in FY10 and two ships in FY11. The FY12 President's Budget Submission reflects an additional ten ships between FY12-FY17, for a total program of 75 ships. Currently the Navy has awarded 63 ships. 62 have delivered, and two are currently in production. Reductions in DDG 51 Class ship quantities during the MYP period would result in significant cancellation costs to the government, reducing or eliminating the stated potential savings.

P-1 Shopping List - Item No 01-2122

Exhibit MYP-1, Multiyear Procurement Criteria		Date: February 2012
Appropriation / Budget Activity: 1611 Shipbuilding and Conversion - Navy / Other Warships (BA-02)	P-1 Item Nomenclature: DDG-51	

#### c. Stability of Funding:

The DDG 51 MYP is a critical component of the Navy's future years defense plan. The DDG 51 Class is a major surface combatant shipbuilding program and is given high priority by the Navy when allocating planned resources. The Department is committed to fund this MYP at the required level throughout the contract period.

#### d. Stable Configuration:

The DDG 51 Class program is technically mature. To date 65 ships have been awarded, including 37 Flight IIA ships. Of the 65 ships awarded, 61 have delivered, and four are in construction. The program has successfully implemented capability upgrades during production while continuing to maintain configuration stability. The FY02-05 MYP ships included Baseline 7 Phase I.R combat system upgrade. The Baseline 7 Phase I.R combat system was introduced on the second FY02 ship (DDG 104). A total of 10 ships with the Baseline 7 Phase I.R combat system were awarded as part of the FY02-05 MYP. The FY98-FY01 MYP consisted of 13 ships. The SPY-1D radar on the 3rd ship of the MYP (DDG 91) was successfully replaced with the SPY-1D(V). This evolutionary approach allows the program to successfully incorporate the latest technologies while sustaining configuration stability and mitigating cost and schedule risk. At contract award, the nine ships proposed in this multiyear will be of the same configuration (Flight IIA). However, it is anticipated that one FY16 and two FY17 ships will incorporate Flight III capability as an engineering change proposal to mitigate the impact of MYP pricing. The Flight III ECP will not be awarded until the Flight III Milestone Decision Authority approves the configuration. The new Flight III radar (AMDR-S) will not be part of the multi-year procurement.

The Flight III DDGs will utilize the same hull and major systems as current Flight IIA DDGs including LM 2500 propulsion gas turbines, Mk 41 Vertical Launch System, Mk 45 five inch Gun Weapon System, Mk 15 Phalanx Weapon System (CIWS), AN/SQQ-89 Undersea Warfare System and Tactical Tomahawk Weapon Control System. The principle dimensions and hull form will be unchanged from Flight IIA DDGs. The AN/SPY-1D(V) radar will be replaced with the AMDR-S radar and the ship's power and cooling systems will be upgraded to support the new radars. The deckhouse will be modified to accept the new radar arrays. The shipbuilding contracts will be fixed price incentive contracts, the same as previous DDG 51 Class ships. The overall ship design impact of these changes is estimated to be similar to those introduced on DDG 91 in FY98 as part of the FY98-FY01 MYP.

#### e. Realistic Cost Estimate:

Cost estimates reflect experience with AEGIS Class ships since 1978, including 27 delivered CG 47 Class ships, and 61 DDG 51 Class ships delivered through January 2012. Four additional DDG's are currently in construction.

The savings shown in these exhibits are based on historical experience, FY98-FY01 and FY02-FY05 MYP contract awards, and surveys of the Class Standard Equipment (CSE) vendors, AEGIS Weapon System, Vertical Launch System and other equipment vendors. There is a high degree of confidence the DDG 51 Class program can achieve the stated savings and procure the MYP ships within the funding identified.

## f. National Security:

Continued production of DDG-51 Class ships is needed to maintain the required fleet future surface combatant force level to include supporting the Ballistic Missile Defense

Exhibit MYP-1, Multiyear Procurement Criteria		Date: February 2012
Appropriation / Budget Activity: 1611 Shipbuilding and Conversion - Navy / Other Warships (BA-02)	P-1 Item Nomenclature:	
mission Theo DMD against delice will an automith other DMD agasta to man	1	landaria d II C Fannas and II C allias sited

mission. These BMD equipped ships will operate with other BMD assets to provide advance warning for the defense of the nation, deployed U.S Forces, and U.S allies vital to national security.

#### 3. Source of Savings:

INFLATION - A comparison of constant FY13 and then year dollar estimates indicates savings attributed to inflation of \$46M. This represents 3% of the total MYP savings.

VENDOR PROCUREMENT/SUBCONTRACTING – The MYP permits economic order quantity procurement, which reduces the cost of material and subcontractor effort by \$152M. This represents 10% of the total MYP savings. The long-term commitment offered by the MYP stabilizes the shipbuilder and GFE industrial base resulting in:

- Stable employment levels and retention of skilled labor
- Less disruption on vendor delivery schedules; and
- Enhanced viability of the shipyards as well as other providers.

MANUFACTURING – The MYP allows continuous, stable construction of nine ships and related combat system components. Savings of \$810M result from greater shipyard and vendor efficiency, improved employment stability, and improved overhead planning and capitalization. This represents 53% of the total MYP savings.

ENGINEERING - Savings of \$530M are achieved through more efficient pre-production planning at the shipyard, vendor facilities, and Navy warfare centers. The MYP creates a known future workload that allows for more efficient planning minimizing perturbations in schedule impacts across the program. This multiyear allocation of nine ships is more cost effective than conducting separate annual procurements for the same number of ships. This represents 34% of the total MYP savings.

	<u>\$ i</u>	<u>n Millions</u>
Inflation	\$	46.000
Vendor Procurement	\$	152.000
Manufacturing	\$	810.000
Design/Engineering	\$	530.000
Tool Design	\$	0.000
Support Equipment	\$	0.000
Other	\$	0.000
Workload Savings	\$	0.000
Total	\$	1,538.000

# 4. Advantages of the MYP:

**DDG-51** 

The overall savings are achieved through lower hardware and engineering costs. Lower hardware costs result from economic order quantity procurements of shipbuilder material and major equipment; improved production efficiencies, as well as reduced production man-hours and overhead costs. Engineering hours reductions are achieved through industrial base stability resulting from known workload at contractor facilities and Navy Field Activities.

P-1 Shopping List - Item No 01-2122

Exhibit MYP-1, Multiyear Procurement Criteria		Date: February 2012
Appropriation / Budget Activity: 1611 Shipbuilding and Conversion - Navy / Other Warships (BA-02)	P-1 Item Nomenclature: DDG-51	

#### 5. Impact on Defense Industrial Base:

#### IMPROVED COMPETITION

The Navy intends to use a competitive acquisition strategy for the FY13-FY17 MYP to ensure affordable costs and reasonable profits to the vendors.

#### ENHANCED INVESTMENT

The FY13-FY17 MYP provides a firm, stable business base to facilitate production planning at DDG 51 Class shipbuilders, GFE vendors and second and third tier vendors. DDG 51 shipbuilders and GFE vendors have achieved significant productivity improvements during DDG 51 production. The FY13-FY17 MYP contracts provide sufficient stability to justify capital investment needed to continue productivity improvements at both yards. Material cost savings are also achieved by expanded use of economic order quantity (EOQ) procurements.

#### IMPROVEMENT IN VENDOR SKILL LEVELS

The MYP allows the shipbuilder and GFE vendors greater flexibility in scheduling and workload planning. This enables the shipbuilders and GFE vendors to achieve a more stable prime and subcontractor workforce, resulting in enhanced productivity and lower personnel training costs. Use of multi-year contracting should result in higher retention rates, increased skill levels, and enhanced productivity at the vendor during the contract performance. These potential benefits are reflected in the MYP savings identified in these exhibits.

#### TRAINING PROGRAM

Since the MYP allows greater flexibility in scheduling and workload planning, shipbuilders and vendors will realize increased workforce stability. This improves worker retention and associated skill levels, and reduces hiring costs and training requirements. Supervisors and managers can be selected and trained to meet workforce requirements as well as to implement production improvements. Apprenticeship and trainee programs become more cost effective for a larger, longer procurement program. Additionally, multiyear contracting enables contractors to offer greater job security to employees, particularly at the subcontractor or vendor level.

#### PROGRESS PAYMENT (S)

The progress payments clauses in the FY98-FY01 and FY02-FY05 MYP ship construction contracts were modified to improve the flow of compensation to the shipbuilders, compared to previous contracts. Similar clauses are planned in the FY13-FY17 MYP construction contracts. GFE progress payment clauses remain similar to previous contracts.

#### USE OF MULTIYEAR CONTRACTORS (VENDORS)

The government has previously entered into multiyear contracts with two shipbuilders, General Dynamics (BIW) and Huntington Ingalls, Inc. The Navy awarded multiyear shipbuilding contracts for multiple shipsets of selected Economic Order Quantity (EOQ) Materials with advanced procurement. The proposed FY13-FY17 MYP contracts will allow the shipyards to begin joint, bulk purchase of EOQ items, and will not preclude future modifications to add additional ships. The FY13 AP will be used to procure EOQ material to support ship construction contract material, Commercial Broadband Satellite Program, and AEGIS Weapon System (AWS) EOQ components through FY15. The FY14 AP will be used to procure Vertical Launch System and AWS EOQ components.

#### INCREASED PRODUCTION CAPACITY

P-1 Shopping List - Item No 01-2122

# Exhibit MYP-1, Multiyear Procurement Criteria Appropriation / Budget Activity: 1611 Shipbuilding and Conversion - Navy / Other Warships (BA-02) P-1 Item Nomenclature: DDG-51

The production rates during the multiyear period are executable. No increase in production capacity as a result of the MYP is anticipated or required. No acceleration in delivery schedule of DDG 51 Class ships is planned. Delivery of ships under the FY13-FY17 MYP is geared toward stabilizing workload, and maintaining the surface combatant industrial base. The proposed MYP results in less than two ships delivered per year, with each shipbuilder having approximately a 12 month interval between their respective deliveries. This represents a decrease from the current DDG 51 production rate of approximately two and one-half ships per year.

#### **6. Multiyear Procurement Summary:**

	<u>Annual</u>	<u>MultiYear</u>
	<b>Contracts</b>	<b>Contract</b>
Quantity	9	9
Total Contract Price	\$ 17,726.500	\$ 16,188.500
Cancellation Ceiling (highest point)		
Funded		\$ 0.000
Unfunded		\$ 0.000
\$ Cost Avoidance Over Annual		\$ 1,538.000
% Cost Avoidance Over Annual		8.7 %

Exhibit MYP-2 Total Program Funding Plan (NAVY)						Date February 2012								
PROCUREMENT					P-1 Line I	tem Nomer	nclature - D	DG-51 (NA	(VY)					
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	TOTAL		
Procurement Quantity		2	1	2	2	2						9		
Annual Procurement														
Gross Cost		3,497.0	1,940.9	3,533.0	4,231.0	4,524.6						17,726.5		
Less PY Adv Procurement		(96.3)	(97.4)	(96.3)	(49.5)	(100.8)						(440.3		
Net Procurement (= P-1)		3,400.7	1,843.5	3,436.7	4,181.5	4,423.8						17,286.2		
Plus CY Adv Procurement	96.3	97.4	96.3	49.5	100.8							440.3		
Weapon System Cost	96.3	3,498.1	1,939.8	3,486.2	4,282.2	4,423.8						17,726.5		
Multiyear Procurement														
Gross Cost (P-1)		3,149.4	1,739.0	3,185.2	3,883.8	4,231.1						16,188.5		
Less PY Adv Procurement		(100.7)	(114.1)	(298.4)	(375.4)	(183.0)						(1,071.7)		
Net Procurement (= P-1)		3,048.7	1,624.9	2,886.8	3,508.4	4,048.1						15,116.8		
Advance Procurement														
'For FY13	100.7											100.7		
'For FY14		114.1										114.1		
'For FY15		228.3	70.2									298.4		
'For FY16		110.2	150.0	115.2								375.4		
'For FY17		13.7	169.3									183.0		
Plus CY Adv Procurement	100.7	466.3	389.5	115.2								1,071.7		
Weapon System Cost	100.7	3,515.0	2,014.3	3,002.0	3,508.4	4,048.1						16,188.5		
MultiyearSavings (\$)	(4.4)	(16.9)	(74.5)	484.2	773.8	375.7						1,538.0		
Multiyear Savings (%) (total only)												8.7 %		
Cancellation Ceiling, Funded														
Cancellation Ceiling, Unfunded														
OUTLAYS														
Annual	96.0	2,103.8	1,762.2	2,662.8	3,537.3	3,894.6	1,555.3	892.1	656.2	389.30	176.94	17,726.6		
Multiyear	100.7	2,265.0	1,866.4	2,338.5	2,904.1	3,481.9	1,374.1	778.8	574.3	342.74	161.92	16,188.5		
Savings	(4.7)	(161.2)	(104.2)	324.2	633.2	412.7	181.1	113.4	81.9	46.56	15.02	1,538.1		

<sup>\*</sup> Numbers may not add due to rounding.

Exhibit MYP-3 Total Contract Funding Plan (NAVY)						Date February 2012								
PROCUREMENT					P-1 Line Item Nomenclature - DDG-51 (NAVY)									
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	TOTAL		
Procurement Quantity		2	1	2	2	2						9		
Annual Procurement														
Gross Cost		3,497.0	1,940.9	3,533.0	4,231.0	4,524.6						17,726.5		
Less PY Adv Procurement		(96.3)	(97.4)	(96.3)	(49.5)	(100.8)						(440.3)		
Net Procurement (= P-1)		3,400.7	1,843.5	3,436.7	4,181.5	4,423.8						17,286.2		
Plus CY Adv Procurement	96.3	97.4	96.3	49.5	100.8							440.3		
Contract Price	96.3	3,498.1	1,939.8	3,486.2	4,282.2	4,423.8						17,726.5		
Multiyear Procurement														
Gross Cost (P-1)		3,149.4	1,739.0	3,185.2	3,883.8	4,231.1						16,188.5		
Less PY Adv Procurement		(100.7)	(114.1)	(298.4)	(375.4)	(183.0)						(1,071.7)		
Net Procurement (= P-1)		3,048.7	1,624.9	2,886.8	3,508.4	4,048.1						15,116.8		
Advance Procurement														
'For FY13	100.7											100.7		
'For FY14		114.1										114.1		
'For FY15		228.3	70.2									298.4		
'For FY16		110.2	150.0	115.2								375.4		
'For FY17		13.7	169.3									183.0		
Plus CY Adv Procurement	100.7	466.3	389.5	115.2								1,071.7		
Contract Price	100.7	3,515.0	2,014.3	3,002.0	3,508.4	4,048.1						16,188.5		
MultiyearSavings (\$)	(4.4)	(16.9)	(74.5)	484.2	773.8	375.7						1,538.0		
Multiyear Savings (%) (total only)												8.7 %		
Cancellation Ceiling, Funded														
Cancellation Ceiling, Unfunded														
OUTLAYS														
Annual	96.0	2,103.8	1,762.2	2,662.8	3,537.3	3,894.6	1,555.3	892.1	656.2	389.30	176.94	17,726.6		
Multiyear	100.7	2,265.0	1,866.4	2,338.5	2,904.1	3,481.9	1,374.1	778.8	574.3	342.74	161.92	16,188.5		
Savings	(4.7)	(161.2)	(104.2)	324.2	633.2	412.7	181.1	113.4	81.9	46.56	15.02	1,538.1		
												1		

NOTE: Any remarks will appear on the next page

<sup>\*</sup> Numbers may not add due to rounding.

Exhibit MYP-3 Total Contract Funding Plan (NAVY)	Date February 2012
PROCUREMENT	P-1 Line Item Nomenclature - DDG-51 (NAVY)

#### Remarks

FY12 AP for FY13 ship

FY13 and FY14 AP for 2 FY17 ships: shipbuilder EOQ (110.8M), 2 shipsets of VLS (70.8M), and 2 shipsets of CBSP.

FY13 and FY14AP for 2 FY15 ships: 2 shipsets of AWS (115.8M), shipbuilder EOQ (111.0M), VLS (70.2M) and CBSP (1.4M)

FY13 and FY14AP for EOQ of 2 shipsets of VLS (70.6M), shipbuilder EOQ (111.2M), 1 shipset of AWS (58.0M), and 2 shipsets of CBSP. Includes detail design of first Flight III ship in FY16 (19M in FY14 and 115M in FY15).

FY13AP for FY14 ships is EOQ for shipbuilder (55.5M), EOQ for 1 set of AWS hardware (57.9M) and 1 set of CBSP equipment

Reflects End Cost of ships.

<sup>\*</sup> Numbers may not add due to rounding.

Exhibit MYP-4 Present Value Analysis (NAVY)						Date February 2012								
PROCUREMENT					P-1 Line Item Nomenclature - DDG-51 (NAVY)									
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	TOTAL		
Annual Proposal														
Then Year Cost	96.0	2103.8	1762.2	2662.8	3537.3	3894.6	1555.3	892.1	656.2	389.3	176.9	17726.6		
Constant Year Cost	96.0	2068.4	1702.9	2528.6	3300.2	3569.8	1400.5	789.3	570.3	332.4	148.4	16507.0		
Present Value	95.4	2033.0	1654.5	2428.6	3133.3	3350.4	1299.4	723.9	517.1	297.9	131.5	15665.0		
Multiyear Proposal														
Then Year Cost	100.7	2265.0	1866.4	2338.5	2904.1	3481.9	1374.1	778.8	574.3	342.7	161.9	16188.5		
Constant Year Cost	100.7	2226.9	1803.6	2220.7	2709.4	3191.5	1237.4	689.0	499.1	292.7	135.9	15107.0		
Present Value	100.1	2188.7	1752.3	2132.9	2572.4	2995.4	1148.0	631.9	452.5	262.3	120.4	14357.0		
Difference														
Then Year Cost	(4.7)	(161.2)	(104.2)	324.2	633.2	412.7	181.1	113.4	81.9	46.6	15.0	1538.1		
Constant Year Cost	(4.7)	(158.4)	(100.7)	307.9	590.8	378.3	163.1	100.3	71.2	39.8	12.6	1400.1		
Present Value	(4.7)	(155.7)	(97.8)	295.7	560.9	355.1	151.3	92.0	64.5	35.6	11.2	1308.1		
Multiyear Savings (\$)	(4.7)	(161.2)	(104.2)	324.2	633.2	412.7	181.1	113.4	81.9	46.6	15.0	1538.1		

**NOTE:** MYP Procurement Period is 11 years. Real Interest Rate for MYP Procurement Period of 11 years is 1.01160000%. (OMB Circular No. A-94, February 3, 2011)

<sup>\*</sup> Numbers may not add due to rounding.

APPROPRIATION/BUDGET ACTIVITY		, ,				Īr	DATE:								
APPROPRIATION/BUDGET ACTIVITY  SHIPBUILDING AND CONVERSION, NAVY/BA 2 Other Warships  (Dollars in Millions)  PRIOF	dent's Bu	ıdget				l-	AIE.								
SHIPBUILDING AND CONVERSION, NAVY/BA 2 Other Warships  (Dollars in Millions) PRIOF			FY 2013 President's Budget						February 2012						
(Dollars in Millions) PRIOF		APPROPRIATION/BUDGET ACTIVITY P-													
,	SHIPBUILDING AND CONVERSION, NAVY/BA 2 Other Warships														
,					BLI: 2127 / SUBHE	AD NO.									
QUANTITY	YR	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	TO COMP	TOTAL PROG					
	4	2	4	4	4	4	2	2	27	53					
End Cost	2,434.3	1,162.6	1,834.0	1,785.0	1,819.6	1,881.5	1,013.0	896.0	17,562.4	30,388.4					
Less Advance Procurement	0.0	0.0	78.9	0.0	0.0	0.0	0.0	0.0	0.0	78.9					
Full Funding TOA	2,434.3	1,162.6	1,755.1	1,785.0	1,819.6	1,881.5	1,013.0	896.0	17,562.4	30,309.5					
Plus Advance Procurement	0.0	78.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	78.9					
Total Obligational Authority	2,434.3	1,241.5	1,755.1	1,785.0	1,819.6	1,881.5	1,013.0	896.0	17,562.4	30,388.4					
Plus Outfitting / Plus Post Delivery	2.8	4.7	49.0	60.1	76.4	132.7	133.8	210.0	663.6	1,333.1					
Total	2,437.1	1,246.2	1,804.1	1,845.1	1,896.0	2,014.2	1,146.8	1,106.0	18,226.0	31,721.5					
Unit Cost ( Ave. End Cost)	608.6	581.3	458.5	446.3	454.9	470.4	506.5	448.0	650.5	573.4					

#### 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 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		GD/AUSTAL							
Overall Length:	115.3m		127.6m							
Max Beam:	17.5m		31.6m							
Displacement	3089 mt		2842 mt							
	FY11	FY11	FY12	FY12	FY12	FY12	FY13	FY13	FY13	FY13
Production Status:	LCS 7	LCS 8	LCS 9	LCS 10	LCS 11	LCS 12	LCS 13	LCS 14	LCS 15	LCS 16
Contract Award Date	3/11	3/11	3/12	3/12	3/12	3/12	3/13	3/13	3/13	3/13
Months to Completion										
a) Contract Award to Delivery	49 months	43 months	47 months	41 months	53 months	48 months	47 months	41 months	53 months	46 months
b) Construction Start to Delivery	35 months	36 months	35 months	36 months	37 months	35 months	35 months	35 months	36 months	35 months
Delivery Date	4/15	10/14	2/16	8/15	8/16	3/16	2/17	8/16	8/17	1/17
Completion of Fitting Out	8/15	2/15	6/16	12/15	12/16	7/16	6/17	12/16	12/17	5/17
Obligation Work Limiting Date	7/16	1/16	5/17	11/16	11/17	6/17	5/18	11/17	11/18	4/18

APPROPRIATION: SHIPBUILDING AND CONVERSION, NAVY

## P-5 EXHIBIT FY 2013 President's Budget February 2012

# 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	2009	FY	2010	FY	2011	FY	2012	FY	2013
ELEMENT OF COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
PLAN COSTS	2	36,603	2	24,438	2	91,386	4	83,459	4	83,989
BASIC CONST/CONVERSION		1,138,316		955,325		809,749		1,485,671		1,453,694
CHANGE ORDERS		38,610		45,950		43,100		82,100		72,684
ELECTRONICS		21,677		26,992		27,245		55,417		56,350
HM&E		4,595		5,908		6,806		13,843		14,078
OTHER COST		106,761		1,000		166,942		76,927		67,038
ORDNANCE		11,090		17,056		17,300		36,625		37,126
TOTAL SHIP ESTIMATE		1,357,652		1,076,669		1,162,528		1,834,042		1,784,959
LESS ADVANCE PROCUREMENT FY12								78,949		
LESS SCN AND MATERIALS TRANSFER FY06		340,700								
NET P-1 LINE ITEM:		1,016,952		1,076,669		1,162,528		1,755,093		1,784,959

#### SHIPBUILDING AND CONVERSION, NAVY

Analysis of Ship Cost Estimate - Basic/Escalation

Ship Type: LITTORAL COMBAT SHIP

	Design/Schedule	Start/Issue	Complete	Reissue	Complete	
<u>l.</u>	<u>Design/scriedule</u>	Stativissue	/Response	Keissue	/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	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>
	A. Actual Award Date	03/09, 05/09	12/10	3/11	TBD	TBD
	B. Contract Type ( and Share Line if applicable )	FPI	FPI	FPI	FPI	FPI
	C. SHARELINE	VARIES	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)

<u>Amount</u>

#### P-5B Exhibit

FY 2013 President's Budget

DATE:

February 2012

# SHIPBUILDING AND CONVERSION, NAVY SHIP PRODUCTION SCHEDULE

EXHIBIT P-27 FY 2013 President's Budget

DATE:

February 2012

SHIP TYPE	HULL NUMBER	SHIPBUILDER	FISCAL YEAR AUTHORIZED	CONTRACT AWARD	START OF CONSTRUCTION	DELIVERY DATE
LCS	3	LOCKHEED MARTIN	09	MAR-09	APR-09	JUN-12
LCS	4	GD/AUSTAL	09	MAY-09	OCT-09	MAR-13
LCS	5	LOCKHEED MARTIN	10	DEC-10	JUL-11	AUG-14
LCS	6	AUSTAL	10	DEC-10	JUN-11	JUN-14
LCS	7	LOCKHEED MARTIN	11	MAR-11	MAY-12	APR-15
LCS	8	AUSTAL	11	MAR-11	OCT-11	OCT-14
LCS	9	LOCKHEED MARTIN	12	MAR-12	MAR-13	FEB-16
LCS	10	AUSTAL	12	MAR-12	SEP-12	AUG-15
LCS	11	LOCKHEED MARTIN	12	MAR-12	AUG-13	AUG-16
LCS	12	AUSTAL	12	MAR-12	APR-13	MAR-16
LCS	13	LOCKHEED MARTIN	13	MAR-13	MAR-14	FEB-17
LCS	14	AUSTAL	13	MAR-13	SEP-13	AUG-16
LCS	15	LOCKHEED MARTIN	13	MAR-13	AUG-14	AUG-17
LCS	16	AUSTAL	13	MAR-13	FEB-14	JAN-17
LCS	17	LOCKHEED MARTIN	14	MAR-14	MAR-15	FEB-18
LCS	18	AUSTAL	14	MAR-14	OCT-14	JUL-17
LCS	19	LOCKHEED MARTIN	14	MAR-14	AUG-15	AUG-18
LCS	20	AUSTAL	14	MAR-14	FEB-15	DEC-17
LCS	21	LOCKHEED MARTIN	15	MAR-15	MAR-16	FEB-19
LCS	22	AUSTAL	15	MAR-15	SEP-15	JUL-18
LCS	23	LOCKHEED MARTIN	15	MAR-15	AUG-16	AUG-19
LCS	24	AUSTAL	15	MAR-15	FEB-16	NOV-18
LCS	25	TBD	16	MAR-16	MAR-17	FEB-20
LCS	26	TBD	16	MAR-16	SEP-16	JUL-19
LCS	27	TBD	17	MAR-17	SEP-17	JUL-20
LCS	28	TBD	17	MAR-17	MAR-18	FEB-21

CLASSIFICATION: UNCLASSIFIED P-8A EXHIBIT

FY 2013 President's Budget

February 2012

#### SHIPBUILDING AND CONVERSION, NAVY

Analysis of Ship Cost Estimates - Major Equipment

(Dollars in Thousands)

Ship Type: LITTORAL COMBAT SHIP	FY	2011	FY 2012		FY	2013
	<u>QTY</u>	COST	<u>QTY</u>	COST	<u>QTY</u>	COST
ELECTRONICS						
a. P-35 Items						
AN/WSC-6E(V)9 SUPER HIGH FREQUENCY (SHF) DUAL TERMINAL	2	6,007	4	12,217	4	12,425
Subtotal		6,007		12,217		12,425
b. Major Items						
ELECTRONIC KEY MANAGEMENT SYSTEM (EKMS)/CRYPTO SYSTEM	2	931	4	1,894	4	1,926
COMMON DATA LINK MANAGEMENT SYSTEM (CDLMS)	2	1,545	4	3,143	4	3,197
AN/URC-141 (C) MIDS ON SHIP (MOS)	2	4,001	4	8,138	4	8,276
AN/USQ-172(V)5 GLOBAL COMMAND AND CONTROL SYSTEM - MARITIME (GCCS-M)	2	1,189	4	2,418	4	2,459
DS- LOGISTICS MAINTENANCE AUTOMATED INFO SYSTEM - BAR CODE SUPPLY (BCS) NAVY TACTICAL COMMAN	2	437	4	889	4	904
MULTI-VEHICLE COMMUNICATION SYSTEM (MVCS)	2	2,860	4	5,817	4	5,916
AN/USQ-144J(V)2 AUTOMATED DIGITAL NETWORK SYSTEM (ADNS)	2	2,729	4	5,550	4	5,645
HIGH FREQUENCY DIGITAL MODULAR RADIO	2	2,245	4	4,567	4	4,645
Subtotal		15,937		32,416		32,968
c. Other ELECTRONICS						
OTHER ELECTRONICS	2	5,301	4	10,784	4	10,957
Subtotal		5,301		10,784		10,957
Total ELECTRONICS		27,245		55,417		56,350

CLASSIFICATION: UNCLASSIFIED P-8A EXHIBIT

FY 2013 President's Budget

February 2012

#### SHIPBUILDING AND CONVERSION, NAVY

Analysis of Ship Cost Estimates - Major Equipment

(Dollars in Thousands)

Ship Type: LITTORAL COMBAT SHIP	FY 20	011	FY 20	12	FY 20	13
	<u>QTY</u>	COST	<u>QTY</u>	COST	<u>QTY</u>	COST
ORDNANCE						
a. P-35 Items						
SEARAM/RAM	2	16,520	4	35,045	4	35,519
Subtotal		16,520		35,045		35,519
b. Major Items						
ORDNANCE HANDLING EQPT	2	780	4	1,580	4	1,607
Subtotal		780		1,580		1,607
c. Other ORDNANCE						
Subtotal						
Total ORDNANCE		17,300		36,625		37,126

CLASSIFICATION: UNCLASSIFIED P-8A EXHIBIT

#### FY 2013 President's Budget

February 2012

#### SHIPBUILDING AND CONVERSION, NAVY

Analysis of Ship Cost Estimates - Major Equipment

(Dollars in Thousands)

Ship Type: LITTORAL COMBAT SHIP	FY	2011	FY	2012	F١	<b>7 2013</b>
	<u>QTY</u>	COST	<u>QTY</u>	COST	<u>QTY</u>	COST
HM&E						
a. P-35 Items						
Subtotal						
b. Major Items						
JOINT BIOLOGICAL POINT DETECTION SYSTEM (JBPDS)	2	279	4	568	4	578
AN/SRC-59 SHIPWIDE INTERIOR WIRELESS COMMUNICATION SYSTEM (SIWCS)	2	774	4	1,575	4	1,601
TRASH DISPOSAL - SMALL PULPER	2	274	4	558	4	567
VISUAL LANDING AIDS (VLA)	2	3,877	4	10,330	4	10,507
Subtotal		5,204		13,031		13,253
c. Other HM&E						
MEDICAL EQPT AND ENGINEERING SUPPORT INTEGRATION	2	1,602	4	812	4	825
Subtotal		1,602		812		825
Total HM&E		6,806		13,843		14,078

#### SHIPBUILDING AND CONVERSION, NAVY

MAJOR SHIP COMPONENT FACT SHEET

(Dollars in Thousands)

P-35 EXHIBIT FY 2013 President's Budget

February 2012

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 2011		FY	2012	FY 2013	
	<u>QTY</u>	COST	<u>QTY</u>	COST	<u>QTY</u>	COST
Major Hardware	2	5,541	4	11,272	4	11,504
Systems Engineering		51		103		120
Engr/ILS/Mgmt Spt		20		41		40
Tech Data		14		29		0
Technical Support Services		280		570		576
Spares		51		103		110
Program Management		50		99		75
Schedule B Services		0		0		0
Total		6,007		12,217		12,425

## III. CONTRACT DATA:

PROGRAM	SHIP	PRIME	CONTRACT	AWARD	NEW		HARDWARE
<u>YEAR</u>	TYPE	CONTRACTOR	<u>TYPE</u>	<u>DATE</u>	/OPTION	<u>QTY</u>	UNIT COST
FY11	LCS 7/8	HARRIS	FFP	APR-11	OPTION	2	2,771
FY12	LCS 9/10/11/12	HARRIS	FFP	TBD	TBD	4	2,818
FY13	LCS 13/14/15/16	HARRIS	FFP	TBD	TBD	4	2.876

#### IV. DELIVERY DATE:

PROGRAM	SHIP	EARLIEST SHIP	MONTHS REQUIRED	PRODUCTION	REQUIRED
<u>YEAR</u>	TYPE	<b>DELIVERY DATE</b>	BEFORE DELIVERY	<b>LEADTIME</b>	AWARD DATE
FY11	LCS 7/8	OCT-14	10	14	OCT-12
FY12	LCS 9/10/11/12	AUG-15	10	14	AUG-13
FY13	LCS 13/14/15/16	AUG-16	10	14	AUG-14

#### V. COMPETITION/SECOND SOURCE INITIATIVES:

Current sole-source contracts.

#### SHIPBUILDING AND CONVERSION, NAVY

MAJOR SHIP COMPONENT FACT SHEET (Dollars in Thousands)

P-35 EXHIBIT
FY 2013 President's Budget
February 2012

Ship Type: LITTORAL COMBAT SHIP

Equipment Item: SEARAM/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). 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. RAM is on the Lockheed Martin variant and SeaRAM is on the Austal variant.

#### **II. CURRENT FUNDING:**

P-35 Category	FY 2011		FY	2012	FY	2013
	<b>QTY</b>	COST	QTY	COST	<b>QTY</b>	COST
Major Hardware	2	13,703	4	29,171	4	29,474
Software		89		195		205
System Engineering		699		1,560		1,591
System Test & Evaluation		617		1,179		1,195
Technical Data and Documentation		313		655		730
Technical Engineering Services		793		1,625		1,653
Program Management		306		660		671
Total		16,520		35,045		35,519

#### III. CONTRACT DATA:

PROGRAM	SHIP	PRIME	CONTRACT	AWARD	NEW		HARDWARE
<u>YEAR</u>	<u>TYPE</u>	<b>CONTRACTOR</b>	<u>TYPE</u>	<u>DATE</u>	/OPTION	<u>QTY</u>	<b>UNIT COST</b>
FY11	LCS 7/8	RAYTHEON	SS/FFP	JUN-11	OPTION	2	6,851
FY12	LCS 9/10/11/12	RAYTHEON	SS/FFP	JAN-12	OPTION	4	7,293
FY13	LCS 13/14/15/16	RAYTHEON	SS/FFP	MAR-13	NEW	4	7,369

#### IV. DELIVERY DATE:

PROGRAM	SHIP	EARLIEST SHIP	MONTHS REQUIRED	PRODUCTION	REQUIRED
<u>YEAR</u>	<u>TYPE</u>	<b>DELIVERY DATE</b>	BEFORE DELIVERY	<b>LEADTIME</b>	AWARD DATE
FY11	LCS 7/8	OCT-14	10	22	FEB-12
FY12	LCS 9/10/11/12	AUG-15	10	22	DEC-12
FY13	LCS 13/14/15/16	AUG-16	10	22	DEC-13

#### V. COMPETITION/SECOND SOURCE INITIATIVES:

#### NOTE:

The availability of refurbished RAM units TBD.

CLASSIFICATION: UNCLASSIFIED										
	BUDGET ITEM JUSTIFICATIO	, ,	)				DATE:			
	FY 2013 President's	Budget					February 2012			
APPROPRIATION/BUDGET ACTIVITY					P-1 LINE ITEM N	OMENCLATURE	≣			
SHIPBUILDING AND CONVERSION, NAVY/BA 3 Amphibiou	ıs Ships				LPD-17					
					BLI: 3036					
(Dollars in Millions)	PRIOR YR	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	TO COMP	TOTAL PROG
QUANTITY	10	0	1	0	0	0	0	0	0	11
End Cost	15,606.3	0.0	2,021.4	0.0	53.7	37.7	24.4	0.0	0.0	17,743.5
Less Advance Procurement	1,210.5	0.0	184.0	0.0	0.0	0.0	0.0	0.0	0.0	1,394.5
Less Cost to Complete	1,908.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1,908.8
Less Transfer/Supplemental	251.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	251.0
Less Hurricane Supplemental	1,622.9	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	10,613.1	0.0	1,837.4	0.0	53.7	37.7	24.4	0.0	0.0	12,566.3
Plus Advance Procurement	1,394.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1,394.5
Plus Cost to Complete	1,735.8	0.0	74.0	80.9	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	15,617.3	0.0	1,911.4	80.9	53.7	37.7	24.4	0.0	0.0	17,725.4
Plus Outfitting / Plus Post Delivery	583.4	58.3	71.3	59.4	22.5	17.0	30.1	32.1	79.9	954.0
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	16,229.1	58.3	1,982.7	140.3	76.2	54.7	54.5	32.1	79.9	18,707.8
Unit Cost ( Ave. End Cost)	1,560.6	0.0	2,021.4	0.0	0.0	0.0	0.0	0.0	0.0	1,602.5

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: Program closeout funding of \$116M is included in full funding in FY14 - FY16.

CHARACTERISTICS:			ARMAMENT	<u>ELECTRONICS</u>	
Hull			RAM	Mission Systems	
Length overall 208.5 M	(684')		AN/SPS-48G	C4ISR	
Beam 31.9 M	(105')		SPQ-9B	SSDS	
Displacement 25.3 LMT	(24.9KLT)		MK 46 Gun	CEC	
Draft 7.0 M	(23')		50 Cal Machine	MK 12 AIMS IFF	
				AN/SLQ-32	
				BFTT	
				AN/WSN-7	
	FY 2009	FY 2012			
PRODUCTION STATUS:	LPD 26	LPD 27			
Contract Award	4/11	3/12			
Months to Completion					
a) Award to Delivery	55 months	56 months			
b) Const. Start to Delivery	54 months	53 months			
Delivery Date	11/15	11/16			
Completion of Fitting Out	4/16	4/17			
Obligation Work Limiting Date	3/17	3/18			

LESS COST TO COMPLETE FY13

NET P-1 LINE ITEM

APPROPRIATION: SHIPBUILDING AND CONVERSION, NAVY

P-5 EXHIBIT FY 2013 President's Budget

80,888

930,429

1,837,444

1,390,576

February 2012

#### WEAPON SYSTEM COST ANALYSIS (EXHIBIT P-5)

(Dollars in Thousands)

1,215,293

BUDGET ACTIVITY: 3 P-1 LINE ITEM NOMENCLATURE BLI: 3036 **Amphibious Ships** LPD-17 FY 2004 FY 2005 FY 2006 FY 2008 FY 2009 FY 2012 **ELEMENT OF COST** QTY COST QTY COST QTY COST QTY COST QTY COST QTY COST PLAN COSTS BASIC CONST/CONVERSION 1.282.106 1.288.478 1.344.932 1,467,241 1.535.200 1.560.916 CHANGE ORDERS 22,373 19,700 27,342 33,300 22.274 36,721 ELECTRONICS 129,734 98,789 139,756 225,755 216,777 285,085 HM&E 41,255 9,006 49,049 51,951 16,756 58,836 OTHER COST 5,065 5,000 5,000 9,963 8,626 9,020 ORDNANCE 39,400 43,849 47,428 77,418 49,841 70,852 TOTAL SHIP ESTIMATE 1,519,933 1,464,822 1,613,507 1,865,628 1,849,474 2,021,430 LESS HURRICANE KATRINA SUPPLEMENTAL 224,047 237,533 210,803 LESS ADVANCE PROCUREMENT FY01 63,749 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 16,844 16,498 66,000 LESS COST TO COMPLETE FY11 LESS COST TO COMPLETE FY12 18,627 23,437 31,928

967,907

1,372,402

# P-5B Exhibit SHIPBUILDING AND CONVERSION, NAVY FY 2013 President's Budget

February 2012

Analysis of Ship Cost Estimate - Basic/Escalation

Ship Type: LPD 17

<u>l.</u>	Design/Schedule	Start/Issue	Complete /Response	Reissue	Complete /Response		
	Issue date for TLR		SEP 1988		/Kesponse		
	Issue date for TLS						
	Preliminary Design	JAN 1993	NOV 1993				
	Contract Design	DEC 1993	MAR 1996				
	Detail Design	DEC 1996	JUL 2002				
	Request for Proposals						
	Design Agent						
II.	Classification of Cost Estimate	CLASS C					
III.	Basic Construction/Conversion	FY04 (001)	FY05 (001)	FY06 (001)	FY08 (001)	FY 09 (001)	FY 12 (001)
	A. Actual Award Date	JUN 2006	JUN 2006	NOV 2006	DEC 2007	APR 2011	MAR 2012
	B. Contract Type ( and Share Line if applicable )	FPIF/AF 45/55	FPIF/AF	FPIF/AF	FPIF/AF	FPIF/AF	FPIF/AF
	C. RFP Response Date	MAY 2004	MAY 2004	JUN 2005	JUN 2006	MAR 2010	AUG 2010
IV.	Escalation						
	Escalation Termination Date						
	Escalation Requirement						
	Labor/Material Split						
	Allowable Overhead Rate						
		FORWARD	FORWARD	FORWARD	FORWARD	FORWARD	FORWARD
	BASE DATE	PRICED	PRICED	PRICED	PRICED	PRICED	PRICED
٧.	Other Basic(Reserves/Miscellaneous)	<u>Amount</u>					

# SHIPBUILDING AND CONVERSION, NAVY

EXHIBIT P-27 FY 2013 President's Budget

SHIP PRODUCTION SCHEDULE February 2012

SHIP TYPE	HULL NUMBER	SHIPBUILDER	FISCAL YEAR AUTHORIZED	CONTRACT AWARD	START OF CONSTRUCTION	DELIVERY DATE
LPD	22	HUNTINGTON INGALLS INDUSTRIES	04	Jun-06	Jul-06	Dec-11
LPD	23	HUNTINGTON INGALLS INDUSTRIES	05	Jun-06	Mar-07	Jul-12
LPD	24	HUNTINGTON INGALLS INDUSTRIES	06	Nov-06	Aug-07	Sep-12
LPD	25	HUNTINGTON INGALLS INDUSTRIES	08	Dec-07	Apr-08	May-13
LPD	26	HUNTINGTON INGALLS INDUSTRIES	09	Apr-11	May-11	Nov-15
LPD	27	HUNTINGTON INGALLS INDUSTRIES	12	Mar-12	Jun-12	Nov-16

Note: LPD 27 contract dates, including start of construction and delivery dates, are subject to ongoing negotiations

## P-8A EXHIBIT FY 2013 President's Budget

February 2012

#### SHIPBUILDING AND CONVERSION, NAVY

Analysis of Ship Cost Estimates - Major Equipment (Dollars in Thousands)

Ship Type: LPD 17	FY 2	009	FY 2	012
	QTY	COST	QTY	COST
ELECTRONICS				
a. P-35 Items				
Mission Systems (Raytheon)	1	70,000	1	73,194
C4ISR	1	69,000	1	72,148
SSDS MARK 2	1	13,459	1	14,073
COOPERATIVE ENGAGEMENT CAPABILITY (CEC)	1	5,112	1	5,345
MK 12 AIMS IFF	1	6,406	1	6,698
AN/SLQ-32(V)2 (REFURB)	1	5,279	1	5,520
BATTLE FORCE TACTICAL TRAINER	1	4,088	1	4,275
AN/WSN-7 (RING LASER GYRO NAVIGATION)	1	3,830	1	4,005
Subtotal	_	177,174	_	185,257
b. Major Items				
NULKA	1	2,111	1	2,207
AMPHIB ASSAULT DIR SYSTEM	1	3,432	1	3,589
NIXIE	1	1,229	1	1,285
RADIAC	1	81	1	85
AN/SPQ-14	1	1,511	1	1,580
AN/UQN-4(FATHOMETER)	1	210	1	220
DCAMS	1	314	1	328
AN/WSN-8A DEML	1	522	1	546
Subtotal	-	9,410	_	9,840
c. Other ELECTRONICS				
MISCELLANEOUS ELECTRONICS		30,193		89,988
Subtotal	-	30,193	_	89,988
		,		,
Total ELECTRONICS		216,777		285,085

# P-8A EXHIBIT FY 2013 President's Budget

February 2012

#### SHIPBUILDING AND CONVERSION, NAVY

Analysis of Ship Cost Estimates - Major Equipment (Dollars in Thousands)

Ship Type: LPD 17	FY	2009	FY 2	FY 2012	
	<u>QTY</u>	COST	<b>QTY</b>	COST	
HM&E					
a. P-35 Items					
Subtotal		0		0	
b. Major Items					
BOATS	3	1,177	3	1,231	
CCTV, SITE 400	3	535	3	559	
CIRCUIT 27		740		774	
TRUCK, FORKLIFT	14	1,323	14	1,383	
CHEMICAL WARFARE DETECTOR	1	150	1	158	
MILITARY PAYROLL SYSTEM	1	653	1	683	
Navy Standard Integrated Personnel System (NSIPS)	1	120	1	125	
INTEGRATED CONDITION ASSESSMENT SYSTEM (ICAS)	1	403	1	421	
OILY WATER SEPARATOR	1	823	1	861	
PLASTIC WASTE PROCESSING EQP	1	326	1	341	
Subtotal	-	6,250	_	6,536	
c. Other HM&E					
MISCELLANEOUS HM&E		10,506		52,300	
Subtotal	_	10,506	_	52,300	
Total HM&E		16,756		58,836	

# P-8A EXHIBIT FY 2013 President's Budget

February 2012

#### SHIPBUILDING AND CONVERSION, NAVY

Analysis of Ship Cost Estimates - Major Equipment (Dollars in Thousands)

Ship Type: LPD 17	FY 2	009	FY 2012	
	<b>QTY</b>	COST	<u>QTY</u>	COST
ORDNANCE				
a. P-35 Items				
ROLLING AIRFRAME MISSILE SYSTEM (REFURB)	2	16,872	2	17,642
AN/SPS-48	1	12,662	1	13,240
SPQ-9B	1	6,797	1	7,108
MK 46 GUN	1_	6,053	1_	6,329
Subtotal	_	42,384	_	44,319
b. Major Items				
50 CAL MACHINE GUN		74		78
FLIGHT CNTRL & INSTRUMENT LANDING SYS WITH HELICOPTER				
OPERATIONS SURVEILLANCE SYS AND DYNAMIC INTERFACE TEST	1	2,771	1	2,897
MK44 GUN BARRELS	1	905	1	946
ORDNANCE HANDLING EQUIPMENT		473		495
Subtotal		4,223		4,416
c. Other ORDNANCE				
MISCELLANEOUS ORDNANCE	_	3234	_	22,117
Subtotal	_	3234	_	22,117
Total ORDNANCE		49,841		70,852

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

P-35 EXHIBIT FY 2013 President's Budget February 2012

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), Navigation Data Distribution System (NDDS), Shipboard Wide Area Network (SWAN), Interior Voice Communication System (IVCS), various distributed Sensors, and USMC Support Equipment. These mission systems and associated integration were performed within the shipbuilding contract on LPDs 17 through 25. LPD26 and LPD27 mission systems and integration will be provided to the shipbuilder by the government.

#### II. CURRENT FUNDING:

P-35 Category	FY 2009		FY 2012	
	<u>QTY</u>	COST	<u>QTY</u>	COST
Major Hardware	1	68,290	1	71,484
Spares		0		0
Ancillary Equipment		0		0
Documentation and Systems Engineering		0		0
Software		0		0
Technical Engineering		0		0
Other Appropriate Costs		1,710		1,710
Turnkey				
Total		70,000		73,194

#### III. CONTRACT DATA:

PROGRAM	SHIP	PRIME	CONTRACT	AWARD	NEW		HARDWARE
<u>YEAR</u>	TYPE	<u>CONTRACTOR</u>	<u>TYPE</u>	<u>DATE</u>	/OPTION	<u>QTY</u>	<b>UNIT COST</b>
FY 09	LPD 26	Raytheon	FPIF	Sep-11	New	1	68,290
FY 12	LPD 27	Raytheon	FPIF	May-12	Option	1	71,484

#### IV. DELIVERY DATE:

PROGRAM	SHIP	EARLIEST SHIP	MONTHS REQUIRED	PRODUCTION	REQUIRED
<u>YEAR</u>	TYPE	<b>DELIVERY DATE</b>	BEFORE DELIVERY	<b>LEADTIME</b>	AWARD DATE
FY 09	LPD 26	NOV-15	37	Various	Various
FY 12	LPD 27	NOV-16	37	Various	Various

#### V. COMPETITION/SECOND SOURCE INITIATIVES:

#### SHIPBUILDING AND CONVERSION, NAVY

MAJOR SHIP COMPONENT FACT SHEET

(Dollars in Thousands)

P-35 EXHIBIT

FY 2013 President's Budget

February 2012

Ship Type: LPD 17 Equipment Item: C4ISR

PARM Code:

#### I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

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

#### II. CURRENT FUNDING:

P-35 Category	FY 2009		FY 2012	
	<b>QTY</b>	COST	<u>QTY</u>	COST
Major Hardware	1	41,172	1	43,051
Spares		599		626
Ancillary Equipment		122		128
Documentation and Systems Engineering		3,272		3,421
Technical Engineering		3,741		3,912
Other Appropriate Costs		5,400		5,646
Turnkey		14,694		15,364
Total		69,000		72,148

#### III. CONTRACT DATA:

PROGRAM	SHIP	PRIME	CONTRACT	AWARD	NEW		HARDWARE
<u>YEAR</u>	TYPE	CONTRACTOR	<u>TYPE</u>	<u>DATE</u>	/OPTION	<u>QTY</u>	<b>UNIT COST</b>
FY 09	LPD 26	VAR	VAR	VAR	VAR	1	41,172
FY 12	I PD 27	VAR	VAR	VAR	VAR	1	43 051

#### IV. DELIVERY DATE:

PROGRAM	SHIP	EARLIEST SHIP	MONTHS REQUIRED	PRODUCTION	REQUIRED
<u>YEAR</u>	<u>TYPE</u>	DELIVERY DATE	BEFORE DELIVERY	<b>LEADTIME</b>	<b>AWARD DATE</b>
FY 09	LPD 26	NOV-15	VAR	VAR	VAR
FY 12	LPD 27	NOV-16	VAR	VAR	VAR

#### V. COMPETITION/SECOND SOURCE INITIATIVES:

# SHIPBUILDING AND CONVERSION, NAVY MAJOR SHIP COMPONENT FACT SHEET

(Dollars in Thousands)

P-35 EXHIBIT FY 2013 President's Budget

February 2012

nousands)

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 2009		FY 2012	
	<u>QTY</u>	COST	<u>QTY</u>	COST
Major Hardware	1	8,890	1	9,296
Systems Engineering		1,002		1,048
Technical Data and Documentation		386		404
Technical Engineering		328		343
Spares		364		381
Other Appropriate Costs		2,489		2,602
Total		13,459		14,073

#### **III. CONTRACT DATA:**

PROGRAM	SHIP	PRIME	CONTRACT	AWARD	NEW		HARDWARE
<u>YEAR</u>	TYPE	CONTRACTOR	<u>TYPE</u>	DATE	/OPTION	QTY	<b>UNIT COST</b>
FY 09	LPD 26	RAYTHEON	CP	Apr-10	4 OPTION YEARS	1	8,890
FY 12	LPD 27	RAYTHEON	CP	TBD	4 OPTION YEARS	1	9,296

#### **IV. DELIVERY DATE:**

PROGRAM	SHIP	EARLIEST SHIP	MONTHS REQUIRED	PRODUCTION	REQUIRED
YEAR	<u>TYPE</u>	<b>DELIVERY DATE</b>	BEFORE DELIVERY	<b>LEADTIME</b>	AWARD DATE
FY 09	LPD 26	NOV-15	17	13	MAY-13
FY 12	LPD 27	NOV-16	17	13	MAY-14

#### V. COMPETITION/SECOND SOURCE INITIATIVES:

# SHIPBUILDING AND CONVERSION, NAVY

MAJOR SHIP COMPONENT FACT SHEET

(Dollars in Thousands)

P-35 EXHIBIT FY 2013 President's Budget

February 2012

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:

2TY COST 1 4,934 97 265 49 5,345			
97 265 49			
265 49			
49			
5,345			
AWARD	NEW		HARDWARE
<u>DATE</u>	/OPTION	QTY	UNIT COST
MAR-10	Option	1	4,719
TBD	TBD	1	4,934
	<u>DATE</u> MAR-10	DATE /OPTION MAR-10 Option	DATE         /OPTION         QTY           MAR-10         Option         1

#### IV. DELIVERY DATE:

PROGRAM	SHIP	EARLIEST SHIP	MONTHS REQUIRED	PRODUCTION	REQUIRED
YEAR	<u>TYPE</u>	<b>DELIVERY DATE</b>	BEFORE DELIVERY	<b>LEADTIME</b>	AWARD DATE
FY 09	LPD 26	NOV-15	24	18	MAY-12
FY 12	LPD 27	NOV-16	24	18	MAY-13

#### V. COMPETITION/SECOND SOURCE INITIATIVES:

#### SHIPBUILDING AND CONVERSION, NAVY

MAJOR SHIP COMPONENT FACT SHEET

(Dollars in Thousands)

P-35 EXHIBIT FY 2013 President's Budget February 2012

Ship Type: LPD 17

Equipment Item: MK 12 AIMS IFF

PARM Code:

#### I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

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

#### II. CURRENT FUNDING:

P-35 Category	FY 2009		FY 2012	
	<u>QTY</u>	COST	<u>QTY</u>	COST
Major Hardware	1	4,674	1	4,886
Systems Engineering		733		766
Technical Data and Documentation		0		0
Technical Engineering		414		433
Spares		61		64
Other Appropriate Costs		524		548
Total		6,406		6,698

#### **III. CONTRACT DATA:**

PROGRAM	SHIP	PRIME	CONTRACT	AWARD	NEW		HARDWARE
<u>YEAR</u>	<u>TYPE</u>	<b>CONTRACTOR</b>	<u>TYPE</u>	<u>DATE</u>	/OPTION	<u>QTY</u>	<b>UNIT COST</b>
FY 09	LPD 26	BAE AND NG	FFP	VAR	NEW	1	4,674
FY12	LPD 27	BAE AND NG	FFP	TBD	NEW	1	4,886

#### **IV. DELIVERY DATE:**

PROGRAM	SHIP	EARLIEST SHIP	MONTHS REQUIRED	PRODUCTION	REQUIRED
<u>YEAR</u>	<u>TYPE</u>	<b>DELIVERY DATE</b>	BEFORE DELIVERY	<b>LEADTIME</b>	AWARD DATE
FY 09	LPD 26	NOV-15	6	30	NOV-12
FY12	LPD 27	NOV-16	6	30	NOV-13

#### V. COMPETITION/SECOND SOURCE INITIATIVES:

#### SHIPBUILDING AND CONVERSION, NAVY

MAJOR SHIP COMPONENT FACT SHEET

(Dollars in Thousands)

P-35 EXHIBIT

FY 2013 President's Budget

February 2012

Ship Type: LPD 17

Equipment Item: AN/SLQ-32(V)2 (REFURB)

PARM Code:

#### I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

The AN/SLQ-32(V)2 is a passive electronics countermeasure system.

#### II. CURRENT FUNDING:

P-35 Category	FY 2009		FY 2	012
	<u>QTY</u>	COST	<u>QTY</u>	COST
Major Hardware	1	4,564	1	4,772
Ancillary Equipment		0		0
Systems Engineering		50		52
Technical Data and Documentation		5		5
Technical Engineering		68		71
Spares		137		143
Other Appropriate Costs		455		476
Total		5,279		5,520

#### III. CONTRACT DATA:

PROGRAM	SHIP	PRIME	CONTRACT	AWARD	NEW		HARDWARE
<u>YEAR</u>	<u>TYPE</u>	CONTRACTOR	<u>TYPE</u>	<u>DATE</u>	/OPTION	<u>QTY</u>	<b>UNIT COST</b>
FY 09	LPD 26	RAYTHEON	BOA-FFP	TBD	TBD	1	4,564
FY 12	LPD 27	RAYTHEON	BOA-FFP	TBD	TBD	1	4.772

#### IV. DELIVERY DATE:

PROGRAM	SHIP	EARLIEST SHIP	MONTHS REQUIRED	PRODUCTION	REQUIRED
<u>YEAR</u>	<u>TYPE</u>	DELIVERY DATE	BEFORE DELIVERY	<b>LEADTIME</b>	AWARD DATE
FY 09	LPD 26	NOV-15	18	24	MAY-12
FY 12	LPD 27	NOV-16	18	24	MAY-13

#### V. COMPETITION/SECOND SOURCE INITIATIVES:

#### SHIPBUILDING AND CONVERSION, NAVY

MAJOR SHIP COMPONENT FACT SHEET

(Dollars in Thousands)

P-35 EXHIBIT FY 2013 President's Budget

February 2012

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 2	009	FY 2012		
	<u>QTY</u>	COST	<u>QTY</u>	COST	
Major Hardware	1	2,649	1	2,770	
Systems Engineering		362		379	
Technical Data and Documentation		118		123	
Technical Engineering		472		493	
Spares		105		110	
Other Appropriate Costs		383		400	
Total		4,088		4,275	

#### III. CONTRACT DATA:

PROGRAM	SHIP	PRIME	CONTRACT	AWARD	NEW		HARDWARE
<u>YEAR</u>	<u>TYPE</u>	CONTRACTOR	<u>TYPE</u>	<u>DATE</u>	/OPTION	<u>QTY</u>	<b>UNIT COST</b>
FY09	LPD 26	AP LABS	FFP	JUL-09	OPTION	1	2,649
FY12	LPD 27	TBD	FFP	TBD	TBD	1	2,770

#### IV. DELIVERY DATE:

PROGRAM	SHIP	EARLIEST SHIP	MONTHS REQUIRED	PRODUCTION	REQUIRED
<u>YEAR</u>	<u>TYPE</u>	<b>DELIVERY DATE</b>	BEFORE DELIVERY	<b>LEADTIME</b>	AWARD DATE
FY09	LPD 26	NOV-15	18	7	OCT-13
FY12	LPD 27	NOV-16	18	7	OCT-14

#### V. COMPETITION/SECOND SOURCE INITIATIVES:

#### SHIPBUILDING AND CONVERSION, NAVY

MAJOR SHIP COMPONENT FACT SHEET

(Dollars in Thousands)

P-35 EXHIBIT

FY 2013 President's Budget

February 2012

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 2009		FY 2012	
	<u>QTY</u>	COST	<u>QTY</u>	COST
Major Hardware	1	3,350	1	3,503
Systems Engineering		50		52
Technical Data and Documentation		150		157
Technical Engineering		215		225
Spares		0		0
Other Appropriate Costs		65		68
Total		3,830		4,005

#### III. CONTRACT DATA:

PROGRAM	SHIP	PRIME	CONTRACT	AWARD	NEW		HARDWARE
<u>YEAR</u>	<u>TYPE</u>	CONTRACTOR	<u>TYPE</u>	<u>DATE</u>	/OPTION	<u>QTY</u>	<b>UNIT COST</b>
FY09	LPD 26	Sperry Maine	FFP/CPFF	DEC-09	OPTION	1	3,350
FY12	LPD 27	TBD	TBD	TBD	TBD	1	3,503

#### IV. DELIVERY DATE:

PROGRAM	SHIP	EARLIEST SHIP	MONTHS REQUIRED	PRODUCTION	REQUIRED
<u>YEAR</u>	<u>TYPE</u>	<b>DELIVERY DATE</b>	BEFORE DELIVERY	<u>LEADTIME</u>	AWARD DATE
FY09	LPD 26	NOV-15	24	18	MAY-12
FY12	LPD 27	NOV-16	24	18	MAY-13

#### V. COMPETITION/SECOND SOURCE INITIATIVES:

# SHIPBUILDING AND CONVERSION, NAVY

MAJOR SHIP COMPONENT FACT SHEET

(Dollars in Thousands)

P-35 EXHIBIT FY 2013 President's Budget February 2012

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 2009		FY 2012		
	<u>QTY</u>	COST	<u>QTY</u>	COST	
Major Hardware	2	12,468	2	13,038	
Systems Engineering		1,412		1,476	
Technical Engineering		0		0	
Spares		123		129	
Other Appropriate Costs		2,869		3,000	
Total		16,872		17,642	

#### **III. CONTRACT DATA:**

PROGRAM	SHIP	PRIME	CONTRACT	AWARD	NEW		HARDWARE
<u>YEAR</u>	TYPE	CONTRACTOR	<u>TYPE</u>	DATE	/OPTION	<u>QTY</u>	UNIT COST
FY 09	LPD 26	RAYTHEON	FFP	TBD	OPTION	2	6,234
FY 12	LPD 27	RAYTHEON	FFP	TBD	OPTION	2	6.519

#### IV. DELIVERY DATE:

DECIVER DIVIE					
PROGRAM	SHIP	EARLIEST SHIP	MONTHS REQUIRED	PRODUCTION	REQUIRED
<u>YEAR</u>	TYPE	<b>DELIVERY DATE</b>	<b>BEFORE DELIVERY</b>	<b>LEADTIME</b>	AWARD DATE
FY 09	LPD 26	NOV-15	22	24	JAN-12
FY 12	LPD 27	NOV-16	22	24	JAN-13

#### V. COMPETITION/SECOND SOURCE INITIATIVES:

# SHIPBUILDING AND CONVERSION, NAVY

MAJOR SHIP COMPONENT FACT SHEET

(Dollars in Thousands) February 2012

P-35 EXHIBIT

FY 2013 President's Budget

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 2	2009	FY 2	012
	<u>QTY</u>	COST	<u>QTY</u>	COST
Major Hardware	1	10,964	1	11,465
Systems Engineering		678		708
Technical Data and Documentation		125		131
Technical Engineering		200		209
Spares		335		350
Other Appropriate Costs		360		376
Total		12,662		13,240

# **III. CONTRACT DATA:**

PROGRAM	SHIP	PRIME	CONTRACT	AWARD	NEW		HARDWARE
<u>YEAR</u>	<u>TYPE</u>	<b>CONTRACTOR</b>	<u>TYPE</u>	<u>DATE</u>	/OPTION	<u>QTY</u>	<b>UNIT COST</b>
FY 09	LPD 26	ITT/G	FFP	AUG-09	NEW	1	10,964
FY 12	I PD 27	ITT/G	FFP/CPFF	TBD	TBD	1	11 465

#### **IV. DELIVERY DATE:**

PROGRAM	SHIP	EARLIEST SHIP	MONTHS REQUIRED	PRODUCTION	REQUIRED
<u>YEAR</u>	<u>TYPE</u>	<b>DELIVERY DATE</b>	BEFORE DELIVERY	<b>LEADTIME</b>	AWARD DATE
FY 09	LPD 26	NOV-15	18	27	FEB-12
FY 12	LPD 27	NOV-16	18	27	FEB-13

#### V. COMPETITION/SECOND SOURCE INITIATIVES:

# SHIPBUILDING AND CONVERSION, NAVY

MAJOR SHIP COMPONENT FACT SHEET (Dollars in Thousands)

P-35 EXHIBIT FY 2013 President's Budget

February 2012

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 2	2009	FY 2	012
	<u>QTY</u>	COST	<u>QTY</u>	COST
Major Hardware	1	5,704	1	5,965
Systems Engineering		200		209
Technical Data and Documentation		50		52
Technical Engineering		318		332
Spares		111		116
Other Appropriate Costs		415		433
Total		6,797		7,108

# **III. CONTRACT DATA:**

PROGRAM	SHIP	PRIME	CONTRACT	AWARD	NEW		HARDWARE
<u>YEAR</u>	<u>TYPE</u>	CONTRACTOR	TYPE	DATE	/OPTION	<u>QTY</u>	UNIT COST
FY 09	LPD 26	NORTHROP GRUMMAN	FFP	MAR-10	OPTION	1	5,704
FY 12	I PD 27	NORTHROP GRUMMAN	FFP	TRD	TBD	1	5 965

#### **IV. DELIVERY DATE:**

PROGRAM	SHIP	EARLIEST SHIP	MONTHS REQUIRED	PRODUCTION	REQUIRED
<u>YEAR</u>	<u>TYPE</u>	<b>DELIVERY DATE</b>	BEFORE DELIVERY	<b>LEADTIME</b>	<b>AWARD DATE</b>
FY 09	LPD 26	NOV-15	18	24	MAY-12
FY 12	LPD 27	NOV-16	18	24	MAY-13

#### V. COMPETITION/SECOND SOURCE INITIATIVES:

# ${\bf SHIPBUILDING\ AND\ CONVERSION,\ NAVY}$

MAJOR SHIP COMPONENT FACT SHEET (Dollars in Thousands)

P-35 EXHIBIT FY 2013 President's Budget February 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 2	:009	FY 2	012
	<b>QTY</b>	COST	<u>QTY</u>	COST
Major Hardware	2	6,053	2	6,329
Systems Engineering		0		0
Technical Data and Documentation		0		0
Technical Engineering		0		0
Spares		0		0
Other Appropriate Costs		0		0
Total		6,053		6,329

## III. CONTRACT DATA:

PROGRAM	SHIP	PRIME	CONTRACT	AWARD	NEW		HARDWARE
<u>YEAR</u>	TYPE	CONTRACTOR	TYPE	<u>DATE</u>	/OPTION	<u>QTY</u>	UNIT COST
FY 09	LPD 26	General Dynamics	FFP	May-11	NEW	2	3,027
FY 12	I PD 27	General Dynamics	FFP	TBD	OPTION	2	3 165

#### IV. DELIVERY DATE:

PROGRAM	SHIP	EARLIEST SHIP	MONTHS REQUIRED	PRODUCTION	REQUIRED
<u>YEAR</u>	<u>TYPE</u>	DELIVERY DATE	BEFORE DELIVERY	<b>LEADTIME</b>	AWARD DATE
FY 09	LPD 26	NOV-15	12	18	MAY-13
FY 12	LPD 27	NOV-16	12	18	MAY-14

#### V. COMPETITION/SECOND SOURCE INITIATIVES:

CLASSIFICATION: UNCLASSIFIED BL	JDGET ITEM JUSTIFICAT	ION SHEET (	P-40)				DATE:			
	FY 2013 President's		,				February 201	12		
APPROPRIATION/BUDGET ACTIVITY	T I ZUIS FIESIUEIII	s buuget			P-1 LINE ITE	M NOMENO	,	12		
SHIPBUILDING AND CONVERSION, NAVY/BA	3 Amnhihiaus Shins				LHA REPLA		LATORE			
CITIL BOILDING AND GONVERGION, NAV 175A	o Ampiniblous omps				BLI: 3041	OLINILITI				
(Dollars in Millions)	PRIOR YR	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	TO COMP	TOTAL PROG
QUANTITY	1	1	0	0	0	0	0	1	0	
End Cost	3,167.6	3,284.0	0.0	0.0	0.0	0.0	0.0	4,418.1	0.0	10,869.
Less Advance Procurement	297.7	347.2	0.0	0.0	0.0	0.0	0.0	318.9	0.0	963.
Less Cost To Complete	171.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	171.
Less Hurricane Supplemental	202.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	202.
Less Subsequent Year FF	0.0	1,999.2	0.0	0.0	0.0	0.0	0.0	2,002.0	0.0	4,001.
Plus Subsequent Year FF	0.0	0.0	1,999.2	0.0	0.0	0.0	0.0	0.0	2,002.0	4,001.
Full Funding TOA	2,496.9	937.6	1,999.2	0.0	0.0	0.0	0.0	2,097.2	2,002.0	9,532.
Plus Advance Procurement	644.9	0.0	0.0	0.0	0.0	78.5	240.4	0.0	0.0	963.
Plus Hurricane Supplemental	202.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	202.
Plus Cost To Complete	14.3	0.0	0.0	156.7	0.0	0.0	0.0	0.0	0.0	171.
Total Obligational Authority	3,358.1	937.6	1,999.2	156.7	0.0	78.5	240.4	2,097.2	2,002.0	10,869.
Plus Outfitting / Plus Post Delivery	0.0	0.0	25.6	6.3	10.3	17.8	13.6	15.8	94.0	183.
Total	3,358.1	937.6	2,024.8	163.0	10.3	96.3	254.0	2,113.0	2,096.0	11,053.
Unit Cost ( Ave. End Cost)	3,167.6	3,284.0	0.0	0.0	0.0	0.0	0.0	4,418.1	0.0	3,623.

#### 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	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	AN/SLQ-32
			AN/SPQ-9B	IVN
	FY07	FY11		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	76 months	70 months		AN/WSN-7 RLGN
b) Construction Start to Delivery	69 months	59 months		
Delivery Date	10/13	03/18		
Completion of Fitting Out	05/14	10/18		
Obligation Work Limiting Date	04/15	09/19		

APPROPRIATION: SHIPBUILDING AND CONVERSION, NAVY

#### P-5 EXHIBIT

#### FY 2013 President's Budget

February 2012

# WEAPON SYSTEM COST ANALYSIS (EXHIBIT P-5)

(Dollars in Thousands)

BUDGET ACTIVITY: 3 Amphibious Ships		TEM NOME	NCLATUF	RE	SUBHEAD NO. BLI: 3041
	FY	2007	FY	2011	
ELEMENT OF COST	QTY	COST	QTY	COST	
PLAN COSTS	1	191,000	1	60,084	
BASIC CONST/CONVERSION		2,391,647		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		3,167,577		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			
NET P-1 LINE ITEM:		1,131,121		937,630	

# SHIPBUILDING AND CONVERSION, NAVY

Analysis of Ship Cost Estimate - Basic/Escalation Ship Type: LHA REPLACEMENT

P-5B Exhibit FY 2013 President's Budget DATE: February 2012

<u>l.</u>	Design/Schedule	Start/Issue	Complete /Response Reissue	<u>Complete</u> /Response
	Issue date for TLR		<u>//toopenee</u>	71.00ponoo
	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	
		FPI (50/50		
	B. Contract Type ( and Share Line if applicable)	O/R)	TBD	
	C. RFP Response Date	MAR 2006	APR 2011	
	·	FORWARD	FORWARD	
IV.	<b>Escalation</b>	PRICED	PRICED	
	Escalation Termination Date			
	Escalation Requirement			
	Labor/Material Split			
	Allowable Overhead Rate			
٧.	Other Basic(Reserves/Miscellaneous)	<u>Amount</u>		

# SHIPBUILDING AND CONVERSION, NAVY

SHIP PRODUCTION SCHEDULE

EXHIBIT P-27 FY 2013 President's Budget

DATE:

February 2012

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	OCT-13
LHA (R)	07	HUNTINGTON INGALLS INDUSTRIES	11	MAY-12	APR-13	MAR-18

# P-8A EXHIBIT FY 2013 President's Budget February 2012

# SHIPBUILDING AND CONVERSION, NAVY

Analysis of Ship Cost Estimates - Major Equipment (Dollars in Thousands)

Ship Type: LHA REPLACEMENT	FY 2	2011
	<u>QTY</u>	COST
ELECTRONICS		
a. P-35 Items		
AN/SLQ-32	1	7,748
C4ISR	1	- ,
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	4,861
AN/SPN-35C	1	4,805
AN/WSN-7 RLGN	1	4,645
Subtotal		237,647
b. Major Items		
AN/SLQ-25	2	2,376
AN/SPN-43C	1	2,952
AN/SPN-41A	1	2,958
MK70 SWBD W/ MK443 SWBD	1	1,591
ANNOUNCING SYSTEMS	1	2,156
DIGITAL PHOTO LAB	1	1,642
CADRT	1	2,088
MK 53 NULKA MOD 3	1	2,751
Subtotal		18,514
c. Other ELECTRONICS		
MISCELLANEOUS ELECTRONICS		10,676
Subtotal		10,676
Total ELECTRONICS		266,837

# P-8A EXHIBIT FY 2013 President's Budget February 2012

# SHIPBUILDING AND CONVERSION, NAVY

Analysis of Ship Cost Estimates - Major Equipment (Dollars in Thousands)

Ship Type: LHA REPLACEMENT	FY 2	2011
	<u>QTY</u>	COST
ORDNANCE		
a. P-35 Items		
AN/SPS-48	1	14,762
AN/SPS-49A(V)1	1	12,417
CIWS MK15 MOD22	2	12,535
AN/SPQ-9B	1	8,846
NATO SEASPARROW	2	28,553
RAM	2	17,390
Subtotal		94,503
b. Major Items		
LRADDS	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

# P-8A EXHIBIT FY 2013 President's Budget February 2012

# SHIPBUILDING AND CONVERSION, NAVY

Analysis of Ship Cost Estimates - Major Equipment (Dollars in Thousands)

Ship Type: LHA REPLACEMENT	FY 2	2011
	<u>QTY</u>	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

MAJOR SHIP COMPONENT FACT SHEET

(Dollars in Thousands)

P-35 EXHIBIT FY 2013 President's Budget

February 2012

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

#### IV. DELIVERY DATE:

PROGRAM	SHIP	EARLIEST SHIP	MONTHS REQUIRED	PRODUCTION	REQUIRED
<u>YEAR</u>	<u>TYPE</u>	<b>DELIVERY DATE</b>	BEFORE DELIVERY	<b>LEADTIME</b>	AWARD DATE
FY11	LHA (R)	MAR-18	37	30	AUG-12

#### V. COMPETITION/SECOND SOURCE INITIATIVES:

N/A

# SHIPBUILDING AND CONVERSION, NAVY

MAJOR SHIP COMPONENT FACT SHEET FY 2013 President's Budget

(Dollars in Thousands)

P-35 EXHIBIT FY 2013 Preside February 2012

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 NTCSS, TBMCS, GCCS-M, MOS, CDLMS, SVDS, IA, SCI NETWORKS, ISNS, CENTRIXS, TCS, NAVMACS, ADNS, NAVSSI, DMR, CDL-S, SHF, EHF, GBS, DWTS, EPLRS, HFIP(BFEM), HFRG, HF SAR, HSFB, MCCP, UHF SATCOM, SINCGARS, SMQ-11, TVS, TSS, TV-DTS, NITES, UASS, SSEE INC E, JTT, ARC-210, SI COMMS, RCS Integration, C4I Design Integration, Distributed Systems Integration, DCGS-N.

#### **II. CURRENT FUNDING:**

P-35 Category	FY 2011	
	<u>QTY</u>	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	SHIP	PRIME	CONTRACT	AWARD	NEW		HARDWARE
<u>YEAR</u>	<u>TYPE</u>	<b>CONTRACTOR</b>	<u>TYPE</u>	<u>DATE</u>	/OPTION	<u>QTY</u>	<u>UNIT COST</u>
FY11	LHA (R)	VARIOUS	VARIOUS	VAR	VARIOUS	1	89,286

#### IV. DELIVERY DATE:

PROGRAM	SHIP	EARLIEST SHIP	MONTHS REQUIRED	PRODUCTION	REQUIRED
<u>YEAR</u>	<u>TYPE</u>	<b>DELIVERY DATE</b>	<b>BEFORE DELIVERY</b>	<b>LEADTIME</b>	AWARD DATE
FV11	IHΔ (R)	MAR-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

MAJOR SHIP COMPONENT FACT SHEET (Dollars in Thousands)

P-35 EXHIBIT February 2012

FY 2013 President's Budget

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		
	<u>QTY</u>	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	SHIP	PRIME	CONTRACT	AWARD	NEW		HARDWARE
<u>YEAR</u>	<u>TYPE</u>	<b>CONTRACTOR</b>	<u>TYPE</u>	<u>DATE</u>	/OPTION	<u>QTY</u>	UNIT COST
FV11	IHΔ(R)	RAYTHEON	FFP	MAR-10	NEW/	1	<i>∆</i> 710

#### **IV. DELIVERY DATE:**

PROGRAM	SHIP	EARLIEST SHIP	MONTHS REQUIRED	PRODUCTION	REQUIRED
YEAR	TYPE	<b>DELIVERY DATE</b>	<b>BEFORE DELIVERY</b>	<b>LEADTIME</b>	AWARD DATE
FY11	LHA (R)	MAR-18	37	18	AUG-13

#### V. COMPETITION/SECOND SOURCE INITIATIVES:

# SHIPBUILDING AND CONVERSION, NAVY

MAJOR SHIP COMPONENT FACT SHEET

(Dollars in Thousands)

P-35 EXHIBIT FY 2013 President's Budget

February 2012

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 2	2011
	<u>QTY</u>	COST
Major Hardware	1	11,967
Technical Data and Documentation		1,772
Spares		733
System Engineering		4,638
Technical Engineering Services		1,983
Other Costs		12,591
Total		33.684

#### **III. CONTRACT DATA:**

PROGRAM	SHIP	PRIME	CONTRACT	AWARD	NEW		HARDWARE
<u>YEAR</u>	<u>TYPE</u>	<b>CONTRACTOR</b>	<u>TYPE</u>	<u>DATE</u>	/OPTION	<u>QTY</u>	UNIT COST
FY11	LHA (R)	VARIOUS	CPFF/FFP	VAR	TBD	1	11,967

#### IV. DELIVERY DATE:

PROGRAM	SHIP	EARLIEST SHIP	MONTHS REQUIRED	PRODUCTION	REQUIRED
<u>YEAR</u>	<u>TYPE</u>	<b>DELIVERY DATE</b>	<b>BEFORE DELIVERY</b>	<b>LEADTIME</b>	<b>AWARD DATE</b>
FY11	LHA (R)	MAR-18	37	18	AUG-13

#### V. COMPETITION/SECOND SOURCE INITIATIVES:

N/A

# SHIPBUILDING AND CONVERSION, NAVY

MAJOR SHIP COMPONENT FACT SHEET FY 2013 President's Budget

(Dollars in Thousands)

P-35 EXHIBIT FY 2013 Presid February 2012

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 2	2011
	<u>QTY</u>	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	SHIP	PRIME	CONTRACT	AWARD	NEW		HARDWARE
<u>YEAR</u>	<u>TYPE</u>	CONTRACTOR	<u>TYPE</u>	<u>DATE</u>	/OPTION	<u>QTY</u>	<u>UNIT COST</u>
FY11	LHA (R)	VARIOUS	VARIOUS	VAR	TBD	1	6,496

## IV. DELIVERY DATE:

PROGRAM	SHIP	EARLIEST SHIP	MONTHS REQUIRED	PRODUCTION	REQUIRED
<u>YEAR</u>	<u>TYPE</u>	<b>DELIVERY DATE</b>	<b>BEFORE DELIVERY</b>	<b>LEADTIME</b>	AWARD DATE
FY11	LHA (R)	MAR-18	37	12	FEB-14

#### V. COMPETITION/SECOND SOURCE INITIATIVES:

N/A

NOTE:

Multiple contracts with multiple award dates.

#### SHIPBUILDING AND CONVERSION, NAVY

FY 2013 President's Budget MAJOR SHIP COMPONENT FACT SHEET February 2012

P-35 EXHIBIT

(Dollars in Thousands)

Ship Type: LHA REPLACEMENT

Equipment Item: IVN

PARM Code: WC (SEA 05W)

#### I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

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

#### **II. CURRENT FUNDING:**

P-35 Category	FY 2011		
	<b>QTY</b>	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	SHIP	PRIME	CONTRACT	AWARD	NEW		HARDWARE
<u>YEAR</u>	<u>TYPE</u>	<b>CONTRACTOR</b>	<u>TYPE</u>	<u>DATE</u>	/OPTION	<u>QTY</u>	UNIT COST
FY11	LHA (R)	TBD	TBD	TBD	TBD	1	13,414

#### **IV. DELIVERY DATE:**

PROGRAM	SHIP	EARLIEST SHIP	MONTHS REQUIRED	PRODUCTION	REQUIRED
<u>YEAR</u>	<u>TYPE</u>	<b>DELIVERY DATE</b>	<b>BEFORE DELIVERY</b>	<b>LEADTIME</b>	AWARD DATE
FY11	LHA (R)	MAR-18	9	7	NOV-16

# V. COMPETITION/SECOND SOURCE INITIATIVES:

N/A

# SHIPBUILDING AND CONVERSION, NAVY

MAJOR SHIP COMPONENT FACT SHEET FY 2013 President's Budget February 2012

(Dollars in Thousands)

P-35 EXHIBIT

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

#### **IV. DELIVERY DATE:**

PROGRAM	SHIP	EARLIEST SHIP	MONTHS REQUIRED	PRODUCTION	REQUIRED
<u>YEAR</u>	<u>TYPE</u>	<b>DELIVERY DATE</b>	<b>BEFORE DELIVERY</b>	<b>LEADTIME</b>	<b>AWARD DATE</b>
FY11	I HA (R)	MAR-18	37	24	FFR-13

#### V. COMPETITION/SECOND SOURCE INITIATIVES:

N/A

# SHIPBUILDING AND CONVERSION, NAVY

MAJOR SHIP COMPONENT FACT SHEET

FY 2013 President's Budget

(Dollars in Thousands)

February 2012

P-35 EXHIBIT

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 2	2011
	<u>QTY</u>	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	SHIP	PRIME	CONTRACT	AWARD	NEW		HARDWARE
<u>YEAR</u>	<u>TYPE</u>	<b>CONTRACTOR</b>	<u>TYPE</u>	<u>DATE</u>	/OPTION	<u>QTY</u>	<u>UNIT COST</u>
FY11	LHA (R)	TBD	TBD	TBD	TBD	1	3,396

#### **IV. DELIVERY DATE:**

PROGRAM	SHIP	EARLIEST SHIP	MONTHS REQUIRED	PRODUCTION	REQUIRED
<u>YEAR</u>	<u>TYPE</u>	<b>DELIVERY DATE</b>	<b>BEFORE DELIVERY</b>	<b>LEADTIME</b>	<b>AWARD DATE</b>
FY11	LHA (R)	MAR-18	23	6	OCT-15

# V. COMPETITION/SECOND SOURCE INITIATIVES:

N/A

#### SHIPBUILDING AND CONVERSION, NAVY

MAJOR SHIP COMPONENT FACT SHEET

(Dollars in Thousands)

P-35 EXHIBIT FY 2013 President's Budget

February 2012

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:

III GORRENT I GREING:				
P-35 Category	FY 2011			
	<u>QTY</u>	COST		
Major Hardware	1	3,570		
Spares		179		
System Engineering		424		
Technical Engineering Services		302		
Other Costs		386		
Total		4,861		

#### III. CONTRACT DATA:

PROGRAM	SHIP	PRIME	CONTRACT	AWARD	NEW		HARDWARE
<u>YEAR</u>	<u>TYPE</u>	<b>CONTRACTOR</b>	<u>TYPE</u>	<u>DATE</u>	/OPTION	<u>QTY</u>	<u>UNIT COST</u>
FY11	LHA (R)	TBD	TBD	TBD	TBD	1	3,570

#### **IV. DELIVERY DATE:**

PROGRAM	SHIP	EARLIEST SHIP	MONTHS REQUIRED	PRODUCTION	REQUIRED
<u>YEAR</u>	<u>TYPE</u>	<b>DELIVERY DATE</b>	<b>BEFORE DELIVERY</b>	<b>LEADTIME</b>	AWARD DATE
FY11	I HA (R)	MAR-18	37	24	FFB-13

#### V. COMPETITION/SECOND SOURCE INITIATIVES:

N/A

#### SHIPBUILDING AND CONVERSION, NAVY

MAJOR SHIP COMPONENT FACT SHEET

(Dollars in Thousands) February 2012

P-35 EXHIBIT

FY 2013 President's Budget

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			
	<u>QTY</u>	COST		
Major Hardware	1	3,576		
System Engineering		518		
Technical Engineering Services		71		
Other Costs		640		
Total		4,805		

#### III. CONTRACT DATA:

PROGRAM	SHIP	PRIME	CONTRACT	AWARD	NEW		HARDWARE
<u>YEAR</u>	<u>TYPE</u>	<b>CONTRACTOR</b>	<u>TYPE</u>	<u>DATE</u>	/OPTION	<u>QTY</u>	UNIT COST
FY11	LHA (R)	TBD	TBD	TBD	TBD	1	3.576

#### **IV. DELIVERY DATE:**

PROGRAM	SHIP	EARLIEST SHIP	MONTHS REQUIRED	PRODUCTION	REQUIRED
<u>YEAR</u>	<u>TYPE</u>	<b>DELIVERY DATE</b>	<b>BEFORE DELIVERY</b>	<b>LEADTIME</b>	<b>AWARD DATE</b>
FY11	LHA (R)	MAR-18	37	24	FEB-13

#### V. COMPETITION/SECOND SOURCE INITIATIVES:

N/A

# SHIPBUILDING AND CONVERSION, NAVY

MAJOR SHIP COMPONENT FACT SHEET

(Dollars in Thousands) February 2012

P-35 EXHIBIT

FY 2013 President's Budget

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			
	<b>QTY</b>	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	SHIP	PRIME	CONTRACT	AWARD	NEW		HARDWARE
<u>YEAR</u>	<u>TYPE</u>	<b>CONTRACTOR</b>	<u>TYPE</u>	DATE	/OPTION	<b>QTY</b>	<b>UNIT COST</b>
FY11	LHA (R)	SPERRY MARINE	FFP	TBD	OPTION	1	3.573

#### **IV. DELIVERY DATE:**

PROGRAM	SHIP	EARLIEST SHIP	MONTHS REQUIRED	PRODUCTION	REQUIRED
<u>YEAR</u>	<u>TYPE</u>	<b>DELIVERY DATE</b>	<b>BEFORE DELIVERY</b>	<b>LEADTIME</b>	<b>AWARD DATE</b>
FY11	LHA (R)	MAR-18	37	24	FEB-13

#### V. COMPETITION/SECOND SOURCE INITIATIVES:

N/A

#### SHIPBUILDING AND CONVERSION, NAVY

MAJOR SHIP COMPONENT FACT SHEET FY 2013 President's Budget

(Dollars in Thousands) February 2012

P-35 EXHIBIT

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			
	<u>QTY</u>	COST		
Major Hardware	1	11,558		
Technical Data and Documentation		150		
Spares		585		
System Engineering		723		
Technical Engineering Services		270		
Other Costs		1,476		
Total		14,762		

#### III. CONTRACT DATA:

PROGRAM	SHIP	PRIME	CONTRACT	AWARD	NEW		HARDWARE
<u>YEAR</u>	<u>TYPE</u>	CONTRACTOR	<u>TYPE</u>	DATE	/OPTION	<b>QTY</b>	UNIT COST
FY11	LHA (R)	TBD	TBD	TBD	TBD	1	11,558

## **IV. DELIVERY DATE:**

PROGRAM	SHIP	EARLIEST SHIP	MONTHS REQUIRED	PRODUCTION	REQUIRED
<u>YEAR</u>	<u>TYPE</u>	<b>DELIVERY DATE</b>	<b>BEFORE DELIVERY</b>	<b>LEADTIME</b>	AWARD DATE
FY11	LHA (R)	MAR-18	37	30	AUG-12

#### V. COMPETITION/SECOND SOURCE INITIATIVES:

N/A

NOTE:

Refurbished Item

# SHIPBUILDING AND CONVERSION, NAVY

MAJOR SHIP COMPONENT FACT SHEET

(Dollars in Thousands)

P-35 EXHIBIT

FY 2013 President's Budget February 2012

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.

#### II. CURRENT FUNDING:

P-35 Category	FY 2011			
	<u>QTY</u>	COST		
Major Hardware	1	7,884		
Technical Data and Documentation		322		
Spares		512		
System Engineering		379		
Technical Engineering Services		126		
Other Costs		3,194		
Total		12,417		

#### **III. CONTRACT DATA:**

PROGRAM	SHIP	PRIME	CONTRACT	AWARD	NEW		HARDWARE
<u>YEAR</u>	<u>TYPE</u>	<b>CONTRACTOR</b>	<u>TYPE</u>	<u>DATE</u>	/OPTION	<u>QTY</u>	UNIT COST
FY11	LHA (R)	TBD	TBD	TBD	TBD	1	7,884

#### **IV. DELIVERY DATE:**

PROGRAM	SHIP	EARLIEST SHIP	MONTHS REQUIRED	PRODUCTION	REQUIRED
YEAR	<u>TYPE</u>	<b>DELIVERY DATE</b>	<b>BEFORE DELIVERY</b>	<b>LEADTIME</b>	<b>AWARD DATE</b>
FY11	LHA (R)	MAR-18	37	30	AUG-12

#### V. COMPETITION/SECOND SOURCE INITIATIVES:

N/A

NOTE:

Refurbished Item

# SHIPBUILDING AND CONVERSION, NAVY

MAJOR SHIP COMPONENT FACT SHEET (Dollars in Thousands)

P-35 EXHIBIT FY 2013 President's Budget February 2012

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			
	<u>QTY</u>	COST		
Major Hardware	2	10,219		
Technical Data and Documentation		33		
Spares		793		
System Engineering		569		
Technical Engineering Services		307		
Other Costs		614		
Total		12,535		

#### **III. CONTRACT DATA:**

PROGRAM	SHIP	PRIME	CONTRACT	AWARD	NEW		HARDWARE
<u>YEAR</u>	<u>TYPE</u>	<b>CONTRACTOR</b>	<u>TYPE</u>	<u>DATE</u>	/OPTION	<u>QTY</u>	<u>UNIT COST</u>
FY11	LHA (R)	GENERAL DYNAMICS	FFP	MAR-10	NEW	2	5,110

#### IV. DELIVERY DATE:

PROGRAM	SHIP	EARLIEST SHIP	MONTHS REQUIRED	PRODUCTION	REQUIRED
YEAR	<u>TYPE</u>	<b>DELIVERY DATE</b>	BEFORE DELIVERY	<b>LEADTIME</b>	<b>AWARD DATE</b>
FY11	LHA (R)	MAR-18	19	22	OCT-14

#### V. COMPETITION/SECOND SOURCE INITIATIVES:

N/A

# SHIPBUILDING AND CONVERSION, NAVY

MAJOR SHIP COMPONENT FACT SHEET

(Dollars in Thousands)

P-35 EXHIBIT February 2012

FY 2013 President's Budget

**LHA REPLACEMENT** Ship Type:

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			
	<u>QTY</u>	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	SHIP	PRIME	CONTRACT	AWARD	NEW		HARDWARE
<u>YEAR</u>	<u>TYPE</u>	CONTRACTOR	<u>TYPE</u>	<u>DATE</u>	/OPTION	<u>QTY</u>	UNIT COST
FY11	LHA (R)	TBD	TBD	TBD	TBD	1	7,236

#### **IV. DELIVERY DATE:**

PROGRAM	SHIP	EARLIEST SHIP	MONTHS REQUIRED	PRODUCTION	REQUIRED
<u>YEAR</u>	<u>TYPE</u>	<b>DELIVERY DATE</b>	<b>BEFORE DELIVERY</b>	<b>LEADTIME</b>	AWARD DATE
FY11	LHA (R)	MAR-18	37	18	AUG-13

#### V. COMPETITION/SECOND SOURCE INITIATIVES:

N/A

# SHIPBUILDING AND CONVERSION, NAVY

MAJOR SHIP COMPONENT FACT SHEET

(Dollars in Thousands)

P-35 EXHIBIT

FY 2013 President's Budget

February 2012

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:

Spares System Engineering Fechnical Engineering Services Other Costs	FY 2011				
	<u>QTY</u>	COST			
Major Hardware	2	19,666			
Spares		1,581			
System Engineering		1,275			
Technical Engineering Services		2,816			
Other Costs		3,215			
Total		28,553			

#### III. CONTRACT DATA:

PROGRAM	SHIP	PRIME	CONTRACT	AWARD	NEW		HARDWARE
<u>YEAR</u>	<u>TYPE</u>	CONTRACTOR	<u>TYPE</u>	<u>DATE</u>	/OPTION	<u>QTY</u>	UNIT COST
FY11	LHA (R)	RAYTHEON	FFP	JUL-10	OPTION	2	9,833

#### **IV. DELIVERY DATE:**

PROGRAM	SHIP	EARLIEST SHIP	MONTHS REQUIRED	PRODUCTION	REQUIRED
<u>YEAR</u>	<u>TYPE</u>	<b>DELIVERY DATE</b>	<b>BEFORE DELIVERY</b>	<b>LEADTIME</b>	AWARD DATE
FY11	I HA (R)	MAR-18	37	24	FFB-13

#### V. COMPETITION/SECOND SOURCE INITIATIVES:

N/A

# SHIPBUILDING AND CONVERSION, NAVY

MAJOR SHIP COMPONENT FACT SHEET FY 2013 President's Budget

P-35 EXHIBIT

(Dollars in Thousands) February 2012

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:**

III GOIGICEITT I GITEIRG.	
P-35 Category  Major Hardware Technical Data and Documentation Spares System Engineering Technical Engineering Services Other Costs	FY 2011
	QTY COST
Major Hardware	2 11,836
Technical Data and Documentation	700
Spares	135
System Engineering	2,114
Technical Engineering Services	196
Other Costs	2,409
Total	17,390

#### **III. CONTRACT DATA:**

PROGRAM	SHIP	PRIME	CONTRACT	AWARD	NEW		HARDWARE
<u>YEAR</u>	<u>TYPE</u>	<b>CONTRACTOR</b>	<u>TYPE</u>	<u>DATE</u>	/OPTION	<u>QTY</u>	<u>UNIT COST</u>
FY11	LHA (R)	TBD	TBD	TBD	TBD	2	5.918

## IV. DELIVERY DATE:

PROGRAM	SHIP	EARLIEST SHIP	MONTHS REQUIRED	PRODUCTION	REQUIRED
<u>YEAR</u>	<u>TYPE</u>	<b>DELIVERY DATE</b>	<b>BEFORE DELIVERY</b>	<b>LEADTIME</b>	AWARD DATE
FY11	LHA (R)	MAR-18	37	24	FFB-13

#### V. COMPETITION/SECOND SOURCE INITIATIVES:

N/A

CLASSIFICATION: UNCLASSIFIED										
BUI	BUDGET ITEM JUSTIFICATION SHEET (P-40)						DATE:			
FY 2013 President's Budget							February 2012			
APPROPRIATION/BUDGET ACTIVITY					P-1 LINE ITEM NOMENCLATURE					
SHIPBUILDING AND CONVERSION, NAVY/BA 3 Amphibious Ships					JOINT HIGH SPEE	D VESSEL (JHSV)				
					BLI: 3043					
(Dollars in Millions)	PRIOR YR	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	TO COMP	TOTAL PROG
QUANTITY	2	1	2	1	0	0	0	0	0	6
End Cost	358.7	179.7	372.3	189.2	0.0	0.0	0.0	0.0	0.0	1,099.9
Full Funding TOA	358.7	179.7	372.3	189.2	0.0	0.0	0.0	0.0	0.0	1,099.9
Total Obligational Authority	358.7	179.7	372.3	189.2	0.0	0.0	0.0	0.0	0.0	1,099.9
Plus Outfitting / Plus Post Delivery	0.0	1.3	5.7	30.4	34.8	34.2	14.4	9.0	32.9	162.7
Total	358.7	181.0	378.0	219.6	34.8	34.2	14.4	9.1	32.9	1,262.7
Unit Cost ( Ave. End Cost)	179.4	179.7	186.2	189.2	0.0	0.0	0.0	0.0	0.0	183.3
MISSION:										

Future joint forces will be responsive, deployable, agile, versatile, lethal, survivable, and sustainable. The nation will need lift assets that can provide for assured access, decrease predictability and dwell time, and have the capacity to quickly deliver troops and equipment together in a manner that provides for unit integrity. Joint High Speed Vessel (JHSV) will provide combatant commanders high-speed intra-theater sealift mobility with inherent cargo handling capability and the agility to achieve positional advantage over operational distances. Not limited to major ports, the JHSV will be able to operate in austere port environments. The Joint High Speed Vessel is one of three programs in the Department's "Capital Account Pilot Program."

In addition to the 6 JHSVs shown in these exhibits, th^ Army has transferred 4 to the Navy, resulting in a total inventory objective of 10.

Characteristics Hull Length overall Beam Displacement Draft	Aluminum 103m (338 ft) 28.5m (93.5 ft) 2359 LT 3.8M (12.5 ft)	Armament: N/A	Major Electronics: C4ISR			
Production Status Award Planned (Month)	FY09 JHSV 0901 01/10	FY10 JHSV 1001 10/10	FY11 JHSV 1101 06/11	FY12 JHSV 1201 02/12	FY12 JHSV 1202 02/12	FY 13 JHSV 1301 02/13
Months to Completion a) Award to Delivery b) Construction Start to Delivery	36 months 28 months	39 months	43 months	47 months	53 months	47 months
Delivery Date Completion of Fitting Out	01/13 02/13	28 months 01/14 02/14	28 months 01/15 02/15	28 months 01/16 02/16	23 months 07/16 08/16	28 months 01/17 02/17
Obligation Work Limiting Date	01/14	01/15	01/16	01/17	07/17	01/18

APPROPRIATION: SHIPBUILDING AND CONVERSION, NAVY

P-5 EXHIBIT FY 2013 President's Budget February 2012

BLI: 3043

# WEAPON SYSTEM COST ANALYSIS (EXHIBIT P-5)

(Dollars in Thousands)

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

-	FY 2	009	FY 2	010	FY 20	111	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		152,913		151,730		155,540		323,156		167,603
CHANGE ORDERS		7,650		4,550		4,355		8,663		4,190
ELECTRONICS		11,590		12,008		12,271		23,767		12,194
HM&E		5,107		4,941		3,342		7,993		2,253
OTHER COST		4,000		4,178		4,197		8,753		2,956
TOTAL SHIP ESTIMATE		181,260		177,407		179,705		372,332		189,196
NET P-1 LINE ITEM:		181,260		177,407		179,705		372,332		189,196

#### SHIPBUILDING AND CONVERSION, NAVY

Analysis of Ship Cost Estimate - Basic/Escalation

Ship Type: JHSV

<u>l.</u>	Design/Schedule	Start/Issue	Complete	Reissue	Complete
			/Response		/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	TBD
	B. Contract Type ( and Share Line if applicable )	FPI (50/50)	FPI (50/50)	FPI (50/50)	FPI (50/50)
IV.	<u>Escalation</u>				
	Escalation Termination Date				
	Escalation Requirement	FWD PRICE	FWD PRICE	FWD PRICE	FWD PRICE
	Labor/Material Split				
	Allowable Overhead Rate				
٧.	Other Basic(Reserves/Miscellaneous)	Amount			

#### P-5B Exhibit

FY 2013 President's Budget

DATE:

February 2012

**EXHIBIT P-27** 

FY 2013 President's Budget

DATE:

February 2012

SHIP TYPE	HULL NUMBER	SHIPBUILDER	FISCAL YEAR AUTHORIZED	CONTRACT AWARD	START OF CONSTRUCTION	DELIVERY DATE
JHSV	801	AUSTAL	2008	JAN-08	SEP-09	APR-12
JHSV	901	AUSTAL	2009	JAN-10	SEP-10	JAN-13
JHSV	902	AUSTAL	2009	JAN-10	AUG-11	JUL-13
JHSV	1001	AUSTAL	2010	OCT-10	SEP-11	JAN-14
JHSV	1002	AUSTAL	2010	OCT-10	AUG-12	JUL-14
JHSV	1101	AUSTAL	2011	JUN-11	SEP-12	JAN-15
JHSV	1102	AUSTAL	2011	JUN-11	AUG-13	JUL-15
JHSV	1201	AUSTAL	2012	FEB-12	SEP-13	JAN-16
JHSV	1202	AUSTAL	2012	FEB-12	AUG-14	JUL-16
JHSV	1301	AUSTAL	2013	FEB-13	SEP-14	JAN-17

SHIPBUILDING AND CONVERSION, NAVY

SHIP PRODUCTION SCHEDULE

CLASSIFICATION: UNCLASSIFIED P-8A EXHIBIT

# FY 2013 President's Budget

February 2012

#### SHIPBUILDING AND CONVERSION, NAVY

Analysis of Ship Cost Estimates - Major Equipment

(Dollars in Thousands)

Ship Type: JOINT HIGH SPEED VESSEL	FY 2	011	FY 20	012	FY 2	013
	QTY	COST	<b>QTY</b>	COST	<u>QTY</u>	COST
ELECTRONICS						
a. P-35 Items						
C4ISR	1	9,670	2	18,703	1	9,586
Subtotal		9,670		18,703		9,586
b. Major Items						
VISUAL LANDING AIDE SUITE	1	2,144	2	4,193	1	2,159
MISC ELECTRONICS		457		871		449
Subtotal		2,601		5,064		2,608
c. Other ELECTRONICS						
Subtotal						
Total ELECTRONICS		12,271		23,767		12,194

CLASSIFICATION: UNCLASSIFIED P-8A EXHIBIT

# FY 2013 President's Budget

February 2012

#### SHIPBUILDING AND CONVERSION, NAVY

Analysis of Ship Cost Estimates - Major Equipment

(Dollars in Thousands)

Ship Type: JOINT HIGH SPEED VESSEL	FY 20	011	FY 20	)12	FY 2	<b>013</b>
	QTY	COST	QTY	COST	<u>QTY</u>	COST
HM&E						
a. P-35 Items						
Subtotal						
b. Major Items						
ENGINEERING SERVICES		1,924		4,492		1,262
SUPSHIP MATERIAL SERVICES		553		1,346		376
LOGISTICS SUPPORT SERVICES		325		839		248
TEST AND INSTRUMENTATION		540		1,316		367
Subtotal		3,342		7,993		2,253
c. Other HM&E						
Subtotal						
Total HM&E		3,342		7,993		2,253

# SHIPBUILDING AND CONVERSION, NAVY MAJOR SHIP COMPONENT FACT SHEET

(Dollars in Thousands)

P-35 EXHIBIT FY 2013 President's Budget February 2012

Ship Type: JOINT HIGH SPEED VESSEL

Equipment Item: C4ISR

PARM Code: 3Z (SPAWAR)

#### I. DESCRIPTION/CHARACTERISTICS/PURPOSE:

The Command, Control, Communications, Computers, Intelligence, Surveillance and Reconnaissance (C4ISR) system provides the line between the ship, the command hierarchy and other units of the operation force. The C4ISR Suite consists of a Network Suite (ISNS, ADNS and CENTRIXS-M), CBSP, Fleet Broadcast, UHF SATCOM Antenna, UHF/VHF LOS Suite and UHF SATCOM Radios, TVS-TVT, IA and RCS.

#### II. CURRENT FUNDING:

P-35 Category	FY 2	011	FY 20	012	FY 2	013
	<u>QTY</u>	COST	<u>QTY</u>	COST	<u>QTY</u>	COST
Major Hardware	1	5,685	2	11,620	1	5,956
Spares		638		1,126		568
System Engineering		2,065		3,420		1,755
Technical Engineering Services		431		976		505
Other Costs		851		1,561		802
Total		9,670		18,703		9,586

#### III. CONTRACT DATA:

PROGRAM	SHIP	PRIME	CONTRACT	AWARD	NEW		HARDWARE
<u>YEAR</u>	TYPE	CONTRACTOR	<u>TYPE</u>	<u>DATE</u>	/OPTION	<u>QTY</u>	<b>UNIT COST</b>
11	JHSV 1101	VARIOUS	VARIOUS	VAR	VARIOUS	1	5,685
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:

LIVERY DATE:					
PROGRAM	SHIP	EARLIEST SHIP	MONTHS REQUIRED	PRODUCTION	REQUIRED
<u>YEAR</u>	<u>TYPE</u>	<b>DELIVERY DATE</b>	BEFORE DELIVERY	<b>LEADTIME</b>	AWARD DATE
11	JHSV 1101	JAN-15	VARIOUS	VARIOUS	
12	JHSV 1201	JAN-16	VARIOUS	VARIOUS	
12	JHSV 1202	JUL-16	VARIOUS	VARIOUS	
13	JHSV 1301	JAN-17	VARIOUS	VARIOUS	

#### V. COMPETITION/SECOND SOURCE INITIATIVES:

#### NOTE:

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

CEANOGRAPHIC SHIPS (AGOR)   COLOR   PRIOR YR   FY 2011   FY 2012   FY 2013   FY 2014   FY 2015   FY 2016   FY 2017   TO COMP   TOTAL PROG	CLASSIFICATION: UNCLASSIFIED										
CEANOGRAPHIC SHIPS (AGOR)   COLOR   PRIOR YR   FY 2011   FY 2012   FY 2013   FY 2014   FY 2015   FY 2016   FY 2017   TO COMP   TOTAL PROG											
DUANTITY	APPROPRIATION/BUDGET ACTIVITY SHIPBUILDING AND CONVERSION, NAVY/BA 5 Auxiliaries, Craft and Pr	ior Year Program Costs				OCEANOGRAPHIC					
Ind Cost     116.5     88.1     89.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     <	(Dollars in Millions)	PRIOR YR	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	TO COMP	TOTAL PROG
ull Funding TOA     116.5     88.1     89.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0 <th>QUANTITY</th> <th>1</th> <th>1</th> <th>1</th> <th>0</th> <th>0</th> <th>0</th> <th>0</th> <th>0</th> <th>0</th> <th>;</th>	QUANTITY	1	1	1	0	0	0	0	0	0	;
otal Obligational Authority     116.5     88.1     89.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0     0.0	End Cost	116.5	88.1	89.0	0.0	0.0	0.0	0.0	0.0	0.0	293.6
lus Outfitting / Plus Post Delivery 0.0 1.3 0.0 2.6 5.9 0.0 0.0 0.0 0.0 0.0 8.  total 89.0 2.6 5.9 0.0 0.0 0.0 0.0 0.0 303.  Init Cost ( Ave. End Cost ) 116.5 88.1 89.0 0.0 0.0 0.0 0.0 0.0 0.0 97.	Full Funding TOA	116.5	88.1	89.0	0.0	0.0	0.0	0.0	0.0	0.0	293.6
otal 116.5 89.4 89.0 2.6 5.9 0.0 0.0 0.0 0.0 303. Init Cost ( Ave. End Cost ) 116.5 88.1 89.0 0.0 0.0 0.0 0.0 0.0 0.0 97.	Total Obligational Authority	116.5	88.1	89.0	0.0	0.0	0.0	0.0	0.0	0.0	293.6
Init Cost ( Ave. End Cost) 116.5 88.1 89.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 97.	Plus Outfitting / Plus Post Delivery	0.0	1.3	0.0	2.6	5.9	0.0	0.0	0.0	0.0	8.6
	Total	116.5	89.4	89.0	2.6	5.9	0.0	0.0	0.0	0.0	303.4
	Unit Cost ( Ave. End Cost)	116.5	88.1	89.0	0.0	0.0	0.0	0.0	0.0	0.0	97.9

FYOT 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, 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

onaractoricaec			Armament	Electronics	
l	T.100				
HULL	T-AGS	AGOR	N/A	TBD	
Length overall	353 ft	220 ft			
Beam	58 ft	46 ft			
Displacement	5,144 LT	2235 LT			
Draft	18 ft	15.9 ft			
	FY07	FY11	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	46 months	36 months	34 months		
b) Construction Start to Delivery	36 months	28 months	28 months		
Delivery Date	10/13	10/14	12/14		
Completion of Fitting-Out	12/13	11/15	01/16		
Obligation Work Limiting Date	11/14	10/16	12/16		

APPROPRIATION: SHIPBUILDING AND CONVERSION, NAVY

P-5 EXHIBIT FY 2013 President's Budget February 2012

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

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

	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		88,000		74,500		71,000
CHANGE ORDERS		3,484		3,500		2,000
ELECTRONICS		13,856		7,072		6,500
HM&E		7,132		2,000		7,500
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

### SHIPBUILDING AND CONVERSION, NAVY

Analysis of Ship Cost Estimate - Basic/Escalation

Ship Type: AGOR

<u>l.</u>	Design/Schedule	Start/Issue	Complete	Reissue	Complete
_			/Response		/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 PERIA ASSOCIATES	GUIDO PERIA ASSOCIATES		
		THE GLOSTEN ASSOCIATES	THE GLOSTEN ASSOCIATES		
II.	Classification of Cost Estimate	N/A			
III.	Basic Construction/Conversion	AGOR 27	AGOR 28		
	A. Actual Award Date	OCT 2011	FEB 2012		
	B. Contract Type ( and Share Line if applicable )	FFP	FFP		
	C. RFP Response Date	MAR 2011	MAR 2011		
IV.	<u>Escalation</u>	AGOR 27	AGOR 28		
	Escalation Termination Date	N/A	N/A		
	Escalation Requirement	N/A	N/A		
	Labor/Material Split	N/A	N/A		
	Allowable Overhead Rate	N/A	N/A		
٧.	Other Basic(Reserves/Miscellaneous)	<u>Amount</u>			

### P-5B Exhibit

FY 2013 President's Budget

DATE:

### EXHIBIT P-27

# SHIPBUILDING AND CONVERSION, NAVY SHIP PRODUCTION SCHEDULE

FY 2013 President's Budget

DATE:

_	SHIP TYPE	HULL NUMBER	SHIPBUILDER	FISCAL YEAR AUTHORIZED	CONTRACT AWARD	START OF CONSTRUCTION	DELIVERY DATE
	T-AGS	66	VT HALTER	07	DEC-09	OCT-10	OCT-13
	AGOR	27	DAKOTA CREEK INDUSTRIES, INC.	11	OCT-11	JUN-12	OCT-14
	AGOR	28	DAKOTA CREEK INDUSTRIES, INC.	12	FEB-12	AUG-12	DEC-14

CLASSIFICATION: UNCLASSIFIED	)									
Exhibit P-40, BUDGET ITEM JUST	IFICATION SHEET					DATE:				
						February 2012				
APPROPRIATION/BUDGET ACTIV	ITY				P-1 LINE ITEM NO	MENCLATURE				
SHIPBUILDING AND CONVERSIO	N, NAVY/BA 5 Aux	iliaries, Craft and P	rior Year Program C	osts	MOORED TRAININ	G SHIPS				
					BLI: 5092					
(Dollars in Millions)	PRIOR YR	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	TO COMP	TOTAL PROG
QUANTITY	0	0	0	0	0	1	0	1	0	2
End Cost	0.0	0.0	0.0	0.0	0.0	960.6	0.0	671.4	0.0	1,632.0
Less Advance Procurement	0.0	0.0	0.0	0.0	0.0	577.0	0.0	314.0	0.0	891.0
Full Funding TOA	0.0	0.0	0.0	0.0	0.0	383.6	0.0	357.4	0.0	741.0
Plus Advance Procurement	0.0	0.0	131.2	307.3	181.9	188.4	82.2	0.0	0.0	891.0
Total Obligational Authority	0.0	0.0	131.2	307.3	181.9	572.0	82.2	357.4	0.0	1,632.0
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	0.0	131.2	307.3	181.9	572.0	82.2	357.4	0.0	1,632.0
Unit Cost ( Ave. End Cost)	0.0	0.0	0.0	0.0	0.0	960.6	0.0	671.4	0.0	816.0

### MISSION:

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

CLASSIFICATION:		UNCLASSIF	IED									
Exhibit P-10, Advance Procurement Requirements Analysis	3							Date:				
(Funding)								February 20	12			
Appropriation (Treasury)Code/CC/BA/BSA/Item Control Nu	mber					P-1 Line Item	Nomenclatu	re				
SHIPBUILDING AND CONVERSION, NAVY / BA 5 / Auxil	liaries, Craf	t and Prior Y	ear Program (	Costs		Moored Train	ning Ships					
Weapon System			First System	(BY1) Award	Date and Co	mpletion Date		Interval Between	een Systems			
MTS-701			December 20	012 - Decemi	per 2015							
BLI	PLT	When Req'd	Prior Years	FY11	FY12	FY13	FY14	FY15	FY16	FY17	To Complete	Total
Moored Training Ship			0.0	0.0	131.2	307.3	138.5	0.0	0.0	0.0	0.0	577.0
DESIGN	Various	Apr-15	0.0	0.0	73.8	134.6	52.1	0.0	0.0	0.0	0.0	260.
PLANS	Various	Dec-14	0.0	0.0	0.0	3.5	21.6	0.0	0.0	0.0	0.0	25.
GFE	Various	Oct-13	0.0	0.0	24.0	20.1	3.5	0.0	0.0	0.0	0.0	47.0
MODULE	Various		0.0	0.0	20.6	118.3	0.0	0.0	0.0	0.0	0.0	138.9
SUB-MODULE	Various		0.0	0.0	12.8	30.8	61.3	0.0	0.0	0.0	0.0	104.9
Total Advance Procurement			0.0	0.0	131.2	307.3	138.5	0.0	0.0	0.0	0.0	577.
Description	•	•										

Description:

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

CLASSIFICATION:		UNCLASS	SIFIED						
Exhibit P-10, Advance Procurement Requirements Analysis							Date:		
(Budget Justification)							February 2012		
Appropriation (Treasury)Code/CC/BA/BSA/Item Control Nun	nber					Weapon System	P-1 Line Item Nom	enclature	
SHIPBUILDING AND CONVERSION, NAVY / BA 5 / Auxili	aries, Craft	and Prior \	rear Progran	n Costs /	BLI 5092	MTS-701	Moored Training S	3hips	
(TOA \$ in Millions)					FY13				
	PLT	QPA	Unit Cost	Qty	Contract Forecast Date	Total Cost Request			
DESIGN						134.6			
PLANS						3.5			
GFE						20.1			
MODULE						118.3			
SUB-MODULE						30.8			
Description:									
The details of this program are classified CONFIDENTIAL ar	nd are repor	ted annually	to Congress	in the cla	ssified budget justification	books.			
• •	•	•	-		÷ ,				

CLASSIFICATION: UNCLASSIFIED														
BUDGET ITEM JUSTIFICATION SHEET (P-40)							DATE: Februa	ry 2012						
	FY 2013 Pre	sident's Budg												
APPROPRIATION/BUDGET ACTIVITY				P-1 LINE ITEM	// NOMENCLA	TURE								
SHIPBUILDING AND CONVERSION, NAVY/BA 5 Auxiliaries, Craft and Prior Year Program Costs  OUTFITTING														
			BLI: 5110											
(Dollars in Millions)	PRIOR YR	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	TO COMP	TOTAL PROG				
Full Funding TOA-Outfitting	297.8	121.1	87.1	84.0	196.4	196.6	161.4	177.6	639.5	1,961.6				
Full Funding TOA-Post Delivery	248.1	167.5	178.0	220.3	200.3	327.2	281.9	339.3	2,164.4	4,127.0				
Full Funding TOA-First Destination	17.4	5.4	5.4	5.6	5.7	5.7	5.8	5.9	62.3					
Total Obligational Authority	563.4	293.9	270.6	309.6	402.3	529.5	449.0	522.7	2,809.7	6,150.8				

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).

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.

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.

\*Note: The Delivery Dates shown on the P-29/P-30 for SSN 780 - 791 reflect the Construction Contract Delivery Dates. The shipbuilder has formally transmitted and the Program Manager has concurred with the following revised dates:

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

MISSION:

CLASSIFICATION: UNCLA	SSIFIED	1													
		BUDGE	T ITEM JU	STIFICAT	ION SHEE	T(P-29)					DATE				
			FY 2013 P	resident's	Budget						February	2012			
APPROPRIATION/BUDGET ACTI	VITY							P-1 LINE	ITEM NON	IENCLATU	IRE				
SHIPBUILDING AND CONVERSION	ON, NAV	Y/BA 5						OUTFITT	ING						
								BLI: 5110	)						
Ship	HULL	PROG	Contract	Start of	DEL	CFO	PSA	PSA	OWLD	PRIOR	FY	FY	FY	то	TOTAL
Туре	NO	YEAR	Award	Constr.	DATE	DATE	START	FINISH		YEARS	2011	2012	2013	COMP	
AGOR	27	11	OCT-11	JUN-12	OCT-14	NOV-14	TBD	TBD	OCT-15	0	0	0	925	330	1,255
AGOR	28	12	MAY-12	AUG-12	DEC-14	JAN-16	TBD	TBD	DEC-16	0	0	0	479	768	1,247
									AGOR Total	0	0	0	1,404	1,098	2,502
TAGS	66	07	DEC-09	OCT-10	OCT-13	DEC-13	TBD	TBD	NOV-14	0	0	0	1,233	81	1,314
		_				_			TAGS Total	0	0	0	1,233	81	1,314
LCAC SLEP	29	06	AUG-06	MAR-07	APR-08	MAY-08	NOV-08	DEC-08	SEP-12	272	0	0	0	0	272
LCAC SLEP	32	06	AUG-06	SEP-07	SEP-08	OCT-08	APR-09	MAY-09	SEP-12	277	0	0	0	0	277
LCAC SLEP	34	06	AUG-06	JAN-07	SEP-11	OCT-11	SEP-11	OCT-11	SEP-12	285	0	0	0	0	285
LCAC SLEP	54	06	AUG-06	MAR-07	AUG-08	SEP-08	MAY-09	JUN-09	SEP-12	283	0	0	0	0	283
LCAC SLEP	68	06	AUG-06	MAY-07	APR-09	MAY-09	AUG-09	OCT-09	SEP-12	276	0	0	0	0	276
LCAC SLEP	31	07	MAR-07	MAR-08	MAR-09	APR-09	OCT-09	NOV-09	AUG-11	284	0	0	0	0	284
LCAC SLEP	33	07	MAR-07	JUL-08	JUL-09	AUG-09	JAN-10	FEB-10	AUG-11	294	0	0	0	0	294
LCAC SLEP	36	07	MAR-07	SEP-08	AUG-10	SEP-10	SEP-10	DEC-10	AUG-11	295	0	0	0	0	295
LCAC SLEP	48	07	MAR-07	OCT-08	NOV-09	DEC-09	APR-10	MAY-10	AUG-11	284	0	0	0	0	284
LCAC SLEP	69	07	MAR-07	DEC-08	FEB-10	MAR-10	MAY-10	AUG-10	AUG-11	272	0	0	0	0	272
LCAC SLEP	30	08	JUN-09	SEP-09	DEC-10	JAN-11	APR-11	JUN-11	NOV-12	204	0	0	0	0	204
LCAC SLEP	41	08	MAY-09	JAN-10	JUL-11	AUG-11	SEP-11	OCT-11	NOV-12	187	0	0	0	0	187
LCAC SLEP	46	08	MAY-09	JUN-10	NOV-11	DEC-11	JAN-12	FEB-12	NOV-12	202	0	0	0	0	202
LCAC SLEP	53	08	MAY-09	NOV-09	MAY-11	JUN-11	JUN-11	AUG-11	NOV-12	204	0	0	0	0	204
LCAC SLEP	56	08	JUN-09	JAN-10	MAR-11	APR-11	NOV-11	DEC-11	NOV-12	192	0	0	0	0	192
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	MAY-12	JUN-12	JUN-12	AUG-12	MAY-13	0	203	0	0	0	203
LCAC SLEP	70	09	AUG-09	AUG-11	AUG-12	SEP-12	SEP-12	NOV-12	AUG-13	0	203	0	0	0	203
LCAC SLEP	71	09	AUG-09	NOV-10	FEB-12	MAR-12	MAR-12	APR-12	FEB-13	0	203	0	0	0	203
LCAC SLEP	79	09	SEP-09	SEP-10	FEB-12	MAR-12	APR-12	MAY-12	FEB-13	0	0	196	0	0	196
LCAC SLEP	63	10	SEP-10	FEB-11	FEB-12	MAR-12	SEP-12	NOV-12	FEB-13	0	212	0	0	0	212
LCAC SLEP	72	10	SEP-10	MAY-11	MAY-12	JUN-12	NOV-12	DEC-12	MAY-13	0	200	0	0	0	200
LCAC SLEP	74	10	SEP-10	AUG-11	AUG-12	SEP-12	FEB-13	MAR-13	AUG-13	0	200	0	0	0	200
LCAC SLEP	27	11	JAN-12	MAR-12	APR-13	MAY-13	MAY-13	JUL-13	APR-14	0	0	196	0	0	196

CLASSIFICATION: UNCLAS	SSIFIED														
		BUDGE	T ITEM JU	STIFICATI	ON SHEE	T(P-29)					DATE				
			FY 2013 P	resident's	Budget						February	2012			
APPROPRIATION/BUDGET ACTIV	/ITY							P-1 LINE	ITEM NOM	IENCLATU	JRE				
SHIPBUILDING AND CONVERSIO	N, NAV	//BA 5						OUTFITT	ING						
								BLI: 5110	)						
Ship	HULL	PROG	Contract	Start of	DEL	CFO	PSA	PSA	OWLD	PRIOR	FY	FY	FY	то	TOTAL
Туре	NO	YEAR	Award	Constr.	DATE	DATE	START	FINISH		YEARS	2011	2012	2013	COMP	
LCAC SLEP	38	11	JAN-12	APR-13	MAY-13	JUN-13	JUN-13	AUG-13	MAY-14	0	0	196	0	0	196
LCAC SLEP	75	11	JAN-12	MAR-12	APR-13	MAY-13	MAY-13	JUL-13	APR-14	0	0	0	150	0	150
LCAC SLEP	80	11	JAN-12	APR-13	MAY-13	JUN-13	JUN-13	AUG-13	MAY-14	0	0	0	104	46	150
LCAC SLEP	55	12	MAR-12	JUN-12	JUL-13	AUG-13	AUG-13	OCT-13	JUL-14	0	0	0	0	150	150
LCAC SLEP	60	12	MAR-12	DEC-12	JAN-14	FEB-14	FEB-14	APR-14	JAN-15	0	0	0	0	150	150
LCAC SLEP	73	12	MAR-12	DEC-12	JAN-14	FEB-14	FEB-14	APR-14	JAN-15	0	0	0	0	150	150
LCAC SLEP	82	12	MAR-12	JUN-12	JUN-13	AUG-13	AUG-13	OCT-13	JUL-14	0	0	0	0	148	148
LCAC SLEP	88	13	DEC-12	APR-13	MAY-14	JUN-14	JUN-14	AUG-14	MAY-15	0	0	0	0	197	197
LCAC SLEP	89	13	DEC-12	JUL-13	AUG-14	SEP-14	SEP-14	NOV-14	AUG-15	0	0	0	0	197	197
LCAC SLEP	78	14	DEC-13	MAY-14	JUN-15	JUL-15	JUL-15	SEP-15	JUN-16	0	0	0	0	200	200
LCAC SLEP	81	14	DEC-13	MAY-14	JUN-15	JUL-15	JUL-15	SEP-15	JUN-16	0	0	0	0	200	200
LCAC SLEP	83	14	DEC-13	NOV-14	DEC-15	JAN-16	JAN-16	MAR-16	DEC-16	0	0	0	0	200	200
LCAC SLEP	90	14	DEC-13	NOV-14	DEC-15	JAN-16	JAN-16	MAR-16	DEC-16	0	0	0	0	200	200
LCAC SLEP	58	15	MAR-15	SEP-15	OCT-16	NOV-16	NOV-16	JAN-17	OCT-17	0	0	0	0	204	204
LCAC SLEP	64	15	MAR-15	NOV-15	DEC-16	JAN-17	JAN-17	MAR-17	DEC-17	0	0	0	0	204	204
LCAC SLEP	84	15	MAR-15	SEP-15	OCT-16	NOV-16	NOV-16	JAN-17	OCT-17	0	0	0	0	204	204
LCAC SLEP	85	15	MAR-15	NOV-15	DEC-16	JAN-17	JAN-17	MAR-17	DEC-17	0	0	0	0	204	204
LCAC SLEP	65	16	MAR-16	SEP-16	OCT-17	NOV-17	NOV-17	JAN-18	OCT-18	0	0	0	0	207	207
LCAC SLEP	76	16	MAR-16	NOV-16	DEC-17	JAN-18	JAN-18	MAR-18	DEC-18	0	0	0	0	207	207
LCAC SLEP	86	16	MAR-16	SEP-16	OCT-17	NOV-17	NOV-17	JAN-18	OCT-18	0	0	0	0	207	207
LCAC SLEP	87	16	MAR-16	NOV-16	DEC-17	JAN-18	JAN-18	MAR-18	DEC-18	0	0	0	0	207	207
LCAC SLEP	52	17	MAR-17	SEP-17	OCT-18	NOV-18	NOV-18	JAN-19	OCT-19	0	0	0	0	210	210
LCAC SLEP	57	17	MAR-17	NOV-17	DEC-18	JAN-19	JAN-19	MAR-19	DEC-19	0	0	0	0	210	210
LCAC SLEP	66	17	MAR-17	NOV-17	DEC-18	JAN-19	JAN-19	MAR-19	DEC-19	0	0	0	0	210	210
LCAC SLEP	77	17	MAR-17	SEP-17	OCT-18	NOV-18	NOV-18	JAN-19	OCT-19	0	0	0	0	210	210
							-	LCAC	SLEP Total	4,213	1,221	588	254	4,322	10,598
LHD	8	02	APR-02	MAY-03	APR-09	SEP-09	MAR-10	JAN-11	JAN-11	39,391	161	0	0	0	39,552
									LHD Total	39,391	161	0	0	0	39,552
SHIP TO SHORE CONNECTOR	102	15	MAR-15	MAR-16	JUL-19	N/A	JUL-19	SEP-19	JUN-20	0	0	0	0	1,124	1,124
SHIP TO SHORE CONNECTOR	103	15	MAR-15	SEP-16	JUL-19	N/A	JUL-19	SEP-19	JUN-20	0	0	0	0	1,124	1,124
SHIP TO SHORE CONNECTOR	104	16	MAR-16	MAR-17	FEB-20	N/A	FEB-20	APR-20	JAN-21	0	0	0	0	1,143	1,143

CLASSIFICATION: UNCLA	SSIFIED														
		BUDGE	T ITEM JU	STIFICATI	ON SHEE	T(P-29)					DATE				
			FY 2013 F	resident's	Budget						February :	2012			
APPROPRIATION/BUDGET ACTIV	/ITY							P-1 LINE	ITEM NOM	IENCLATU	RE				
SHIPBUILDING AND CONVERSION	N, NAV	//BA 5						OUTFITT	ING						
								BLI: 5110	)						
Ship	HULL	PROG	Contract	Start of	DEL	CFO	PSA	PSA	OWLD	PRIOR	FY	FY	FY	то	TOTAL
Туре	NO	YEAR	Award	Constr.	DATE	DATE	START	FINISH		YEARS	2011	2012	2013	COMP	
SHIP TO SHORE CONNECTOR	105	16	MAR-16	MAY-17	FEB-20	N/A	FEB-20	APR-20	JAN-21	0	0	0	0	1,143	1,143
SHIP TO SHORE CONNECTOR	106	16	MAR-16	AUG-17	MAR-20	N/A	MAR-20	MAY-20	FEB-21	0	0	0	0	1,143	1,143
SHIP TO SHORE CONNECTOR	107	16	MAR-16	OCT-17	JUN-20	N/A	JUN-20	AUG-20	MAY-21	0	0	0	0	1,143	1,143
SHIP TO SHORE CONNECTOR	108	16	MAR-16	JAN-18	JUN-20	N/A	JUN-20	AUG-20	MAY-21	0	0	0	0	1,143	1,143
SHIP TO SHORE CONNECTOR	109	17	MAR-17	MAR-18	SEP-20	N/A	SEP-20	NOV-20	AUG-21	0	0	0	0	1,163	1,163
SHIP TO SHORE CONNECTOR	110	17	MAR-17	MAY-18	SEP-20	N/A	SEP-20	NOV-20	AUG-21	0	0	0	0	1,163	1,163
SHIP TO SHORE CONNECTOR	111	17	MAR-17	AUG-18	DEC-20	N/A	DEC-20	JAN-21	NOV-21	0	0	0	0	1,163	1,163
SHIP TO SHORE CONNECTOR	112	17	MAR-17	OCT-18	DEC-20	N/A	DEC-20	JAN-21	NOV-21	0	0	0	0	1,163	1,163
SHIP TO SHORE CONNECTOR	113	17	MAR-17	JAN-19	JAN-21	N/A	JAN-21	MAR-21	DEC-21	0	0	0	0	1,163	1,163
		-	-			SI	IIP TO SHO	RE CONNE	CTOR Total	0	0	0	0	13,778	13,778
JHSV	801	08	JAN-08	SEP-09	FEB-12	MAR-12	NOV-12	DEC-12	FEB-13	0	1,300	4,979	0	0	6,279
JHSV	901	09	JAN-10	SEP-10	JAN-13	FEB-13	JUN-13	JUL-13	JAN-14	0	0	683	5,703	0	6,386
JHSV	902	09	JAN-10	AUG-11	JUL-13	AUG-13	JAN-14	FEB-14	JUL-14	0	0	0	6,042	344	6,386
JHSV	1001	10	OCT-10	SEP-11	JAN-14	FEB-14	JUN-14	JUL-14	JAN-15	0	0	0	0	6,494	6,494
JHSV	1002	10	OCT-10	AUG-12	JUL-14	AUG-14	JAN-15	FEB-15	JUL-15	0	0	0	0	6,494	6,494
JHSV	1101	11	JUN-11	SEP-12	JAN-15	FEB-15	JUN-15	JUL-15	JAN-16	0	0	0	0	6,604	6,604
JHSV	1102	11	JUN-11	AUG-13	JUL-15	AUG-15	JAN-16	FEB-16	JUL-16	0	0	0	0	6,604	6,604
JHSV	1201	12	FEB-12	SEP-13	JAN-16	FEB-16	JUN-16	JUL-16	JAN-17	0	0	0	0	6,716	6,716
JHSV	1202	12	FEB-12	AUG-14	JUL-16	AUG-16	JAN-17	FEB-17	JUL-17	0	0	0	0	6,716	6,716
JHSV	1301	13	FEB-13	SEP-14	JAN-17	FEB-17	JUN-17	JUL-17	JAN-18	0	0	0	0	6,830	6,830
	•	•	•					•	JHSV Total	0	1,300	5,662	11,745	46,802	65,509
LHA	6	07	JUN-07	JAN-08	OCT-13	MAY-14	DEC-14	MAR-15	APR-15	0	0	25,577	6,253	0	31,830
LHA	7	11	MAY-12	APR-13	MAR-18	OCT-18	MAY-19	JUL-19	SEP-19	0	0	0	0	41,743	41,743
LHA	8	17	TBD	TBD	TBD	TBD	TBD	TBD	TBD	0	0	0	0	46,189	46,189
	•	•	•					•	LHA Total	0	0	25,577	6,253	87,932	119,762
LPD	21	03	NOV-03	MAR-04	AUG-09	DEC-09	JUN-10	SEP-10	FEB-11	26,806	90	0	0	0	26,896
LPD	22	04	JUN-06	JUL-06	DEC-11	JUN-12	NOV-12	MAR-13	MAY-13	19,252	4,922	724	0	0	24,898
LPD	23	05	JUN-06	MAR-07	JUL-12	JAN-13	AUG-13	DEC-13	DEC-13	2,113	16,025	1,585	0	0	19,723
LPD	24	06	NOV-06	AUG-07	SEP-12	MAR-13	OCT-13	FEB-14	FEB-14	13,879	5,256	687	0	0	19,822
LPD	25	08	DEC-07	APR-08	MAY-13	NOV-13	JUN-14	OCT-14	OCT-14	0	0	5,056	4,393	3,209	12,658
LPD	26	09	APR-11	MAY-11	NOV-15	APR-16	NOV-16	JAN-17	MAR-17	0	0	0	0	11,876	11,876
								1							, -

CLASSIFICATION: UNCLAS	SIFIED														
		BUDGE	T ITEM JU	STIFICATI	ON SHEE	T(P-29)					DATE				
			FY 2013 P	resident's	Budget						February :	2012			
APPROPRIATION/BUDGET ACTIV	/ITY							P-1 LINE	ITEM NOM	ENCLATU	RE				
SHIPBUILDING AND CONVERSIO	N, NAV	//BA 5						OUTFITT	ING						
								BLI: 5110	)						
Ship	HULL	PROG	Contract	Start of	DEL	CFO	PSA	PSA	OWLD	PRIOR	FY	FY	FY	то	TOTAL
Туре	NO	YEAR	Award	Constr.	DATE	DATE	START	FINISH		YEARS	2011	2012	2013	COMP	
LPD	27	12	MAR-12	JUN-12	NOV-16	APR-17	NOV-17	JAN-18	MAR-18	0	0	0	0	21,931	21,931
									LPD Total	62,050	26,293	8,052	4,393	37,016	137,804
LCS	3	09	MAR-09	APR-09	JUN-12	AUG-12	MAR-13	JUN-13	JUL-13	2,558	2,438	4,652	437	0	10,085
LCS	4	09	MAY-09	OCT-09	SEP-12	JAN-13	AUG-13	NOV-13	DEC-13	199	2,240	4,652	990	0	8,081
LCS	5	10	DEC-10	JUL-11	AUG-14	DEC-14	JUL-15	OCT-15	NOV-15	0	0	578	2,759	5,148	8,485
LCS	6	10	DEC-10	JUN-11	JUN-14	OCT-14	APR-15	JUL-15	SEP-15	0	0	578	2,760	5,148	8,486
LCS	7	11	MAR-11	MAY-12	APR-15	AUG-15	MAR-16	JUN-16	JUL-16	0	0	0	588	7,898	8,486
LCS	8	11	MAR-11	OCT-11	OCT-14	FEB-15	AUG-15	NOV-15	JAN-16	0	0	0	588	7,898	8,486
LCS	9	12	MAR-12	MAR-13	FEB-16	JUN-16	DEC-16	MAR-17	MAY-17	0	0	0	0	9,131	9,131
LCS	10	12	MAR-12	SEP-12	AUG-15	DEC-15	JUL-16	OCT-16	NOV-16	0	0	0	0	9,131	9,131
LCS	11	12	MAR-12	AUG-13	AUG-16	DEC-16	JUN-17	SEP-17	NOV-17	0	0	0	0	9,131	9,131
LCS	12	12	MAR-12	APR-13	MAR-16	JUL-16	JAN-17	APR-17	JUN-17	0	0	0	0	9,131	9,131
LCS	13	13	MAR-13	MAR-14	FEB-17	JUN-17	DEC-17	MAR-18	MAY-18	0	0	0	0	9,285	9,285
LCS	14	13	MAR-13	SEP-13	AUG-16	DEC-16	JUL-17	OCT-17	NOV-17	0	0	0	0	9,443	9,443
LCS	15	13	MAR-13	AUG-14	AUG-17	DEC-17	JUN-18	SEP-18	NOV-18	0	0	0	0	9,442	9,442
LCS	16	13	MAR-13	FEB-14	JAN-17	MAY-17	NOV-17	FEB-18	APR-18	0	0	0	0	9,442	9,442
LCS	17	14	MAR-14	MAR-15	FEB-18	JUN-18	DEC-18	MAR-19	MAY-19	0	0	0	0	9,603	9,603
LCS	18	14	MAR-14	OCT-14	JUL-17	NOV-17	JUN-18	SEP-18	OCT-18	0	0	0	0	9,603	9,603
LCS	19	14	MAR-14	AUG-15	AUG-18	DEC-18	JUN-19	SEP-19	NOV-19	0	0	0	0	9,603	9,603
LCS	20	14	MAR-14	FEB-15	DEC-17	APR-18	OCT-18	JAN-19	MAR-19	0	0	0	0	9,603	9,603
LCS	21	15	MAR-15	MAR-16	FEB-19	JUN-19	DEC-19	MAR-20	MAY-20	0	0	0	0	9,767	9,767
LCS	22	15	MAR-15	SEP-15	JUL-18	NOV-18	MAY-19	AUG-19	OCT-19	0	0	0	0	9,767	9,767
LCS	23	15	MAR-15	AUG-16	AUG-19	DEC-19	JUN-20	SEP-20	NOV-20	0	0	0	0	9,767	9,767
LCS	24	15	MAR-15	FEB-16	NOV-18	MAR-19	SEP-19	DEC-19	FEB-20	0	0	0	0	9,767	9,767
LCS	25	16	MAR-16	MAR-17	FEB-20	JUN-20	DEC-20	MAR-21	MAY-21	0	0	0	0	9,933	9,933
LCS	26	16	MAR-16	SEP-16	JUL-19	NOV-19	MAY-20	AUG-20	OCT-20	0	0	0	0	9,933	9,933
LCS	27	17	MAR-17	SEP-17	JUL-20	NOV-20	JUN-21	AUG-21	OCT-21	0	0	0	0	10,102	10,102
LCS	28	17	MAR-17	MAR-18	FEB-21	JUN-21	DEC-21	MAR-22	MAY-22	0	0	0	0	10,102	10,102
									LCS Total	2,757	4,678	10,460	8,122	217,778	243,795
YP	704	06	JUN-07	JUN-08	FEB-11	APR-11	N/A	N/A	MAR-12	293	0	0	0	0	293
YP	705	07	DEC-07	SEP-08	OCT-11	DEC-11	N/A	N/A	NOV-12	312	0	0	0	0	312

CLASSIFICATION: U	NCLASSIFIED														
		BUDGE	T ITEM JU	STIFICATI	ON SHEE	T(P-29)					DATE				
			FY 2013 P	resident's	Budget						February 2	2012			
APPROPRIATION/BUDGET	ACTIVITY							P-1 LINE	ITEM NOM	ENCLATU	RE				
SHIPBUILDING AND CONV	ERSION, NAV	Y/BA 5						OUTFITT	ING						
								BLI: 5110	1						
Ship	HULL	PROG	Contract	Start of	DEL	CFO	PSA	PSA	OWLD	PRIOR	FY	FY	FY	то	TOTAL
Туре	NO	YEAR	Award	Constr.	DATE	DATE	START	FINISH		YEARS	2011	2012	2013	COMP	
YP	706	08	JUN-08	JUN-09	JUL-12	SEP-12	N/A	N/A	AUG-13	228	165	547	0	0	940
YP	707	09	MAR-09	SEP-09	NOV-12	JAN-13	N/A	N/A	DEC-13	25	0	0	320	0	345
YP	708	09	MAR-09	NOV-09	MAR-13	MAY-13	N/A	N/A	APR-14	25	0	0	321	0	346
YP	709	11	JAN-12	JUN-13	JUN-15	AUG-15	N/A	N/A	JUL-16	0	0	0	0	506	506
YP	1401	14	JAN-14	JUN-14	JUN-16	AUG-16	N/A	N/A	JUL-17	0	0	0	0	507	507
YP	1402	14	JAN-14	DEC-14	DEC-16	FEB-17	N/A	N/A	JAN-18	0	0	0	0	520	520
YP	1501	15	JAN-15	JUN-15	JUN-17	AUG-17	N/A	N/A	JUL-18	0	0	0	0	520	520
YP	1502	15	JAN-15	DEC-15	DEC-17	FEB-18	N/A	N/A	JAN-19	0	0	0	0	532	532
YP	1601	16	JAN-16	JUN-16	JUN-18	AUG-18	N/A	N/A	JUL-19	0	0	0	0	532	532
YP	1602	16	JAN-16	DEC-16	DEC-18	FEB-19	N/A	N/A	JAN-20	0	0	0	0	541	541
YP	1701	17	JAN-17	TBD	TBD	TBD	N/A	N/A	TBD	0	0	0	0	550	550
YP	1702	17	JAN-17	TBD	TBD	TBD	N/A	N/A	TBD	0	0	0	0	550	550
									YP Total	883	165	547	641	4,758	6,994
DDG	107	04	SEP-02	FEB-06	JUL-10	OCT-10	JUN-11	SEP-11	OCT-11	14,453	30	0	0	0	14,483
DDG	109	04	SEP-02	JUL-06	JUN-10	OCT-10	MAY-11	AUG-11	SEP-11	16,658	55	0	0	0	16,713
DDG	110	05	SEP-02	MAY-07	FEB-11	MAY-11	JAN-12	APR-12	APR-12	14,479	888	0	0	0	15,367
DDG	111	05	SEP-02	APR-07	APR-11	SEP-11	MAY-12	AUG-12	AUG-12	12,644	4621	148	0	0	17,413
DDG	112	05	SEP-02	FEB-08	MAY-12	SEP-12	MAY-13	AUG-13	AUG-13	5,920	4935	245	0	0	11,100
DDG	113	10	JUN-11	SEP-12	FEB-16	TBD	TBD	TBD	TBD	0	0	0	397	13,305	13,702
DDG	114	11	SEP-11	JUN-13	NOV-16	TBD	TBD	TBD	TBD	0	0	0	0	10,835	10,835
DDG	115	11	SEP-11	FEB-12	NOV-16	TBD	TBD	TBD	TBD	0	0	0	0	10,835	10,835
DDG	116	12	FEB-12	TBD	NOV-17	TBD	TBD	TBD	TBD	0	0	0	0	11,019	11,019
DDG	117	13	MAR-13	TBD	NOV-18	TBD	TBD	TBD	TBD	0	0	0	0	11,207	11,207
DDG	118	13	MAR-13	TBD	NOV-18	TBD	TBD	TBD	TBD	0	0	0	0	11,207	11,207
DDG	119	14	MAR-13	TBD	NOV-19	TBD	TBD	TBD	TBD	0	0	0	0	11,397	11,397
DDG	120	15	MAR-13	TBD	NOV-20	TBD	TBD	TBD	TBD	0	0	0	0	11,591	11,591
DDG	121	15	MAR-13	TBD	NOV-20	TBD	TBD	TBD	TBD	0	0	0	0	11,591	11,591
DDG	122	16	MAR-13	TBD	NOV-21	TBD	TBD	TBD	TBD	0	0	0	0	11,788	11,788
DDG	123	16	MAR-13	TBD	NOV-21	TBD	TBD	TBD	TBD	0	0	0	0	11,788	11,788
DDG	124	17	MAR-13	TBD	NOV-22	TBD	TBD	TBD	TBD	0	0	0	0	11,988	11,988

CLASSIFICATION: UNCLAS	SSIFIED														
		BUDGE	T ITEM JU	STIFICATI	ON SHEE	T(P-29)					DATE				
			FY 2013 P	resident's	Budget						February	2012			
APPROPRIATION/BUDGET ACTIV	/ITY							P-1 LINE	ITEM NOM	ENCLATU	RE				
SHIPBUILDING AND CONVERSIO	N, NAV	//BA 5						OUTFITT	ING						
								BLI: 5110	)						
Ship	HULL	PROG	Contract	Start of	DEL	CFO	PSA	PSA	OWLD	PRIOR	FY	FY	FY	то	TOTAL
Туре	NO	YEAR	Award	Constr.	DATE	DATE	START	FINISH		YEARS	2011	2012	2013	COMP	
DDG	125	17	MAR-13	TBD	NOV-22	TBD	TBD	TBD	TBD	0	0	0	0	11,988	11,988
									DDG Total	64,154	10,529	393	397	150,539	226,012
DDG 1000	1000	07	FEB-08	FEB-09	JUL-14	SEP-15	FEB-16	MAY-16	AUG-16	0	18384	4746	7572	11,594	42,296
DDG 1000	1001	07	FEB-08	OCT-09	DEC-15	DEC-16	JUL-17	SEP-17	NOV-17	0	0	0	2417	39,447	41,864
DDG 1000	1002	09	SEP-11	APR-12	FEB-18	FEB-19	SEP-19	NOV-19	JAN-20	0	0	0	0	45,038	45,038
								DDC	3 1000 Total	0	18,384	4,746	9,989	96,079	129,198
SSBN ERO	733	08	FEB-06	FEB-08	MAY-10	MAY-10	N/A	N/A	APR-11	2,467	20	0	0	0	2,487
SSBN ERO	734	09	FEB-07	JAN-09	JUL-11	JUL-11	N/A	N/A	JUN-12	3,561	23	22	0	0	3,606
								SSBI	N ERO Total	6,028	43	22	0	0	6,093
VIRGINIA	779	04	JAN-04	MAR-04	DEC-09	DEC-09	JUL-10	JUL-11	OCT-11	16,388	280	0	0	0	16,668
VIRGINIA	780	05	JAN-04	FEB-05	JUL-10	JUL-10	JAN-11	JAN-12	OCT-12	13,904	241	604	0	0	14,749
VIRGINIA	781	06	JAN-04	FEB-06	APR-12	APR-12	FEB-12	DEC-12	MAR-13	12,754	707	959	1,415	0	15,835
VIRGINIA	782	07	JAN-04	FEB-07	APR-13	APR-13	FEB-13	FEB-14	MAR-14	11,928	1,272	125	1,808	328	15,461
VIRGINIA	783	08	JAN-04	FEB-08	APR-14	APR-14	OCT-13	OCT-14	MAR-15	3,506	5,572	6,989	1,025	2,637	19,729
VIRGINIA	784	09	DEC-08	MAR-09	AUG-14	AUG-14	JUL-14	JAN-15	JUL-15	213	11,624	180	4,607	1,850	18,474
VIRGINIA	785	10	DEC-08	MAR-10	AUG-15	AUG-15	JUL-15	JAN-16	JUL-16	0	0	3,506	5,194	7,784	16,484
VIRGINIA	786	11	DEC-08	MAR-11	AUG-16	AUG-16	APR-16	OCT-16	JUL-17	0	0	0	6,495	10,957	17,452
VIRGINIA	787	11	DEC-08	SEP-11	FEB-17	FEB-17	OCT-16	MAR-17	JAN-18	0	0	0	271	17,181	17,452
VIRGINIA	788	12	DEC-08	MAR-12	AUG-17	AUG-17	APR-17	AUG-17	JUL-18	0	0	0	2,265	15,484	17,749
VIRGINIA	789	12	DEC-08	SEP-12	FEB-18	FEB-18	OCT-17	FEB-18	JAN-19	0	0	0	0	17,749	17,749
VIRGINIA	790	13	DEC-08	MAR-13	AUG-18	AUG-18	APR-18	AUG-18	JUL-19	0	0	0	0	18,050	18,050
VIRGINIA	791	13	DEC-08	SEP-13	FEB-19	FEB-19	OCT-18	FEB-19	JAN-20	0	0	0	0	18,050	18,050
VIRGINIA	792	14	TBD	TBD	TBD	TBD	MAY-19	AUG-19	TBD	0	0	0	0	18,357	18,357
VIRGINIA	793	15	TBD	TBD	TBD	TBD	TBD	TBD	TBD	0	0	0	0	18,669	18,669
VIRGINIA	794	15	TBD	TBD	TBD	TBD	APR-20	AUG-20	TBD	0	0	0	0	18,669	18,669
VIRGINIA	795	16	TBD	TBD	TBD	TBD	TBD	TBD	TBD	0	0	0	0	18,987	18,987
VIRGINIA	796	16	TBD	TBD	TBD	TBD	TBD	TBD	TBD	0	0	0	0	18,987	18,987
VIRGINIA	797	17	TBD	TBD	TBD	TBD	TBD	TBD	TBD	0	0	0	0	19,309	19,309
VIRGINIA	798	17	TBD	TBD	TBD	TBD	TBD	TBD	TBD	0	0	0	0	19,309	19,309
								VIF	RGINIA Total	58,693	19,696	12,363	23,080	242,357	356,189
CVN-RCOH	71	09	AUG-09	AUG-09	JUN-13	AUG-13	AUG-13	OCT-13	JUL-14	24,074	32575	8838	2321	0	67,808

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		BUDGE	T ITEM JU	STIFICAT	ION SHEE	T(P-29)					DATE				
			FY 2013 F	resident's	Budget						February	2012			
APPROPRIATION/BUDGET	ACTIVITY							P-1 LINE	ITEM NOM	ENCLATU	RE				
SHIPBUILDING AND CONV	ERSION, NAV	Y/BA 5						OUTFITT	ING						
								BLI: 5110	)						
Ship	HULL	PROG	Contract	Start of	DEL	CFO	PSA	PSA	OWLD	PRIOR	FY	FY	FY	то	TOTAL
Туре	NO	YEAR	Award	Constr.	DATE	DATE	START	FINISH		YEARS	2011	2012	2013	COMP	
CVN-RCOH	72	13	FEB-13	FEB-13	OCT-16	DEC-16	DEC-16	FEB-17	NOV-17	0	0	0	4309	90,905	95,214
CVN-RCOH	73	16	SEP-16	SEP-16	MAY-20	JUL-20	JUL-20	SEP-20	JUN-21	0	0	0	0	100,153	100,153
								CVN-	RCOH Total	24,074	32,575	8,838	6,630	191,058	263,175
CVN	78	08	SEP-08	AUG-05	SEP-15	NOV-15	APR-16	SEP-16	OCT-16	0	0	0	23	87,852	87,875
CVN	79	13	JUL-13	FEB-11	SEP-22	NOV-22	APR-23	SEP-23	OCT-23	0	0	0	0	139,601	139,601
									CVN Total	0	0	0	23	227,453	227,476
PUBS	N/A	05	N/A	N/A	N/A	N/A	N/A	N/A	N/A	35,590	6042	9884	9788	50,559	111,863
									PUBS Total	35,590	6,042	9,884	9,788	50,559	111,863
							Full Fund	ing TOA-Ou	tfitting Total	297,833	121,087	87,132	83,952	1,371,610	1,961,614

CLASSIFICATION: UN	NCLASSIFIED														
		BUDGE	T ITEM JU	STIFICAT	ON SHEE	T(P-30)					DATE				
			FY 2013 P	resident's	Budget						February	2012			
APPROPRIATION/BUDGET	ACTIVITY							P-1 LINE	ITEM NOM	ENCLATU	RE				
SHIPBUILDING AND CONVE	ERSION, NAV	Y/BA 5						OUTFITT BLI: 5110							
Ship	HULL	PROG	Contract	Start of	DEL	CFO	PSA	PSA	OWLD	PRIOR	FY	FY	FY	то	TOTAL
Туре	NO	YEAR	Award	Constr.	DATE	DATE	START	FINISH		YEARS	2011	2012	2013	COMP	
AGOR	27	11	OCT-11	JUN-12	OCT-14	NOV-14	TBD	TBD	OCT-15	0	0	0	0	1,839	1,839
AGOR	28	12	MAY-12	AUG-12	DEC-14	JAN-16	TBD	TBD	DEC-16	0	0	0	0	908	908
									AGOR Total	0	0	0	0	2,747	2,747
TAGS	66	07	DEC-09	OCT-10	OCT-13	DEC-13	TBD	TBD	NOV-14	0	0	0	0	1,951	1,951
									TAGS Total	0	0	0	0	1,951	1,951
LCAC SLEP	29	06	AUG-06	MAR-07	APR-08	MAY-08	NOV-08	DEC-08	SEP-12	231	0	0	0	0	231
LCAC SLEP	32	06	AUG-06	SEP-07	SEP-08	OCT-08	APR-09	MAY-09	SEP-12	95	0	0	0	0	95
LCAC SLEP	34	06	AUG-06	JAN-07	SEP-11	OCT-11	SEP-11	OCT-11	SEP-12	0	233	0	0	0	233
LCAC SLEP	54	06	AUG-06	MAR-07	AUG-08	SEP-08	MAY-09	JUN-09	SEP-12	140	0	0	0	0	140
LCAC SLEP	68	06	AUG-06	MAY-07	APR-09	MAY-09	AUG-09	OCT-09	SEP-12	146	0	0	0	0	146
LCAC SLEP	31	07	MAR-07	MAR-08	MAR-09	APR-09	OCT-09	NOV-09	AUG-11	216	0	0	0	0	216
LCAC SLEP	33	07	MAR-07	JUL-08	JUL-09	AUG-09	JAN-10	FEB-10	AUG-11	45	0	0	0	0	45
LCAC SLEP	36	07	MAR-07	SEP-08	AUG-10	SEP-10	SEP-10	DEC-10	AUG-11	146	0	0	0	0	146
LCAC SLEP	48	07	MAR-07	OCT-08	NOV-09	DEC-09	APR-10	MAY-10	AUG-11	71	0	0	0	0	71
LCAC SLEP	69	07	MAR-07	DEC-08	FEB-10	MAR-10	MAY-10	AUG-10	AUG-11	66	0	0	0	0	66
LCAC SLEP	30	08	JUN-09	SEP-09	DEC-10	JAN-11	APR-11	JUN-11	NOV-12	0	100	0	0	0	100
LCAC SLEP	41	08	MAY-09	JAN-10	JUL-11	AUG-11	SEP-11	OCT-11	NOV-12	0	100	0	0	0	100
LCAC SLEP	46	08	MAY-09	JUN-10	NOV-11	DEC-11	JAN-12	FEB-12	NOV-12	0	100	0	0	0	100
LCAC SLEP	53	08	MAY-09	NOV-09	MAY-11	JUN-11	JUN-11	AUG-11	NOV-12	0	100	0	0	0	100
LCAC SLEP	56	08	JUN-09	JAN-10	MAR-11	APR-11	NOV-11	DEC-11	NOV-12	0	100	0	0	0	100
LCAC SLEP	59	09	SEP-09	MAR-10	JUL-11	AUG-11	NOV-11	DEC-11	JUL-12	0	100	0	0	0	100
LCAC SLEP	62	09	SEP-09	JUN-10	DEC-11	JAN-12	APR-12	MAY-12	DEC-12	0	0	102	0	0	102
LCAC SLEP	67	09	AUG-09	MAY-11	MAY-12	JUN-12	JUN-12	AUG-12	MAY-13	0	0	102	0	0	102
LCAC SLEP	70	09	AUG-09	AUG-11	AUG-12	SEP-12	SEP-12	NOV-12	AUG-13	0	0	102	0	0	102
LCAC SLEP	71	09	AUG-09	NOV-10	FEB-12	MAR-12	MAR-12	APR-12	FEB-13	0	0	102	0	0	102
LCAC SLEP	79	09	SEP-09	SEP-10	FEB-12	MAR-12	APR-12	MAY-12	FEB-13	0	0	102	0	0	102
LCAC SLEP	63	10	SEP-10	FEB-11	FEB-12	MAR-12	SEP-12	NOV-12	FEB-13	0	0	102	0	0	102
LCAC SLEP	72	10	SEP-10	MAY-11	MAY-12	JUN-12	NOV-12	DEC-12	MAY-13	0	0	102	0	0	102
LCAC SLEP	74	10	SEP-10	AUG-11	AUG-12	SEP-12	FEB-13	MAR-13	AUG-13	0	0	102	0	0	102
LCAC SLEP	27	11	JAN-12	MAR-12	APR-13	MAY-13	MAY-13	JUL-13	APR-14	0	0	0	104	0	104

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		BUDGE	T ITEM JU	STIFICAT	ION SHEE	T(P-30)					DATE				
			FY 2013 P	resident's	Budget						February	2012			
APPROPRIATION/BUDGET ACTI	VITY							P-1 LINE	ITEM NOM	ENCLATU	IRE				
SHIPBUILDING AND CONVERSION	ON, NAV	Y/BA 5						OUTFITT	ING						
								BLI: 5110	)						
Ship	HULL	PROG	Contract	Start of	DEL	CFO	PSA	PSA	OWLD	PRIOR	FY	FY	FY	то	TOTAL
Туре	NO	YEAR	Award	Constr.	DATE	DATE	START	FINISH		YEARS	2011	2012	2013	COMP	
LCAC SLEP	38	11	JAN-12	APR-12	MAY-13	JUN-13	JUN-13	AUG-13	MAY-14	0	0	0	104	0	104
LCAC SLEP	75	11	JAN-12	MAR-12	APR-13	MAY-13	MAY-13	JUL-13	APR-14	0	0	0	104	0	104
LCAC SLEP	80	11	JAN-12	APR-13	MAY-13	JUN-13	JUN-13	AUG-13	MAY-14	0	0	0	104	0	104
LCAC SLEP	55	12	MAR-12	JUN-12	JUL-13	AUG-13	AUG-13	OCT-13	JUL-14	0	0	0	0	105	105
LCAC SLEP	60	12	MAR-12	DEC-12	JAN-14	FEB-14	FEB-14	APR-14	JAN-15	0	0	0	0	105	105
LCAC SLEP	73	12	MAR-12	DEC-12	JAN-14	FEB-14	FEB-14	APR-14	JAN-15	0	0	0	0	105	105
LCAC SLEP	82	12	MAR-12	JUN-12	JUN-13	AUG-13	AUG-13	OCT-13	JUL-14	0	0	0	0	105	105
LCAC SLEP	88	13	DEC-12	APR-13	MAY-14	JUN-14	JUN-14	AUG-14	MAY-15	0	0	0	0	107	107
LCAC SLEP	89	13	DEC-12	JUL-13	AUG-14	SEP-14	SEP-14	NOV-14	AUG-15	0	0	0	0	107	107
LCAC SLEP	78	14	DEC-13	MAY-14	JUN-15	JUL-15	JUL-15	SEP-15	JUN-16	0	0	0	0	109	109
LCAC SLEP	81	14	DEC-13	MAY-14	JUN-15	JUL-15	JUL-15	SEP-15	JUN-16	0	0	0	0	109	109
LCAC SLEP	83	14	DEC-13	NOV-14	DEC-15	JAN-16	JAN-16	MAR-16	DEC-16	0	0	0	0	109	109
LCAC SLEP	90	14	DEC-13	NOV-14	DEC-15	JAN-16	JAN-16	MAR-16	DEC-16	0	0	0	0	109	109
LCAC SLEP	58	15	MAR-15	SEP-15	OCT-16	NOV-16	NOV-16	JAN-17	OCT-17	0	0	0	0	111	111
LCAC SLEP	64	15	MAR-15	NOV-15	DEC-16	JAN-17	JAN-17	MAR-17	DEC-17	0	0	0	0	111	111
LCAC SLEP	84	15	MAR-15	SEP-15	OCT-16	NOV-16	NOV-16	JAN-17	OCT-17	0	0	0	0	111	111
LCAC SLEP	85	15	MAR-15	NOV-15	DEC-16	JAN-17	JAN-17	MAR-17	DEC-17	0	0	0	0	111	111
LCAC SLEP	65	16	MAR-16	SEP-16	OCT-17	NOV-17	NOV-17	JAN-18	OCT-18	0	0	0	0	113	113
LCAC SLEP	76	16	MAR-16	NOV-16	DEC-17	JAN-18	JAN-18	MAR-18	DEC-18	0	0	0	0	113	113
LCAC SLEP	86	16	MAR-16	SEP-16	OCT-17	NOV-17	NOV-17	JAN-18	OCT-18	0	0	0	0	113	113
LCAC SLEP	87	16	MAR-16	NOV-16	DEC-17	JAN-18	JAN-18	MAR-18	DEC-18	0	0	0	0	113	113
LCAC SLEP	52	17	MAR-17	SEP-17	OCT-18	NOV-18	NOV-18	JAN-19	OCT-19	0	0	0	0	115	115
LCAC SLEP	57	17	MAR-17	NOV-17	DEC-18	JAN-19	JAN-19	MAR-19	DEC-19	0	0	0	0	115	115
LCAC SLEP	66	17	MAR-17	NOV-17	DEC-18	JAN-19	JAN-19	MAR-19	DEC-19	0	0	0	0	115	115
LCAC SLEP	77	17	MAR-17	SEP-17	OCT-18	NOV-18	NOV-18	JAN-19	OCT-19	0	0	0	0	115	115
								LCAC	SLEP Total	1,156	833	816	416	2,426	5,647
LHD	8	02	APR-02	MAY-03	APR-09	SEP-09	MAR-10	JAN-11	JAN-11	52,796	0	0	0	0	52,796
									LHD Total	52,796	0	0	0	0	52,796
SHIP TO SHORE CONNECTOR	102	15	MAR-15	MAR-16	JUL-19	N/A	JUL-19	SEP-19	JUN-20	0	0	0	0	1,060	1,060
SHIP TO SHORE CONNECTOR	103	15	MAR-15	SEP-16	JUL-19	N/A	JUL-19	SEP-19	JUN-20	0	0	0	0	1,060	1,060
SHIP TO SHORE CONNECTOR	104	16	MAR-16	MAR-17	FEB-20	N/A	FEB-20	APR-20	JAN-21	0	0	0	0	1,078	1,078

		BUDGE	T ITEM JU FY 2013 P			T(P-30)					DATE February	2012			
APPROPRIATION/BUDGET ACT SHIPBUILDING AND CONVERS		Y/BA 5						P-1 LINE OUTFITT BLI: 5110		ENCLATU	RE				
Ship	HULL	PROG	Contract	Start of	DEL	CFO	PSA	PSA	OWLD	PRIOR	FY	FY	FY	то	TOTAL
Туре	NO	YEAR	Award	Constr.	DATE	DATE	START	FINISH		YEARS	2011	2012	2013	COMP	
SHIP TO SHORE CONNECTOR	105	16	MAR-16	MAY-17	FEB-20	N/A	FEB-20	APR-20	JAN-21	0	0	0	0	1,078	1,078
SHIP TO SHORE CONNECTOR	106	16	MAR-16	AUG-17	MAR-20	N/A	MAR-20	MAY-20	FEB-21	0	0	0	0	1,078	1,078
SHIP TO SHORE CONNECTOR	107	16	MAR-16	OCT-17	JUN-20	N/A	JUN-20	AUG-20	MAY-21	0	0	0	0	1,078	1,078
SHIP TO SHORE CONNECTOR	108	16	MAR-16	JAN-18	JUN-20	N/A	JUN-20	AUG-20	MAY-21	0	0	0	0	1,078	1,078
SHIP TO SHORE CONNECTOR	109	17	MAR-17	MAR-18	SEP-20	N/A	SEP-20	NOV-20	AUG-21	0	0	0	0	1,096	1,096
SHIP TO SHORE CONNECTOR	110	17	MAR-17	MAY-18	SEP-20	N/A	SEP-20	NOV-20	AUG-21	0	0	0	0	1,096	1,096
SHIP TO SHORE CONNECTOR	111	17	MAR-17	AUG-18	DEC-20	N/A	DEC-20	JAN-21	NOV-21	0	0	0	0	1,096	1,096
SHIP TO SHORE CONNECTOR	112	17	MAR-17	OCT-18	DEC-20	N/A	DEC-20	JAN-21	NOV-21	0	0	0	0	1,096	1,096
SHIP TO SHORE CONNECTOR	113	17	MAR-17	JAN-19	JAN-21	N/A	JAN-21	MAR-21	DEC-21	0	0	0	0	1,096	1,096
						SI	HP TO SHO	RE CONNE	CTOR Total	0	0	0	0	12,990	12,990
JHSV	801	08	JAN-08	SEP-09	FEB-12	MAR-12	NOV-12	DEC-12	FEB-13	0	0	0	9,270	0	9,270
JHSV	901	09	JAN-10	SEP-10	JAN-13	FEB-13	JUN-13	JUL-13	JAN-14	0	0	0	5,747	3,681	9,428
JHSV	902	09	JAN-10	AUG-11	JUL-13	AUG-13	JAN-14	FEB-14	JUL-14	0	0	0	3,642	5,786	9,428
JHSV	1001	10	OCT-10	SEP-11	JAN-14	FEB-14	JUN-14	JUL-14	JAN-15	0	0	0	0	9,588	9,588
JHSV	1002	10	OCT-10	AUG-12	JUL-14	AUG-14	JAN-15	FEB-15	JUL-15	0	0	0	0	9,588	9,588
JHSV	1101	11	JUN-11	SEP-12	JAN-15	FEB-15	JUN-15	JUL-15	JAN-16	0	0	0	0	9,751	9,751
JHSV	1102	11	JUN-11	AUG-13	JUL-15	AUG-15	JAN-16	FEB-16	JUL-16	0	0	0	0	9,751	9,751
JHSV	1201	12	FEB-12	SEP-13	JAN-16	FEB-16	JUN-16	JUL-16	JAN-17	0	0	0	0	10,073	10,073
JHSV	1202	12	FEB-12	AUG-14	JUL-16	AUG-16	JAN-17	FEB-17	JUL-17	0	0	0	0	10,073	10,073
JHSV	1301	13	FEB-13	SEP-14	JAN-17	FEB-17	JUN-17	JUL-17	JAN-18	0	0	0	0	10,244	10,244
	•	•	•	•	•	•	•	•	JHSV Total	0	0	0	18,659	78,535	97,194
LHA	6	07	JUN-07	JAN-08	OCT-13	MAY-14	DEC-14	MAR-15	APR-15	0	0	0	0	15,770	15,770
LHA	7	11	MAY-12	APR-13	MAR-18	OCT-18	MAY-19	JUL-19	SEP-19	0	0	0	0	22,674	22,674
LHA	8	17	TBD	TBD	TBD	TBD	TBD	TBD	TBD	0	0	0	0	25,087	25,087
		•	•	•	•		•	•	LHA Total	0	0	0	0	63,531	63,531
LPD	21	03	NOV-03	MAR-04	AUG-09	DEC-09	JUN-10	SEP-10	FEB-11	61,644	3,481	0	0	0	65,125
LPD	22	04	JUN-06	JUL-06	DEC-11	JUN-12	NOV-12	MAR-13	MAY-13	2,933	24,261	22,045	9,835	0	59,074
LPD	23	05	JUN-06	MAR-07	JUL-12	JAN-13	AUG-13	DEC-13	DEC-13	0	4,001	22,398	12,783	0	39,182
LPD	24	06	NOV-06	AUG-07	SEP-12	MAR-13	OCT13	FEB-14	FEB-14	0	261	11,695	31,750	0	43,706
LPD	25	08	DEC-07	APR-08	MAY-13	NOV-13	JUN-14	OCT-14	OCT-14	0	0	7,101	606	40,696	48,403
LPD	26	09	APR-11	MAY-11	NOV-15	APR-16	NOV-16	JAN-17	MAR-17	0	0	0	0	45,912	45,912
LPD	27	12	MAR-12	JUN-12	NOV-16	APR-17	NOV-17	JAN-18	MAR-18	0	0	0	0	52,067	52,067
	1					1			LPD Total	64,577	32,004	63,239	54,974	138,675	353,469

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APPROPRIATION/BUDGET ACTI	VITY							P-1 LINE	ITEM NOM	ENCLATU	RE				
SHIPBUILDING AND CONVERSION	N, NAV	//BA 5						OUTFITT	ING						
								BLI: 5110	)						
Ship	HULL	PROG	Contract	Start of	DEL	CFO	PSA	PSA	OWLD	PRIOR	FY	FY	FY	то	TOTAL
Туре	NO	YEAR	Award	Constr.	DATE	DATE	START	FINISH		YEARS	2011	2012	2013	COMP	
LCS	3	09	MAR-09	APR-09	JUN-12	AUG-12	MAR-13	JUN-13	JUL-13	0	0	28,553	25,704	0	54,257
LCS	4	09	MAY-09	OCT-09	MAR-13	JAN-13	AUG-13	NOV-13	DEC-13	0	0	10,000	26,227	20,084	56,311
LCS	5	10	DEC-10	JUL-11	AUG-14	DEC-14	JUL-15	OCT-15	NOV-15	0	0	0	0	37,635	37,635
LCS	6	10	DEC-10	JUN-11	JUN-14	OCT-14	APR-15	JUL-15	SEP-15	0	0	0	0	37,741	37,741
LCS	7	11	MAR-11	MAY-12	APR-15	AUG-15	MAR-16	JUN-16	JUL-16	0	0	0	0	38,485	38,485
LCS	8	11	MAR-11	OCT-11	OCT-14	FEB-15	AUG-15	NOV-15	JAN-16	0	0	0	0	38,466	38,466
LCS	9	12	MAR-12	MAR-13	FEB-16	JUN-16	DEC-16	MAR-17	MAY-17	0	0	0	0	39,598	39,598
LCS	10	12	MAR-12	SEP-12	AUG-15	DEC-15	JUL-16	OCT-16	NOV-16	0	0	0	0	39,277	39,277
LCS	11	12	MAR-12	AUG-13	AUG-16	DEC-16	JUN-17	SEP-17	NOV-17	0	0	0	0	39,604	39,604
LCS	12	12	MAR-12	APR-13	MAR-16	JUL-16	JAN-17	APR-17	JUN-17	0	0	0	0	39,612	39,612
LCS	13	13	MAR-13	MAR-14	FEB-17	JUN-17	DEC-17	MAR-18	MAY-18	0	0	0	0	40,755	40,755
LCS	14	13	MAR-13	SEP-13	AUG-16	DEC-16	JUL-17	OCT-17	NOV-17	0	0	0	0	40,870	40,870
LCS	15	13	MAR-13	AUG-14	AUG-17	DEC-17	JUN-18	SEP-18	NOV-18	0	0	0	0	40,981	40,981
LCS	16	13	MAR-13	FEB-14	JAN-17	MAY-17	NOV-17	FEB-18	APR-18	0	0	0	0	40,819	40,819
LCS	17	14	MAR-14	MAR-15	FEB-18	JUN-18	DEC-18	MAR-19	MAY-19	0	0	0	0	41,100	41,100
LCS	18	14	MAR-14	OCT-14	JUL-17	NOV-17	JUN-18	SEP-18	OCT-18	0	0	0	0	41,100	41,100
LCS	19	14	MAR-14	AUG-15	AUG-18	DEC-18	JUN-19	SEP-19	NOV-19	0	0	0	0	41,100	41,100
LCS	20	14	MAR-14	FEB-15	DEC-17	APR-18	OCT-18	JAN-19	MAR-19	0	0	0	0	41,100	41,100
LCS	21	15	MAR-15	MAR-16	FEB-19	JUN-19	DEC-19	MAR-20	MAY-20	0	0	0	0	41,900	41,900
LCS	22	15	MAR-15	SEP-15	JUL-18	NOV-18	MAY-19	AUG-19	OCT-19	0	0	0	0	41,900	41,900
LCS	23	15	MAR-15	AUG-16	AUG-19	DEC-19	JUN-20	SEP-20	NOV-20	0	0	0	0	41,900	41,900
LCS	24	15	MAR-15	FEB-16	NOV-18	MAR-19	SEP-19	DEC-19	FEB-20	0	0	0	0	41,900	41,900
LCS	25	16	MAR-16	MAR-17	FEB-20	JUN-20	DEC-20	MAR-21	MAY-21	0	0	0	0	42,760	42,760
LCS	26	16	MAR-16	SEP-16	JUL-19	NOV-19	MAY-20	AUG-20	OCT-20	0	0	0	0	42,760	42,760
LCS	27	17	MAR-17	SEP-17	JUL-20	NOV-20	JUN-21	AUG-21	OCT-21	0	0	0	0	43,615	43,615
LCS	28	17	MAR-17	MAR-18	FEB-21	JUN-21	DEC-21	MAR-22	MAY-22	0	0	0	0	43,615	43,615
		-							LCS Total	0	0	38,553	51,931	998,677	1,089,161
YP	704	06	JUN-07	JUN-08	FEB-11	APR-11	N/A	N/A	MAR-12	0	0	264	0	0	264
YP	705	07	DEC-07	SEP-08	OCT-11	DEC-11	N/A	N/A	NOV-12	0	0	0	266	0	266
YP	706	08	JUN-08	JUN-09	JUL-12	SEP-12	N/A	N/A	AUG-13	0	0	0	266	0	266
YP	707	09	MAR-09	SEP-09	NOV-12	JAN-13	N/A	N/A	DEC-13	0	0	0	266	0	266
YP	708	09	MAR-09	NOV-09	MAR-13	MAY-13	N/A	N/A	APR-14	0	0	0	0	258	258

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APPROPRIATION/BUDGET ACT	IVITY							P-1 LINE	ITEM NOM	ENCLATU	RE				
SHIPBUILDING AND CONVERSI	ON, NAV	Y/BA 5						OUTFITT	ING						
								BLI: 5110	0						
Ship	HULL	PROG	Contract	Start of	DEL	CFO	PSA	PSA	OWLD	PRIOR	FY	FY	FY	то	TOTAL
Туре	NO	YEAR	Award	Constr.	DATE	DATE	START	FINISH		YEARS	2011	2012	2013	COMP	
YP	709	11	SEP-12	JUN-13	JUN-15	AUG-15	N/A	N/A	JUL-16	0	0	0	0	267	267
YP	1401	14	JAN-14	JUN-14	JUN-16	AUG-16	N/A	N/A	JUL-17	0	0	0	0	287	287
YP	1402	14	JAN-14	DEC-14	DEC-16	FEB-17	N/A	N/A	JAN-18	0	0	0	0	294	294
YP	1501	15	JAN-15	JUN-15	JUN-17	AUG-17	N/A	N/A	JUL-18	0	0	0	0	299	299
YP	1502	15	JAN-15	DEC-15	DEC-17	FEB-18	N/A	N/A	JAN-19	0	0	0	0	299	299
YP	1601	16	JAN-16	JUN-16	JUN-18	AUG-18	N/A	N/A	JUL-19	0	0	0	0	304	304
YP	1602	16	JAN-16	DEC-16	DEC-18	FEB-19	N/A	N/A	JAN-20	0	0	0	0	304	304
YP	1701	17	JAN-17	TBD	TBD	TBD	N/A	N/A	TBD	0	0	0	0	309	309
YP	1702	17	JAN-17	TBD	TBD	TBD	N/A	N/A	TBD	0	0	0	0	309	309
									YP Total	0	0	264	798	2,930	3,992
DDG	107	04	SEP-02	FEB-06	JUL-10	OCT-10	JUN-11	SEP-11	OCT-11	19,204	13,974	0	0	0	33,178
DDG	109	04	SEP-02	JUL-06	JUN-10	OCT-10	MAY-11	AUG-11	SEP-11	18,446	12,177	0	0	0	30,623
DDG	110	05	SEP-02	MAY-07	FEB-11	MAY-11	JAN-12	APR-12	APR-12	10,826	21,515	0	0	0	32,341
DDG	111	05	SEP-02	APR-07	APR-11	SEP-11	MAY-12	AUG-12	AUG-12	10,559	18,516	3,266	0	0	32,341
DDG	112	05	SEP-02	FEB-08	MAY-12	SEP-12	MAY-13	AUG-13	AUG-13	0	9,460	27,398	7,123	0	43,981
DDG	113	10	JUN-11	SEP-12	FEB-16	TBD	TBD	TBD	TBD	0	0	0	0	33,455	33,455
DDG	114	11	SEP-11	JUN-13	NOV-16	TBD	TBD	TBD	TBD	0	0	0	0	41,257	41,257
DDG	115	11	SEP-11	FEB-12	NOV-16	TBD	TBD	TBD	TBD	0	0	0	0	42,542	42,542
DDG	116	12	FEB-12	TBD	NOV-17	TBD	TBD	TBD	TBD	0	0	0	0	48,077	48,077
DDG	117	13	MAR-13	TBD	NOV-18	TBD	TBD	TBD	TBD	0	0	0	0	49,475	49,475
DDG	118	13	MAR-13	TBD	NOV-18	TBD	TBD	TBD	TBD	0	0	0	0	49,475	49,475
DDG	119	14	MAR-13	TBD	NOV-19	TBD	TBD	TBD	TBD	0	0	0	0	50,444	50,444
DDG	120	15	MAR-13	TBD	NOV-20	TBD	TBD	TBD	TBD	0	0	0	0	50,444	50,444
DDG	121	15	MAR-13	TBD	NOV-20	TBD	TBD	TBD	TBD	0	0	0	0	51,461	51,461
DDG	122	16	MAR-13	TBD	NOV-21	TBD	TBD	TBD	TBD	0	0	0	0	52,546	52,546
DDG	123	16	MAR-13	TBD	NOV-21	TBD	TBD	TBD	TBD	0	0	0	0	52,546	52,546
DDG	124	17	MAR-13	TBD	NOV-22	TBD	TBD	TBD	TBD	0	0	0	0	53,654	53,654
DDG	125	17	MAR-13	TBD	NOV-22	TBD	TBD	TBD	TBD	0	0	0	0	53,654	53,654
									DDG Total	59,035	75,642	30,664	7,123	629,030	801.494

CLASSIFICATION: UNCLA	ASSIFIED														
		BUDGE	T ITEM JU	STIFICAT	ION SHEE	T(P-30)					DATE				
			FY 2013 P	resident's	Budget						February :	2012			
APPROPRIATION/BUDGET ACT	IVITY							P-1 LINE	ITEM NOM	IENCLATU	RE				
SHIPBUILDING AND CONVERSI	ON, NAV	Y/BA 5						OUTFITTI	ING						
			_		_			BLI: 5110							
Ship	HULL	PROG	Contract	Start of	DEL	CFO	PSA	PSA	OWLD	PRIOR	FY	FY	FY	то	TOTAL
Туре	NO	YEAR	Award	Constr.	DATE	DATE	START	FINISH		YEARS	2011	2012	2013	COMP	
DDG 1000	1000	07	FEB-08	FEB-09	JUL-14	SEP-15	FEB-16	MAY-16	AUG-16	0	0	0	0	87,127	87,127
DDG 1000	1001	07	FEB-08	OCT-09	DEC-15	DEC-16	JUL-17	SEP-17	NOV-17	0	0	0	0	99,509	99,509
DDG 1000	1002	09	SEP-11	APR-12	FEB-18	FEB-19	SEP-19	NOV-19	JAN-20	0	0	0		108,890	108,890
	_	1		1		1		DDG	1000 Total	0	0	0	0	295,526	295,526
VIRGINIA	779	04	JAN-04	MAR-04	DEC-09	DEC-09	JUL-10	JUL-11	OCT-11	58,719	10,283	0	0	0	69,002
VIRGINIA	780	05	JAN-04	FEB-05	JUL-10	JUL-10	JAN-11	JAN-12	OCT-12	10,702	39,009	5,745	0	0	55,456
VIRGINIA	781	06	JAN-04	FEB-06	APR-12	APR-12	FEB-12	DEC-12	MAR-13	1,151	9,194	30,316	6,373	0	47,034
VIRGINIA	782	07	JAN-04	FEB-07	APR-13	APR-13	FEB-13	FEB-14	MAR-14	0	500	7,210	32,852	1,622	42,184
VIRGINIA	783	08	JAN-04	FEB-08	APR-14	APR-14	OCT-13	OCT-14	MAR-15	0	0	250	9,250	37,899	47,399
VIRGINIA	784	09	DEC-08	MAR-09	AUG-14	AUG-14	JUL-14	JAN-15	JUL-15	0	0	0	160	42,406	42,566
VIRGINIA	785	10	DEC-08	MAR-10	AUG-15	AUG-15	JUL-15	JAN-16	JUL-16	0	0	0	0	47,723	47,723
VIRGINIA	786	11	DEC-08	MAR-11	AUG-16	AUG-16	APR-16	OCT-16	JUL-17	0	0	0	0	47,136	47,136
VIRGINIA	787	11	DEC-08	SEP-11	FEB-17	FEB-17	OCT-16	MAR-17	JAN-18	0	0	0	0	48,471	48,471
VIRGINIA	788	12	DEC-08	MAR-12	AUG-17	AUG-17	APR-17	AUG-17	JUL-18	0	0	0	0	49,707	49,707
VIRGINIA	789	12	DEC-08	SEP-12	FEB-18	FEB-18	OCT-17	FEB-18	JAN-19	0	0	0	0	49,875	49,875
VIRGINIA	790	13	DEC-08	MAR-13	AUG-18	AUG-18	APR-18	AUG-18	JUL-19	0	0	0	0	50,723	50,723
VIRGINIA	791	13	DEC-08	SEP-13	FEB-19	FEB-19	OCT-18	FEB-19	JAN-20	0	0	0	0	50,723	50,723
VIRGINIA	792	14	TBD	TBD	TBD	TBD	MAY-19	AUG-19	TBD	0	0	0	0	51,585	51,585
VIRGINIA	793	15	TBD	TBD	TBD	TBD	TBD	TBD	TBD	0	0	0	0	52,462	52,462
VIRGINIA	794	15	TBD	TBD	TBD	TBD	APR-20	AUG-20	TBD	0	0	0	0	52,462	52,462
VIRGINIA	795	16	TBD	TBD	TBD	TBD	TBD	TBD	TBD	0	0	0	0	52,462	52,462
VIRGINIA	796	16	TBD	TBD	TBD	TBD	TBD	TBD	TBD	0	0	0	0	53,354	53,354
VIRGINIA	797	17	TBD	TBD	TBD	TBD	TBD	TBD	TBD	0	0	0	0	54,261	54,261
VIRGINIA	798	17	TBD	TBD	TBD	TBD	TBD	TBD	TBD	0	0	0	0	54,261	54,261
	_	1		ı		ı		VIR	GINIA Total	70,572	58,986	43,521	48,635	797,132	1,018,846
CVN-RCOH	71	09	AUG-09	AUG-09	FEB-13	APR-13	APR-13	JUN-13	MAR-14	0	0	952	37733	0	38,685
CVN-RCOH	72	13	FEB-13	FEB-13	MAY-16	JUL-16	JUL-16	SEP-16	JUN-17	0	0	0	0	51,989	51,989
CVN-RCOH	73	16	JUN-16	JUN-16	SEP-19	NOV-19	NOV-19	JAN-20	OCT-20	0	0	0	0	56,020	56,020
	_	1		ı		ı		CVN-F	RCOH Total	0	0	952	37,733	108,009	146,694
CVN	78	08	SEP-08	AUG-05	SEP-15	NOV-15	APR-16	SEP-16	OCT-16	0	0	0	0	81,370	81,370
CVN	79	13	JUL-13	FEB-11	SEP-22	NOV-22	APR-23	SEP-23	OCT-23	0	0	0		99,550	99,550
									CVN Total	0	0	0	0	180,920	180,920
						Ful	l Funding 1	OA-Post De	livery Total	248,136	167,465	178,009	220,269	3,313,079	4,126,958
						Full Fu	nding TOA	-First Destir	nation Total	17,428	5,385	5,498	5,427	28,521	62,259
							Full Fundi	ng TOA-Out	fitting Total	297,833	121,087	87,132	83,952	1,371,610	1,961,614
							Total Obli	gational Aut	hority Total	563,397	293,937	270,639	309,648	4,713,210	6,150,831
								NE	T P-1 Total	563,397	293,937	270,639	309,648	4,713,210	6,150,831

CLASSIFICATION: UNCLASSIFIED										
	ITEM JUSTIFICATION						DATE:			
F	Y 2013 President's E	ludget					ebruary 2012			
APPROPRIATION/BUDGET ACTIVITY					P-1 LINE ITEM NO	MENCLATURE				
SHIPBUILDING AND CONVERSION, NAVY/BA 5 Auxiliaries, Craft and Prior Year Pro	gram Costs			;	SERVICE CRAFT					
					BLI: 5113 / SUBHE	EAD NO.				
(Dollars in Millions)	PRIOR YR	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	TO COMP	TOTAL PROG
QUANTITY	33	2	1	0	3	3	5	5	0	52
End Cost	88.5	13.7	3.9	0.0	22.6	22.9	50.1	51.0	0.0	252.7
Full Funding TOA	88.5	13.7	3.9	0.0	22.6	22.9	50.1	51.0	0.0	252.7
Total Obligational Authority	88.5	13.7	3.9	0.0	22.6	22.9	50.1	51.0	0.0	252.7
Plus Outfitting / Plus Post Delivery	1.2	0.2	0.8	1.4	0.3	1.3	1.3	1.4	3.5	11.4
Total	89.7	13.9	4.7	1.4	22.9	24.2	51.4	52.4	3.5	264.1
Unit Cost ( Ave. End Cost)	2.7	6.9	3.9	0.0	7.5	7.6	10.0	10.2	0.0	4.9

MISSION:
The US Navy owns/operates approximately 500 Service Craft of 43 different classes at 85 different commands and activities throughout the world. Nearly half of the Service Craft inventory is over 40 years of age. The Service Craft budget will procure replacement craft for the following: Training Patrol Craft (YP) - For instruction in seamanship and navigation at the United States Naval Academy; Harbor Tug (YT) - To maneuver ships, tow barges and submarines in close quarters such as channel operations, harbors, coastal waters, mooring, docking or undocking; Fuel Oil Barge (YON) - To carry liquid petroleum products for studies of the process of the pro

Characteristics: Hull Various - Multiple Craft					Armament N/A				Electronics N/A	
	FY09	FY09	FY09	FY09	FY09	FY10	FY10	FY11	FY11	FY12
Production Status	YON - 332	YT - 806	YT - 807	YP - 707	YP - 708	YON - 333	YON - 334	YON - 335	YP - 709	YON - 336
Contract Award Date	07/10	10/10	10/10	03/09	03/09	07/10	07/10	11/11	09/12	07/12
Month(s) to Completion										
(a) Contract Award to Delivery	18 months	17 months	21 months	44 months	48 months	18 months	21 months	12 months	34 months	16 months
(b) Construction Start to Delivery	16 months	13 months	15 months	38 months	40 months	13 months	14 months	11 months	24 months	14 months
Delivery Date	01/12	03/12	07/12	11/12	03/13	01/12	04/12	11/12	06/15	11/13
Completion of Fitting Out	03/12	05/12	09/12	01/13	05/13	03/12	06/12	01/13	08/15	01/14
Obligation Work Limiting Date	02/13	04/13	08/13	12/13	04/14	02/13	05/13	12/13	07/16	12/14

APPROPRIATION: SHIPBUILDING AND CONVERSION, NAVY

P-5 EXHIBIT FY 2013 President's Budget February 2012

# 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 20	06	FY 200	07	FY 20	08	FY 20	09	FY 20	10
ELEMENT OF COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
PLAN COSTS	6		5		4		5		2	
BASIC CONST/CONVERSION		46,916		44,944		29,584		44,795		7,860
CHANGE ORDERS		508		214		150		475		
HM&E		1,146		1,198		433		463		
OTHER COST		1,755		1,089		243		2,240		10
TOTAL SHIP ESTIMATE		50,325		47,445		30,410		47,973		7,870
NET P-1 LINE ITEM:		50,325		47,445		30,410		47,973		7,870
	FY 20	06	FY 200	07	FY 200	08	FY 20	09	FY 20	10
	1-YON	3,636	1-YON	3,805	2-YON	8,000	1-YON	4,950	2-YON	7,870
	2-YP	25,945	1-YP	15,155	1-YT	12,060	2-YT	22,079	2	
	1-YT	11,105	3-YT	28,485	1-YP	10,350	2-YP	20,944		
	1-TWR	8,796	5	47,445	4	30,410	5	47,973		
	1-YC	843		, -		-,		,-		
	6	50,325								

APPROPRIATION: SHIPBUILDING AND CONVERSION, NAVY

P-5 EXHIBIT FY 2013 President's Budget February 2012

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

BUDGET ACTIVITY: 5 Auxiliaries, Craft and Prior Year Program Costs	P-1 LINE ITEM N SERVICE CRAF		RE		BLI: 5113
	FY 20	11	FY	2012	
ELEMENT OF COST	QTY	COST	QTY	COST	
PLAN COSTS	2		1		
BASIC CONST/CONVERSION		13,694		3,863	
TOTAL SHIP ESTIMATE		13,694		3,863	
NET P-1 LINE ITEM:		13,694		3,863	
	FY 20	11	FY:	2012	
	1-YON	3,811	1-YON	3,863	
	1-YP	9,883	1		
	2	13,694			

# SHIPBUILDING AND CONVERSION, NAVY SHIP PRODUCTION SCHEDULE

### EXHIBIT P-27 FY 2013 President's Budget

February 2012

DATE:

SHIP TYPE	HULL NUMBER	SHIPBUILDER	FISCAL YEAR AUTHORIZED	CONTRACT AWARD	START OF CONSTRUCTION	DELIVERY DATE
TWR	1249	MODUTECH	06	JUN-10	AUG-10	FEB-12
YON	332	MAYBANK	09	JUL-10	SEP-10	JAN-12
YON	333	MAYBANK	10	JUL-10	DEC-10	JAN-12
YON	334	MAYBANK	10	JUL-10	FEB-11	APR-12
YON	335	MAYBANK	11	NOV-11	JAN-12	NOV-12
YON	336	MAYBANK	12	JUL-12	SEP-12	NOV-13
YON	1401	TBD	14	JUL-14	SEP-14	NOV-15
YON	1501	TBD	15	JUL-15	SEP-15	NOV-16
YON	1601	TBD	16	JUL-16	SEP-16	NOV-17
YON	1701	TBD	17	JUL-17	TBD	TBD
YP	705	C&G BOAT WORKS	07	DEC-07	SEP-08	TBD
YP	706	C&G BOAT WORKS	08	JUN-08	JUN-09	JUL-12
YP	707	C&G BOAT WORKS	09	MAR-09	SEP-09	NOV-12
YP	708	C&G BOAT WORKS	09	MAR-09	NOV-09	MAR-13
YP	709	TBD	11	SEP-12	JUN-13	JUN-15
YP	1401	TBD	14	JAN-14	JUN-14	JUN-16
YP	1402	TBD	14	JAN-14	DEC-14	DEC-16
YP	1501	TBD	15	JAN-15	JUN-15	JUN-17
YP	1502	TBD	15	JAN-15	DEC-15	DEC-17
YP	1601	TBD	16	JAN-16	JUN-16	JUN-18
YP	1602	TBD	16	JAN-16	DEC-16	DEC-18
YP	1701	TBD	17	JAN-17	TBD	TBD
YP	1702	TBD	17	JAN-17	TBD	TBD
YT	806	PACIFIC TUG BOAT SERVICE	09	OCT-10	FEB-11	MAR-12
YT	807	PACIFIC TUG BOAT SERVICE	09	OCT-10	APR-11	JUL-12
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

CLASSIFICATION: UNCLASSIFIED										
BUDGET ITEM JUSTIFICATION SHEET (P-40) FY 2013 President's Budget						DATE: February 2012				
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 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	TO COMP	TOTAL PROG
QUANTITY	42	4	4	2	4	4	4	4	4	72
End Cost	877.7	82.6	84.1	47.9	82.3	84.0	85.5	87.7	105.2	1,537.0
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	814.5	82.6	84.1	47.9	82.3	84.0	85.5	87.7	105.2	1,473.8
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	877.7	82.6	84.1	47.9	82.3	84.0	85.5	87.7	105.2	1,537.0
Plus Outfitting / Plus Post Delivery	11.5	2.1	1.4	0.7	1.1	0.0	0.2	0.4	4.8	22.2
Plus Katrina Supplement	19.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	19.8
Total	889.2	84.7	85.5	48.6	83.4	84.0	85.7	88.1	110.0	1,559.2
Unit Cost ( Ave. End Cost)	20.9	20.7	21.0	24.0	20.6	21.0	21.4	21.9	26.3	21.3

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

None (rides on cushion of air) Draft

APPROPRIATION: SHIPBUILDING AND CONVERSION, NAVY

P-5 EXHIBIT FY 2013 President's Budget February 2012

### 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 2006		FY 20	07	FY 20	08	FY 20	09	FY 20	10
ELEMENT OF COST	QTY (	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
PLAN COSTS	5		5		5		6		3	
BASIC CONST/CONVERSION		48,153		49,333		39,448		43,760		22,502
ELECTRONICS		6,515		11,021		9,568		8,154		6,500
HM&E		41,000		40,684		39,390		52,673		31,118
OTHER COST		2,947		7,138		6,424		5,000		3,540
TOTAL SHIP ESTIMATE		98,615		108,176		94,830		109,587		63,660
NET P-1 LINE ITEM:		98,615		108,176		94,830		109,587		63,660

APPROPRIATION: SHIPBUILDING AND CONVERSION, NAVY

P-5 EXHIBIT FY 2013 President's Budget February 2012

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

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

	FY 2	2011	FY 20	12	FY 20	13
ELEMENT OF COST	QTY	COST	QTY	COST	QTY	COST
PLAN COSTS	4		4		2	
BASIC CONST/CONVERSION		35,869		36,694		18,770
ELECTRONICS		7,655		7,757		4,176
HM&E		35,454		35,946		21,234
OTHER COST		3,598		3,679		3,750
TOTAL SHIP ESTIMATE		82,576		84,076		47,930
NET P-1 LINE ITEM:		82,576		84,076		47,930

### SHIPBUILDING AND CONVERSION, NAVY

Analysis of Ship Cost Estimate - Basic/Escalation

Ship Type: LCAC

				- 1 71	
	Design/Schedule	Start/Issue	Complete	Reissue	Complete
•	<del></del>		/Response		/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 2010	APR 2011		
	Detail Design	N/A	N/A		
	Request for Proposals	JUN 2011	JAN 2012		
	Design Agent	BOSTON PLANNING	BOSTON PLANNING		
II.	Classification of Cost Estimate	N/A			
III.	Basic Construction/Conversion	FY11 SLEP			
	A. Actual Award Date	JAN-12			
	B. Contract Type ( and Share Line if applicable )	FFP			
IV.	<u>Escalation</u>				
	Escalation Termination Date	N/A			
	Escalation Requirement	N/A			
	Labor/Material Split	N/A			
	Allowable Overhead Rate	N/A			
٧.	Other Basic(Reserves/Miscellaneous)	<u>Amount</u>			

- 1. ASSUMPTIONS: STARTS WITH FY11 SLEP AND GOES THROUGH FY18 SLEP.
- 2. USES RFP DATE FOR FY11 SLEP.
- 3. 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.

4. ESCALATION DOES NOT APPLY TO FFP CONTRACTS.

### P-5B Exhibit

FY 2013 President's Budget

DATE:

# SHIPBUILDING AND CONVERSION, NAVY SHIP PRODUCTION SCHEDULE

### **EXHIBIT P-27**

### FY 2013 President's Budget

DATE:

SHIP TYPE	HULL NUMBER	SHIPBUILDER	FISCAL YEAR AUTHORIZED	CONTRACT AWARD	START OF CONSTRUCTION	DELIVERY DATE
LCAC SLEP	29	L-3 SERVICES, INC.	06	Aug-06	Mar-07	Apr-08
LCAC SLEP	32	L-3 SERVICES, INC.	06	Aug-06	Sep-07	Sep-08
LCAC SLEP	34	L-3 SERVICES, INC.	06	Aug-06	Jan-07	Sep-11
LCAC SLEP	54	L-3 SERVICES, INC.	06	Aug-06	Mar-07	Aug-08
LCAC SLEP	68	L-3 SERVICES, INC.	06	Aug-06	May-07	Apr-09
LCAC SLEP	30	OCEANEERING INT'L, INC.	08	Jun-09	Sep-09	Dec-10
LCAC SLEP	41	OCEANEERING INT'L, INC.	08	May-09	Jan-10	Jul-11
LCAC SLEP	46	OCEANEERING INT'L, INC.	08	May-09	Jun-10	Nov-11
LCAC SLEP	53	OCEANEERING INT'L, INC.	08	May-09	Nov-09	May-11
LCAC SLEP	56	OCEANEERING INT'L, INC.	08	Jun-09	Jan-10	Mar-11
LCAC SLEP	59	OCEANEERING INT'L, INC.	09	Sep-09	Mar-10	Jul-11
LCAC SLEP	62	OCEANEERING INT'L, INC.	09	Sep-09	Jun-10	Dec-11
LCAC SLEP	67	OCEANEERING INT'L, INC.	09	Aug-09	May-11	May-12
LCAC SLEP	70	OCEANEERING INT'L, INC.	09	Aug-09	Aug-11	Aug-12
LCAC SLEP	71	OCEANEERING INT'L, INC.	09	Aug-09	Nov-10	Feb-12
LCAC SLEP	79	OCEANEERING INT'L, INC.	09	Sep-09	Sep-10	Feb-12
LCAC SLEP	63	L-3 SERVICES, INC.	10	Sep-10	Feb-11	Feb-12
LCAC SLEP	72	L-3 SERVICES, INC.	10	Sep-10	May-11	May-12
LCAC SLEP	74	L-3 SERVICES, INC.	10	Sep-10	Aug-11	Aug-12
LCAC SLEP	27	TBD	11	Feb-12	Mar-12	Apr-13
LCAC SLEP	38	TBD	11	Feb-12	Apr-13	May-13
LCAC SLEP	75	TBD	11	Feb-12	Mar-12	Apr-13
LCAC SLEP	80	TBD	11	Feb-12	Apr-13	May-13
LCAC SLEP	55	TBD	12	Mar-12	Jun-12	Jul-13
LCAC SLEP	60	TBD	12	Mar-12	Dec-12	Jan-14
LCAC SLEP	73	TBD	12	Mar-12	Dec-12	Jan-14
LCAC SLEP	82	TBD	12	Mar-12	Jun-12	Jun-13
LCAC SLEP	88	TBD	13	Dec-12	Apr-13	May-14
LCAC SLEP	89	TBD	13	Dec-12	Jul-13	Aug-14
LCAC SLEP	81	TBD	14	Dec-13	May-14	Jun-15
LCAC SLEP	90	TBD	14	Dec-13	Nov-14	Dec-15
LCAC SLEP	78	TBD	14	Dec-13	May-14	Jun-15
LCAC SLEP	83	TBD	14	Dec-13	Nov-14	Dec-15
LCAC SLEP	58	TBD	15	Mar-15	Sep-15	Oct-16
LCAC SLEP	64	TBD	15	Mar-15	Nov-15	Dec-16
LCAC SLEP	84	TBD	15	Mar-15	Sep-15	Oct-16
LCAC SLEP	85	TBD	15	Mar-15	Nov-15	Dec-16
LCAC SLEP	65	TBD	16	Mar-16	Sep-16	Oct-17
LCAC SLEP	76	TBD	16	Mar-16	Nov-16	Dec-17
LCAC SLEP	86	TBD	16	Mar-16	Sep-16	Oct-17
LCAC SLEP	87	TBD	16	Mar-16	Nov-16	Dec-17
LCAC SLEP	77	TBD	17	Mar-17	Sept-17	Oct-18
LCAC SLEP	66	TBD	17	Mar-17	Nov-17	Dec-18
LCAC SLEP	52	TBD	17	Mar-17	Sept-17	Oct-18
LCAC SLEP	57	TBD	17	Mar-17	Nov-17	Dec-18

CLASSIFICATION: UNCLASSIFIED										
BUDGET ITEM JUSTIFICATION SHEET (P-40)										
FY 201	3 President's	Budget				February 2012	2			
APPROPRIATION/BUDGET ACTIVITY				P-1 LINE ITEM	I NOMENCLA	ΓURE				
SHIPBUILDING AND CONVERSION, NAVY/BA 5 Auxil	iaries, Craft ar	nd Prior Year		COMPLETION	I OF PRIOR YI	EAR SHIPBUII	LDING PROGE	RAM		
Program Costs				BLI: 5300						
(Dollars in Millions)	PRIOR YR	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	TO COMP	TOTAL PROG
Cost To Complete										
LPD 17 Class	0.0	0.0	0.0	80.9	0.0	0.0	0.0	0.0	0.0	80.9
LHA(R)	0.0	0.0	0.0	156.7	0.0	0.0	0.0	0.0	0.0	156.7
CVN 78	0.0	0.0	0.0	0.0	449.0	362.0	0.0	0.0	0.0	811.0
CVN 71 RCOH	0.0	0.0	0.0	135.0	0.0	0.0	0.0	0.0	0.0	135.0
Total	0.0	0.0	0.0	372.6	449.0	362.0	0.0	0.0	0.0	1,183.6

Note: General Provision 8073 of FY2012 DoD Appropriations Act directs that funds appropriated for the Completion of Prior Year Shipbuilding Programs be merged with and available for the same appropriation to which transferred.

#### LPD 17 Class:

Funding in FY2013 are required to pay for the remaining Government liabilities to contract ceiling on LPD 25 (\$68.7M).

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

#### LHA (R):

Funds in FY 2013 are required for cost impacts resulting from the Pension Protection Act of 2006 (\$66.1M), and to pay for the remaining Government liabilities to contract ceiling on LHA 6 (\$90.6M).

### CVN 71 RCOH:

Funds are required to cover performance and schedule delays associated with significant, unexpected growth work discovered during execution with structural repairs (such as the ship's forward peak tanks and other various tank repairs and coating systems replacement). Shipbuilder performance has been unable to recover schedule and ship redelivery is now estimated for 21 June 2013, 3.5 months late. (\$135.0M).

APPROPRIATION: SHIPBUILDING AND CONVERSION, NAVY

P-5 EXHIBIT FY2013 President's Budget February 2012

### 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 COMPLETION OF PRIOR YEAR SHIPBUILDING PROGRAM		HEAD NO. BLI: 5300	
ELEMENT OF COST	FY 2011 TOT COST	FY 2012 TOT COST	FY 2013 TOT COST	
LPD 17 Class: Contract Ceiling Contract Escalation and FCCM	0 0 0	0 0 0	68,658 12,230 80,888	
LHA ( R ) Pension Protection Act Contract Ceiling		0 0 0	66,085 90,600 156,685	
CVN 71 RCOH	<u>0</u> 0	0	135,000 135,000	
TOTAL	0	0	372,573	