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**Department of Defense
Fiscal Year (FY) 2018 Budget Estimates**

May 2017



Navy

Justification Book Volume 1 of 1

Shipbuilding and Conversion, Navy

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The estimated cost for this report for the Department of the Navy (DON) is \$81,700.

The estimated total cost for supporting the DON budget justification material is approximately \$1,142,960 for the 2017 fiscal year. This includes \$76,659 in supplies and \$1,066,301 in labor.

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Navy • Budget Estimates FY 2018 • Procurement

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Department of Defense Appropriations Act, 2018

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: \$19,903,682 to remain available for obligation until September 30, 2022: *Provided*, That additional obligations may be incurred after September 30, 2022, 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 2018 President's Budget Request
 Exhibit P-1 FY 2018 President's Budget Request
 Total Obligational Authority
 (Dollars in Thousands)

Appropriation -----	FY 2016 Base + OCO -----	FY 2017 PB Request with CR Adj Base -----	FY 2017 Total PB Requests* with CR Adj Base -----
Shipbuilding and Conversion, Navy	18,704,298	18,668,982	19,360,002
Total Department of the Navy	18,704,298	18,668,982	19,360,002

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	FY 2017 PB Request with CR Adj OCO	FY 2017 Total PB Requests* with CR Adj OCO	FY 2017 Less Enacted Div B P.L.114-254** OCO	FY 2017 Remaining Req with CR Adj OCO
-----	-----	-----	-----	-----
Appropriation				

Shipbuilding and Conversion, Navy				
Total Department of the Navy				

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Appropriation -----	FY 2017 Total PB Requests** with CR Adj Base+OCO+SAA -----	FY 2017 Total PB Requests* with CR Adj Base + OCO -----	FY 2017 Less Enacted Div B P.L.114-254** OCO -----	FY 2017 Remaining Req with CR Adj Base + OCO -----
Shipbuilding and Conversion, Navy	18,668,982	19,360,002		19,360,002
Total Department of the Navy	18,668,982	19,360,002		19,360,002

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Department of the Navy
 FY 2018 President's Budget Request
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 Total Obligational Authority
 (Dollars in Thousands)

Appropriation -----	FY 2018 Base -----	FY 2018 OCO -----	FY 2018 Total -----
Shipbuilding and Conversion, Navy	19,903,682		19,903,682
Total Department of the Navy	19,903,682		19,903,682

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Department of the Navy
 FY 2018 President's Budget Request
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 Total Obligational Authority
 (Dollars in Thousands)

Appropriation: Shipbuilding and Conversion, Navy

Budget Activity -----	FY 2016 Base + OCO -----	FY 2017 PB Request with CR Adj Base -----	FY 2017 Total PB Requests* with CR Adj Base -----
01. Fleet Ballistic Missile Ships		773,138	773,138
02. Other Warships	14,601,800	14,218,278	14,651,278
03. Amphibious Ships	2,224,130	1,623,024	1,623,024
05. Auxiliaries, Craft, and Prior-Year Program Costs	1,878,368	1,740,434	1,998,454
20. Undistributed		314,108	314,108
Total Shipbuilding and Conversion, Navy	18,704,298	18,668,982	19,360,002

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 (Dollars in Thousands)

Appropriation: Shipbuilding and Conversion, Navy

Budget Activity -----	FY 2017 PB Request with CR Adj OCO -----	FY 2017 Total PB Requests* with CR Adj OCO -----	FY 2017 Less Enacted Div B P.L.114-254** OCO -----	FY 2017 Remaining Req with CR Adj OCO -----
01. Fleet Ballistic Missile Ships				
02. Other Warships				
03. Amphibious Ships				
05. Auxiliaries, Craft, and Prior-Year Program Costs				
20. Undistributed				
Total Shipbuilding and Conversion, Navy				

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Appropriation: Shipbuilding and Conversion, Navy

Budget Activity -----	FY 2017 Total PB Requests** with CR Adj Base+OCO+SAA -----	FY 2017 Total PB Requests* with CR Adj Base + OCO -----	FY 2017 Less Enacted Div B P.L.114-254** OCO -----	FY 2017 Remaining Req with CR Adj Base + OCO -----
01. Fleet Ballistic Missile Ships	773,138	773,138		773,138
02. Other Warships	14,218,278	14,651,278		14,651,278
03. Amphibious Ships	1,623,024	1,623,024		1,623,024
05. Auxiliaries, Craft, and Prior-Year Program Costs	1,740,434	1,998,454		1,998,454
20. Undistributed	314,108	314,108		314,108
Total Shipbuilding and Conversion, Navy	18,668,982	19,360,002		19,360,002

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Appropriation: Shipbuilding and Conversion, Navy

Budget Activity -----	FY 2018 Base -----	FY 2018 OCO -----	FY 2018 Total -----
01. Fleet Ballistic Missile Ships	842,853		842,853
02. Other Warships	15,797,999		15,797,999
03. Amphibious Ships	1,710,927		1,710,927
05. Auxiliaries, Craft, and Prior-Year Program Costs	1,551,903		1,551,903
20. Undistributed			
Total Shipbuilding and Conversion, Navy	19,903,682		19,903,682

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Total Obligational Authority
(Dollars in Thousands)

Appropriation: 1611N Shipbuilding and Conversion, Navy

Line No	Item Nomenclature	Ident Code	FY 2016 Base + OCO		FY 2017 PB Request with CR Adj Base		FY 2017 Total PB Requests* with CR Adj Base		S e c	
			Quantity	Cost	Quantity	Cost	Quantity	Cost		

Budget Activity 01: Fleet Ballistic Missile Ships										

Fleet Ballistic Missile Ships										
1	OHIO Replacement Submarine									
	Advance Procurement (CY)				773,138		773,138		U	
	C (FY 2017 for FY 2021) (M)				(773,138)		(773,138)			
	C (FY 2018 for FY 2021) (M)									
	C (FY 2018 for FY 2024) (M)									
			-----		-----		-----			
Total Fleet Ballistic Missile Ships					773,138		773,138			
Budget Activity 02: Other Warships										

Other Warships										
2	Carrier Replacement Program	A							U	
	Less: Advance Procurement (PY)								U	
	Less: Subsequent Full Funding (FY)								U	
			-----		-----		-----			
	Subsequent Full Funding for FY 2013			1,569,571	1,291,783		1,291,783			
	Completion PY Shipbuild for FY 2008			123,760						
3	Carrier Replacement Program									
	Advance Procurement (CY)			862,358	1,370,784		1,370,784		U	
	C (FY 2016 for FY 2018) (M)			(862,358)						
	C (FY 2017 for FY 2018) (M)				(1,370,784)		(1,370,784)			

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Total Obligational Authority
(Dollars in Thousands)

Appropriation: 1611N Shipbuilding and Conversion, Navy

Line		Ident	FY 2017 PB Request with CR Adj OCO		FY 2017 Total PB Requests* with CR Adj OCO		FY 2017 Less Enacted Div B P.L.114-254** OCO		FY 2017 Remaining Req with CR Adj OCO		S
No	Item Nomenclature	Code	Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	e
----	-----	-----	-----	----	-----	----	-----	----	-----	----	c
Budget Activity 01: Fleet Ballistic Missile Ships											

Fleet Ballistic Missile Ships											
1	OHIO Replacement Submarine										
	Advance Procurement (CY)										U
	C (FY 2017 for FY 2021) (M)										
	C (FY 2018 for FY 2021) (M)										
	C (FY 2018 for FY 2024) (M)										
			-----		-----		-----		-----		
Total Fleet Ballistic Missile Ships											
Budget Activity 02: Other Warships											

Other Warships											
2	Carrier Replacement Program	A									U
	Less: Advance Procurement (PY)										U
	Less: Subsequent Full Funding (FY)										U
			-----		-----		-----		-----		
Subsequent Full Funding for FY 2013											
Completion PY Shipbuild for FY 2008											
3	Carrier Replacement Program										
	Advance Procurement (CY)										U
	C (FY 2016 for FY 2018) (M)										
	C (FY 2017 for FY 2018) (M)										

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(Dollars in Thousands)

Appropriation: 1611N Shipbuilding and Conversion, Navy

Line	Ident	FY 2017 Total PB Requests** with CR Adj Base+OCO+SAA	FY 2017 Total PB Requests* with CR Adj Base + OCO	FY 2017 Less Enacted Div B P.L.114-254** OCO	FY 2017 Remaining Req with CR Adj Base + OCO	S
No	Item Nomenclature	Quantity	Cost	Quantity	Cost	e
----	-----	-----	----	-----	----	-
Budget Activity 01: Fleet Ballistic Missile Ships						

Fleet Ballistic Missile Ships						
1	OHIO Replacement Submarine					
	Advance Procurement (CY)	773,138	773,138		773,138	U
	C (FY 2017 for FY 2021) (M)	(773,138)	(773,138)		(773,138)	
	C (FY 2018 for FY 2021) (M)					
	C (FY 2018 for FY 2024) (M)					
		-----	-----	-----	-----	
	Total Fleet Ballistic Missile Ships	773,138	773,138		773,138	
Budget Activity 02: Other Warships						

Other Warships						
2	Carrier Replacement Program					U
	Less: Advance Procurement (PY)					U
	Less: Subsequent Full Funding (FY)					U
		-----	-----	-----	-----	
	Subsequent Full Funding for FY 2013	1,291,783	1,291,783		1,291,783	
	Completion PY Shipbuild for FY 2008					
3	Carrier Replacement Program					
	Advance Procurement (CY)	1,370,784	1,370,784		1,370,784	U
	C (FY 2016 for FY 2018) (M)					
	C (FY 2017 for FY 2018) (M)	(1,370,784)	(1,370,784)		(1,370,784)	

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Total Obligational Authority
(Dollars in Thousands)

Line	Ident	FY 2018	FY 2018	FY 2018	
No	Item Nomenclature	Base	OCO	Total	
----	-----	Quantity	Cost	Quantity	Cost
----	-----	-----	----	-----	----
Budget Activity 01: Fleet Ballistic Missile Ships					

Fleet Ballistic Missile Ships					
1	OHIO Replacement Submarine				
	Advance Procurement (CY)		842,853		842,853
	C (FY 2017 for FY 2021) (M)				
	C (FY 2018 for FY 2021) (M)		(783,316)		(783,316)
	C (FY 2018 for FY 2024) (M)		(59,537)		(59,537)
			-----		-----
Total Fleet Ballistic Missile Ships			842,853		842,853
Budget Activity 02: Other Warships					

Other Warships					
2	Carrier Replacement Program	A	1 (10,652,999)	1 (10,652,999)	U
	Less: Advance Procurement (PY)		(-2,233,142)	(-2,233,142)	U
	Less: Subsequent Full Funding (FY)		(-6,539,143)	(-6,539,143)	U
			-----	-----	
			1,880,714		1,880,714
	Subsequent Full Funding for FY 2013		2,561,058		2,561,058
	Completion PY Shipbuild for FY 2008				
3	Carrier Replacement Program				
	Advance Procurement (CY)				U
	C (FY 2016 for FY 2018) (M)				
	C (FY 2017 for FY 2018) (M)				

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 (Dollars in Thousands)

Appropriation: 1611N Shipbuilding and Conversion, Navy

Line No	Item Nomenclature	Ident Code	FY 2016 Base + OCO		FY 2017 PB Request with CR Adj Base		FY 2017 Total PB Requests* with CR Adj Base		S e c
			Quantity	Cost	Quantity	Cost	Quantity	Cost	
4	Virginia Class Submarine	B	2	(5,376,854)	2	(5,408,901)	2	(5,408,901)	U
	Less: Advance Procurement (PY)			(-2,030,484)		(-2,220,916)		(-2,220,916)	U
				-----		-----		-----	
				3,346,370		3,187,985		3,187,985	
5	Virginia Class Submarine								
	Advance Procurement (CY)			1,971,840		1,767,234		1,767,234	U
	C (FY 2016 for FY 2017) (M)			(621,904)					
	C (FY 2016 for FY 2018) (M)			(1,349,936)					
	C (FY 2017 for FY 2018) (M)					(475,940)		(475,940)	
	C (FY 2017 for FY 2019) (M)					(1,291,294)		(1,291,294)	
	C (FY 2018 for FY 2019) (M)								
	C (FY 2018 for FY 2020) (M)								
6	CVN Refueling Overhauls	A	1	(4,799,017)					U
	Less: Advance Procurement (PY)			(-813,319)					U
	Less: Subsequent Full Funding (FY)			(-3,348,110)					U
				-----		-----		-----	
				637,588					
	Subsequent Full Funding for FY 2016					1,743,220		1,743,220	
	Completion PY Shipbuild for FY 2012			20,029					
7	CVN Refueling Overhauls								
	Advance Procurement (CY)			14,951		248,599		248,599	U
	C (FY 2016 for FY 2020) (M)			(14,951)					
	C (FY 2017 for FY 2020) (M)					(248,599)		(248,599)	
	C (FY 2018 for FY 2021) (M)								
8	DDG 1000	A		433,404		271,756		271,756	U

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 (Dollars in Thousands)

Appropriation: 1611N Shipbuilding and Conversion, Navy

Line No	Item Nomenclature	Ident Code	FY 2017 PB Request with CR Adj OCO		FY 2017 Total PB Requests* with CR Adj OCO		FY 2017 Less Enacted Div B P.L.114-254** OCO		FY 2017 Remaining Req with CR Adj OCO		S e c
			Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	
----	-----	-----	-----	----	-----	----	-----	----	-----	----	-
4	Virginia Class Submarine	B									U
	Less: Advance Procurement (PY)										U
			-----		-----		-----		-----		
5	Virginia Class Submarine										U
	Advance Procurement (CY)										
	C (FY 2016 for FY 2017) (M)										
	C (FY 2016 for FY 2018) (M)										
	C (FY 2017 for FY 2018) (M)										
	C (FY 2017 for FY 2019) (M)										
	C (FY 2018 for FY 2019) (M)										
	C (FY 2018 for FY 2020) (M)										
6	CVN Refueling Overhauls	A									U
	Less: Advance Procurement (PY)										U
	Less: Subsequent Full Funding (FY)										U
			-----		-----		-----		-----		
	Subsequent Full Funding for FY 2016										
	Completion PY Shipbuild for FY 2012										
7	CVN Refueling Overhauls										U
	Advance Procurement (CY)										
	C (FY 2016 for FY 2020) (M)										
	C (FY 2017 for FY 2020) (M)										
	C (FY 2018 for FY 2021) (M)										
8	DDG 1000	A									U

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Line No	Item Nomenclature	Ident Code	FY 2017 Total PB Requests** with CR Adj Base+OCO+SAA		FY 2017 Total PB Requests* with CR Adj Base + OCO		FY 2017 Less Enacted Div B P.L.114-254** OCO		FY 2017 Remaining Req with CR Adj Base + OCO		S e c
			Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	
4	Virginia Class Submarine	B	2	(5,408,901)	2	(5,408,901)			2	(5,408,901)	U
	Less: Advance Procurement (PY)			(-2,220,916)		(-2,220,916)				(-2,220,916)	U
				3,187,985		3,187,985				3,187,985	
5	Virginia Class Submarine										
	Advance Procurement (CY)			1,767,234		1,767,234				1,767,234	U
	C (FY 2016 for FY 2017) (M)										
	C (FY 2016 for FY 2018) (M)										
	C (FY 2017 for FY 2018) (M)			(475,940)		(475,940)				(475,940)	
	C (FY 2017 for FY 2019) (M)			(1,291,294)		(1,291,294)				(1,291,294)	
	C (FY 2018 for FY 2019) (M)										
	C (FY 2018 for FY 2020) (M)										
6	CVN Refueling Overhauls	A									U
	Less: Advance Procurement (PY)										U
	Less: Subsequent Full Funding (FY)										U
	Subsequent Full Funding for FY 2016			1,743,220		1,743,220				1,743,220	
	Completion PY Shipbuild for FY 2012										
7	CVN Refueling Overhauls										
	Advance Procurement (CY)			248,599		248,599				248,599	U
	C (FY 2016 for FY 2020) (M)										
	C (FY 2017 for FY 2020) (M)			(248,599)		(248,599)				(248,599)	
	C (FY 2018 for FY 2021) (M)										
8	DDG 1000	A		271,756		271,756				271,756	U

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Appropriation: 1611N Shipbuilding and Conversion, Navy

Line		Ident	FY 2018		FY 2018		FY 2018	S
No	Item Nomenclature	Code	Base		OCO		Total	e
----	-----	-----	Quantity	Cost	Quantity	Cost	Quantity	c
----	-----	-----	-----	-----	-----	-----	-----	-
4	Virginia Class Submarine	B	2	(5,532,718)			2 (5,532,718)	U
	Less: Advance Procurement (PY)			(-2,227,403)			(-2,227,403)	U
				-----		-----		
				3,305,315			3,305,315	
5	Virginia Class Submarine							
	Advance Procurement (CY)			1,920,596			1,920,596	U
	C (FY 2016 for FY 2017) (M)							
	C (FY 2016 for FY 2018) (M)							
	C (FY 2017 for FY 2018) (M)							
	C (FY 2017 for FY 2019) (M)							
	C (FY 2018 for FY 2019) (M)			(752,597)			(752,597)	
	C (FY 2018 for FY 2020) (M)			(1,167,999)			(1,167,999)	
6	CVN Refueling Overhauls	A						U
	Less: Advance Procurement (PY)							U
	Less: Subsequent Full Funding (FY)							U
				-----		-----	-----	
	Subsequent Full Funding for FY 2016			1,604,890			1,604,890	
	Completion PY Shipbuild for FY 2012							
7	CVN Refueling Overhauls							
	Advance Procurement (CY)			75,897			75,897	U
	C (FY 2016 for FY 2020) (M)							
	C (FY 2017 for FY 2020) (M)							
	C (FY 2018 for FY 2021) (M)			(75,897)			(75,897)	
8	DDG 1000	A		223,968			223,968	U

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Appropriation: 1611N Shipbuilding and Conversion, Navy

Line No	Item Nomenclature	Ident Code	FY 2016 Base + OCO		FY 2017 PB Request with CR Adj Base		FY 2017 Total PB Requests* with CR Adj Base		S e c
			Quantity	Cost	Quantity	Cost	Quantity	Cost	
9	DDG-51	A	3	(4,938,684)	2	(3,393,881)	2	(3,393,881)	U
	Less: Advance Procurement (PY)			(-373,034)		(-182,589)		(-182,589)	U
	Less: Subsequent Full Funding (FY)			(-433,000)					U
				-----		-----		-----	
				4,132,650		3,211,292		3,211,292	
	Subsequent Full Funding for FY 2016							433,000	
	Completion PY Shipbuild for FY 2012			75,014					
10	DDG-51								
	Advance Procurement (CY)								U
	C (FY 2018 for FY 2019) (M)								
	C (FY 2018 for FY 2020) (M)								
	C (FY 2018 for FY 2021) (M)								
	C (FY 2018 for FY 2022) (M)								
11	Littoral Combat Ship	A	3	(1,411,591)	2	(1,125,625)	2	(1,125,625)	U
	Less: Advance Procurement (PY)			(-80,000)					U
				-----		-----		-----	
				1,331,591		1,125,625		1,125,625	
	Completion PY Shipbuild for FY 2012			82,674					
				-----		-----		-----	
Total	Other Warships			14,601,800		14,218,278		14,651,278	

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Line		Ident	FY 2017 PB Request with CR Adj OCO		FY 2017 Total PB Requests* with CR Adj OCO		FY 2017 Less Enacted Div B P.L.114-254** OCO		FY 2017 Remaining Req with CR Adj OCO		S
No	Item Nomenclature	Code	Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	e
----	-----	-----	-----	----	-----	----	-----	----	-----	----	-
9	DDG-51	A									U
	Less: Advance Procurement (PY)										U
	Less: Subsequent Full Funding (FY)										U
			-----		-----		-----		-----		
	Subsequent Full Funding for FY 2016										
	Completion PY Shipbuild for FY 2012										
10	DDG-51										
	Advance Procurement (CY)										U
	C (FY 2018 for FY 2019) (M)										
	C (FY 2018 for FY 2020) (M)										
	C (FY 2018 for FY 2021) (M)										
	C (FY 2018 for FY 2022) (M)										
11	Littoral Combat Ship	A									U
	Less: Advance Procurement (PY)										U
			-----		-----		-----		-----		
	Completion PY Shipbuild for FY 2012										
			-----		-----		-----		-----		
	Total Other Warships										

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 (Dollars in Thousands)

Appropriation: 1611N Shipbuilding and Conversion, Navy

Line		Ident	FY 2017 Total PB Requests** with CR Adj Base+OCO+SAA		FY 2017 Total PB Requests* with CR Adj Base + OCO		FY 2017 Less Enacted Div B P.L.114-254** OCO		FY 2017 Remaining Req with CR Adj Base + OCO		S
No	Item Nomenclature	Code	Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	e
----	-----	-----	-----	----	-----	----	-----	----	-----	----	-
9	DDG-51	A	2	(3,393,881)	2	(3,393,881)			2	(3,393,881)	U
	Less: Advance Procurement (PY)			(-182,589)		(-182,589)				(-182,589)	U
	Less: Subsequent Full Funding (FY)										U
				-----		-----		-----		-----	
				3,211,292		3,211,292				3,211,292	
	Subsequent Full Funding for FY 2016					433,000				433,000	
	Completion PY Shipbuild for FY 2012										
10	DDG-51										
	Advance Procurement (CY)										U
	C (FY 2018 for FY 2019) (M)										
	C (FY 2018 for FY 2020) (M)										
	C (FY 2018 for FY 2021) (M)										
	C (FY 2018 for FY 2022) (M)										
11	Littoral Combat Ship	A	2	(1,125,625)	2	(1,125,625)			2	(1,125,625)	U
	Less: Advance Procurement (PY)										U
				-----		-----		-----		-----	
				1,125,625		1,125,625				1,125,625	
	Completion PY Shipbuild for FY 2012										
				-----		-----		-----		-----	
	Total Other Warships			14,218,278		14,651,278				14,651,278	

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 Exhibit P-1 FY 2018 President's Budget Request
 Total Obligational Authority
 (Dollars in Thousands)

Appropriation: 1611N Shipbuilding and Conversion, Navy

Line		Ident	FY 2018		FY 2018		FY 2018	S
No	Item Nomenclature	Code	Base		OCO		Total	e
----	-----	-----	Quantity	Cost	Quantity	Cost	Quantity	c
----	-----	-----	-----	-----	-----	-----	-----	-----
9	DDG-51	A	2	(3,499,079)			2 (3,499,079)	U
	Less: Advance Procurement (PY)							U
	Less: Subsequent Full Funding (FY)							U
			-----		-----		-----	
			3,499,079				3,499,079	
	Subsequent Full Funding for FY 2016							
	Completion PY Shipbuild for FY 2012							
10	DDG-51							
	Advance Procurement (CY)			90,336			90,336	U
	C (FY 2018 for FY 2019) (M)			(39,362)			(39,362)	
	C (FY 2018 for FY 2020) (M)			(25,940)			(25,940)	
	C (FY 2018 for FY 2021) (M)			(12,517)			(12,517)	
	C (FY 2018 for FY 2022) (M)			(12,517)			(12,517)	
11	Littoral Combat Ship	A	1	(636,146)			1 (636,146)	U
	Less: Advance Procurement (PY)							U
			-----		-----		-----	
			636,146				636,146	
	Completion PY Shipbuild for FY 2012							
			-----		-----		-----	
Total	Other Warships			15,797,999			15,797,999	

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(Dollars in Thousands)

Appropriation: 1611N Shipbuilding and Conversion, Navy

Line		Ident	FY 2016	FY 2017	FY 2017	
No	Item Nomenclature	Code	Base + OCO	PB Request	Total	
----	-----	-----	Quantity Cost	with CR Adj	with CR Adj	S
				Base	Base	e
				Quantity Cost	Quantity Cost	c
				-----	-----	-
Budget Activity 03: Amphibious Ships						

Amphibious Ships						
12	Amphibious Ship Replacement LX(R)					
	Advance Procurement (CY)		250,000			U
	C (FY 2016 for FY 2020) (M)		(250,000)			
13	LPD-17	A				
	Subsequent Full Funding for FY 2015		1 550,000			
	Completion PY Shipbuild for FY 2009		22,619			
	Completion PY Shipbuild for FY 2012		38,733			
14	Expeditionary Sea Base (ESB)	A	1 635,000			U
15	LHA Replacement	A		1 (3,807,172)	1 (3,807,172)	U
	Less: Advance Procurement (PY)			(-505,636)	(-505,636)	U
	Less: Subsequent Full Funding (FY)			(-1,678,512)	(-1,678,512)	U
			-----	-----	-----	
				1,623,024	1,623,024	
	Subsequent Full Funding for FY 2017					
16	LHA Replacement					
	Advance Procurement (CY)		476,543			U
	C (FY 2016 for FY 2017) (M)		(476,543)			
17	Expeditionary Fast Transport (EPF)	A	1 225,000			U
	Completion PY Shipbuild for FY 2012		22,597			
	Completion PY Shipbuild for FY 2013		3,638			
			-----	-----	-----	
Total	Amphibious Ships		2,224,130	1,623,024	1,623,024	

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Total Obligational Authority
(Dollars in Thousands)

Appropriation: 1611N Shipbuilding and Conversion, Navy

Line			FY 2017		FY 2017		FY 2017		FY 2017		
			PB Request		Total		Less Enacted		Remaining Req		
			with CR Adj		PB Requests*		Div B		with CR Adj		
			OCO		with CR Adj		P.L.114-254**		OCO		
			OCO		OCO		OCO		OCO		
No	Item Nomenclature	Ident	Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	Se
----	-----	-----	-----	----	-----	----	-----	----	-----	----	----
Budget Activity 03: Amphibious Ships											

Amphibious Ships											
12	Amphibious Ship Replacement LX(R) Advance Procurement (CY) C (FY 2016 for FY 2020) (M)										U
13	LPD-17	A									
	Subsequent Full Funding for FY 2015										
	Completion PY Shipbuild for FY 2009										
	Completion PY Shipbuild for FY 2012										
14	Expeditionary Sea Base (ESB)	A									U
15	LHA Replacement	A									U
	Less: Advance Procurement (PY)										U
	Less: Subsequent Full Funding (FY)										U
			-----		-----		-----		-----		
	Subsequent Full Funding for FY 2017										
16	LHA Replacement										U
	Advance Procurement (CY)										
	C (FY 2016 for FY 2017) (M)										
17	Expeditionary Fast Transport (EPF)	A									U
	Completion PY Shipbuild for FY 2012										
	Completion PY Shipbuild for FY 2013										
			-----		-----		-----		-----		
Total Amphibious Ships											

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Total Obligational Authority
(Dollars in Thousands)

Appropriation: 1611N Shipbuilding and Conversion, Navy

Line	Ident	FY 2017 Total PB Requests** with CR Adj Base+OCO+SAA		FY 2017 Total PB Requests* with CR Adj Base + OCO		FY 2017 Less Enacted Div B P.L.114-254** OCO		FY 2017 Remaining Req with CR Adj Base + OCO		S	
No	Item Nomenclature	Code	Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	e
----	-----	-----	-----	----	-----	----	-----	----	-----	----	-
Budget Activity 03: Amphibious Ships											

Amphibious Ships											
12	Amphibious Ship Replacement LX(R) Advance Procurement (CY) C (FY 2016 for FY 2020) (M)										U
13	LPD-17	A									
	Subsequent Full Funding for FY 2015										
	Completion PY Shipbuild for FY 2009										
	Completion PY Shipbuild for FY 2012										
14	Expeditionary Sea Base (ESB)	A									U
15	LHA Replacement	A	1	(3,807,172)	1	(3,807,172)			1	(3,807,172)	U
	Less: Advance Procurement (PY)			(-505,636)		(-505,636)				(-505,636)	U
	Less: Subsequent Full Funding (FY)			(-1,678,512)		(-1,678,512)				(-1,678,512)	U
				-----		-----		-----		-----	
				1,623,024		1,623,024				1,623,024	
	Subsequent Full Funding for FY 2017										
16	LHA Replacement										
	Advance Procurement (CY)										U
	C (FY 2016 for FY 2017) (M)										
17	Expeditionary Fast Transport (EPF)	A									U
	Completion PY Shipbuild for FY 2012										
	Completion PY Shipbuild for FY 2013										
				-----		-----		-----		-----	
Total	Amphibious Ships			1,623,024		1,623,024				1,623,024	

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 Total Obligational Authority
 (Dollars in Thousands)

Appropriation: 1611N Shipbuilding and Conversion, Navy

Line		Ident	FY 2018		FY 2018		FY 2018		S
No	Item Nomenclature	Code	Base	Quantity	Cost	OCO	Total	Cost	e
----	-----	-----		-----	-----	-----	-----	-----	c
Budget Activity 03: Amphibious Ships									

Amphibious Ships									
12	Amphibious Ship Replacement LX(R)								
	Advance Procurement (CY)								U
	C (FY 2016 for FY 2020) (M)								
13	LPD-17	A							
	Subsequent Full Funding for FY 2015								
	Completion PY Shipbuild for FY 2009								
	Completion PY Shipbuild for FY 2012								
14	Expeditionary Sea Base (ESB)	A							U
15	LHA Replacement	A							U
	Less: Advance Procurement (PY)								U
	Less: Subsequent Full Funding (FY)								U
				-----		-----		-----	
	Subsequent Full Funding for FY 2017				1,710,927			1,710,927	
16	LHA Replacement								
	Advance Procurement (CY)								U
	C (FY 2016 for FY 2017) (M)								
17	Expeditionary Fast Transport (EPF)	A							U
	Completion PY Shipbuild for FY 2012								
	Completion PY Shipbuild for FY 2013								
				-----		-----		-----	
Total Amphibious Ships					1,710,927			1,710,927	

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(Dollars in Thousands)

Appropriation: 1611N Shipbuilding and Conversion, Navy

Line No	Item Nomenclature	Ident Code	FY 2016 Base + OCO		FY 2017 PB Request with CR Adj Base		FY 2017 Total PB Requests* with CR Adj Base		S e c	
			Quantity	Cost	Quantity	Cost	Quantity	Cost		
Budget Activity 05: Auxiliaries, Craft, and Prior-Year Program Costs										

Auxiliaries, Craft and Prior Yr Program Cost										
18	TAO Fleet Oiler	A	1	(674,190)					U	
	Less: Advance Procurement (PY)								U	
				-----		-----		-----		
				674,190						
19	TAO Fleet Oiler									
	Advance Procurement (CY)					73,079	73,079		U	
	C (FY 2017 for FY 2018) (M)					(73,079)	(73,079)			
	C (FY 2018 for FY 2019) (M)									
20	Towing, Salvage, and Rescue Ship (ATS)	A	1	75,000					U	
21	Moored Training Ship				1	(864,315)	1	(864,315)	U	
	Less: Advance Procurement (PY)					(-239,788)		(-239,788)	U	
				-----		-----		-----		
						624,527		624,527		
22	Moored Training Ship									
	Advance Procurement (CY)			138,200					U	
	C (FY 2016 for FY 2017) (M)			(138,200)						
23	LCU 1700	A	1	34,000			1	34,000	U	
24	Outfitting	A		613,758		666,158		666,158	U	
25	Ship to Shore Connector	A	5	210,630	2	128,067	5	318,067	U	
26	Service Craft	A		30,014		65,192		99,212	U	
27	LCAC SLEP	A	4	80,738		1,774		1,774	U	
28	YP Craft Maintenance/ROH/SLEP	A		21,838		21,363		21,363	U	

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 (Dollars in Thousands)

Appropriation: 1611N Shipbuilding and Conversion, Navy

Line			FY 2017		FY 2017		FY 2017		FY 2017		
No	Item Nomenclature	Ident	PB Request		Total		Less Enacted		Remaining Req		
		Code	Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	
----	-----	----	-----	----	-----	----	-----	----	-----	----	-----
Budget Activity 05: Auxiliaries, Craft, and Prior-Year Program Costs											

Auxiliaries, Craft and Prior Yr Program Cost											
18	TAO Fleet Oiler	A									U
	Less: Advance Procurement (PY)										U
			-----		-----		-----		-----		
19	TAO Fleet Oiler										
	Advance Procurement (CY)										U
	C (FY 2017 for FY 2018) (M)										
	C (FY 2018 for FY 2019) (M)										
20	Towing, Salvage, and Rescue Ship (ATS)	A									U
21	Moored Training Ship										U
	Less: Advance Procurement (PY)										U
			-----		-----		-----		-----		
22	Moored Training Ship										
	Advance Procurement (CY)										U
	C (FY 2016 for FY 2017) (M)										
23	LCU 1700	A									U
24	Outfitting	A									U
25	Ship to Shore Connector	A									U
26	Service Craft	A									U
27	LCAC SLEP	A									U
28	YP Craft Maintenance/ROH/SLEP	A									U

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(Dollars in Thousands)

Appropriation: 1611N Shipbuilding and Conversion, Navy

Line No	Item Nomenclature	Ident Code	FY 2017 Total PB Requests** with CR Adj Base+OCO+SAA Quantity	Cost	FY 2017 Total PB Requests* with CR Adj Base + OCO Quantity	Cost	FY 2017 Less Enacted Div B P.L.114-254** OCO Quantity	Cost	FY 2017 Remaining Req with CR Adj Base + OCO Quantity	Cost	S e c e
Budget Activity 05: Auxiliaries, Craft, and Prior-Year Program Costs											

Auxiliaries, Craft and Prior Yr Program Cost											
18	TAO Fleet Oiler	A									U
	Less: Advance Procurement (PY)										U
			-----		-----		-----		-----		
19	TAO Fleet Oiler										
	Advance Procurement (CY)			73,079		73,079				73,079	U
	C (FY 2017 for FY 2018) (M)			(73,079)		(73,079)				(73,079)	
	C (FY 2018 for FY 2019) (M)										
20	Towing, Salvage, and Rescue Ship (ATS)	A									U
21	Moored Training Ship		1	(864,315)	1	(864,315)			1	(864,315)	U
	Less: Advance Procurement (PY)			(-239,788)		(-239,788)				(-239,788)	U
				-----		-----		-----		-----	
				624,527		624,527				624,527	
22	Moored Training Ship										
	Advance Procurement (CY)										U
	C (FY 2016 for FY 2017) (M)										
23	LCU 1700	A			1	34,000			1	34,000	U
24	Outfitting	A		666,158		666,158				666,158	U
25	Ship to Shore Connector	A	2	128,067	5	318,067			5	318,067	U
26	Service Craft	A		65,192		99,212				99,212	U
27	LCAC SLEP	A		1,774		1,774				1,774	U
28	YP Craft Maintenance/ROH/SLEP	A		21,363		21,363				21,363	U

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 (Dollars in Thousands)

Appropriation: 1611N Shipbuilding and Conversion, Navy

Line No	Item Nomenclature	Ident Code	FY 2018 Base Quantity	FY 2018 Base Cost	FY 2018 OCO Quantity	FY 2018 OCO Cost	FY 2018 Total Quantity	FY 2018 Total Cost	Se
Budget Activity 05: Auxiliaries, Craft, and Prior-Year Program Costs									

Auxiliaries, Craft and Prior Yr Program Cost									
18	TAO Fleet Oiler	A	1	(539,067)			1	(539,067)	U
	Less: Advance Procurement (PY)			(-73,079)				(-73,079)	U
				-----		-----		-----	
				465,988				465,988	
19	TAO Fleet Oiler								
	Advance Procurement (CY)			75,068				75,068	U
	C (FY 2017 for FY 2018) (M)								
	C (FY 2018 for FY 2019) (M)			(75,068)				(75,068)	
20	Towing, Salvage, and Rescue Ship (ATS)	A	1	76,204			1	76,204	U
21	Moored Training Ship								U
	Less: Advance Procurement (PY)								U
				-----		-----		-----	
22	Moored Training Ship								
	Advance Procurement (CY)								U
	C (FY 2016 for FY 2017) (M)								
23	LCU 1700	A	1	31,850			1	31,850	U
24	Outfitting	A		548,703				548,703	U
25	Ship to Shore Connector	A	3	212,554			3	212,554	U
26	Service Craft	A		23,994				23,994	U
27	LCAC SLEP	A							U
28	YP Craft Maintenance/ROH/SLEP	A							U

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(Dollars in Thousands)

Appropriation: 1611N Shipbuilding and Conversion, Navy

Line No	Item Nomenclature	Ident Code	FY 2016 Base + OCO		FY 2017 PB Request with CR Adj Base		FY 2017 Total PB Requests* with CR Adj Base		S e c
			Quantity	Cost	Quantity	Cost	Quantity	Cost	
----	-----	-----	-----	----	-----	----	-----	----	-----
29	Completion of PY Shipbuilding Programs	A			160,274		160,274		U
	LHA R (MEMO NON ADD)								U
	CVN (MEMO NON ADD)								U
	LCS (MEMO NON ADD)				(86,000)		(86,000)		U
	JHSV (MEMO NON ADD)				(13,255)		(13,255)		U
	DDG (MEMO NON ADD)				(15,959)		(15,959)		U
	LPD 17 (MEMO NON ADD)				(45,060)		(45,060)		U
	LCAC (MEMO NON ADD)								U
	Total Auxiliaries, Craft, and Prior-Year Program Costs			1,878,368		1,740,434		1,998,454	
Budget Activity 20: Undistributed									

	Undistributed								
	30 Adj to Match Continuing Resolution	A			314,108		314,108		U
	Total Undistributed				314,108		314,108		
	Total Shipbuilding and Conversion, Navy			18,704,298		18,668,982		19,360,002	

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Total Obligational Authority
(Dollars in Thousands)

Appropriation: 1611N Shipbuilding and Conversion, Navy

Line No	Item Nomenclature	Ident Code	FY 2017 PB Request with CR Adj OCO Quantity	Cost	FY 2017 Total PB Requests* with CR Adj OCO Quantity	Cost	FY 2017 Less Enacted Div B P.L.114-254** OCO Quantity	Cost	FY 2017 Remaining Req with CR Adj OCO Quantity	Cost	S e c
----	-----	----	-----	----	-----	----	-----	----	-----	----	-
29	Completion of PY Shipbuilding Programs	A									U
	LHA R (MEMO NON ADD)										U
	CVN (MEMO NON ADD)										U
	LCS (MEMO NON ADD)										U
	JHSV (MEMO NON ADD)										U
	DDG (MEMO NON ADD)										U
	LPD 17 (MEMO NON ADD)										U
	LCAC (MEMO NON ADD)										U
			-----		-----		-----		-----		
	Total Auxiliaries, Craft, and Prior-Year Program Costs										
	Budget Activity 20: Undistributed										

	Undistributed										
	30 Adj to Match Continuing Resolution	A									U
			-----		-----		-----		-----		
	Total Undistributed										
			-----		-----		-----		-----		
	Total Shipbuilding and Conversion, Navy										

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Total Obligational Authority
(Dollars in Thousands)

Appropriation: 1611N Shipbuilding and Conversion, Navy

Line No	Item Nomenclature	Ident Code	FY 2017 Total PB Requests** with CR Adj Base+OCO+SAA Quantity Cost	FY 2017 Total PB Requests* with CR Adj Base + OCO Quantity Cost	FY 2017 Less Enacted Div B P.L.114-254** OCO Quantity Cost	FY 2017 Remaining Req with CR Adj Base + OCO Quantity Cost	S e c
----	-----	-----	-----	-----	-----	-----	-
29	Completion of PY Shipbuilding Programs	A	160,274	160,274		160,274	U
	LHA R (MEMO NON ADD)						U
	CVN (MEMO NON ADD)						U
	LCS (MEMO NON ADD)		(86,000)	(86,000)		(86,000)	U
	JHSV (MEMO NON ADD)		(13,255)	(13,255)		(13,255)	U
	DDG (MEMO NON ADD)		(15,959)	(15,959)		(15,959)	U
	LPD 17 (MEMO NON ADD)		(45,060)	(45,060)		(45,060)	U
	LCAC (MEMO NON ADD)						U
	Total Auxiliaries, Craft, and Prior-Year Program Costs		1,740,434	1,998,454		1,998,454	
Budget Activity 20: Undistributed							

Undistributed							
30	Adj to Match Continuing Resolution	A	314,108	314,108		314,108	U
	Total Undistributed		314,108	314,108		314,108	
	Total Shipbuilding and Conversion, Navy		18,668,982	19,360,002		19,360,002	

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 Total Obligational Authority
 (Dollars in Thousands)

Appropriation: 1611N Shipbuilding and Conversion, Navy

Line			FY 2018		FY 2018		FY 2018		S
No	Item Nomenclature	Ident	Base	Cost	OCO	Cost	Total	Cost	e
----	-----	Code	Quantity	-----	Quantity	-----	Quantity	-----	c
									-
29	Completion of PY Shipbuilding Programs	A		117,542			117,542		U
	LHA R (MEMO NON ADD)			(14,200)			(14,200)		U
	CVN (MEMO NON ADD)			(20,000)			(20,000)		U
	LCS (MEMO NON ADD)			(26,865)			(26,865)		U
	JHSV (MEMO NON ADD)								U
	DDG (MEMO NON ADD)			(51,377)			(51,377)		U
	LPD 17 (MEMO NON ADD)								U
	LCAC (MEMO NON ADD)			(5,100)			(5,100)		U
				-----		-----	-----		
	Total Auxiliaries, Craft, and Prior-Year Program Costs			1,551,903			1,551,903		
	Budget Activity 20: Undistributed								

	Undistributed								
	30 Adj to Match Continuing Resolution	A							U
				-----		-----	-----		
	Total Undistributed								
				-----		-----	-----		
	Total Shipbuilding and Conversion, Navy			19,903,682			19,903,682		

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Exhibit P-40, Advance Procurement Budget Line Item Justification: FY 2018 Navy										Date: May 2017		
Appropriation / Budget Activity / Budget Sub Activity: 1611N: Shipbuilding and Conversion, Navy / BA 01: Fleet Ballistic Missile Ships / BSA 1: Fleet Ballistic Missile Ships							P-1 Line Item Number / Title: 1045 / COLUMBIA Class Submarine					
Program Elements for Code B Items: N/A							Other Related Program Elements: 0603595N, 0603570N					
Line Item MDAP/MAIS Code: N/A												

Resource Summary	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
Gross/Weapon System Cost (\$ in Millions)	-	-	773.138	842.853	-	842.853	3,024.236	1,473.898	1,047.563	1,253.346	23,556.637	31,971.671
Net Procurement (P-1) (\$ in Millions)	-	-	773.138	842.853	-	842.853	3,024.236	1,473.898	1,047.563	1,253.346	23,556.637	31,971.671
Total Obligation Authority (\$ in Millions)	-	-	773.138	842.853	-	842.853	3,024.236	1,473.898	1,047.563	1,253.346	23,556.637	31,971.671

Description:

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Exhibit P-10, Advance Procurement Requirements Analysis (page 1 - Budget Funding Justification): FY 2018 Navy						Date: May 2017				
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 01 / 1				P-1 Line Item Number / Title: 1045 / COLUMBIA Class Submarine						
First System (2018) Award Date: October 2020		First System (2018) Completion Date: October 2027			Interval Between Systems: 0 Months					
Cost Elements		Production Leadtime <i>(Months)</i>	When Required* <i>(Months)</i>	FY 2016 <i>(\$ M)</i>	FY 2017 <i>(\$ M)</i>	FY 2018 <i>(\$ M)</i>	FY 2019 <i>(\$ M)</i>	FY 2020 <i>(\$ M)</i>	FY 2021 <i>(\$ M)</i>	FY 2022 <i>(\$ M)</i>
PLANS (1)										
-		12-60	Various	-	773.138	727.798	711.760	656.830	-	-
Total: PLANS (1)				-	773.138	727.798	711.760	656.830	-	-
BASIC CONSTRUCTION (4) - ADVANCED CONSTRUCTION										
SSBN 826		24-42	Various	-	-	28.518	72.100	148.380	-	-
SSBN 827		24-42	Various	-	-	0.000	-	-	2.798	89.904
Total: BASIC CONSTRUCTION (4) - ADVANCED CONSTRUCTION				-	-	28.518	72.100	148.380	2.798	89.904
BASIC CONSTRUCTION (3) - MISSILE TUBE CONTINUOUS PRODUCTION										
SSBN 827		36	Various	-	-	59.537	60.047	67.114	-	-
SSBN 828		36	Various	-	-	0.000	-	19.755	86.765	91.048
SSBN 829		36	Various	-	-	0.000	-	-	-	57.733
Total: BASIC CONSTRUCTION (3) - MISSILE TUBE CONTINUOUS PRODUCTION				-	-	59.537	60.047	86.869	86.765	148.781
HM&E (6)										
SSBN 826 (In support of AC)		-	-	-	-	0.000	20.000	41.948	-	-
Total: HM&E (6)				-	-	-	20.000	41.948	-	-
ORDNANCE (7)										
SSBN 826		12-24	Various	-	-	0.000	48.300	79.400	-	-
SSBN 827		12-24	Various	-	-	0.000	-	-	-	20.623
Total: ORDNANCE (7)				-	-	-	48.300	79.400	-	20.623
NUCLEAR PROPULSION PLANT EQUIPMENT (5)										
SSBN 826		30-72	Various	-	-	0.000	1,700.896	-	-	-
SSBN 827 (In support of AC)		30-72	Various	-	-	0.000	-	-	958.000	656.000
Total: NUCLEAR PROPULSION PLANT EQUIPMENT (5)				-	-	-	1,700.896	-	958.000	656.000
NFPC EXTERNAL POWER UPGRADE (8)										
-		12	Various	-	-	27.000	-	-	-	-
Total: NFPC EXTERNAL POWER UPGRADE (8)				-	-	27.000	-	-	-	-
BASIC CONSTRUCTION (2) - LONG LEAD TIME CFE										
SSBN 826		24-42	Various	-	-	0.000	411.133	460.471	-	-

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Exhibit P-10, Advance Procurement Requirements Analysis (page 1 - Budget Funding Justification): FY 2018 Navy							Date: May 2017			
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 01 / 1				P-1 Line Item Number / Title: 1045 / COLUMBIA Class Submarine						
First System (2018) Award Date: October 2020		First System (2018) Completion Date: October 2027			Interval Between Systems: 0 Months					
Cost Elements		Production Leadtime (Months)	When Required* (Months)	FY 2016 (\$ M)	FY 2017 (\$ M)	FY 2018 (\$ M)	FY 2019 (\$ M)	FY 2020 (\$ M)	FY 2021 (\$ M)	FY 2022 (\$ M)
SSBN 827		24-42	Various	-	-	0.000	-	-	-	338.038
Total: BASIC CONSTRUCTION (2) - LONG LEAD TIME CFE				-	-	-	411.133	460.471	-	338.038
Total Advance Procurement/Obligation Authority				-	773.138	842.853	3,024.236	1,473.898	1,047.563	1,253.346

*Note: "When Required" is the number of months required before ship delivery.

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Exhibit P-10, Advance Procurement Requirements Analysis (page 2 - Budget Funding Justification): FY 2018 Navy					Date: May 2017		
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 01 / 1				P-1 Line Item Number / Title: 1045 / COLUMBIA Class Submarine			
Cost Elements	FY 2018						
	Production Leadtime (Months)	When Required* (Months)	Unit Cost (\$ M)	Contract Forecast Date	2018 Qty (Each)	For FY	Total Cost Request (\$ M)
PLANS (1)							
-	12-60	Various	-	Oct 2017	-	2021	727.798
Total: PLANS (1)							727.798
BASIC CONSTRUCTION (4) - ADVANCED CONSTRUCTION							
SSBN 826	24-42	Various	-	Oct 2017	-	2021	28.518
SSBN 827	24-42	Various	-		-		0.000
Total: BASIC CONSTRUCTION (4) - ADVANCED CONSTRUCTION							28.518
BASIC CONSTRUCTION (3) - MISSILE TUBE CONTINUOUS PRODUCTION							
SSBN 827	36	Various	-	Oct 2017	-	2024	59.537
SSBN 828	36	Various	-		-		0.000
SSBN 829	36	Various	-		-		0.000
Total: BASIC CONSTRUCTION (3) - MISSILE TUBE CONTINUOUS PRODUCTION							59.537
HM&E (6)							
SSBN 826 (In support of AC)	-	-	-		-		0.000
Total: HM&E (6)							-
ORDNANCE (7)							
SSBN 826	12-24	Various	-		-		0.000
SSBN 827	12-24	Various	-		-		0.000
Total: ORDNANCE (7)							-
NUCLEAR PROPULSION PLANT EQUIPMENT (5)							
SSBN 826	30-72	Various	-		-		0.000
SSBN 827 (In support of AC)	30-72	Various	-		-		0.000
Total: NUCLEAR PROPULSION PLANT EQUIPMENT (5)							-
NFPC EXTERNAL POWER UPGRADE (8)							
-	12	Various	-	Oct 2017	-	2021	27.000
Total: NFPC EXTERNAL POWER UPGRADE (8)							27.000
BASIC CONSTRUCTION (2) - LONG LEAD TIME CFE							
SSBN 826	24-42	Various	-		-		0.000
SSBN 827	24-42	Various	-		-		0.000

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Exhibit P-10, Advance Procurement Requirements Analysis (page 2 - Budget Funding Justification): FY 2018 Navy					Date: May 2017		
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 01 / 1				P-1 Line Item Number / Title: 1045 / COLUMBIA Class Submarine			
Cost Elements	FY 2018						
	Production Leadtime <i>(Months)</i>	When Required* <i>(Months)</i>	Unit Cost <i>(\$ M)</i>	Contract Forecast Date	2018 Qty <i>(Each)</i>	For FY	Total Cost Request <i>(\$ M)</i>
Total: BASIC CONSTRUCTION (2) - LONG LEAD TIME CFE							-
Total Advance Procurement/Obligation Authority							842.853
<p>Description:</p> <p>MISSION: Strategic Deterrence. The COLUMBIA Class Program is an Acquisition Category (ACAT) ID Major Defense Acquisition Program (MDAP) to design, construct, and deliver a replacement for the OHIO Class Fleet Ballistic Missile Submarines (SSBNs), which begin retirement at a rate of one per year beginning in 2027. The mission of the OR SSBN is to maintain an appropriate state of readiness to assist in deterring nuclear attack on the United States and its allies. In the event deterrence should fail, the force must be capable of launching missiles against pre-planned or adaptively planned targets. To fulfill this mission OR SSBNs must be capable of performing extended strategic deterrent patrols without requiring assistance or replenishment. It does not have a requirement for additional capabilities or other missions unrelated to survivable strategic nuclear deterrence.</p> <p>Armament:</p> <p>Torpedo Tubes</p> <p>Ballistic Missile Tubes</p> <p>Major Electronics:</p> <p>Trident D5 Strategic Weapons System</p> <p>Command, Control, Communications and Intelligence System</p> <p>- Open System Architecture</p> <p>- Twenty-three Subsystems</p> <p>On 14 December 2016, the Secretary of the Navy announced the lead ship of the OHIO Replacement Program will be USS COLUMBIA (SSBN 826) which officially designates this program the COLUMBIA Class Submarine Program.</p> <p>Footnotes:</p> <p>(1) COLUMBIA Class Lead Design Yard and program office support for the detail design for the Common Missile Compartment, Strategic Weapons System, Propulsion Plant, and Rest of Ship. Approximately 40 percent of design disclosures are scheduled to be completed in FY17 & FY18 in order to support an 83 percent design completion at construction start. This design maturity target is necessary to achieve the aggressive 7 year lead ship construction time, which is required to support Strategic Deterrent mission requirements. Detail design activities also support critical engineering analysis and risk reduction efforts.</p> <p>(2) Long lead time CFE is required to fund long lead time contractor furnished equipment (for example the Weapons Handling, Air Conditioning Unit, Diesel Generator Set, and Reverse Osmosis Unit). These and other components are required early in the construction phase to meet the delivery schedule.</p> <p>(3) Continuous Missile Tube Production: COLUMBIA Class is implementing Continuous Production of Missile Tubes to improve manufacturing efficiencies, improve vendor learning, maintain critical production skills, and reduce costs from leveraging high-volume procurements. These benefits will increase schedule margin and reduce risk to follow ship deliveries, while also achieving cost reduction savings. Missile Tubes produced for SSBN 826 are funded through RDT&E,N Program Element 0603595N, Project number 3220.</p> <p>(4) Advance Construction (AC) efforts to de-risk SSBN826 construction schedule and improve probability of on-time delivery. AC begins construction activities in key areas to gain schedule margin and reduce controlling path risks. AC key areas include the Bow (Sections 1A and 1B in Supermodule 1 that includes the forward Ballast Tanks and Hemi-head), Stern (Sections 9B and 9C in Supermodule 6 that includes</p>							

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Exhibit P-10, Advance Procurement Requirements Analysis (page 2 - Budget Funding Justification): FY 2018 Navy		Date: May 2017
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 01 / 1		P-1 Line Item Number / Title: 1045 / COLUMBIA Class Submarine
<p>the X-Stern and aft Ballast Tanks and Hemi-Head) and Common Missile Compartment (CMC) adjacent areas contained in Supermodule 2 that include the Missile Compartment Control Module (MCCM). AC will include early structural fabrication on areas that have sufficient design maturity and material availability to begin construction and some outfitting. These areas include MCCM Deck Module Fabrication, Mid-Span Tank complex and Foundation Fabrication, and Missile Compartment Forward Bulkhead and S2C Hull Cylinder Fabrication. AC efforts improve efficiency by smoothing workload at Quonset Point and capture efficiencies. FY18 funding for AC procures material associated with the items listed above.</p> <p>(5) Nuclear Propulsion Plant Equipment AP is required to fund long-lead time propulsion plant equipment, and ensure production capability that supports projected production quantities. To support the COLUMBIA Class' implementation of advanced modular construction methods to drive cost efficiency, reactor plant components must be delivered earlier in the construction process. The component delivery timeline is in line with that of the VIRGINIA Class submarines.</p> <p>(6) Hull Mechanical & Engineering AP is required to align the Propulsor procurement and production schedule with COLUMBIA Class Advance Construction schedule acceleration.</p> <p>(7) Ordnance AP is required to fund the Long Lead Time Material (LLTM) associated with the Trident II D-5 missile and Strategic Weapons System (SWS) including Launcher and Fire Control subsystem components.</p> <p>(8) Advance Procurement funding is required to support the Naval Foundry and Propeller Center External Power Upgrade. The Naval Foundry and Propeller Center requires upgrades to the private utility provider's infrastructure in order to provide an additional 15MW of electrical power to the facility. This requirement is driven by a required 85-ton furnace and six additional large machines required for concurrent COLUMBIA and VIRGINIA Class manufacturing. Upgrades must be complete by October 2018 to support critical path COLUMBIA Class propulsor prototype manufacturing demonstrations in early FY19.</p> <p>*Note: "When Required" is the number of months required before ship delivery.</p>		

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Exhibit P-40, Budget Line Item Justification: FY 2018 Navy										Date: May 2017		
Appropriation / Budget Activity / Budget Sub Activity: 1611N: Shipbuilding and Conversion, Navy / BA 02: Other Warships / BSA 1: Other Warships						P-1 Line Item Number / Title: 2001 / Carrier Replacement Program						
ID Code (A=Service Ready, B=Not Service Ready): A			Program Elements for Code B Items: N/A					Other Related Program Elements: N/A				
Line Item MDAP/MAIS Code: 223												
Resource Summary	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	2	-	-	1	-	1	-	-	-	-	-	3
Gross/Weapon System Cost (<i>\$ in Millions</i>)	24,284.400	0.000	0.000	12,997.646	0.000	12,997.646	0.000	0.000	0.000	0.000	2,572.084	39,854.130
Less PY Advance Procurement (<i>\$ in Millions</i>)	7,020.165	-	-	2,233.142	-	2,233.142	-	-	-	-	2,590.291	11,843.598
Less Cost To Complete (<i>\$ in Millions</i>)	1,394.860	-	-	-	-	-	-	-	-	-	-	1,394.860
Less Subsequent Year Full Funding (<i>\$ in Millions</i>)	12,693.394	-	-	8,883.790	-	8,883.790	-	-	-	-	-	21,577.184
Net Procurement (P-1) (<i>\$ in Millions</i>)	3,175.981	0.000	0.000	1,880.714	0.000	1,880.714	0.000	0.000	0.000	0.000	Continuing	Continuing
Plus Subsequent Year Full Funding (<i>\$ in Millions</i>)	7,270.982	1,569.571	1,291.783	2,561.058	-	2,561.058	1,576.966	2,234.571	1,961.852	765.754	2,344.647	21,577.184
Full Funding TOA (<i>\$ in Millions</i>)	10,446.963	1,569.571	1,291.783	4,441.772	-	4,441.772	1,576.966	2,234.571	1,961.852	765.754	2,326.440	26,615.672
Plus CY Advance Procurement (<i>\$ in Millions</i>)	7,020.165	862.358	1,370.784	-	-	-	-	-	1,004.161	1,586.130	-	11,843.598
Plus Cost To Complete (<i>\$ in Millions</i>)	1,251.100	123.760	-	20.000	-	20.000	-	-	-	-	-	1,394.860
Total Obligation Authority (<i>\$ in Millions</i>)	18,718.228	2,555.689	2,662.567	4,461.772	0.000	4,461.772	1,576.966	2,234.571	2,966.013	2,351.884	2,326.440	39,854.130
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Plus Outfitting and Post Delivery (<i>\$ in Millions</i>)	114.631	99.490	2.341	26.213	-	26.213	5.012	10.012	20.884	2.005	535.271	815.859
Total (<i>\$ in Millions</i>)	18,832.859	2,655.179	2,664.908	4,487.985	-	4,487.985	1,581.978	2,244.583	2,986.897	2,353.889	2,861.711	40,669.989
Gross/Weapon System Unit Cost (<i>\$ in Millions</i>)	12,142.200	-	-	12,997.646	-	12,997.646	-	-	-	-	-	13,284.710

Description:

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.

FY 2018 begins the first year of full funding for CVN 80 with expected award March 2018.

The Department is using a two-phase acquisition strategy for constructing and delivery of CVN 79. The Department is employing this two-phase strategy to drive further affordability into the CVN 79 procurement cost and life cycle cost. Completion of the CVN 79 Detail Design and Construction contract will represent preliminary acceptance of CVN 79 from the shipbuilder in June 2022. At that time, CVN 79 will be placed in commission and will have full propulsion, safe navigation, and limited aircraft launch and recovery capability. After this acceptance, the Department will conduct a follow-on Phase II availability which will complete installation of the remaining systems. This Phase II will conclude by September 2024 and upon final acceptance of the ship, delivery of CVN 79 is projected to occur in September 2024.

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Exhibit P-40, Budget Line Item Justification: FY 2018 Navy				Date: May 2017																																									
Appropriation / Budget Activity / Budget Sub Activity: 1611N: Shipbuilding and Conversion, Navy / BA 02: Other Warships / BSA 1: Other Warships			P-1 Line Item Number / Title: 2001 / Carrier Replacement Program																																										
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<table style="width: 100%; border: none;"> <tr> <td style="width: 30%; vertical-align: top;"> Characteristics: Length Overall 1092 ft Beam 134 ft Displacement 97,337 TONS Draft 38.7 ft </td> <td style="width: 30%; vertical-align: top;"> Systems: Electronics -SHIP SELF DEFENSE SYSTEM (SSDS) </td> <td style="width: 40%; vertical-align: top;"> Ordnance -ELECTROMAGNETIC AIRCRAFT LAUNCHING SYSTEM (EMALS) -ENTERPRISE AIR SURVEILLANCE RADAR (EASR) -ADVANCED ARRESTING GEAR (AAG) </td> </tr> </table>						Characteristics: Length Overall 1092 ft Beam 134 ft Displacement 97,337 TONS Draft 38.7 ft	Systems: Electronics -SHIP SELF DEFENSE SYSTEM (SSDS)	Ordnance -ELECTROMAGNETIC AIRCRAFT LAUNCHING SYSTEM (EMALS) -ENTERPRISE AIR SURVEILLANCE RADAR (EASR) -ADVANCED ARRESTING GEAR (AAG)																																					
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Design Schedule	Start / Issue	Complete / Response	Reissue	Reissue Complete / Response																																									
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Contract Design	May 2004	Apr 2008																																											
Detail Design	Jan 2004	Sep 2009																																											
Request for Proposals	Jul 2007	Oct 2007																																											
Design Agent	Huntington Ingalls Industries																																												
Classification of Cost Estimate: CLASS C BUDGET ESTIMATE																																													

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Exhibit P-5c, Ship Cost Analysis: FY 2018 Navy

Date: May 2017

Appropriation / Budget Activity / Budget Sub Activity:
1611N / 02 / 1P-1 Line Item Number / Title:
2001 / Carrier Replacement Program

Cost Categories (†) indicates the presence of a P-8a	FY 2008		FY 2013		FY 2018	
	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Plan Costs	1	3,335.399	1	880.078	1	433.200
Basic Construction/Conversion		6,089.082		6,907.167		8,274.712
Change Orders		202.131		183.945		233.832
Electronics (†)		300.838		241.455		255.943
Propulsion Equipment		1,503.612		2,034.582		2,660.810
Hull, Mechanical, and Electrical (HM&E) (†)		30.284		26.145		28.866
Ordnance (†)		1,375.715		1,021.405		1,015.748
Other Cost		69.939		82.623		94.535
Total Ship Estimate		12,907.000		11,377.400		12,997.646
Less Advance Procurement FY 2001		21.668		-		-
Less Advance Procurement FY 2002		135.341		-		-
Less Advance Procurement FY 2003		395.493		-		-
Less Advance Procurement FY 2004		1,162.876		-		-
Less Advance Procurement FY 2005		623.071		-		-
Less Advance Procurement FY 2006		618.866		-		-
Less Advance Procurement FY 2007		735.800		52.750		-
Less Advance Procurement FY 2008		-		123.530		-
Less Advance Procurement FY 2009		-		1,210.561		-
Less Advance Procurement FY 2010		-		482.938		-
Less Advance Procurement FY 2011		-		902.473		-
Less Advance Procurement FY 2012		-		554.798		-
Less Advance Procurement FY 2016		-		-		862.358
Less Advance Procurement FY 2017		-		-		1,370.784
Less Subsequent Full Funding FY 2009		2,684.556		-		-
Less Subsequent Full Funding FY 2010		736.989		-		-
Less Subsequent Full Funding FY 2011		1,712.459		-		-
Less Subsequent Full Funding FY 2014		-		917.553		-
Less Subsequent Full Funding FY 2015		-		1,219.425		-
Less Subsequent Full Funding FY 2016		-		1,569.571		-
Less Subsequent Full Funding FY 2017		-		1,291.783		-
Less Subsequent Full Funding FY 2018		-		2,561.058		-
Less Subsequent Full Funding FY 2019		-		-		1,576.966
Less Subsequent Full Funding FY 2020		-		-		2,234.571

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Exhibit P-5c, Ship Cost Analysis: FY 2018 Navy	Date: May 2017
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Appropriation / Budget Activity / Budget Sub Activity: 1611N / 02 / 1	P-1 Line Item Number / Title: 2001 / Carrier Replacement Program
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Cost Categories <small>(†) indicates the presence of a P-8a</small>	FY 2008		FY 2013		FY 2018	
	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Less Subsequent Full Funding FY 2021		-		-		1,961.852
Less Subsequent Full Funding FY 2022		-		-		765.754
Less Subsequent Full Funding FY 2023		-		-		2,344.647
Less Cost to Complete FY 2014		588.100		-		-
Less Cost to Complete FY 2015		663.000		-		-
Less Cost to Complete FY 2016		123.760		-		-
Less Cost to Complete FY 2018		20.000		-		-
Net P-1 Funding		2,685.021		490.960		1,880.714

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Exhibit P-27, Ship Production Schedule: FY 2018 Navy				Date: May 2017	
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 02 / 1			P-1 Line Item Number / Title: 2001 / Carrier Replacement Program		
Ship	Shipbuilder	Fiscal Year	Contract Award	Start of Construction	Delivery Date
CVN 78	Huntington Ingalls Industries, Newport News Shipbuilding	2008	Sep 2008	Aug 2005	May 2017
CVN 79	Huntington Ingalls Industries, Newport News Shipbuilding	2013	Jun 2015	Feb 2011	Sep 2024
CVN 80	Huntington Ingalls Industries, Newport News Shipbuilding	2018	Mar 2018	Mar 2018	Sep 2027

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Exhibit P-8a, Analysis of Ship Cost Estimates: FY 2018 Navy				Date: May 2017	
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 02 / 1			P-1 Line Item Number / Title: 2001 / Carrier Replacement Program		
Electronics	FY 2013		FY 2018		
	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	
P-35 Items					
AN/USQ-T46X(V)X, BATTLE FORCE TACTICAL TRAINING SYSTEM (BFTT)	1	2.547	1	2.733	
CONSOLIDATED AFLOAT NETWORK AND ENTERPRISE SERVICES (CANES)	1	14.755	1	16.053	
AN/USG-2, COOPERATIVE ENGAGEMENT CAPABILITY (CEC)	1	5.838	1	6.110	
DIGITAL MODULAR RADIO (DMR) ULTRA HIGH FREQUENCY/VERY HIGH FREQUENCY LINE OF SIGHT (EHF/VHF LOS) SAT	1	10.023	1	10.904	
AN/UPX-29(V), INTERROGATOR FRIEND OR FOE (IFF) W/MK XII	1	6.361	1	6.478	
SPN-46, AUTOMATIC CARRIER LANDING SYSTEM	1	9.411	1	9.722	
SHIP SELF DEFENSE SYSTEM (SSDS)	1	30.656	1	32.306	
AN/TPX-42A(V)14, CARRIER AIR TRAFFIC CONTROL CENTER - DIRECT ALTITUDE AND IDENTIFY READOUT (CATCC-DAIR)	1	6.101	1	6.353	
NAVY MULTI-BAND TERMINAL (NMT)	1	5.790	1	6.299	
AN/SLQ-32(V)6, SURFACE ELECTRONIC WARFARE IMPROVEMENT PROGRAM (SEWIP) BLOCK 2	1	10.518	1	10.555	
AN/SRQ-6/MCS-21, SHIPS SIGNAL EXPLOITATION EQUIPMENT (SSEE)	1	7.559	1	7.765	
AN/SRC-61 (V)X HFDAG	1	5.959	1	6.059	
P-35 Items Subtotal		115.518		121.337	
Major Items					
AN/USQ-155(V)1 TACTICAL VARIANT SWITCH	1	2.521	1	2.743	
INFORMATION ASSURANCE (IA)		1.870		2.031	
MAST CLAMP CURRENT PROBE (MCCP) UPGRADE	1	0.687	1	0.702	
AN/URC-141X(V), MULTI-FUNCTION INFORMATION DISTRIBUTION SYSTEM (MIDS)-ON SHIP (MOS)	1	1.540	1	1.586	
AN/SLQ-25C DUAL, SURFACE SHIP TORPEDO DEFENSE SYSTEM, NIXIE	1	5.215	1	5.243	
AN/SMQ-11, METEOROLOGICAL/OCEANOGRAPHIC (METOC) SATELLITE RECEIVER - RECORD SET	0	-	0	-	
SHIPBOARD AIR TRAFFIC CONTROL COMMUNICATIONS (SATCC)	1	2.246	1	2.343	
AN/WSN-7(V)3, RING LASER GYRO NAVIGATOR (RLGN)	1	2.869	1	3.121	
DISTRIBUTED SYSTEMS DESIGN INTEGRATION SERVICES	1	17.631	1	19.181	
C4I INTEGRATION & COORDINATION		9.301		10.119	
DISTRIBUTED COMMON GROUND STATION - NAVY (DCGS-N)	1	2.174	1	2.319	
AN/USQ-144K AUTOMATED DIGITAL NETWORK SYSTEM (ADNS)	1	1.209	1	1.315	
AN/UYQ-86 COMMON DATA LINK MANAGEMENT SYSTEM (CDLMS) WITH NGC2P	1	1.759	1	1.816	
OA-9277 ULTRA HIGH FREQUENCY (UHF) MULTICOUPLER	1	2.031	1	1.966	
ARC-210 CARRIER AIR TRAFFIC CONTROL CENTER (CATCC) - PRIFLY - LANDING SIGNAL OFFICER (LSO) SYSTEM	1	1.533	1	1.668	

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Exhibit P-8a, Analysis of Ship Cost Estimates: FY 2018 Navy			Date: May 2017	
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 02 / 1		P-1 Line Item Number / Title: 2001 / Carrier Replacement Program		
Electronics	FY 2013		FY 2018	
	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
WARFARE SYSTEM INTEGRATION		22.849		24.858
NET-ENABLED COMMAND CAPABILITY (NECC)	1	0.514	1	0.559
COMMERCIAL BROADBAND SATELLITE PROGRAM, FORCE LEVEL VARANT (CBSP-FLV)	2	2.266	2	2.465
AN/SSN-6(V)X BLOCK 4, NAVIGATION SENSOR SYSTEM INTERFACE (NAVSSI)	1	2.534	1	2.757
AN/SPS-73(V)12 TECH REFRESH - SURFACE SEARCH RADAR	1	0.354	1	0.385
INTEGRATED STRIKE PLANNING & EXECUTION SYSTEMS (ISP&E)	1	8.221	1	8.246
AN/USQ-123(V), COMMUNICATIONS DATA LINK-SYSTEM (CDL-S)	1	2.388	1	2.480
AN/SPN-41 (V), INSTRUMENT LANDING SYSTEM (ILS)	1	3.870	1	3.897
SHIP SIGNAL EXPLOITATION SPACE (SSES/SI) COMMUNICATIONS	1	3.943	1	4.193
TURNKEY RADIO COMMUNICATIONS SYSTEM (RCS)	1	13.681	1	14.884
Major Items Subtotal		113.206		120.877
Other Cost Elements				
Other ELECTRONICS		12.731		13.729
Other Cost Elements Subtotal		12.731		13.729
Total Electronics		241.455		255.943

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Exhibit P-8a, Analysis of Ship Cost Estimates: FY 2018 Navy				Date: May 2017	
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 02 / 1			P-1 Line Item Number / Title: 2001 / Carrier Replacement Program		
Hull, Mechanical, and Electrical (HM&E)	FY 2013		FY 2018		
	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	
Major Items					
HM&E ENGINEERING SERVICES		20.736		22.894	
INTEGRATED LOGISTICS SUPPORT		-		-	
LIFE RAFTS		1.721		1.900	
SUPSHIP MATERIAL AND GFE		0.561		0.620	
TEST & INTEGRATION		-		-	
TRUCKS (FORKLIFTS)		0.747		0.825	
Major Items Subtotal		23.765		26.239	
Other Cost Elements					
Other HM&E		2.380		2.627	
Other Cost Elements Subtotal		2.380		2.627	
Total Hull, Mechanical, and Electrical (HM&E)		26.145		28.866	

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Exhibit P-8a, Analysis of Ship Cost Estimates: FY 2018 Navy			Date: May 2017	
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 02 / 1		P-1 Line Item Number / Title: 2001 / Carrier Replacement Program		
Ordnance	FY 2013		FY 2018	
	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
P-35 Items				
ELECTROMAGNETIC AIRCRAFT LAUNCHING SYSTEM (EMALS)	1	601.911	1	579.823
ENTERPRISE AIR SURVEILLANCE RADAR (EASR)	1	74.500	1	79.000
ADVANCED ARRESTING GEAR (AAG)	1	232.542	1	251.261
PHALANX BLOCK 1B MK 15 MOD 21 & 22, CLOSE - IN WEAPONS SYSTEM (CIWS)	3	20.583	3	20.959
AN/SQQ-34, CARRIER-TACTICAL SUPPORT CENTER (CV-TSC)	1	4.354	1	4.456
MK29 MOD 5, GUIDED MISSILE LAUNCHING SYSTEM (GMLS)	2	11.597	2	11.995
AVIATION DATA MANAGEMENT AND CONTROL SYSTEM (ADMACS)	1	8.114	1	8.828
INTEGRATED LAUNCH AND RECOVERY TELEVISION SYSTEM (ILARTS)	1	5.096	1	5.544
MK 49, MOD 3 ROLLING AIRFRAME MISSILE (RAM)	2	16.126	2	16.849
AN/SPQ-9B, ANTI-SHIP MISSILE DEFENSE (ASMD) SURFACE SURVEILLANCE AND TRACKING RADAR	1	13.220	1	13.726
MK-9 TARGET ILLUMINATOR	4	12.584	4	12.661
P-35 Items Subtotal		1,000.627		1,005.102
Major Items				
LANDING SIGNAL OFFICER DISPLAY SYSTEM (LSODS)	1	1.941	1	2.112
MORIAH BLOCK 2	1	1.378	1	1.499
LONG RANGE LINEUP SYSTEM (LRLS)	1	0.933	1	0.966
IMPROVED FRESNEL LENS OPTICAL LANDING SYSTEM (IFLOLS)	1	2.088	1	2.272
Major Items Subtotal		6.340		6.849
Other Cost Elements				
DUAL BAND RADAR (DBR) (SPY-3 AND VOLUME SEARCH RADAR (VSR))	0	10.948	0	-
Other ORDNANCE		3.490		3.797
Other Cost Elements Subtotal		14.438		3.797
Total Ordnance		1,021.405		1,015.748
Remarks: The Enterprise Air Surveillance Radar (EASR) is intended to replace Dual Band Radar (DBR) on CVN 79. The \$10,948K cost on the CVN 79 represents a sunk cost paid for overruns associated with receiving the VSR from the DDG 1000 program and was originally planned for installation on CVN 79.				

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Exhibit P-35, Major Ship Component Fact Sheet: FY 2018 Navy						Date: May 2017																									
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 02 / 1				P-1 Line Item Number / Title: 2001 / Carrier Replacement Program																											
Equipment Item: AN/USQ-T46X(V)X, BATTLE FORCE TACTICAL TRAINING SYSTEM (BFTT)						PARM Code: PEO IWS 1.0																									
P-35 Category	FY 2013		FY 2018																												
	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)																											
Major Hardware	1	0.430	1	0.430																											
Technical Data and Documentation		0.277		0.301																											
Spares		0.020		0.022																											
System Engineering		0.847		0.922																											
Technical Engineering Services		0.266		0.289																											
Other Costs		0.707		0.769																											
Total	1	2.547	1	2.733																											
Description: 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.																															
Contract Data: <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 5px;"> <tr> <th>Program Year</th> <th>Hull</th> <th>Prime Contractor</th> <th>Contract Method/Type</th> <th>Award Date</th> <th>New/Option</th> <th>Quantity (Each)</th> <th>Unit Cost (\$ M)</th> </tr> <tr> <td>FY 2013</td> <td>CVN 79</td> <td>TBD</td> <td>TBD</td> <td>Feb 2022</td> <td></td> <td style="text-align: center;">1</td> <td style="text-align: center;">0.430</td> </tr> <tr> <td>FY 2018</td> <td>CVN 80</td> <td>TBD</td> <td>TBD</td> <td>Mar 2024</td> <td></td> <td style="text-align: center;">1</td> <td style="text-align: center;">0.430</td> </tr> </table>								Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity (Each)	Unit Cost (\$ M)	FY 2013	CVN 79	TBD	TBD	Feb 2022		1	0.430	FY 2018	CVN 80	TBD	TBD	Mar 2024		1	0.430
Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity (Each)	Unit Cost (\$ M)																								
FY 2013	CVN 79	TBD	TBD	Feb 2022		1	0.430																								
FY 2018	CVN 80	TBD	TBD	Mar 2024		1	0.430																								
Delivery Date: <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 5px;"> <tr> <th>Program Year</th> <th>Hull</th> <th>Earliest Ship Delivery Date</th> <th>Months Required Before Delivery</th> <th>Production Leadtime</th> <th>Required Award Date</th> </tr> <tr> <td>FY 2013</td> <td>CVN 79</td> <td>Sep 2024</td> <td style="text-align: center;">19</td> <td style="text-align: center;">12</td> <td style="text-align: center;">Feb 2022</td> </tr> <tr> <td>FY 2018</td> <td>CVN 80</td> <td>Sep 2027</td> <td style="text-align: center;">30</td> <td style="text-align: center;">12</td> <td style="text-align: center;">Mar 2024</td> </tr> </table>								Program Year	Hull	Earliest Ship Delivery Date	Months Required Before Delivery	Production Leadtime	Required Award Date	FY 2013	CVN 79	Sep 2024	19	12	Feb 2022	FY 2018	CVN 80	Sep 2027	30	12	Mar 2024						
Program Year	Hull	Earliest Ship Delivery Date	Months Required Before Delivery	Production Leadtime	Required Award Date																										
FY 2013	CVN 79	Sep 2024	19	12	Feb 2022																										
FY 2018	CVN 80	Sep 2027	30	12	Mar 2024																										
Competition/Second Source Initiatives: None																															
Remarks: This system is planned for installation during the CVN 79 Phase II availability. This availability enables use of competition / skilled installation teams, provides for installation of shipboard electronic systems closer to time of the ship's first deployment, and allows for concurrent installation of the combat system and DBR replacement radar suite.																															

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Exhibit P-35, Major Ship Component Fact Sheet: FY 2018 Navy						Date: May 2017	
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 02 / 1				P-1 Line Item Number / Title: 2001 / Carrier Replacement Program			
Equipment Item: CONSOLIDATED AFLOAT NETWORK AND ENTERPRISE SERVICES (CANES)						PARM Code: PMW 750	
P-35 Category	FY 2013		FY 2018				
	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)			
Major Hardware	1	10.173	1	11.068			
Spares		0.436		0.474			
System Engineering		2.174		2.365			
Technical Engineering Services		0.250		0.272			
Other Costs		1.722		1.874			
Total	1	14.755	1	16.053			
Description: 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.							
Contract Data:							
Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity (Each)	Unit Cost (\$ M)
FY 2013	CVN 79	TBD	TBD	Jul 2019		1	10.173
FY 2018	CVN 80	TBD	TBD	Oct 2024		1	11.068
Delivery Date:							
Program Year	Hull	Earliest Ship Delivery Date	Months Required Before Delivery	Production Leadtime	Required Award Date		
FY 2013	CVN 79	Sep 2024	23	12	Oct 2021		
FY 2018	CVN 80	Sep 2027	23	12	Oct 2024		
Competition/Second Source Initiatives: N/A							

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Exhibit P-35, Major Ship Component Fact Sheet: FY 2018 Navy						Date: May 2017	
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 02 / 1				P-1 Line Item Number / Title: 2001 / Carrier Replacement Program			
Equipment Item: AN/USG-2, COOPERATIVE ENGAGEMENT CAPABILITY (CEC)						PARM Code: PEO IWS 6.0	
P-35 Category	FY 2013		FY 2018				
	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)			
Major Hardware	1	2.750	1	2.750			
Spares		0.432		0.470			
System Engineering		2.017		2.195			
Technical Engineering Services		0.181		0.197			
Other Costs		0.458		0.498			
Total	1	5.838	1	6.110			
Description: 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.							
Contract Data:							
Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity (Each)	Unit Cost (\$ M)
FY 2013	CVN 79	RAYTHEON	TBD	Aug 2021		1	2.750
FY 2018	CVN 80	TBD	TBD	Apr 2023		1	2.750
Delivery Date:							
Program Year	Hull	Earliest Ship Delivery Date	Months Required Before Delivery	Production Leadtime	Required Award Date		
FY 2013	CVN 79	Sep 2024	19	18	Aug 2021		
FY 2018	CVN 80	Sep 2027	35	18	Apr 2023		
Competition/Second Source Initiatives: N/A							
Remarks: This system is planned for installation during the CVN 79 Phase II availability. This availability enables use of competition / skilled installation teams, provides for installation of shipboard electronic systems closer to time of the ship's first deployment, and allows for concurrent installation of the combat system and DBR replacement radar suite.							

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Exhibit P-35, Major Ship Component Fact Sheet: FY 2018 Navy						Date: May 2017	
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 02 / 1				P-1 Line Item Number / Title: 2001 / Carrier Replacement Program			
Equipment Item: DIGITAL MODULAR RADIO (DMR) ULTRA HIGH FREQUENCY/VERY HIGH FREQUENCY LINE OF SIGHT (EHF/VHF LOS) SAT						PARM Code: PMW 750	
P-35 Category	FY 2013		FY 2018				
	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)			
Major Hardware	1	8.444	1	9.187			
Technical Data and Documentation		-		-			
Spares		0.050		0.055			
System Engineering		0.591		0.643			
Technical Engineering Services		0.520		0.565			
Other Costs		0.350		0.380			
Ancillary Equipment		0.068		0.074			
Total	1	10.023	1	10.904			
Description: 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.							
Contract Data:							
Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity (Each)	Unit Cost (\$ M)
FY 2013	CVN 79	GENERAL DYNAMICS	C/FFP	Sep 2014		1	8.444
FY 2018	CVN 80	TBD	TBD	Apr 2023		1	9.187
Delivery Date:							
Program Year	Hull	Earliest Ship Delivery Date	Months Required Before Delivery	Production Leadtime	Required Award Date		
FY 2013	CVN 79	Sep 2024	35	18	Apr 2020		
FY 2018	CVN 80	Sep 2027	35	18	Apr 2023		
Competition/Second Source Initiatives: None							

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Exhibit P-35, Major Ship Component Fact Sheet: FY 2018 Navy						Date: May 2017	
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 02 / 1				P-1 Line Item Number / Title: 2001 / Carrier Replacement Program			
Equipment Item: AN/UPX-29(V), INTERROGATOR FRIEND OR FOE (IFF) W/MK XII						PARM Code: PMA 213	
P-35 Category	FY 2013		FY 2018				
	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)			
Major Hardware	1	5.026	1	5.026			
Ancillary Equipment		0.094		0.102			
Spares		0.112		0.122			
System Engineering		0.570		0.620			
Technical Engineering Services		0.139		0.151			
Other Costs		0.420		0.457			
Total	1	6.361	1	6.478			

Description:
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, sector, 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.

Contract Data:

Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity (Each)	Unit Cost (\$ M)
FY 2013	CVN 79	BAE SYSTEMS	C/FFP	May 2016		1	5.026
FY 2018	CVN 80	NOTHROP GRUMMAN-BAE SYSTEMS	SS/FFP	May 2021		1	5.026

Delivery Date:

Program Year	Hull	Earliest Ship Delivery Date	Months Required Before Delivery	Production Leadtime	Required Award Date
FY 2013	CVN 79	Sep 2024	19	24	Feb 2021
FY 2018	CVN 80	Sep 2027	52	24	May 2021

Competition/Second Source Initiatives:
None

Remarks:
This system is planned for installation during the CVN 79 Phase II availability. This availability enables use of competition / skilled installation teams, provides for installation of shipboard electronic systems closer to time of the ship's first deployment, and allows for concurrent installation of the combat system and DBR replacement radar suite.

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Exhibit P-35, Major Ship Component Fact Sheet: FY 2018 Navy						Date: May 2017	
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 02 / 1				P-1 Line Item Number / Title: 2001 / Carrier Replacement Program			
Equipment Item: SPN-46, AUTOMATIC CARRIER LANDING SYSTEM						PARM Code: PMA 213	
P-35 Category	FY 2013		FY 2018				
	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)			
Major Hardware	1	5.870	1	5.870			
Spares		-		-			
System Engineering		1.342		1.460			
Technical Engineering Services		0.312		0.340			
Other Costs		1.887		2.052			
Total	1	9.411	1	9.722			
Description: AN/SPN-46 (V)3 provides Precision Approach Landing System (PALS) used for non-clear weather aircraft landings on board carriers.							
Contract Data:							
Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity (Each)	Unit Cost (\$ M)
FY 2013	CVN 79	NAWCAD	C/FFP	Jun 2015		1	5.870
FY 2018	CVN 80	TBD	TBD	Mar 2023		1	5.870
Delivery Date:							
Program Year	Hull	Earliest Ship Delivery Date	Months Required Before Delivery	Production Leadtime	Required Award Date		
FY 2013	CVN 79	Sep 2024	19	24	Feb 2021		
FY 2018	CVN 80	Sep 2027	30	24	Mar 2023		
Competition/Second Source Initiatives: None.							
Remarks: This system is planned for installation during the CVN 79 Phase II availability. This availability enables use of competition / skilled installation teams, provides for installation of shipboard electronic systems closer to time of the ship's first deployment, and allows for concurrent installation of the combat system and DBR replacement radar suite.							

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Exhibit P-35, Major Ship Component Fact Sheet: FY 2018 Navy						Date: May 2017																									
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 02 / 1				P-1 Line Item Number / Title: 2001 / Carrier Replacement Program																											
Equipment Item: SHIP SELF DEFENSE SYSTEM (SSDS)						PARM Code: PEO IWS 10.0																									
P-35 Category	FY 2013		FY 2018																												
	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)																											
Major Hardware	1	11.900	1	11.900																											
Technical Data and Documentation		1.430		1.556																											
Spares		0.592		0.644																											
System Engineering		6.863		7.467																											
Technical Engineering Services		0.728		0.792																											
Other Costs		9.143		9.947																											
Total	1	30.656	1	32.306																											
Description: 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.																															
Contract Data: <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 5px;"> <tr> <th>Program Year</th> <th>Hull</th> <th>Prime Contractor</th> <th>Contract Method/Type</th> <th>Award Date</th> <th>New/Option</th> <th>Quantity (Each)</th> <th>Unit Cost (\$ M)</th> </tr> <tr> <td>FY 2013</td> <td>CVN 79</td> <td>TBD</td> <td>TBD</td> <td>Feb 2021</td> <td></td> <td style="text-align: center;">1</td> <td style="text-align: right;">11.900</td> </tr> <tr> <td>FY 2018</td> <td>CVN 80</td> <td>TBD</td> <td>TBD</td> <td>Jun 2023</td> <td></td> <td style="text-align: center;">1</td> <td style="text-align: right;">11.900</td> </tr> </table>								Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity (Each)	Unit Cost (\$ M)	FY 2013	CVN 79	TBD	TBD	Feb 2021		1	11.900	FY 2018	CVN 80	TBD	TBD	Jun 2023		1	11.900
Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity (Each)	Unit Cost (\$ M)																								
FY 2013	CVN 79	TBD	TBD	Feb 2021		1	11.900																								
FY 2018	CVN 80	TBD	TBD	Jun 2023		1	11.900																								
Delivery Date: <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 5px;"> <tr> <th>Program Year</th> <th>Hull</th> <th>Earliest Ship Delivery Date</th> <th>Months Required Before Delivery</th> <th>Production Leadtime</th> <th>Required Award Date</th> </tr> <tr> <td>FY 2013</td> <td>CVN 79</td> <td style="text-align: center;">Sep 2024</td> <td style="text-align: center;">19</td> <td style="text-align: center;">24</td> <td style="text-align: center;">Feb 2021</td> </tr> <tr> <td>FY 2018</td> <td>CVN 80</td> <td style="text-align: center;">Sep 2027</td> <td style="text-align: center;">27</td> <td style="text-align: center;">24</td> <td style="text-align: center;">Jun 2023</td> </tr> </table>								Program Year	Hull	Earliest Ship Delivery Date	Months Required Before Delivery	Production Leadtime	Required Award Date	FY 2013	CVN 79	Sep 2024	19	24	Feb 2021	FY 2018	CVN 80	Sep 2027	27	24	Jun 2023						
Program Year	Hull	Earliest Ship Delivery Date	Months Required Before Delivery	Production Leadtime	Required Award Date																										
FY 2013	CVN 79	Sep 2024	19	24	Feb 2021																										
FY 2018	CVN 80	Sep 2027	27	24	Jun 2023																										
Competition/Second Source Initiatives: None																															
Remarks: This system is planned for installation during the CVN 79 Phase II availability. This availability enables use of competition / skilled installation teams, provides for installation of shipboard electronic systems closer to time of the ship's first deployment, and allows for concurrent installation of the combat system and DBR replacement radar suite.																															

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Exhibit P-35, Major Ship Component Fact Sheet: FY 2018 Navy						Date: May 2017																									
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 02 / 1				P-1 Line Item Number / Title: 2001 / 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																									
P-35 Category	FY 2013		FY 2018																												
	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)																											
Major Hardware	1	3.244	1	3.244																											
Spares		0.267		0.291																											
System Engineering		1.865		2.029																											
Technical Engineering Services		0.056		0.061																											
Other Costs		0.669		0.728																											
Total	1	6.101	1	6.353																											
Description: 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.																															
Contract Data: <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 5px;"> <tr> <th>Program Year</th> <th>Hull</th> <th>Prime Contractor</th> <th>Contract Method/Type</th> <th>Award Date</th> <th>New/Option</th> <th>Quantity (Each)</th> <th>Unit Cost (\$ M)</th> </tr> <tr> <td>FY 2013</td> <td>CVN 79</td> <td>TBD</td> <td>TBD</td> <td>Feb 2021</td> <td></td> <td style="text-align: center;">1</td> <td style="text-align: right;">3.244</td> </tr> <tr> <td>FY 2018</td> <td>CVN 80</td> <td>TBD</td> <td>TBD</td> <td>Jun 2021</td> <td></td> <td style="text-align: center;">1</td> <td style="text-align: right;">3.244</td> </tr> </table>								Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity (Each)	Unit Cost (\$ M)	FY 2013	CVN 79	TBD	TBD	Feb 2021		1	3.244	FY 2018	CVN 80	TBD	TBD	Jun 2021		1	3.244
Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity (Each)	Unit Cost (\$ M)																								
FY 2013	CVN 79	TBD	TBD	Feb 2021		1	3.244																								
FY 2018	CVN 80	TBD	TBD	Jun 2021		1	3.244																								
Delivery Date: <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 5px;"> <tr> <th>Program Year</th> <th>Hull</th> <th>Earliest Ship Delivery Date</th> <th>Months Required Before Delivery</th> <th>Production Leadtime</th> <th>Required Award Date</th> </tr> <tr> <td>FY 2013</td> <td>CVN 79</td> <td>Sep 2024</td> <td style="text-align: center;">19</td> <td style="text-align: center;">24</td> <td style="text-align: center;">Feb 2021</td> </tr> <tr> <td>FY 2018</td> <td>CVN 80</td> <td>Sep 2027</td> <td style="text-align: center;">51</td> <td style="text-align: center;">24</td> <td style="text-align: center;">Jun 2021</td> </tr> </table>								Program Year	Hull	Earliest Ship Delivery Date	Months Required Before Delivery	Production Leadtime	Required Award Date	FY 2013	CVN 79	Sep 2024	19	24	Feb 2021	FY 2018	CVN 80	Sep 2027	51	24	Jun 2021						
Program Year	Hull	Earliest Ship Delivery Date	Months Required Before Delivery	Production Leadtime	Required Award Date																										
FY 2013	CVN 79	Sep 2024	19	24	Feb 2021																										
FY 2018	CVN 80	Sep 2027	51	24	Jun 2021																										
Competition/Second Source Initiatives: none																															
Remarks: This system is planned for installation during the CVN 79 Phase II availability. This availability enables use of competition / skilled installation teams, provides for installation of shipboard electronic systems closer to time of the ship's first deployment, and allows for concurrent installation of the combat system and DBR replacement radar suite.																															

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Exhibit P-35, Major Ship Component Fact Sheet: FY 2018 Navy						Date: May 2017	
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 02 / 1				P-1 Line Item Number / Title: 2001 / Carrier Replacement Program			
Equipment Item: NAVY MULTI-BAND TERMINAL (NMT)						PARM Code: PMW 750	
P-35 Category	FY 2013		FY 2018				
	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)			
Major Hardware	1	5.223	1	5.682			
Ancillary Equipment		0.048		0.052			
Spares		-		-			
System Engineering		0.090		0.098			
Technical Engineering Services		0.090		0.098			
Other Costs		0.339		0.369			
Total	1	5.790	1	6.299			
Description: 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.							
Contract Data:							
Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity (Each)	Unit Cost (\$ M)
FY 2013	CVN 79	RAYTHEON	C/FFP	Jun 2014		1	5.223
FY 2018	CVN 80	TBD	TBD	Jun 2023		1	5.682
Delivery Date:							
Program Year	Hull	Earliest Ship Delivery Date	Months Required Before Delivery	Production Leadtime	Required Award Date		
FY 2013	CVN 79	Sep 2024	33	18	Jun 2020		
FY 2018	CVN 80	Sep 2027	33	18	Jun 2023		
Competition/Second Source Initiatives: None							

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Exhibit P-35, Major Ship Component Fact Sheet: FY 2018 Navy						Date: May 2017	
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 02 / 1				P-1 Line Item Number / Title: 2001 / Carrier Replacement Program			
Equipment Item: AN/SLQ-32(V)6, SURFACE ELECTRONIC WARFARE IMPROVEMENT PROGRAM (SEWIP) BLOCK 2						PARM Code: PEO IWS 2E	

P-35 Category	FY 2013		FY 2018	
	Qty <i>(Each)</i>	Total Cost <i>(\$ M)</i>	Qty <i>(Each)</i>	Total Cost <i>(\$ M)</i>
Major Hardware	1	10.100	1	10.100
Ancillary Equipment		0.315		0.343
Spares		-		-
System Engineering		0.091		0.099
Technical Engineering Services		-		-
Other Costs		0.012		0.013
Total	1	10.518	1	10.555

Description:
 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.

Contract Data:

Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity <i>(Each)</i>	Unit Cost <i>(\$ M)</i>
FY 2013	CVN 79	TBD	TBD	Aug 2021		1	10.100
FY 2018	CVN 80	TBD	TBD	Apr 2024		1	10.100

Delivery Date:

Program Year	Hull	Earliest Ship Delivery Date	Months Required Before Delivery	Production Leadtime	Required Award Date
FY 2013	CVN 79	Sep 2024	19	18	Aug 2021
FY 2018	CVN 80	Sep 2027	23	18	Apr 2024

Competition/Second Source Initiatives:
 None

Remarks:
 This system is planned for installation during the CVN 79 Phase II availability. This availability enables use of competition / skilled installation teams, provides for installation of shipboard electronic systems closer to time of the ship's first deployment, and allows for concurrent installation of the combat system and DBR replacement radar suite.

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Exhibit P-35, Major Ship Component Fact Sheet: FY 2018 Navy						Date: May 2017	
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 02 / 1				P-1 Line Item Number / Title: 2001 / Carrier Replacement Program			
Equipment Item: AN/SRQ-6/MCS-21, SHIPS SIGNAL EXPLOITATION EQUIPMENT (SSEE)						PARM Code: PMW 750	
P-35 Category	FY 2013		FY 2018				
	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)			
Major Hardware	1	5.214	1	5.214			
Ancillary Equipment		0.078		0.085			
Technical Data and Documentation		-		-			
Spares		0.192		0.209			
System Engineering		0.827		0.900			
Technical Engineering Services		0.176		0.191			
Other Costs		1.072		1.166			
Total	1	7.559	1	7.765			
Description: 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).							
Contract Data:							
Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity (Each)	Unit Cost (\$ M)
FY 2013	CVN 79	TBD	TBD	Aug 2021		1	5.214
FY 2018	CVN 80	TBD	TBD	Jan 2024		1	5.214
Delivery Date:							
Program Year	Hull	Earliest Ship Delivery Date	Months Required Before Delivery	Production Leadtime	Required Award Date		
FY 2013	CVN 79	Sep 2024	19	18	Aug 2021		
FY 2018	CVN 80	Sep 2027	26	18	Jan 2024		
Competition/Second Source Initiatives: None							
Remarks: This system is planned for installation during the CVN 79 Phase II availability. This availability enables use of competition / skilled installation teams, provides for installation of shipboard electronic systems closer to time of the ship's first deployment, and allows for concurrent installation of the combat system and DBR replacement radar suite.							

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Exhibit P-35, Major Ship Component Fact Sheet: FY 2018 Navy						Date: May 2017	
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 02 / 1				P-1 Line Item Number / Title: 2001 / Carrier Replacement Program			
Equipment Item: AN/SRC-61 (V)X HFDAG						PARM Code: PMW 170	
P-35 Category	FY 2013		FY 2018				
	Qty <i>(Each)</i>	Total Cost <i>(\$ M)</i>	Qty <i>(Each)</i>	Total Cost <i>(\$ M)</i>			
Major Hardware	1	4.816	1	4.816			
Ancillary Equipment		0.048		0.052			
Spares		0.010		0.011			
System Engineering		0.199		0.216			
Technical Engineering Services		0.484		0.527			
Other Costs		0.402		0.437			
Total	1	5.959	1	6.059			
Description: High Frequency (HF) Distributed Amplifier Group (DAG) is the Navy's Program of Record (POR) HF system and is the follow-on replacement of HF Radio Group (HFRG). HFDAG has a modular architecture and utilizes COTS equipment to the maximum extent possible. It provides Line Of Sight (LOS/Beyond Line of Sight (BLOS) voice and data transmission capabilities to USN Ships. The 16-channel CVN variant greatly improves capabilities from HFRG: (1) increases availability (Ao), (2) provides reprogrammable waveforms, (3) increases the number of waveforms available, (4) provides automatic link establishment (ALE).							
Contract Data:							
Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity <i>(Each)</i>	Unit Cost <i>(\$ M)</i>
FY 2013	CVN 79	TBD	TBD	Aug 2021		1	4.816
FY 2018	CVN 80	TBD	TBD	May 2023		1	4.816
Delivery Date:							
Program Year	Hull	Earliest Ship Delivery Date	Months Required Before Delivery	Production Leadtime	Required Award Date		
FY 2013	CVN 79	Sep 2024	19	18	Aug 2021		
FY 2018	CVN 80	Sep 2027	34	18	May 2023		
Competition/Second Source Initiatives: N/A							
Remarks: This system is planned for installation during the CVN 79 Phase II availability. This availability enables use of competition / skilled installation teams, provides for installation of shipboard electronic systems closer to time of the ship's first deployment, and allows for concurrent installation of the combat system and DBR replacement radar suite.							

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Exhibit P-35, Major Ship Component Fact Sheet: FY 2018 Navy						Date: May 2017	
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 02 / 1				P-1 Line Item Number / Title: 2001 / Carrier Replacement Program			
Equipment Item: ELECTROMAGNETIC AIRCRAFT LAUNCHING SYSTEM (EMALS)						PARM Code: PMA 251	
P-35 Category	FY 2013		FY 2018				
	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)			
Major Hardware	1	553.223	1	542.163			
Technical Data and Documentation		0.492		-			
System Engineering		19.083		17.507			
Technical Engineering Services		3.017		2.556			
Other Costs		26.096		17.597			
Total	1	601.911	1	579.823			

Description:
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.

Contract Data:

Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity (Each)	Unit Cost (\$ M)
FY 2013	CVN 79	GENERAL ATOMICS	SS/FFP	May 2014	New	1	553.223
FY 2018	CVN 80	GENERAL ATOMICS	SS/FFP	Jan 2017	Option	1	542.163

Delivery Date:

Program Year	Hull	Earliest Ship Delivery Date	Months Required Before Delivery	Production Leadtime	Required Award Date
FY 2013	CVN 79	Sep 2024	81	48	Dec 2013
FY 2018	CVN 80	Sep 2027	61	48	Aug 2018

Competition/Second Source Initiatives:
None

Remarks:
Long Lead Time Materials Undefinitized Contract Action (UCA) awarded May 2014, Undefinitized Production UCA awarded June 2015 for CVN 79, Production UCA definitized December 2016 for CVN 79 with option for CVN 80. CVN 80 option exercised January 2017 EMALS and AAG bundled savings on single production contract are reflective of contract negotiations.

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Exhibit P-35, Major Ship Component Fact Sheet: FY 2018 Navy						Date: May 2017																									
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 02 / 1				P-1 Line Item Number / Title: 2001 / Carrier Replacement Program																											
Equipment Item: ENTERPRISE AIR SURVEILLANCE RADAR (EASR)						PARM Code: PEO IWS 2.0																									
P-35 Category	FY 2013		FY 2018																												
	Qty <i>(Each)</i>	Total Cost <i>(\$ M)</i>	Qty <i>(Each)</i>	Total Cost <i>(\$ M)</i>																											
Major Hardware	1	56.000	1	58.000																											
System Engineering		18.500		21.000																											
Total	1	74.500	1	79.000																											
<p>Description: The Enterprise Air Surveillance Radar (EASR) suite will be a modern long-range, three-dimensional (3D) radar used to search, detect and provide space-stabilized, three-coordinate (range, bearing, height) data for air intercept control and designation to a weapon system and Air Traffic Control (ATC) system. The Enterprise Surveillance Suite (ESS), which includes EASR, is intended to replace the functions that Dual Band Radar (DBR) performed on CVN 78, but at a much lower cost.</p>																															
<p>Contract Data:</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th style="width:10%;">Program Year</th> <th style="width:10%;">Hull</th> <th style="width:25%;">Prime Contractor</th> <th style="width:15%;">Contract Method/Type</th> <th style="width:10%;">Award Date</th> <th style="width:10%;">New/Option</th> <th style="width:10%;">Quantity <i>(Each)</i></th> <th style="width:10%;">Unit Cost <i>(\$ M)</i></th> </tr> <tr> <td>FY 2013</td> <td>CVN 79</td> <td>RAYTHEON</td> <td>C/CPIF</td> <td>Apr 2020</td> <td></td> <td align="center">1</td> <td align="right">56.000</td> </tr> <tr> <td>FY 2018</td> <td>CVN 80</td> <td>RAYTHEON</td> <td>C/CPIF</td> <td>Dec 2021</td> <td></td> <td align="center">1</td> <td align="right">56.000</td> </tr> </table>								Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity <i>(Each)</i>	Unit Cost <i>(\$ M)</i>	FY 2013	CVN 79	RAYTHEON	C/CPIF	Apr 2020		1	56.000	FY 2018	CVN 80	RAYTHEON	C/CPIF	Dec 2021		1	56.000
Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity <i>(Each)</i>	Unit Cost <i>(\$ M)</i>																								
FY 2013	CVN 79	RAYTHEON	C/CPIF	Apr 2020		1	56.000																								
FY 2018	CVN 80	RAYTHEON	C/CPIF	Dec 2021		1	56.000																								
<p>Delivery Date:</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th style="width:10%;">Program Year</th> <th style="width:10%;">Hull</th> <th style="width:15%;">Earliest Ship Delivery Date</th> <th style="width:15%;">Months Required Before Delivery</th> <th style="width:15%;">Production Leadtime</th> <th style="width:15%;">Required Award Date</th> </tr> <tr> <td>FY 2013</td> <td>CVN 79</td> <td align="center">Sep 2024</td> <td align="center">19</td> <td align="center">34</td> <td align="center">Apr 2020</td> </tr> <tr> <td>FY 2018</td> <td>CVN 80</td> <td align="center">Sep 2027</td> <td align="center">35</td> <td align="center">34</td> <td align="center">Dec 2021</td> </tr> </table>								Program Year	Hull	Earliest Ship Delivery Date	Months Required Before Delivery	Production Leadtime	Required Award Date	FY 2013	CVN 79	Sep 2024	19	34	Apr 2020	FY 2018	CVN 80	Sep 2027	35	34	Dec 2021						
Program Year	Hull	Earliest Ship Delivery Date	Months Required Before Delivery	Production Leadtime	Required Award Date																										
FY 2013	CVN 79	Sep 2024	19	34	Apr 2020																										
FY 2018	CVN 80	Sep 2027	35	34	Dec 2021																										
<p>Competition/Second Source Initiatives: None</p>																															
<p>Remarks: The hardware configuration for the CVN 79 and CVN 80 (non-rotating) is essentially three times that of a rotating configuration, which is currently planned for the big deck amphibious warfare ships. CVN 79 will have three phased arrays mounted around the island, while the amphibious warfare ships will use one rotating array. Below deck equipment is also provided at a larger scale with the non-rotating variant of EASR.</p> <p>This system is planned for installation during the CVN 79 Phase II availability. This availability enables use of competition / skilled installation teams, provides for installation of shipboard electronic systems closer to time of the ship's first deployment, and allows for concurrent installation of the combat system and DBR replacement radar suite.</p>																															

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Exhibit P-35, Major Ship Component Fact Sheet: FY 2018 Navy						Date: May 2017																									
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 02 / 1				P-1 Line Item Number / Title: 2001 / Carrier Replacement Program																											
Equipment Item: ADVANCED ARRESTING GEAR (AAG)						PARM Code: PMA 251																									
P-35 Category	FY 2013		FY 2018																												
	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)																											
Major Hardware	1	206.612	1	199.219																											
Ancillary Equipment		-		-																											
Technical Data and Documentation		-		-																											
Spares		-		32.497																											
System Engineering		8.062		4.471																											
Technical Engineering Services		6.910		4.771																											
Other Costs		10.958		10.303																											
Total	1	232.542	1	251.261																											
Description: AAG provides an upgraded ability to recover all existing and projected aircraft carrier based air vehicles. The AAG system will replace the Mark 7 arresting gear system found on the NIMITZ class carriers and will be the aircraft recovery system for CVN 78, CVN 79, and CVN 80. 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.																															
Contract Data: <table border="1" style="width:100%; border-collapse: collapse; margin-top: 5px;"> <tr> <th>Program Year</th> <th>Hull</th> <th>Prime Contractor</th> <th>Contract Method/Type</th> <th>Award Date</th> <th>New/Option</th> <th>Quantity (Each)</th> <th>Unit Cost (\$ M)</th> </tr> <tr> <td>FY 2013</td> <td>CVN 79</td> <td>GENERAL ATOMICS</td> <td>SS/FFP</td> <td>May 2014</td> <td>New</td> <td align="center">1</td> <td align="right">206.612</td> </tr> <tr> <td>FY 2018</td> <td>CVN 80</td> <td>GENERAL ATOMICS</td> <td>SS/FFP</td> <td>May 2017</td> <td>Option</td> <td align="center">1</td> <td align="right">199.219</td> </tr> </table>								Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity (Each)	Unit Cost (\$ M)	FY 2013	CVN 79	GENERAL ATOMICS	SS/FFP	May 2014	New	1	206.612	FY 2018	CVN 80	GENERAL ATOMICS	SS/FFP	May 2017	Option	1	199.219
Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity (Each)	Unit Cost (\$ M)																								
FY 2013	CVN 79	GENERAL ATOMICS	SS/FFP	May 2014	New	1	206.612																								
FY 2018	CVN 80	GENERAL ATOMICS	SS/FFP	May 2017	Option	1	199.219																								
Delivery Date: <table border="1" style="width:100%; border-collapse: collapse; margin-top: 5px;"> <tr> <th>Program Year</th> <th>Hull</th> <th>Earliest Ship Delivery Date</th> <th>Months Required Before Delivery</th> <th>Production Leadtime</th> <th>Required Award Date</th> </tr> <tr> <td>FY 2013</td> <td>CVN 79</td> <td align="center">Sep 2024</td> <td align="center">73</td> <td align="center">48</td> <td align="center">Aug 2014</td> </tr> <tr> <td>FY 2018</td> <td>CVN 80</td> <td align="center">Sep 2027</td> <td align="center">62</td> <td align="center">48</td> <td align="center">Jul 2018</td> </tr> </table>								Program Year	Hull	Earliest Ship Delivery Date	Months Required Before Delivery	Production Leadtime	Required Award Date	FY 2013	CVN 79	Sep 2024	73	48	Aug 2014	FY 2018	CVN 80	Sep 2027	62	48	Jul 2018						
Program Year	Hull	Earliest Ship Delivery Date	Months Required Before Delivery	Production Leadtime	Required Award Date																										
FY 2013	CVN 79	Sep 2024	73	48	Aug 2014																										
FY 2018	CVN 80	Sep 2027	62	48	Jul 2018																										
Competition/Second Source Initiatives: None																															
Remarks: The CVN 80 Spares P-35 category includes \$30.720M for CVN 78 Class interim spares. Long Lead Time Materials Undefined Contract Action (UCA) awarded May 2014, Undefined Production UCA awarded June 2015 for CVN 79, Production UCA defined December 2016 for CVN 79 with option for CVN 80. EMALS and AAG bundled savings on single production contract are reflective of contract negotiations.																															

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Exhibit P-35, Major Ship Component Fact Sheet: FY 2018 Navy						Date: May 2017																									
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 02 / 1				P-1 Line Item Number / Title: 2001 / Carrier Replacement Program																											
Equipment Item: PHALANX BLOCK 1B MK 15 MOD 21 & 22, CLOSE - IN WEAPONS SYSTEM (CIWS)						PARM Code: IWS 3B																									
P-35 Category	FY 2013		FY 2018																												
	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)																											
Major Hardware	3	16.297	3	16.297																											
Ancillary Equipment		0.231		0.251																											
Spares		0.278		0.302																											
System Engineering		1.857		2.020																											
Technical Engineering Services		0.628		0.683																											
Other Costs		1.292		1.406																											
Total	3	20.583	3	20.959																											
Description: 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.																															
Contract Data: <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 5px;"> <tr> <th>Program Year</th> <th>Hull</th> <th>Prime Contractor</th> <th>Contract Method/Type</th> <th>Award Date</th> <th>New/Option</th> <th>Quantity (Each)</th> <th>Unit Cost (\$ M)</th> </tr> <tr> <td>FY 2013</td> <td>CVN 79</td> <td>RAYTHEON</td> <td>C/FFP</td> <td>Apr 2021</td> <td></td> <td style="text-align: center;">3</td> <td style="text-align: right;">5.432</td> </tr> <tr> <td>FY 2018</td> <td>CVN 80</td> <td>RAYTHEON</td> <td>C/FFP</td> <td>Oct 2023</td> <td></td> <td style="text-align: center;">3</td> <td style="text-align: right;">5.432</td> </tr> </table>								Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity (Each)	Unit Cost (\$ M)	FY 2013	CVN 79	RAYTHEON	C/FFP	Apr 2021		3	5.432	FY 2018	CVN 80	RAYTHEON	C/FFP	Oct 2023		3	5.432
Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity (Each)	Unit Cost (\$ M)																								
FY 2013	CVN 79	RAYTHEON	C/FFP	Apr 2021		3	5.432																								
FY 2018	CVN 80	RAYTHEON	C/FFP	Oct 2023		3	5.432																								
Delivery Date: <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 5px;"> <tr> <th>Program Year</th> <th>Hull</th> <th>Earliest Ship Delivery Date</th> <th>Months Required Before Delivery</th> <th>Production Leadtime</th> <th>Required Award Date</th> </tr> <tr> <td>FY 2013</td> <td>CVN 79</td> <td>Sep 2024</td> <td style="text-align: center;">19</td> <td style="text-align: center;">22</td> <td style="text-align: center;">Apr 2021</td> </tr> <tr> <td>FY 2018</td> <td>CVN 80</td> <td>Sep 2027</td> <td style="text-align: center;">25</td> <td style="text-align: center;">22</td> <td style="text-align: center;">Oct 2023</td> </tr> </table>								Program Year	Hull	Earliest Ship Delivery Date	Months Required Before Delivery	Production Leadtime	Required Award Date	FY 2013	CVN 79	Sep 2024	19	22	Apr 2021	FY 2018	CVN 80	Sep 2027	25	22	Oct 2023						
Program Year	Hull	Earliest Ship Delivery Date	Months Required Before Delivery	Production Leadtime	Required Award Date																										
FY 2013	CVN 79	Sep 2024	19	22	Apr 2021																										
FY 2018	CVN 80	Sep 2027	25	22	Oct 2023																										
Competition/Second Source Initiatives: None																															
Remarks: This system is planned for installation during the CVN 79 Phase II availability. This availability enables use of competition / skilled installation teams, provides for installation of shipboard electronic systems closer to time of the ship's first deployment, and allows for concurrent installation of the combat system and DBR replacement radar suite.																															

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Exhibit P-35, Major Ship Component Fact Sheet: FY 2018 Navy						Date: May 2017	
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 02 / 1				P-1 Line Item Number / Title: 2001 / Carrier Replacement Program			
Equipment Item: AN/SQQ-34, CARRIER-TACTICAL SUPPORT CENTER (CV-TSC)						PARM Code: PEO IWS 5E	
P-35 Category	FY 2013		FY 2018				
	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)			
Major Hardware	1	3.199	1	3.199			
Technical Data and Documentation		-		-			
Spares		0.100		0.109			
System Engineering		0.350		0.381			
Technical Engineering Services		0.250		0.272			
Other Costs		0.455		0.495			
Total	1	4.354	1	4.456			
Description: 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.							
Contract Data:							
Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity (Each)	Unit Cost (\$ M)
FY 2013	CVN 79	TBD	TBD	Aug 2021		1	3.199
FY 2018	CVN 80	TBD	TBD	Aug 2023		1	3.199
Delivery Date:							
Program Year	Hull	Earliest Ship Delivery Date	Months Required Before Delivery	Production Leadtime	Required Award Date		
FY 2013	CVN 79	Sep 2024	19	18	Aug 2021		
FY 2018	CVN 80	Sep 2027	31	18	Aug 2023		
Competition/Second Source Initiatives: None							
Remarks: This system is planned for installation during the CVN 79 Phase II availability. This availability enables use of competition / skilled installation teams, provides for installation of shipboard electronic systems closer to time of the ship's first deployment, and allows for concurrent installation of the combat system and DBR replacement radar suite.							

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Exhibit P-35, Major Ship Component Fact Sheet: FY 2018 Navy						Date: May 2017																									
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 02 / 1				P-1 Line Item Number / Title: 2001 / Carrier Replacement Program																											
Equipment Item: MK29 MOD 5, GUIDED MISSILE LAUNCHING SYSTEM (GMLS)						PARM Code: PEO IWS 3																									
P-35 Category	FY 2013		FY 2018																												
	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)																											
Major Hardware	2	7.071	2	7.071																											
Ancillary Equipment		0.400		0.435																											
Technical Data and Documentation		-		-																											
Spares		0.922		1.003																											
System Engineering		0.750		0.816																											
Technical Engineering Services		0.710		0.773																											
Other Costs		1.744		1.897																											
Total	2	11.597	2	11.995																											
Description: The MK 29 Mod 5 GMLS is a launcher only configuration integrated with the C2 system and will provide CVN 78, CVN 79, and CVN 80 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.																															
Contract Data: <table border="1" style="width:100%; border-collapse: collapse; margin-top: 5px;"> <tr> <th style="text-align: center;">Program Year</th> <th style="text-align: center;">Hull</th> <th style="text-align: center;">Prime Contractor</th> <th style="text-align: center;">Contract Method/Type</th> <th style="text-align: center;">Award Date</th> <th style="text-align: center;">New/Option</th> <th style="text-align: center;">Quantity (Each)</th> <th style="text-align: center;">Unit Cost (\$ M)</th> </tr> <tr> <td align="center">FY 2013</td> <td align="center">CVN 79</td> <td align="center">TBD</td> <td align="center">TBD</td> <td align="center">Sep 2020</td> <td></td> <td align="center">2</td> <td align="right">3.536</td> </tr> <tr> <td align="center">FY 2018</td> <td align="center">CVN 80</td> <td align="center">TBD</td> <td align="center">TBD</td> <td align="center">Jan 2023</td> <td></td> <td align="center">2</td> <td align="right">3.536</td> </tr> </table>								Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity (Each)	Unit Cost (\$ M)	FY 2013	CVN 79	TBD	TBD	Sep 2020		2	3.536	FY 2018	CVN 80	TBD	TBD	Jan 2023		2	3.536
Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity (Each)	Unit Cost (\$ M)																								
FY 2013	CVN 79	TBD	TBD	Sep 2020		2	3.536																								
FY 2018	CVN 80	TBD	TBD	Jan 2023		2	3.536																								
Delivery Date: <table border="1" style="width:100%; border-collapse: collapse; margin-top: 5px;"> <tr> <th style="text-align: center;">Program Year</th> <th style="text-align: center;">Hull</th> <th style="text-align: center;">Earliest Ship Delivery Date</th> <th style="text-align: center;">Months Required Before Delivery</th> <th style="text-align: center;">Production Leadtime</th> <th style="text-align: center;">Required Award Date</th> </tr> <tr> <td align="center">FY 2013</td> <td align="center">CVN 79</td> <td align="center">Sep 2024</td> <td align="center">19</td> <td align="center">29</td> <td align="center">Sep 2020</td> </tr> <tr> <td align="center">FY 2018</td> <td align="center">CVN 80</td> <td align="center">Sep 2027</td> <td align="center">27</td> <td align="center">29</td> <td align="center">Jan 2023</td> </tr> </table>								Program Year	Hull	Earliest Ship Delivery Date	Months Required Before Delivery	Production Leadtime	Required Award Date	FY 2013	CVN 79	Sep 2024	19	29	Sep 2020	FY 2018	CVN 80	Sep 2027	27	29	Jan 2023						
Program Year	Hull	Earliest Ship Delivery Date	Months Required Before Delivery	Production Leadtime	Required Award Date																										
FY 2013	CVN 79	Sep 2024	19	29	Sep 2020																										
FY 2018	CVN 80	Sep 2027	27	29	Jan 2023																										
Competition/Second Source Initiatives: None																															
Remarks: This system is planned for installation during the CVN 79 Phase II availability. This availability enables use of competition / skilled installation teams, provides for installation of shipboard electronic systems closer to time of the ship's first deployment, and allows for concurrent installation of the combat system and DBR replacement radar suite.																															

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Exhibit P-35, Major Ship Component Fact Sheet: FY 2018 Navy						Date: May 2017	
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 02 / 1				P-1 Line Item Number / Title: 2001 / Carrier Replacement Program			
Equipment Item: AVIATION DATA MANAGEMENT AND CONTROL SYSTEM (ADMACS)						PARM Code: PMA 251	
P-35 Category	FY 2013		FY 2018				
	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)			
Major Hardware	1	4.725	1	5.141			
Technical Data and Documentation		-		-			
Spares		-		-			
System Engineering		0.873		0.950			
Technical Engineering Services		0.544		0.592			
Other Costs		1.972		2.145			
Total	1	8.114	1	8.828			
Description: 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.							
Contract Data:							
Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity (Each)	Unit Cost (\$ M)
FY 2013	CVN 79	BOWHEAD	C/FFP	Jul 2016	Option	1	4.725
FY 2018	CVN 80	TBD	TBD	Feb 2024		1	5.141
Delivery Date:							
Program Year	Hull	Earliest Ship Delivery Date	Months Required Before Delivery	Production Leadtime	Required Award Date		
FY 2013	CVN 79	Sep 2024	31	12	Feb 2021		
FY 2018	CVN 80	Sep 2027	31	12	Feb 2024		
Competition/Second Source Initiatives: N/A							

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Exhibit P-35, Major Ship Component Fact Sheet: FY 2018 Navy						Date: May 2017																									
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 02 / 1				P-1 Line Item Number / Title: 2001 / Carrier Replacement Program																											
Equipment Item: INTEGRATED LAUNCH AND RECOVERY TELEVISION SYSTEM (ILARTS)						PARM Code: PMA 251																									
P-35 Category	FY 2013		FY 2018																												
	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)																											
Major Hardware	1	2.693	1	2.930																											
Technical Data and Documentation		-		-																											
Spares		0.109		0.118																											
System Engineering		1.275		1.387																											
Technical Engineering Services		-		-																											
Other Costs		1.019		1.109																											
Total	1	5.096	1	5.544																											
Description: 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 Landing Signal Officer 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.																															
Contract Data: <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 5px;"> <tr> <th style="text-align: center;">Program Year</th> <th style="text-align: center;">Hull</th> <th style="text-align: center;">Prime Contractor</th> <th style="text-align: center;">Contract Method/Type</th> <th style="text-align: center;">Award Date</th> <th style="text-align: center;">New/Option</th> <th style="text-align: center;">Quantity (Each)</th> <th style="text-align: center;">Unit Cost (\$ M)</th> </tr> <tr> <td style="text-align: center;">FY 2013</td> <td style="text-align: center;">CVN 79</td> <td style="text-align: center;">NAWCADLKE</td> <td style="text-align: center;">C/FFP</td> <td style="text-align: center;">Jan 2017</td> <td style="text-align: center;">New</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2.693</td> </tr> <tr> <td style="text-align: center;">FY 2018</td> <td style="text-align: center;">CVN 80</td> <td style="text-align: center;">NAWCADLKE</td> <td style="text-align: center;">C/FFP</td> <td style="text-align: center;">Sep 2022</td> <td></td> <td style="text-align: center;">1</td> <td style="text-align: center;">2.930</td> </tr> </table>								Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity (Each)	Unit Cost (\$ M)	FY 2013	CVN 79	NAWCADLKE	C/FFP	Jan 2017	New	1	2.693	FY 2018	CVN 80	NAWCADLKE	C/FFP	Sep 2022		1	2.930
Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity (Each)	Unit Cost (\$ M)																								
FY 2013	CVN 79	NAWCADLKE	C/FFP	Jan 2017	New	1	2.693																								
FY 2018	CVN 80	NAWCADLKE	C/FFP	Sep 2022		1	2.930																								
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Program Year	Hull	Earliest Ship Delivery Date	Months Required Before Delivery	Production Leadtime	Required Award Date																										
FY 2013	CVN 79	Sep 2024	24	36	Sep 2019																										
FY 2018	CVN 80	Sep 2027	24	36	Sep 2022																										
Competition/Second Source Initiatives: None																															

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Exhibit P-35, Major Ship Component Fact Sheet: FY 2018 Navy				Date: May 2017	
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 02 / 1			P-1 Line Item Number / Title: 2001 / Carrier Replacement Program		
Equipment Item: MK 49, MOD 3 ROLLING AIRFRAME MISSILE (RAM)				PARM Code: PEO IWS 3B	
P-35 Category	FY 2013		FY 2018		
	Qty <i>(Each)</i>	Total Cost <i>(\$ M)</i>	Qty <i>(Each)</i>	Total Cost <i>(\$ M)</i>	
Major Hardware	2	7.902	2	7.902	
Ancillary Equipment		1.381		1.503	
Technical Data and Documentation		0.035		0.038	
Spares		0.140		0.152	
System Engineering		2.190		2.383	
Technical Engineering Services		0.380		0.413	
Other Costs		4.098		4.458	
Total	2	16.126	2	16.849	

Description:
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, CVN 79, and CVN 80 system provides refurbished MK 49 Guided Missile Launching Systems upgraded to MK 49 Mod 3.

Contract Data:

Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity <i>(Each)</i>	Unit Cost <i>(\$ M)</i>
FY 2013	CVN 79	TBD	TBD	May 2021		2	3.951
FY 2018	CVN 80	TBD	TBD	Nov 2023		2	3.951

Delivery Date:

Program Year	Hull	Earliest Ship Delivery Date	Months Required Before Delivery	Production Leadtime	Required Award Date
FY 2013	CVN 79	Sep 2024	19	21	May 2021
FY 2018	CVN 80	Sep 2027	25	21	Nov 2023

Competition/Second Source Initiatives:
None

Remarks:
This system is planned for installation during the CVN 79 Phase II availability. This availability enables use of competition / skilled installation teams, provides for installation of shipboard electronic systems closer to time of the ship's first deployment, and allows for concurrent installation of the combat system and DBR replacement radar suite.

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Exhibit P-35, Major Ship Component Fact Sheet: FY 2018 Navy						Date: May 2017																									
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 02 / 1				P-1 Line Item Number / Title: 2001 / Carrier Replacement Program																											
Equipment Item: AN/SPQ-9B, ANTI-SHIP MISSILE DEFENSE (ASMD) SURFACE SURVEILLANCE AND TRACKING RADAR						PARM Code: PEO IWS2B																									
P-35 Category	FY 2013		FY 2018																												
	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)																											
Major Hardware	1	7.469	1	7.469																											
Spares		0.450		0.490																											
System Engineering		0.980		1.066																											
Technical Engineering Services		0.602		0.655																											
Other Costs		3.719		4.046																											
Total	1	13.220	1	13.726																											
Description: SPQ-9B is a multimode, x-band, narrow beam, pulse Doppler radar that detects and tracks sea-skimming missiles (ASMD) at the horizon in heavy clutter while simultaneously providing detection and tracking of surface targets.																															
Contract Data: <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 5px;"> <tr> <th>Program Year</th> <th>Hull</th> <th>Prime Contractor</th> <th>Contract Method/Type</th> <th>Award Date</th> <th>New/Option</th> <th>Quantity (Each)</th> <th>Unit Cost (\$ M)</th> </tr> <tr> <td>FY 2013</td> <td>CVN 79</td> <td>NGES</td> <td>SS/FFP</td> <td>Aug 2021</td> <td></td> <td style="text-align: center;">1</td> <td style="text-align: right;">7.469</td> </tr> <tr> <td>FY 2018</td> <td>CVN 80</td> <td>NGES</td> <td>SS/FFP</td> <td>Aug 2023</td> <td></td> <td style="text-align: center;">1</td> <td style="text-align: right;">7.469</td> </tr> </table>								Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity (Each)	Unit Cost (\$ M)	FY 2013	CVN 79	NGES	SS/FFP	Aug 2021		1	7.469	FY 2018	CVN 80	NGES	SS/FFP	Aug 2023		1	7.469
Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity (Each)	Unit Cost (\$ M)																								
FY 2013	CVN 79	NGES	SS/FFP	Aug 2021		1	7.469																								
FY 2018	CVN 80	NGES	SS/FFP	Aug 2023		1	7.469																								
Delivery Date: <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 5px;"> <tr> <th>Program Year</th> <th>Hull</th> <th>Earliest Ship Delivery Date</th> <th>Months Required Before Delivery</th> <th>Production Leadtime</th> <th>Required Award Date</th> </tr> <tr> <td>FY 2013</td> <td>CVN 79</td> <td>Sep 2024</td> <td style="text-align: center;">19</td> <td style="text-align: center;">18</td> <td style="text-align: center;">Aug 2021</td> </tr> <tr> <td>FY 2018</td> <td>CVN 80</td> <td>Sep 2027</td> <td style="text-align: center;">31</td> <td style="text-align: center;">18</td> <td style="text-align: center;">Aug 2023</td> </tr> </table>								Program Year	Hull	Earliest Ship Delivery Date	Months Required Before Delivery	Production Leadtime	Required Award Date	FY 2013	CVN 79	Sep 2024	19	18	Aug 2021	FY 2018	CVN 80	Sep 2027	31	18	Aug 2023						
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Competition/Second Source Initiatives: None																															
Remarks: This system is planned for installation during the CVN 79 Phase II availability. This availability enables use of competition / skilled installation teams, provides for installation of shipboard electronic systems closer to time of the ship's first deployment, and allows for concurrent installation of the combat system and DBR replacement radar suite.																															

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Exhibit P-35, Major Ship Component Fact Sheet: FY 2018 Navy						Date: May 2017	
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 02 / 1				P-1 Line Item Number / Title: 2001 / Carrier Replacement Program			
Equipment Item: MK-9 TARGET ILLUMINATOR						PARM Code: IWS 3D	
P-35 Category	FY 2013		FY 2018				
	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)			
Major Hardware	4	11.706	4	11.706			
Spares		0.878		0.955			
Total	4	12.584	4	12.661			
Description: MK-9 is an X-Band Illuminator that provides weapon communication and missile illumination.							
Contract Data:							
Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity (Each)	Unit Cost (\$ M)
FY 2013	CVN 79	RAYTHEON	C/FFP	Feb 2021		4	2.927
FY 2018	CVN 80	RAYTHEON	C/FFP	Feb 2023		4	2.927
Delivery Date:							
Program Year	Hull	Earliest Ship Delivery Date	Months Required Before Delivery	Production Leadtime	Required Award Date		
FY 2013	CVN 79	Sep 2024	19	24	Feb 2021		
FY 2018	CVN 80	Sep 2027	31	24	Feb 2023		
Competition/Second Source Initiatives: None							
Remarks: This system is planned for installation during the CVN 79 Phase II availability. This availability enables use of competition / skilled installation teams, provides for installation of shipboard electronic systems closer to time of the ship's first deployment, and allows for concurrent installation of the combat system and DBR replacement radar suite.							

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Exhibit P-40, Budget Line Item Justification: FY 2018 Navy										Date: May 2017		
Appropriation / Budget Activity / Budget Sub Activity: 1611N: Shipbuilding and Conversion, Navy / BA 02: Other Warships / BSA 1: Other Warships							P-1 Line Item Number / Title: 2013 / Virginia Class Submarine					
ID Code (A=Service Ready, B=Not Service Ready): A			Program Elements for Code B Items: N/A					Other Related Program Elements: N/A				
Line Item MDAP/MAIS Code: N/A												
Resource Summary	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
Procurement Quantity <i>(Units in Each)</i>	22	2	2	2	-	2	2	2	2	2	12	48
Gross/Weapon System Cost <i>(\$ in Millions)</i>	56,975.295	5,376.854	5,408.901	5,532.718	0.000	5,532.718	6,428.514	6,443.004	6,542.843	6,564.519	51,584.230	150,856.878
Less PY Advance Procurement <i>(\$ in Millions)</i>	15,901.471	1,613.536	1,623.288	1,647.040	-	1,647.040	2,043.891	1,756.901	1,841.040	1,888.368	2,668.325	30,983.860
Less Cost To Complete <i>(\$ in Millions)</i>	1,844.685	-	-	-	-	-	-	-	-	-	-	1,844.685
Less Economic Order Quantity <i>(\$ in Millions)</i>	2,195.097	416.948	597.628	580.363	-	580.363	-	246.364	540.358	754.068	754.068	6,084.894
Net Procurement (P-1) <i>(\$ in Millions)</i>	37,034.042	3,346.370	3,187.985	3,305.315	0.000	3,305.315	4,384.623	4,439.739	4,161.445	3,922.083	48,161.837	111,943.439
Plus CY Advance Procurement <i>(\$ in Millions)</i>	18,667.507	1,641.888	1,767.234	1,920.596	-	1,920.596	1,811.290	1,887.622	1,945.910	1,341.813	-	30,983.860
Plus Cost To Complete <i>(\$ in Millions)</i>	1,844.685	-	-	-	-	-	-	-	-	-	-	1,844.685
Plus Economic Order Quantity <i>(\$ in Millions)</i>	3,460.084	329.952	-	-	-	-	985.456	881.982	427.420	-	-	6,084.894
Total Obligation Authority <i>(\$ in Millions)</i>	61,006.318	5,318.210	4,955.219	5,225.911	0.000	5,225.911	7,181.369	7,209.343	6,534.775	5,263.896	48,161.837	150,856.878
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Plus Outfitting and Post Delivery <i>(\$ in Millions)</i>	928.591	104.613	142.667	118.741	-	118.741	122.469	171.791	169.745	170.400	2,514.838	4,443.855
Total <i>(\$ in Millions)</i>	61,934.909	5,422.823	5,097.886	5,344.652	-	5,344.652	7,303.838	7,381.134	6,704.520	5,434.296	50,676.675	155,300.733
Gross/Weapon System Unit Cost <i>(\$ in Millions)</i>	2,589.786	2,688.427	2,704.451	2,766.359	-	2,766.359	3,214.257	3,221.502	3,271.422	3,282.260	4,298.686	3,142.852

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

NOTE: These VA Class Exhibits reflect an FY14 - FY18 Multi-Year Procurement (MYP) strategy for 10 SSNs (2 per year) with EOQ in FY14-FY16. Additionally, these exhibits reflect an anticipated FY19-23 MYP construction contract for 10 SSNs (2 per year) with EOQ in FY19-21 with VPM on the FY19-2 and all following SSNs. FY17-22 AP funding for long lead time material and VPM detail design is also included.

Note: On 13 Feb 2017, the Assistant Secretary of the Navy (Research, Development, & Acquisition) approved the VIRGINIA Class Submarine Program's Acquisition Program Baseline (APB) update, extending the program of record from 30 to 48 submarines. The To Complete and Total Cost of Program has been updated to reflect this change from previous budget submissions.

Note:
\$85M of FY19 Full Funding removed in anticipation of FY17 Congressional Interest AP Add not included in FY17 exhibit above.

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Exhibit P-40, Budget Line Item Justification: FY 2018 Navy						Date: May 2017	
Appropriation / Budget Activity / Budget Sub Activity: 1611N: Shipbuilding and Conversion, Navy / BA 02: Other Warships / BSA 1: Other Warships				P-1 Line Item Number / Title: 2013 / Virginia Class Submarine			
ID Code (A=Service Ready, B=Not Service Ready): A		Program Elements for Code B Items: N/A			Other Related Program Elements: N/A		
Line Item MDAP/MAIS Code: N/A							
Characteristics: - Length Overall 377 feet Beam 34 feet Displacement 7830 TONS Draft 32 feet							
Production Status:	SSN 787	SSN 788	SSN 789	SSN 790	SSN 791	SSN 792	SSN 793
Contract Award Date	Dec 2008	Dec 2008	Dec 2008	Dec 2008	Dec 2008	Apr 2014	Apr 2014
Months to Completion							
a) Award to Delivery	101 months	104 months	110 months	116 months	122 months	62 months	67 months
b) Construction Start to Delivery	68 months	65 months	65 months	65 months	65 months	61 months	62 months
Delivery Date	May 2017	Aug 2017	Feb 2018	Aug 2018	Feb 2019	Jun 2019	Nov 2019
Completion Of Fitting Out	May 2017	Aug 2017	Feb 2018	Aug 2018	Feb 2019	Jun 2019	Nov 2019
Obligation Work Limit Date	Apr 2018	Jul 2018	Jan 2019	Jul 2019	Jan 2020	May 2020	Oct 2020
Production Status:	SSN 794	SSN 795	SSN 796	SSN 797	SSN 798	SSN 799	SSN 800
Contract Award Date	Apr 2014	Apr 2014	Apr 2014	Apr 2014	Apr 2014	Apr 2014	Apr 2014
Months to Completion							
a) Award to Delivery	73 months	77 months	82 months	88 months	94 months	100 months	106 months
b) Construction Start to Delivery	61 months	60 months	59 months	59 months	59 months	59 months	59 months
Delivery Date	May 2020	Sep 2020	Feb 2021	Aug 2021	Feb 2022	Aug 2022	Feb 2023
Completion Of Fitting Out	May 2020	Sep 2020	Feb 2021	Aug 2021	Feb 2022	Aug 2022	Feb 2023
Obligation Work Limit Date	Apr 2021	Aug 2021	Jan 2022	Jul 2022	Jan 2023	Jul 2023	Jan 2024
Production Status:	SSN 801						
Contract Award Date	Apr 2014						
Months to Completion							
a) Award to Delivery	112 months						
b) Construction Start to Delivery	59 months						
Delivery Date	Aug 2023						
Completion Of Fitting Out	Aug 2023						
Obligation Work Limit Date	Jul 2024						
Design Schedule	Start / Issue	Complete / Response	Reissue	Reissue Complete / Response			
Issue Date for TLR	N/A	N/A					
Issue Date for TLS	N/A	N/A					
Preliminary Design	Oct 1993	Sep 1995					
Contract Design	Oct 1994	Sep 1996					
Detail Design	Jan 1996	Jun 2004					
Request for Proposals	N/A	N/A					

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Exhibit P-40, Budget Line Item Justification: FY 2018 Navy				Date: May 2017	
Appropriation / Budget Activity / Budget Sub Activity: 1611N: Shipbuilding and Conversion, Navy / BA 02: Other Warships / BSA 1: Other Warships			P-1 Line Item Number / Title: 2013 / Virginia Class Submarine		
ID Code (A=Service Ready, B=Not Service Ready): A		Program Elements for Code B Items: N/A		Other Related Program Elements: N/A	
Line Item MDAP/MAIS Code: N/A					
<u>Design Schedule</u> Design Agent <u>Classification of Cost Estimate:</u> C		<u>Start / Issue</u> Electric Boat		<u>Complete / Response</u> <u>Reissue</u> <u>Reissue Complete / Response</u>	
<p>Justification: The increase in FY18 SCN Technology Insertion budget supports all HM&E systems obsolescence and integration into technical baseline for ship production while maintaining class affordability objectives. Ongoing HM&E critical systems obsolescence efforts include Impressed Current Cathodic Protection (ICCP) and Fly-by-Wire Ship Control.</p>					

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Exhibit P-5c, Ship Cost Analysis: FY 2018 Navy

Date: May 2017

Appropriation / Budget Activity / Budget Sub Activity:
1611N / 02 / 1P-1 Line Item Number / Title:
2013 / Virginia Class Submarine

Cost Categories (^(†) indicates the presence of a P-8a)	FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		FY 2016		FY 2017		FY 2018	
	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Plan Costs	2	184.659	2	176.536	2	183.597	2	167.937	2	177.095	2	183.078	2	180.184	2	187.778
Basic Construction/Conversion		3,384.964		3,306.362		3,236.314		3,492.087		3,335.501		3,384.290		3,430.573		3,508.117
Change Orders		100.644		98.600		92.430		104.021		89.481		91.459		73.043		74.536
Electronics (^(†))		529.217		489.838		499.845		503.718		504.701		514.795		515.852		525.653
Technology Insertion		80.000		25.600		45.500		73.500		28.835		13.535		12.501		18.000
Propulsion Equipment		887.000		878.000		896.000		910.157		970.000		1,025.000		1,032.500		1,051.100
Hull, Mechanical, and Electrical (HM&E) (^(†))		99.738		100.116		98.876		105.248		106.822		109.920		110.190		112.394
Other Cost		48.170		49.158		51.124		52.658		53.233		54.777		54.058		55.140
Total Ship Estimate		5,314.392		5,124.210		5,103.686		5,409.326		5,265.668		5,376.854		5,408.901		5,532.718
Less Advance Procurement FY 2008		513.884		-		-		-		-		-		-		-
Less Advance Procurement FY 2009		563.000		-		-		-		-		-		-		-
Less Advance Procurement FY 2010		432.400		914.000		-		-		-		-		-		-
Less Advance Procurement FY 2011		-		498.961		932.000		-		-		-		-		-
Less Advance Procurement FY 2012		-		-		473.115		988.246		-		-		-		-
Less Advance Procurement FY 2013		-		-		-		540.376		1,110.000		-		-		-
Less Advance Procurement FY 2014		-		-		-		-		467.014		1,145.000		-		-
Less Advance Procurement FY 2015		-		-		-		-		-		468.536		1,152.500		-
Less Advance Procurement FY 2016		-		-		-		-		-		-		470.788		1,171.100
Less Advance Procurement FY 2017		-		-		-		-		-		-		-		475.940
Less Cost to Complete FY 2014		-		-		227.000		-		-		-		-		-
Less EOQ FY 2009		186.488		162.131		162.128		-		-		-		-		-
Less EOQ FY 2010		207.222		199.789		200.269		-		-		-		-		-
Less EOQ FY 2011		-		128.015		122.920		-		-		-		-		-
Less EOQ FY 2014		-		-		-		-		158.400		219.380		194.909		169.909
Less EOQ FY 2015		-		-		-		-		-		197.568		251.603		231.618

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Exhibit P-5c, Ship Cost Analysis: FY 2018 Navy												Date: May 2017				
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 02 / 1								P-1 Line Item Number / Title: 2013 / Virginia Class Submarine								
Cost Categories ^(†) indicates the presence of a P-8a	FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		FY 2016		FY 2017		FY 2018	
	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Less EOQ FY 2016		-		-		-		-		-		-		151.116		178.836
Net P-1 Funding		3,411.398		3,221.314		2,986.254		3,880.704		3,530.254		3,346.370		3,187.985		3,305.315
Remarks: * The increase in FY18 SCN Technology Insertion budget supports all HM&E systems obsolescence and integration into technical baseline for ship production while maintaining class affordability objectives. Ongoing HM&E critical systems obsolescence efforts include Impressed Current Cathodic Protection (ICCP) and Fly-by-Wire Ship Control.																

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Exhibit P-27, Ship Production Schedule: FY 2018 Navy					Date: May 2017
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 02 / 1			P-1 Line Item Number / Title: 2013 / Virginia Class Submarine		
Ship	Shipbuilder	Fiscal Year	Contract Award	Start of Construction	Delivery Date
SSN 787	EB/NSS	2011	Dec 2008	Sep 2011	May 2017
SSN 788	EB/NSS	2012	Dec 2008	Mar 2012	Aug 2017
SSN 789	EB/NSS	2012	Dec 2008	Sep 2012	Feb 2018
SSN 790	EB/NSS	2013	Dec 2008	Mar 2013	Aug 2018
SSN 791	EB/NSS	2013	Dec 2008	Sep 2013	Feb 2019
SSN 792	EB/NSS	2014	Apr 2014	May 2014	Jun 2019
SSN 793	EB/NSS	2014	Apr 2014	Sep 2014	Nov 2019
SSN 794	EB/NSS	2015	Apr 2014	Apr 2015	May 2020
SSN 795	EB/NSS	2015	Apr 2014	Sep 2015	Sep 2020
SSN 796	EB/NSS	2016	Apr 2014	Mar 2016	Feb 2021
SSN 797	EB/NSS	2016	Apr 2014	Sep 2016	Aug 2021
SSN 798	EB/NSS	2017	Apr 2014	Mar 2017	Feb 2022
SSN 799	EB/NSS	2017	Apr 2014	Sep 2017	Aug 2022
SSN 800	EB/NSS	2018	Apr 2014	Mar 2018	Feb 2023
SSN 801	EB/NSS	2018	Apr 2014	Sep 2018	Aug 2023
SSN 802	EB/NSS	2019	Oct 2018	Mar 2019	Jul 2024
SSN 803	EB/NSS	2019	Oct 2018	Sep 2019	Apr 2025
SSN 804	EB/NSS	2020	Oct 2018	Mar 2020	Jun 2025
SSN 805	EB/NSS	2020	Oct 2018	Sep 2020	Dec 2025
SSN 806	EB/NSS	2021	Oct 2018	Mar 2021	Jun 2026
SSN 807	EB/NNS	2021	Oct 2018	Sep 2021	Dec 2026
SSN 808	EB/NSS	2022	Oct 2018	Mar 2022	Jun 2027
SSN 809	EB/NSS	2022	Oct 2018	Sep 2022	Dec 2027

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Exhibit P-8a, Analysis of Ship Cost Estimates: FY 2018 Navy					Date: May 2017	
Appropriation / Budget Activity / Budget Sub Activity:			P-1 Line Item Number / Title:			
1611N / 02 / 1			2013 / Virginia Class Submarine			
Electronics	FY 2016		FY 2017		FY 2018	
	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
P-35 Items						
Sonar, Combat Control & Architecture	2	211.046	2	211.792	2	215.816
Electronic Support Measures (ESM)	2	57.650	2	57.854	2	58.954
Photonics Masts	2	38.774	2	38.909	2	39.648
Universal Modular Mast (UMM)	2	22.112	2	22.190	2	22.612
Exterior Communications System (ECS) Recurring	2	52.306	2	52.491	2	53.488
P-35 Items Subtotal		381.888		383.236		390.518
Major Items						
System Level Activities	2	39.473	2	38.953	2	39.692
AN/BPS-16	2	6.048	2	5.972	2	6.086
Navigation	2	6.750	2	6.773	2	6.902
CWITT	2	43.898	2	44.050	2	44.888
Non-Propulsion Electronics System, Systems Engineering and Integration (NPES SE&I)	2	34.354	2	34.476	2	35.130
Major Items Subtotal		130.523		130.224		132.698
Other Cost Elements						
Misc Electronics	0	2.384	0	2.392	0	2.437
Other Cost Elements Subtotal		2.384		2.392		2.437
Total Electronics		514.795		515.852		525.653

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Exhibit P-8a, Analysis of Ship Cost Estimates: FY 2018 Navy					Date: May 2017	
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 02 / 1			P-1 Line Item Number / Title: 2013 / Virginia Class Submarine			
Hull, Mechanical, and Electrical (HM&E)	FY 2016		FY 2017		FY 2018	
	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
P-35 Items						
Propulsor	2	75.628	2	76.348	2	77.876
P-35 Items Subtotal		75.628		76.348		77.876
Major Items						
CSA MK2		3.278		3.234		3.298
Major Items Subtotal		3.278		3.234		3.298
Other Cost Elements						
HM&E Installation and testing		19.374		19.120		19.502
T&E		9.446		9.322		9.508
SUPSHIP responsible material		2.194		2.166		2.210
Other Cost Elements Subtotal		31.014		30.608		31.220
Total Hull, Mechanical, and Electrical (HM&E)		109.920		110.190		112.394

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Exhibit P-35, Major Ship Component Fact Sheet: FY 2018 Navy						Date: May 2017	
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 02 / 1				P-1 Line Item Number / Title: 2013 / Virginia Class Submarine			
Equipment Item: Sonar, Combat Control & Architecture						PARM Code: N/A	
P-35 Category	FY 2016		FY 2017		FY 2018		
	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	
Major Hardware	2	172.084	2	172.703	2	175.984	
Technical Engineering Services		3.082		3.092		3.151	
Other Costs		35.880		35.997		36.681	
Total	2	211.046	2	211.792	2	215.816	
Description: The VIRGINIA Class Command, Control, Communications and Intelligence (C3I) System is the electronics suite which will provide required operational and warfighting capability for the Navy's newest attack submarine. The C3I System includes 15 subsystems (23 if all electronically interfaced subsystems are included) integrated by an overarching Architecture Subsystem. This P-35 covers the procurement requirements for the following: C3I Prime Contractor Furnished Equipment (Sonar, Combat Control and Architecture subsystems) and associated Government Furnished Equipment; technical data documentation; spares; technical engineering services; design engineering services; field engineering services; management support services; and shipboard certification efforts.							
Contract Data:							
Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity (Each)	Unit Cost (\$ M)
FY 2016	SSN 796	Lockheed Martin	C/CPIF	Jan 2016	Option	2	47.126
FY 2017	SSN 798	Lockheed Martin	C/CPIF	Jan 2017	Option	2	48.068
FY 2018	SSN 800	Lockheed Martin	C/CPIF	Jan 2018	Option	2	48.892
Delivery Date:							
Program Year	Hull	Earliest Ship Delivery Date	Months Required Before Delivery	Production Leadtime	Required Award Date		
FY 2016	SSN 796	Feb 2021	26	32	May 2016		
FY 2017	SSN 798	Feb 2022	26	32	May 2017		
FY 2018	SSN 800	Feb 2023	26	32	May 2018		
Competition/Second Source Initiatives: N/A							

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Exhibit P-35, Major Ship Component Fact Sheet: FY 2018 Navy	Date: May 2017
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Appropriation / Budget Activity / Budget Sub Activity: 1611N / 02 / 1	P-1 Line Item Number / Title: 2013 / Virginia Class Submarine
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Equipment Item: Electronic Support Measures (ESM)	PARM Code: N/A
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P-35 Category	FY 2016		FY 2017		FY 2018	
	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Major Hardware	2	43.718	2	43.877	2	44.712
Technical Engineering Services		2.450		2.458		2.504
Other Costs		11.482		11.519		11.738
Total	2	57.650	2	57.854	2	58.954

Description:

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

Contract Data:

Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity (Each)	Unit Cost (\$ M)
FY 2016	SSN 796	Lockheed Martin	C/FFP	Jan 2016	Option	2	21.859
FY 2017	SSN 798	Lockheed Martin	C/FFP	Jan 2016	Option	2	21.939
FY 2018	SSN 800	Lockheed Martin	C/FFP	Jan 2016	Option	2	22.356

Delivery Date:

Program Year	Hull	Earliest Ship Delivery Date	Months Required Before Delivery	Production Leadtime	Required Award Date
FY 2016	SSN 796	Feb 2021	26	24	Dec 2016
FY 2017	SSN 798	Feb 2022	26	24	Dec 2017
FY 2018	SSN 800	Feb 2023	26	24	Dec 2018

Competition/Second Source Initiatives:

Multi-Functional Modular Mast (MMM) competitive contract was awarded to Lockheed Martin - Mission Systems and Training (LM-MST) in January 2016 for SSNs 794 thru 801.

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Exhibit P-35, Major Ship Component Fact Sheet: FY 2018 Navy						Date: May 2017	
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 02 / 1				P-1 Line Item Number / Title: 2013 / Virginia Class Submarine			
Equipment Item: Photonics Masts						PARM Code: N/A	
P-35 Category	FY 2016		FY 2017		FY 2018		
	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	
Major Hardware	2	26.804	2	26.899	2	27.410	
Technical Engineering Services		1.204		1.207		1.230	
Other Costs		10.766		10.803		11.008	
Total	2	38.774	2	38.909	2	39.648	

Description:
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.

Contract Data:

Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity (Each)	Unit Cost (\$ M)
FY 2016	SSN 796	L-3 KEO	C/FFP	Apr 2015	Option	2	13.402
FY 2017	SSN 798	L-3 KEO	C/FFP	Apr 2015	Option	2	13.450
FY 2018	SSN 800	L-3 KEO	C/FFP	Apr 2015	Option	2	13.705

Delivery Date:

Program Year	Hull	Earliest Ship Delivery Date	Months Required Before Delivery	Production Leadtime	Required Award Date
FY 2016	SSN 796	Feb 2021	26	24	Dec 2016
FY 2017	SSN 798	Feb 2022	26	24	Dec 2017
FY 2018	SSN 800	Feb 2023	26	24	Dec 2018

Competition/Second Source Initiatives:
Low Profile Photonics Mast (LPPM): Full and Open competition contract awarded in April 2015 for SSNs 794 thru 801. Includes common diploop/Electrical Hull Penetrator (EHP) plan as part of contract to maintain future mast flexibility and antenna assembly and ESM mast components.

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Exhibit P-35, Major Ship Component Fact Sheet: FY 2018 Navy						Date: May 2017	
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 02 / 1				P-1 Line Item Number / Title: 2013 / Virginia Class Submarine			
Equipment Item: Universal Modular Mast (UMM)						PARM Code: N/A	
P-35 Category	FY 2016		FY 2017		FY 2018		
	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	
Major Hardware	2	16.478	2	16.537	2	16.852	
Technical Engineering Services		2.734		2.743		2.795	
Other Costs		2.900		2.910		2.965	
Total	2	22.112	2	22.190	2	22.612	

Description:
 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.

Contract Data:

Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity (Each)	Unit Cost (\$ M)
FY 2016	SSN 796	L-3 KEO	SS/FP	Jun 2015	Option	2	8.239
FY 2017	SSN 798	L-3 KEO	SS/FP	Jun 2015	Option	2	8.269
FY 2018	SSN 800	L3-KEO	SS/FP	Jun 2015	Option	2	8.426

Delivery Date:

Program Year	Hull	Earliest Ship Delivery Date	Months Required Before Delivery	Production Leadtime	Required Award Date
FY 2016	SSN 796	Feb 2021	37	21	Apr 2016
FY 2017	SSN 798	Feb 2022	37	21	Apr 2017
FY 2018	SSN 800	Feb 2023	37	21	Apr 2018

Competition/Second Source Initiatives:
 N/A

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Exhibit P-35, Major Ship Component Fact Sheet: FY 2018 Navy						Date: May 2017	
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 02 / 1				P-1 Line Item Number / Title: 2013 / Virginia Class Submarine			
Equipment Item: Exterior Communications System (ECS) Recurring						PARM Code: N/A	
P-35 Category	FY 2016		FY 2017		FY 2018		
	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	
Major Hardware	2	35.082	2	35.210	2	35.879	
Technical Engineering Services		5.950		5.970		6.083	
Other Costs		11.274		11.311		11.526	
Total	2	52.306	2	52.491	2	53.488	

Description:
 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)

Contract Data:

Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity (Each)	Unit Cost (\$ M)
FY 2016	SSN 796	SAIC	C/IDIQ	May 2018	Option	2	17.541
FY 2017	SSN 798	SAIC	C/IDIQ	May 2019	Option	2	17.605
FY 2018	SSN 800	SAIC	C/IDIQ	May 2020	Option	2	17.940

Delivery Date:

Program Year	Hull	Earliest Ship Delivery Date	Months Required Before Delivery	Production Leadtime	Required Award Date
FY 2016	SSN 796	Feb 2021	24	9	May 2018
FY 2017	SSN 798	Feb 2022	24	9	May 2019
FY 2018	SSN 800	Feb 2023	24	9	May 2020

Competition/Second Source Initiatives:
 N/A

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Exhibit P-35, Major Ship Component Fact Sheet: FY 2018 Navy						Date: May 2017																																
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 02 / 1				P-1 Line Item Number / Title: 2013 / Virginia Class Submarine																																		
Equipment Item: Propulsor						PARM Code: N/A																																
P-35 Category	FY 2016		FY 2017		FY 2018																																	
	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)																																
Major Hardware	2	64.486	2	66.034	2	67.356																																
TECH ENGINEERING SERVICES		11.142		10.314		10.520																																
Total	2	75.628	2	76.348	2	77.876																																
Description: 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.																																						
Contract Data: <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th>Program Year</th> <th>Hull</th> <th>Prime Contractor</th> <th>Contract Method/Type</th> <th>Award Date</th> <th>New/Option</th> <th>Quantity (Each)</th> <th>Unit Cost (\$ M)</th> </tr> <tr> <td>FY 2016</td> <td align="center">SSN 796</td> <td align="center">BAE Systems</td> <td align="center">C/FFP</td> <td align="center">Apr 2016</td> <td align="center">Option</td> <td align="center">2</td> <td align="right">24.650</td> </tr> <tr> <td>FY 2017</td> <td align="center">SSN 798</td> <td align="center">BAE Systems</td> <td align="center">C/FFP</td> <td align="center">Apr 2016</td> <td align="center">Option</td> <td align="center">2</td> <td align="right">25.500</td> </tr> <tr> <td>FY 2018</td> <td align="center">SSN 800</td> <td align="center">BAE Systems</td> <td align="center">C/FFP</td> <td align="center">Apr 2016</td> <td align="center">Option</td> <td align="center">2</td> <td align="right">26.350</td> </tr> </table>							Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity (Each)	Unit Cost (\$ M)	FY 2016	SSN 796	BAE Systems	C/FFP	Apr 2016	Option	2	24.650	FY 2017	SSN 798	BAE Systems	C/FFP	Apr 2016	Option	2	25.500	FY 2018	SSN 800	BAE Systems	C/FFP	Apr 2016	Option	2	26.350
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Delivery Date: <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th>Program Year</th> <th>Hull</th> <th>Earliest Ship Delivery Date</th> <th>Months Required Before Delivery</th> <th>Production Leadtime</th> <th>Required Award Date</th> </tr> <tr> <td>FY 2016</td> <td align="center">SSN 796</td> <td align="center">Feb 2021</td> <td align="center">35</td> <td align="center">30</td> <td align="center">Sep 2015</td> </tr> <tr> <td>FY 2017</td> <td align="center">SSN 798</td> <td align="center">Feb 2022</td> <td align="center">35</td> <td align="center">30</td> <td align="center">Sep 2016</td> </tr> <tr> <td>FY 2018</td> <td align="center">SSN 800</td> <td align="center">Feb 2023</td> <td align="center">35</td> <td align="center">30</td> <td align="center">Sep 2017</td> </tr> </table>							Program Year	Hull	Earliest Ship Delivery Date	Months Required Before Delivery	Production Leadtime	Required Award Date	FY 2016	SSN 796	Feb 2021	35	30	Sep 2015	FY 2017	SSN 798	Feb 2022	35	30	Sep 2016	FY 2018	SSN 800	Feb 2023	35	30	Sep 2017								
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FY 2018	SSN 800	Feb 2023	35	30	Sep 2017																																	
Competition/Second Source Initiatives: N/A																																						
Remarks: The Block IV contract, which consists of SSNs 794-803, was executed in June 2015 as an undefinitized contract action (UCA) for the long lead time material (LLTM) for SSN 794 and SSN 795. The Block IV contract definitized in April 2016 for SSNs 794-803. The definitization modification included the award for the full effort of SSN 796 and SSN 797 as well as the LLTM for SSN 798 and SSN 799. The Propulsor equipment for the SSN796 is anticipated to meet required shipbuilder in yard need date and therefore not impact the ship delivery schedule.																																						

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Exhibit P-10, Advance Procurement Requirements Analysis (page 1 - Budget Funding Justification): FY 2018 Navy							Date: May 2017		
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 02 / 1				P-1 Line Item Number / Title: 2013 / Virginia Class Submarine					
First System (2018) Award Date:		First System (2018) Completion Date:			Interval Between Systems: 0 Months				
Cost Elements	Production Leadtime (Months)	When Required* (Months)	FY 2016 (\$ M)	FY 2017 (\$ M)	FY 2018 (\$ M)	FY 2019 (\$ M)	FY 2020 (\$ M)	FY 2021 (\$ M)	FY 2022 (\$ M)
Advance Procurement									
Nuclear Propulsion Plant Equipment ⁽¹⁾	30-72	Various	1,051.100	1,046.000	1,047.000	1,083.600	1,122.000	1,161.000	661.000
Electronics Equipment ⁽²⁾	37-43	Various	27.800	28.214	28.778	29.354	29.940	30.540	31.150
NON-Nuclear Propulsion Plant Equipment - Propulsor ⁽³⁾	36	Various	41.800	43.100	43.962	44.840	45.738	46.653	47.586
Long Lead-Time CFE One Year AP ⁽⁴⁾	24-42	Various	401.188	404.626	589.347	514.708	542.974	542.205	553.572
Long Lead-Time CFE Two Year AP ⁽⁴⁾	24-42	Various	120.000	151.624	120.999	138.788	146.970	165.512	48.505
VPM Detail Design ⁽⁵⁾	24-36	Various	-	93.670	90.510	-	-	-	-
<i>Total: Advance Procurement</i>			<i>1,641.888</i>	<i>1,767.234</i>	<i>1,920.596</i>	<i>1,811.290</i>	<i>1,887.622</i>	<i>1,945.910</i>	<i>1,341.813</i>
Economic Order of Quantity									
EOQ ⁽⁶⁾	-	Various	329.952	-	0.000	985.456	881.982	427.420	-
<i>Total: Economic Order of Quantity</i>			<i>329.952</i>	<i>-</i>	<i>-</i>	<i>985.456</i>	<i>881.982</i>	<i>427.420</i>	<i>-</i>
Total Advance Procurement/Obligation Authority			1,971.840	1,767.234	1,920.596	2,796.746	2,769.604	2,373.330	1,341.813
<p>*Note: "When Required" is the number of months required before ship delivery.</p>									

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Exhibit P-10, Advance Procurement Requirements Analysis (page 2 - Budget Funding Justification): FY 2018 Navy	Date: May 2017
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Appropriation / Budget Activity / Budget Sub Activity: 1611N / 02 / 1	P-1 Line Item Number / Title: 2013 / Virginia Class Submarine
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Cost Elements	FY 2018						
	Production Leadtime <i>(Months)</i>	When Required* <i>(Months)</i>	Unit Cost <i>(\$ M)</i>	Contract Forecast Date	2018 Qty <i>(Each)</i>	For FY	Total Cost Request <i>(\$ M)</i>
Advance Procurement							
Nuclear Propulsion Plant Equipment ⁽¹⁾	30-72	Various	-	Oct 2017	-	2020	1,047.000
Electronics Equipment ⁽²⁾	37-43	Various	-	Dec 2017	-	2019	28.778
NON-Nuclear Propulsion Plant Equipment - Propulsor ⁽³⁾	36	Various	-	Dec 2017	-	2019	43.962
Long Lead-Time CFE One Year AP ⁽⁴⁾	24-42	Various	-	Jan 2018	-	2019	589.347
Long Lead-Time CFE Two Year AP (4)	24-42	Various	-	Jan 2018	-	2020	120.999
VPM Detail Design ⁽⁵⁾	24-36	Various	-	Jan 2018	-	2019	90.510
Total: Advance Procurement							1,920.596
Economic Order of Quantity							
EOQ ⁽⁶⁾	-	Various	-		-		0.000
Total: Economic Order of Quantity							-
Total Advance Procurement/Obligation Authority							1,920.596

Description:

*Note: "When Required" is the number of months required before ship delivery.

Footnotes:

⁽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. Naval Reactors is in the midst of decreasing procurements for reactor plant GFE, primarily a result of fewer aircraft carrier and submarine refuelings. Between FY15 and FY21, production volume at the Program's reactor core vendor will decrease by ~33% or nearly 500,000 manhours and require allocation of overhead across fewer product lines, resulting in increased costs per ship set. This period of higher overhead allocation coincides with the manufacturing periods of the five planned equipment ship sets to be procured using the FY19-21 SCN AP. This burden is reflected in the estimated escalation rate used to derive the required AP funding in those years. Naval Reactors is actively managing and assessing the required reactor core manufacturing capabilities to identify overhead efficiencies and reduce costs.

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

⁽³⁾ 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.

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Exhibit P-10, Advance Procurement Requirements Analysis (page 2 - Budget Funding Justification): FY 2018 Navy		Date: May 2017
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 02 / 1		P-1 Line Item Number / Title: 2013 / Virginia Class Submarine
<p>⁽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). Additionally VPM LLTM CFE in FY17 - FY22 required to support the increased material procurement (i.e. electrical, valves, flanges, fittings, pipe, fabricated parts, hardware, and tools, etc.) associated with the increased VPM workload and to maintain anticipated ship construction schedules is included (FY17 VPM Two YR AP for FY19-2 SSN is \$13.650M. The FY18 VPM One YR AP for FY19-2 SSN is \$33.198M and the FY18 Two YR AP for both FY20 SSNs is \$36.8M). These and other components are required early in the construction phase to meet the delivery schedule.</p> <p>⁽⁵⁾ Virginia Payload Module (VPM) AP is required for Detail Design in FY17 & FY18 funded on the FY19-2 (SSN803).</p> <p>⁽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. Examples of shipbuilder large lot procurements include items such as Electrical (cable, wire, fittings, switches, instrumentation, connectors, resistors, etc.); Valves, flanges and fittings, piping; Fabricated Parts (bearings, sound isolation mounts, pipe hanged assemblies, machined parts); Hardware and Tools (fasteners, marine fittings, locks, latches, small tools). Examples of GFE large lot procurements include items such as: Sonar - Large Aperture Bow (LAB) Arrays and associated bottles, Light Weight Wide Aperture Array (LWWAA) Receivers & electronic components (network servers, switches) ECS - High Data Rate (HDR) Antennas, Digital Modular Radios (DMRs) & associated power amplifiers, Navy Multiband Terminals (NMTs), and Multi-function Masts (MFMs) OE-538. ESM - Photonics ESM Performance Improvement (PEPI)-3 systems and Multifunctional Modular Masts (MMMs) Photonics Masts - outboard equipment only, such as Diploops along with complex electronic & mechanical components that are required to manufacture the Photonics masts</p>		

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Exhibit P-40, Budget Line Item Justification: FY 2018 Navy										Date: May 2017		
Appropriation / Budget Activity / Budget Sub Activity: 1611N: Shipbuilding and Conversion, Navy / BA 02: Other Warships / BSA 1: Other Warships							P-1 Line Item Number / Title: 2086 / CVN Refueling Overhauls					
ID Code (A=Service Ready, B=Not Service Ready): A				Program Elements for Code B Items: N/A				Other Related Program Elements: N/A				
Line Item MDAP/MAIS Code: N/A												
Resource Summary	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	5	1	-	-	-	-	-	-	1	-	1	8
Gross/Weapon System Cost (<i>\$ in Millions</i>)	17,989.200	4,799.017	0.000	0.000	0.000	0.000	0.000	0.000	5,099.716	0.000	5,556.122	33,444.055
Less PY Advance Procurement (<i>\$ in Millions</i>)	4,462.200	813.319	-	-	-	-	-	-	1,398.724	-	1,563.809	8,238.052
Less Cost To Complete (<i>\$ in Millions</i>)	180.598	-	-	-	-	-	-	-	-	-	-	180.598
Less Subsequent Year Full Funding (<i>\$ in Millions</i>)	6,859.200	3,348.110	-	-	-	-	-	-	1,893.500	-	-	12,100.810
Less Transfer (<i>\$ in Millions</i>)	128.131	-	-	-	-	-	-	-	-	-	-	128.131
Net Procurement (P-1) (<i>\$ in Millions</i>)	6,359.071	637.588	0.000	0.000	0.000	0.000	0.000	0.000	1,807.492	0.000	3,992.313	12,796.464
Plus Subsequent Year Full Funding (<i>\$ in Millions</i>)	6,859.200	-	1,743.220	1,604.890	-	1,604.890	-	-	-	1,893.500	-	12,100.810
Full Funding TOA (<i>\$ in Millions</i>)	13,218.271	637.588	1,743.220	1,604.890	-	1,604.890	-	-	1,807.492	1,893.500	3,992.313	24,897.274
Plus CY Advance Procurement (<i>\$ in Millions</i>)	5,275.519	14.951	248.599	75.897	-	75.897	459.930	625.466	236.205	541.451	760.034	8,238.052
Plus Cost To Complete (<i>\$ in Millions</i>)	160.569	20.029	-	-	-	-	-	-	-	-	-	180.598
Plus Transfer (<i>\$ in Millions</i>)	128.131	-	-	-	-	-	-	-	-	-	-	128.131
Total Obligation Authority (<i>\$ in Millions</i>)	18,782.490	672.568	1,991.819	1,680.787	0.000	1,680.787	459.930	625.466	2,043.697	2,434.951	4,752.347	33,444.055
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Plus Outfitting and Post Delivery (<i>\$ in Millions</i>)	40.520	24.726	34.416	6.486	-	6.486	20.155	35.727	45.405	43.644	23.579	274.658
Total (<i>\$ in Millions</i>)	18,823.010	697.294	2,026.235	1,687.273	-	1,687.273	480.085	661.193	2,089.102	2,478.595	4,775.926	33,718.713
Gross/Weapon System Unit Cost (<i>\$ in Millions</i>)	3,597.840	4,799.017	-	-	-	-	-	-	5,099.716	-	5,556.122	4,180.507

Description:

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

The CVN 74 RCOH start date shifted ten months from March 2020 to January 2021.

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Exhibit P-40, Budget Line Item Justification: FY 2018 Navy				Date: May 2017							
Appropriation / Budget Activity / Budget Sub Activity: 1611N: Shipbuilding and Conversion, Navy / BA 02: Other Warships / BSA 1: Other Warships			P-1 Line Item Number / Title: 2086 / CVN Refueling Overhauls								
ID Code (A=Service Ready, B=Not Service Ready): A		Program Elements for Code B Items: N/A		Other Related Program Elements: N/A							
Line Item MDAP/MAIS Code: N/A											
<table border="0" style="width:100%;"> <tr> <td style="vertical-align: top; width: 15%;"> Characteristics: Length Overall Beam Displacement Draft </td> <td style="vertical-align: top; width: 15%;"> CVN 72 1092 ft 252 ft 101,047 LT 39.89 ft </td> <td style="vertical-align: top; width: 15%;"> CVN 73 1092 ft 252 ft 101,200 LT 39.96 ft </td> <td style="vertical-align: top; width: 30%;"> Systems: Electronics -C4ISR -INTEGRATED COMMUNICATION NETWORK (ICAN / DDCN & IVCN) -SSDS MK2 -COOPERATIVE ENGAGEMENT CAPABILITY (CEC) -AN/SPN-46 OVERHAUL/UPGRADE -NAVAL STRIKE WARFARE PLANNING CENTER (NSWPC) -BATTLE FORCE TACTICAL TRAINER (BFTT) -READY ROOM TRANSFORMATIONAL TECHNOLOGIES UPGRADE -IFF INTERROGATOR SET (AN/UPX-29) -AN/SPN-41 REFURBISHMENT -AN/SLQ-32A(V)4 -ELECTRONIC CONSOLIDATED AUTOMATED SUPPORT SYSTEM (ECASS) -UNMANNED CARRIER LAUNCHED AIRBORNE SURVEILLANCE AND STRIKE (UCLASS) </td> <td style="vertical-align: top; width: 25%;"> Hull, Mechanical, and Electrical (HM&E) -COMBI-OVENS -BOF FOCP INSTALLATION (8704K) (NODE ROOM INSTALL) -C4I COMM CENTER PARTIAL REARRANGEMENT (CSSC RIPOUT/INSTALL) -C4I CVIC PARTIAL RECONFIGURATION (RIPOUT/INSTALL) </td> <td style="vertical-align: top; width: 20%;"> Ordnance -AVIATION EQUIPMENT & SUPPORT -NATO SEASPARROW MISSILE SYSTEM (NSSMS) -AN/SPS-48G (V1) RAPID OVERT AIR RECONNAISSANCE (ROAR) -AN/SPS-49(V)5 UPGRADE/REPAIR -AN/SPQ-9B RADAR -MK38 MOD 2 GUN SYSTEM -AN/SQQ-34C(V) CARRIER TACTICAL SUPPORT CENTER -ADVANCED SENSOR DISTRIBUTION SYSTEM (ASDS) -EW DECOY LAUNCHING SYSTEM </td> </tr> </table>						Characteristics: Length Overall Beam Displacement Draft	CVN 72 1092 ft 252 ft 101,047 LT 39.89 ft	CVN 73 1092 ft 252 ft 101,200 LT 39.96 ft	Systems: Electronics -C4ISR -INTEGRATED COMMUNICATION NETWORK (ICAN / DDCN & IVCN) -SSDS MK2 -COOPERATIVE ENGAGEMENT CAPABILITY (CEC) -AN/SPN-46 OVERHAUL/UPGRADE -NAVAL STRIKE WARFARE PLANNING CENTER (NSWPC) -BATTLE FORCE TACTICAL TRAINER (BFTT) -READY ROOM TRANSFORMATIONAL TECHNOLOGIES UPGRADE -IFF INTERROGATOR SET (AN/UPX-29) -AN/SPN-41 REFURBISHMENT -AN/SLQ-32A(V)4 -ELECTRONIC CONSOLIDATED AUTOMATED SUPPORT SYSTEM (ECASS) -UNMANNED CARRIER LAUNCHED AIRBORNE SURVEILLANCE AND STRIKE (UCLASS)	Hull, Mechanical, and Electrical (HM&E) -COMBI-OVENS -BOF FOCP INSTALLATION (8704K) (NODE ROOM INSTALL) -C4I COMM CENTER PARTIAL REARRANGEMENT (CSSC RIPOUT/INSTALL) -C4I CVIC PARTIAL RECONFIGURATION (RIPOUT/INSTALL)	Ordnance -AVIATION EQUIPMENT & SUPPORT -NATO SEASPARROW MISSILE SYSTEM (NSSMS) -AN/SPS-48G (V1) RAPID OVERT AIR RECONNAISSANCE (ROAR) -AN/SPS-49(V)5 UPGRADE/REPAIR -AN/SPQ-9B RADAR -MK38 MOD 2 GUN SYSTEM -AN/SQQ-34C(V) CARRIER TACTICAL SUPPORT CENTER -ADVANCED SENSOR DISTRIBUTION SYSTEM (ASDS) -EW DECOY LAUNCHING SYSTEM
Characteristics: Length Overall Beam Displacement Draft	CVN 72 1092 ft 252 ft 101,047 LT 39.89 ft	CVN 73 1092 ft 252 ft 101,200 LT 39.96 ft	Systems: Electronics -C4ISR -INTEGRATED COMMUNICATION NETWORK (ICAN / DDCN & IVCN) -SSDS MK2 -COOPERATIVE ENGAGEMENT CAPABILITY (CEC) -AN/SPN-46 OVERHAUL/UPGRADE -NAVAL STRIKE WARFARE PLANNING CENTER (NSWPC) -BATTLE FORCE TACTICAL TRAINER (BFTT) -READY ROOM TRANSFORMATIONAL TECHNOLOGIES UPGRADE -IFF INTERROGATOR SET (AN/UPX-29) -AN/SPN-41 REFURBISHMENT -AN/SLQ-32A(V)4 -ELECTRONIC CONSOLIDATED AUTOMATED SUPPORT SYSTEM (ECASS) -UNMANNED CARRIER LAUNCHED AIRBORNE SURVEILLANCE AND STRIKE (UCLASS)	Hull, Mechanical, and Electrical (HM&E) -COMBI-OVENS -BOF FOCP INSTALLATION (8704K) (NODE ROOM INSTALL) -C4I COMM CENTER PARTIAL REARRANGEMENT (CSSC RIPOUT/INSTALL) -C4I CVIC PARTIAL RECONFIGURATION (RIPOUT/INSTALL)	Ordnance -AVIATION EQUIPMENT & SUPPORT -NATO SEASPARROW MISSILE SYSTEM (NSSMS) -AN/SPS-48G (V1) RAPID OVERT AIR RECONNAISSANCE (ROAR) -AN/SPS-49(V)5 UPGRADE/REPAIR -AN/SPQ-9B RADAR -MK38 MOD 2 GUN SYSTEM -AN/SQQ-34C(V) CARRIER TACTICAL SUPPORT CENTER -ADVANCED SENSOR DISTRIBUTION SYSTEM (ASDS) -EW DECOY LAUNCHING SYSTEM						
<table border="0" style="width:100%;"> <tr> <td style="vertical-align: top; width: 15%;"> Production Status: 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 </td> <td style="vertical-align: top; width: 15%;"> CVN 72 Mar 2013 50 months 50 months May 2017 Jul 2017 Jun 2018 </td> <td style="vertical-align: top; width: 15%;"> CVN 73 Aug 2017 48 months 48 months Aug 2021 Sep 2021 Aug 2022 </td> <td colspan="3"></td> </tr> </table>						Production Status: 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	CVN 72 Mar 2013 50 months 50 months May 2017 Jul 2017 Jun 2018	CVN 73 Aug 2017 48 months 48 months Aug 2021 Sep 2021 Aug 2022			
Production Status: 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	CVN 72 Mar 2013 50 months 50 months May 2017 Jul 2017 Jun 2018	CVN 73 Aug 2017 48 months 48 months Aug 2021 Sep 2021 Aug 2022									
<table border="0" style="width:100%;"> <tr> <td style="vertical-align: top; width: 30%;"> Design Schedule Issue Date for TLR Issue Date for TLS Preliminary Design Contract Design Detail Design Request for Proposals </td> <td style="vertical-align: top; width: 15%;"> Start / Issue Jan 2000 Jan 2001 Jan 2002 Jan 2003 Jan 2004 Jan 2005 </td> <td style="vertical-align: top; width: 15%;"> Complete / Response Feb 2000 Feb 2001 Feb 2002 Feb 2003 Feb 2004 Feb 2005 </td> <td style="vertical-align: top; width: 15%;"> Reissue Mar 2000 Mar 2001 N/A N/A N/A Mar 2005 </td> <td style="vertical-align: top; width: 15%;"> Reissue Complete / Response Apr 2000 Apr 2001 N/A N/A Apr 2004 N/A </td> </tr> </table>						Design Schedule Issue Date for TLR Issue Date for TLS Preliminary Design Contract Design Detail Design Request for Proposals	Start / Issue Jan 2000 Jan 2001 Jan 2002 Jan 2003 Jan 2004 Jan 2005	Complete / Response Feb 2000 Feb 2001 Feb 2002 Feb 2003 Feb 2004 Feb 2005	Reissue Mar 2000 Mar 2001 N/A N/A N/A Mar 2005	Reissue Complete / Response Apr 2000 Apr 2001 N/A N/A Apr 2004 N/A	
Design Schedule Issue Date for TLR Issue Date for TLS Preliminary Design Contract Design Detail Design Request for Proposals	Start / Issue Jan 2000 Jan 2001 Jan 2002 Jan 2003 Jan 2004 Jan 2005	Complete / Response Feb 2000 Feb 2001 Feb 2002 Feb 2003 Feb 2004 Feb 2005	Reissue Mar 2000 Mar 2001 N/A N/A N/A Mar 2005	Reissue Complete / Response Apr 2000 Apr 2001 N/A N/A Apr 2004 N/A							

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Exhibit P-40, Budget Line Item Justification: FY 2018 Navy			Date: May 2017	
Appropriation / Budget Activity / Budget Sub Activity: 1611N: Shipbuilding and Conversion, Navy / BA 02: Other Warships / BSA 1: Other Warships		P-1 Line Item Number / Title: 2086 / CVN Refueling Overhauls		
ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A		Other Related Program Elements: N/A	
Line Item MDAP/MAIS Code: N/A				
<u>Design Schedule</u> Design Agent <u>Classification of Cost Estimate:</u> [cost estimate]	<u>Start / Issue</u> [Design Agent]	<u>Complete / Response</u>	<u>Reissue</u>	<u>Reissue Complete / Response</u>
<p>Justification: CVN 73 RCOH duration increased to 48 months. Extended duration (\$75.2M additional funds added) is for steam generator repairs and defueling process changes.</p>				

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Exhibit P-5c, Ship Cost Analysis: FY 2018 Navy			Date: May 2017	
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 02 / 1		P-1 Line Item Number / Title: 2086 / CVN Refueling Overhauls		
Cost Categories <small>^(†) indicates the presence of a P-8a</small>	FY 2012		FY 2016	
	Qty <small>(Each)</small>	Total Cost <small>(\$ M)</small>	Qty <small>(Each)</small>	Total Cost <small>(\$ M)</small>
Plan Costs	1	41.528	1	61.255
Basic Construction/Conversion		3,671.230		3,852.390
Electronics ^(†)		276.763		361.271
Propulsion Equipment		138.550		148.500
Hull, Mechanical, and Electrical (HM&E) ^(†)		103.183		131.975
Ordnance ^(†)		149.346		136.361
Other Cost		110.006		107.265
Total Ship Estimate		4,490.606		4,799.017
Less Advance Procurement FY 2009		21.325		-
Less Advance Procurement FY 2010		211.167		-
Less Advance Procurement FY 2011		396.763		-
Less Advance Procurement FY 2012		515.644		14.008
Less Advance Procurement FY 2013		-		69.918
Less Advance Procurement FY 2014		-		245.793
Less Advance Procurement FY 2015		-		483.600
Less Subsequent Full Funding FY 2013		1,546.254		-
Less Subsequent Full Funding FY 2014		1,609.324		-
Less Subsequent Full Funding FY 2017		-		1,743.220
Less Subsequent Full Funding FY 2018		-		1,604.890
Less Cost to Complete FY 2015		54.000		-
Less Cost to Complete FY 2016		20.029		-
Net P-1 Funding		116.100		637.588

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LI 2086 - CVN Refueling Overhauls

Navy

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Exhibit P-8a, Analysis of Ship Cost Estimates: FY 2018 Navy				Date: May 2017	
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 02 / 1			P-1 Line Item Number / Title: 2086 / CVN Refueling Overhauls		
Electronics	FY 2012		FY 2016		
	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	
P-35 Items					
C4ISR	1	97.140	1	114.933	
INTEGRATED COMMUNICATION NETWORK (ICAN / DDCN & IVCN)	1	51.669	1	61.806	
SSDS MK2	1	43.073	1	46.201	
COOPERATIVE ENGAGEMENT CAPABILITY (CEC)	1	9.624	1	12.330	
AN/SPN-46 OVERHAUL/UPGRADE	1	8.944	1	13.267	
NAVAL STRIKE WARFARE PLANNING CENTER (NSWPC)	1	8.570	1	7.418	
BATTLE FORCE TACTICAL TRAINER (BFTT)	1	6.845	1	7.845	
READY ROOM TRANSFORMATIONAL TECHNOLOGIES UPGRADE	1	6.494	0	-	
IFF INTERROGATOR SET (AN/UPX-29)	1	5.969	0	2.094	
JOINT PRECISION APPROACH AND LANDING SYSTEM (JPALS)	0	3.732	1	9.361	
AN/SPN-41 REFURBISHMENT	1	3.535	1	5.486	
AN/SLQ-32A(V)4	1	1.336	1	3.661	
ELECTRONIC CONSOLIDATED AUTOMATED SUPPORT SYSTEM (ECASS)	0	-	1	36.625	
UNMANNED CARRIER LAUNCHED AIRBORNE SURVEILLANCE AND STRIKE (UCLASS)	0	-	1	26.700	
P-35 Items Subtotal		246.931		347.727	
Major Items					
AN/SPN-43C REFURBISHMENT	1	2.353	1	3.799	
JOINT STRIKE FIGHTER AUTONOMIC LOGISTICS INFORMATION SYSTEM (JSF-ALIS)	1	1.763	1	1.667	
AN/TPX-42(V)15 UPGRADE	1	1.734	1	1.187	
Major Items Subtotal		5.850		6.653	
Other Cost Elements					
TEST & CERTIFICATIONS, MISC.		10.631		6.891	
CARRIER AIR DEFENSE IMPROVEMENT PROGRAM (CADIP)	1	13.351	0	-	
Other Cost Elements Subtotal		23.982		6.891	
Total Electronics		276.763		361.271	
Remarks: General Comments 2012-2016: Overall increases are primarily due to new modernization requirements (C4ISR, ICAN, ECASS, UCLASS, JPALS). Modernization requirements have been validated by the Assistant Deputy Chief of Naval Operations, Integration of Capabilities & Resources (N8B) Ser N8B 134050 20 Jun 16. This modernization needs to occur during the RCOH due to limited shipyard availabilities for Forward Deployed Naval ships. Additional cost growth is due to the increased use of government AITs vice using shipyard install teams. Government install teams are approximately 25% less costly and are an overall cost savings to the					

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Exhibit P-8a, Analysis of Ship Cost Estimates: FY 2018 Navy		Date: May 2017
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 02 / 1		P-1 Line Item Number / Title: 2086 / CVN Refueling Overhauls
<p>program. Installation efforts on CVN 72 were performed by the shipbuilder, Huntington Ingalls Industries (HII), and executed under the Basic Construction contract. The use of AITs avoids even higher cost growth to the Basic Construction contract.</p> <p>Detailed Comments 2012-2016: P-35 comments are discussed on the individual P-35 items.</p> <p>Major Items are discussed below:</p> <p>AN/SPN-43C REFURBISHMENT - On CVN 72, this work was performed by the shipyard under the Basic Construction contract. CVN 73 P-35 cost increase is due to AIT Install vice shipbuilder cost under the Basic Construction contract.</p> <p>JOINT STRIKE FIGHTER AUTONOMIC LOGISTICS INFORMATION SYSTEM (JSF-ALIS) - Cost reduction due to installation lessons learned and efficiencies applied to the CVN 73 install.</p> <p>AN/TPX-42(V)15 UPGRADE - Cost decrease due to modernization already being completed. CVN 73 RCOH will perform a refurbishment.</p> <p>TEST & CERTIFICATIONS, MISC - Cost decrease to leveraging lessons learned and efficiencies gained during CVN 72 testing.</p> <p>CARRIER AIR DEFENSE IMPROVEMENT PROGRAM (CADIP) - CVN 72 P-8a CADIP costs were re-distributed to individual CVN 73 P-35s (SSDS, BFTT, CEC, SPS-48, CV-TSC) to better track cost. CADIP-related costs have been reduced.</p> <p>Detailed Comments CVN 73 2017-2018: Overall increase in year to year cost. Detailed explanations contained on the individual P-35s.</p>		

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Exhibit P-8a, Analysis of Ship Cost Estimates: FY 2018 Navy			Date: May 2017	
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 02 / 1		P-1 Line Item Number / Title: 2086 / CVN Refueling Overhauls		
Hull, Mechanical, and Electrical (HM&E)	FY 2012		FY 2016	
	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
P-35 Items				
FURNITURE (NON PROPULSION PLANT)	1	21.710	1	11.356
AIR CONDITIONING (AC) PLANT / RETUBE AC PLANT CONDENSER AND EVAPORATOR	1	6.366	0	-
LOW PRESSURE AIR PLANT (LPAP)	1	3.818	1	4.198
EMERGENCY ESCAPE BREATHING DEVICE (EEBD)	1	2.025	0	-
AIRCRAFT ELECTRICAL SERVICE STATION (AESS) INSTALL	0	-	1	14.496
DECK EDGE AND HANGAR DIVISIONAL DOORS	1	3.602	0	-
AUTOMATIC VOLTAGE REGULATOR	0	1.550	1	4.914
P-35 Items Subtotal		39.071		34.964
Major Items				
VENDING IN A BOX	1	3.926	0	-
AFT CREW MESS	1	3.530	1	3.475
DRYER LAUNDRY REPLACEMENT / LAUNDRY DRYERS (SCD 3186)	1	2.659	1	2.757
OXYGEN / NITROGEN (O2N2) SYSTEM	1	1.637	0	-
WEAPONS ELEVATORS / WEAPONS ELEVATOR PLC S/W TECH REFRESH	1	2.455	1	1.250
AIRCRAFT ELEVATORS (CVN 72) / ACE PLC CONTROL SYSTEM UPGRADE (CVN 73)	1	1.400	1	1.826
BATTERIES AND SERVICE FACILITIES (CVN 72) / LITHIUM-ION BATTERY SHOP TO SUPPORT JSF (CVN 73)	1	1.300	1	1.446
DISTILLING UNIT (DU) BRINE OVERBOARD PUMPS	1	0.950	0	-
MEDICAL AND DENTAL SUITE	1	1.894	1	2.194
SECONDARY STEAM PLANT LESLIE PILOTS	1	0.850	0	-
COMBI-OVENS	0	-	1	1.870
BOF FOCF INSTALLATION (8704K) (NODE ROOM INSTALL)	0	-	1	1.988
C4I COMM CENTER PARTIAL REARRANGEMENT (CSSC RIPOUT/INSTALL)	0	-	1	3.851
C4I CVIC PARTIAL RECONFIGURATION (RIPOUT/INSTALL)	0	-	1	3.621
DECK EDGE DOOR UPGRADE	0	-	1	1.817
HANGAR DIVISION DOOR UPGRADE	0	-	1	1.081
PASSIVE COUNTER MEASURE SYSTEM (PCMS)	0	-	1	11.000
Major Items Subtotal		20.601		38.176
Other Cost Elements				
ENGINEERING, TEST & CERTIFICATIONS, MISC.		43.511		58.835
Other Cost Elements Subtotal		43.511		58.835
Total Hull, Mechanical, and Electrical (HM&E)		103.183		131.975

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Exhibit P-8a, Analysis of Ship Cost Estimates: FY 2018 Navy		Date: May 2017
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 02 / 1		P-1 Line Item Number / Title: 2086 / CVN Refueling Overhauls
<p>Remarks: General Comments 2012-2016:</p> <p>Overall increases are primarily due to new modernization requirements (AESS and PCMS). Modernization requirements have been validated by the Assistant Deputy Chief of Naval Operations, Integration of Capabilities & Resources (N8B) Ser N8B 134050 20 Jun 16. This modernization needs to occur during the RCOH due to limited shipyard availabilities for Forward Deployed Naval ships. Additional cost growth is also due to the increased use of government AITs vice using shipyard install teams. Government install teams are approximately 25% less costly and are an overall cost savings to the program. Installation efforts on CVN 72 were performed by the shipbuilder, Huntington Ingalls Industries (HII), and executed under the Basic Construction contract. The use of AITs avoids even higher cost growth to the Basic Construction contract.</p> <p>Detailed Comments 2012-2016: P-35 comments are discussed on the individual P-35 items.</p> <p>Major Items and Other Cost Elements are discussed below:</p> <p>VENDING IN A BOX - This modification is not required for CVN 73. Existing vending machines will be replaced with commercial equivalents.</p> <p>AFT CREW MESS - No notable comments or cost increase.</p> <p>DRYER LAUNDRY REPLACEMENT / LAUNDRY DRYERS (SCD 3186) - No notable cost increase.</p> <p>OXYGEN / NITROGEN (O2N2) SYSTEM - This modification is not required for CVN 73. A refurbishment of the existing O2N2 plants is planned for CVN 73 as a cost saving initiative.</p> <p>WEAPONS ELEVATORS / WEAPONS ELEVATOR PLC S/W TECH REFRESH - The number of weapons elevators requiring this change on CVN 73 is less than CVN 72 resulting in a lower cost for CVN 73.</p> <p>AIRCRAFT ELEVATORS / ACE PLC CONTROL SYSTEM UPGRADE - Increased scope on CVN 73 due to additional required Aircraft Elevator (ACE) High Pressure Accumulator Gate Valve and ACE Lock modifications.</p> <p>BATTERIES AND SERVICE FACILITIES / LITHIUM-ION BATTERY SHOP - No notable cost increase.</p> <p>DISTILLING UNIT (DU) BRINE OVERBOARD PUMPS - This modification has already been performed on CVN 73 and is not an RCOH requirement.</p> <p>MEDICAL AND DENTAL SUITE - Cost increase due to specialized medical/dental hardware cost growth.</p> <p>SECONDARY STEAM PLANT LESLIE PILOTS - This modification has already been performed on CVN 73 and is not an RCOH requirement.</p> <p>COMBI-OVENS - Not accomplished on CVN 72. There is a new Fleet initiative to replace all deep fat fryers with Combi Ovens.</p> <p>C4I BOF FOCIP INSTALLATION (8704K) (NODE ROOM INSTALL) - This work was executed by the shipyard under the Basic Construction contract on CVN 72 and will be executed by an AIT on CVN 73.</p> <p>C4I COMM CENTER PARTIAL REARRANGEMENT (CSSC RIPOUT/INSTALL) - This work was executed by the shipyard under the Basic Construction contract on CVN 72 and will be executed by an AIT on CVN 73.</p> <p>C4I CVIC PARTIAL RECONFIGURATION (RIPOUT/INSTALL) - This work was executed by the shipyard under the Basic Construction contract on CVN 72 and will be executed by an AIT on CVN 73.</p> <p>DECK EDGE DOOR UPGRADE - Executed as DECK EDGE AND HANGAR DIVISIONAL DOOR (P-35) on CVN 72.</p>		

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Exhibit P-8a, Analysis of Ship Cost Estimates: FY 2018 Navy		Date: May 2017
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 02 / 1		P-1 Line Item Number / Title: 2086 / CVN Refueling Overhauls
HANGAR DIVISION DOOR UPGRADE - Executed as DECK EDGE AND HANGAR DIVISIONAL DOOR (P-35) on CVN 72.		
PASSIVE COUNTER MEASURE SYSTEM (PCMS) - Ship will enter RCOH with PCMS. Due to the heavy industrial environment of the RCOH it must be removed and replaced.		
ENGINEERING, TEST & CERTIFICATIONS, MISC - Cost increase due to engineering efforts to support new modernization and AIT planning. CVN 73 03 Level Infrastructure AIT work was moved from Electronics to HM&E due to the nature of the efforts. There are additional increases in Norfolk Naval Shipyard engineering for shipcheck and AIT drawing development. All of these efforts were performed by the shipbuilder under the Basic Construction contract on CVN 72.		
Detailed Comments CVN 73 2017-2018: Overall increase in year to year cost. Detailed explanations contained on the individual P-35s.		

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Exhibit P-8a, Analysis of Ship Cost Estimates: FY 2018 Navy				Date: May 2017	
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 02 / 1			P-1 Line Item Number / Title: 2086 / CVN Refueling Overhauls		
Ordnance	FY 2012		FY 2016		
	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	
P-35 Items					
AVIATION EQUIPMENT & SUPPORT	1	45.780	1	48.933	
NATO SEASPARROW MISSILE SYSTEM (NSSMS)	1	43.464	1	8.200	
AN/SPS-48G (V1) RAPID OVERT AIR RECONNAISSANCE (ROAR)	1	12.846	1	16.359	
AN/SPS-49(V)5 UPGRADE/REPAIR	1	12.554	1	8.783	
AN/SPQ-9B RADAR	1	9.268	1	2.746	
MK38 MOD 2 GUN SYSTEM	1	7.275	1	11.139	
AN/SQQ-34C(V) CARRIER TACTICAL SUPPORT CENTER	1	4.997	1	6.660	
ADVANCED SENSOR DISTRIBUTION SYSTEM (ASDS)	1	4.277	1	3.858	
EW DECOY LAUNCHING SYSTEM	1	3.451	0	-	
P-35 Items Subtotal		143.912		106.678	
Major Items					
IWS CDC/FLAG PARTIAL RECONFIGURATION (RIPOUT/INSTALL)	0	-	1	16.524	
SEAT SHOP MODIFICATIONS (JSF CVN)/PILOT EQUIPMENT AND HELM	0	-	1	3.600	
RAM GUIDED MISSILE LAUNCHING SYSTEM	0	-	1	1.474	
PHALANX MK 15 MOD 22 (CIWS)	0	-	1	1.241	
Major Items Subtotal		-		22.839	
Other Cost Elements					
TEST & CERTIFICATIONS, MISC		5.434		6.844	
Other Cost Elements Subtotal		5.434		6.844	
Total Ordnance		149.346		136.361	
Remarks:					
General Comments 2012-2016:					
Overall cost decrease, primarily due to modernization (NSSMS, SPQ-9, EW DECOY) already being completed before the RCOH and less hardware being procured. There is cost growth in individual systems due to the increased use of government AITs vice using shipyard install teams. Government install teams are approximately 25% less costly and are an overall cost savings to the program. Installation efforts on CVN 72 were performed by the shipbuilder, Huntington Ingalls Industries (HII), and executed under the Basic Construction contract. The use of AITs avoids higher cost growth to the Basic Construction contract.					
Detailed Comments 2012-2016: P-35 comments are discussed on the individual P-35 items.					
Major Items and Other Cost Elements are discussed below:					
IWS CDC/FLAG PARTIAL RECONFIGURATION (RIPOUT/INSTALL) - This work was executed by the shipyard under the Basic Construction contract on CVN 72 and will be executed by an AIT on CVN 73 at a reduced cost.					

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Exhibit P-8a, Analysis of Ship Cost Estimates: FY 2018 Navy		Date: May 2017
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 02 / 1		P-1 Line Item Number / Title: 2086 / CVN Refueling Overhauls
SEAT SHOP MODIFICATIONS (JSF CVN)/PILOT EQUIPMENT AND HELM - New modernization requirement to support the Joint Strike Fighter on CVN 73.		
RAM GUIDED MISSILE LAUNCHING SYSTEM - This work was executed by the shipyard under the Basic Construction contract on CVN 72 and will be executed by an AIT on CVN 73 at a reduced cost.		
PHALANX MK 15 MOD 22 (CIWS) - This work was executed by the shipyard under the Basic Construction contract on CVN 72 and will be executed by an AIT on CVN 73.		
Detailed Comments CVN 73 2017-2018: Overall increase in year to year cost. Detailed explanations contained on the individual P-35s.		

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Exhibit P-35, Major Ship Component Fact Sheet: FY 2018 Navy						Date: May 2017	
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 02 / 1				P-1 Line Item Number / Title: 2086 / CVN Refueling Overhauls			
Equipment Item: C4ISR						PARM Code: SPAWAR PMW 750	
P-35 Category	FY 2012		FY 2016				
	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)			
Major Hardware	1	33.376	1	35.126			
Ancillary Equipment		2.136		4.732			
Technical Data and Documentation		0.996		1.288			
Spares		1.198		0.781			
System Engineering		10.453		15.683			
Technical Engineering Services		33.302		44.467			
Other Costs		15.679		12.856			
Total	1	97.140	1	114.933			

Description:
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.

Contract Data:

Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity (Each)	Unit Cost (\$ M)
FY 2012	CVN 72	Various	Various	Various	Various	1	33.376
FY 2016	CVN 73	Various	Various	Various	Various	1	35.126

Delivery Date:

Program Year	Hull	Earliest Ship Delivery Date	Months Required Before Delivery	Production Leadtime	Required Award Date
FY 2012	CVN 72	May 2017	0		Various
FY 2016	CVN 73	Aug 2021	0		Various

Competition/Second Source Initiatives:
N/A

Remarks:
Technical Engineering Services cost growth on CVN 73 is due to the increased use of government AITs vice using shipyard install teams. Government install teams are approximately 25% less costly and are an overall cost savings to the program. Installation efforts on CVN72 were performed by the shipbuilder, Huntington Ingalls Industries (HII), and executed under the Basic Construction contract. The use of AITs avoids higher cost growth to the Basic Construction Contract.

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Exhibit P-35, Major Ship Component Fact Sheet: FY 2018 Navy		Date: May 2017
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 02 / 1		P-1 Line Item Number / Title: 2086 / CVN Refueling Overhauls
Equipment Item: C4ISR		PARM Code: SPAWAR PMW 750
<p>Major Hardware increased on CVN 73 due to new modernization requirements (HF-DAG and DMR Radios). On CVN 72 these systems were refurbished. Refurbishment is no long possible due to system end of life (Obsolescence). Modernization requirements have been validated by the Assistant Deputy Chief of Naval Operations, Integration of Capabilities & Resources (N8B) Ser N8B 134050 20 Jun 16. This modernization needs to occur during the CVN73 RCOH due to limited shipyard availabilities for Forward Deployed Naval ships.</p> <p>Systems Engineering on CVN73 increases are due to additional integration efforts associated with new radio systems.</p>		

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Exhibit P-35, Major Ship Component Fact Sheet: FY 2018 Navy						Date: May 2017	
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 02 / 1				P-1 Line Item Number / Title: 2086 / CVN Refueling Overhauls			
Equipment Item: INTEGRATED COMMUNICATION NETWORK (ICAN / DDCN & IVCN)						PARM Code: NAVSEA 05H3, NAVSEA 05Z33	
P-35 Category	FY 2012		FY 2016				
	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)			
Major Hardware	1	18.011	1	23.411			
Ancillary Equipment		1.519		0.015			
Technical Data and Documentation		1.169		1.255			
Spares		0.970		0.529			
System Engineering		11.261		11.550			
Technical Engineering Services		11.109		16.546			
Other Costs		7.630		8.500			
Total	1	51.669	1	61.806			

Description:
 The Integrated Communication Network consists of the following systems: An Integrated Communications System (ICS) that provides the ship's Internal Command and Control Communications. In addition, ICS provides connectivity to other onboard systems such as Announcing Systems, Sound Powered Circuits, Secure / Non Secure off-ship Communications, Shipboard Air Traffic Control Communications (SATCC) and Hierarchical Yet Dynamically Reprogrammable Architecture (HYDRA). The Machinery Control Monitoring System (MCMS) controls and monitors approximately 3500 machinery signals for various HM&E auxiliary systems (e.g. JP5, firemen, IC/SM panels) for aircraft carriers. It utilizes the Machinery Control Network for signals. The Machinery Control Network (MCN) is the core network that provides communication services and transport for the MCMS system and part of the backbone that rides over the Fiber Optic Cable Plant (FOCP). It consists of five network switches, associated racks, and cabling. The Navigation Critical Distribution System (NAVCRT) 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.

Contract Data:

Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity (Each)	Unit Cost (\$ M)
FY 2012	CVN 72	Various	Various	Various	Various	1	18.011
FY 2016	CVN 73	Various	Various	Various	Various	1	23.411

Delivery Date:

Program Year	Hull	Earliest Ship Delivery Date	Months Required Before Delivery	Production Leadtime	Required Award Date
FY 2012	CVN 72	May 2017	0		Various
FY 2016	CVN 73	Aug 2021	0		Various

Competition/Second Source Initiatives:
 N/A

Remarks:

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Exhibit P-35, Major Ship Component Fact Sheet: FY 2018 Navy		Date: May 2017
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 02 / 1	P-1 Line Item Number / Title: 2086 / CVN Refueling Overhauls	
Equipment Item: INTEGRATED COMMUNICATION NETWORK (ICAN / DDCN & IVCN)		PARM Code: NAVSEA 05H3, NAVSEA 05Z33
<p>Major Hardware cost increase on CVN 73 is due to new modernization requirements (HYDRA, Ship Broadcast System). The CVN 73 modernization requirements have been validated by the Assistant Deputy Chief of Naval Operations, Integration of Capabilities & Resources (N8B) Ser N8B 134050 20 Jun 16. This modernization needs to occur during the RCOH due to limited shipyard availabilities for Forward Deployed Naval ships.</p> <p>Technical Engineering Services cost growth due to the increased use of government AITs vice using shipyard install teams. Government install teams are approximately 25% less costly and are an overall cost savings to the program. Installation efforts on CVN 72 were performed by the shipbuilder, Huntington Ingalls Industries (HII), and executed under the Basic Construction contract. The use of AITs avoids higher cost growth to the Basic Construction contract.</p>		

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Exhibit P-35, Major Ship Component Fact Sheet: FY 2018 Navy						Date: May 2017																									
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 02 / 1				P-1 Line Item Number / Title: 2086 / CVN Refueling Overhauls																											
Equipment Item: SSDS MK2						PARM Code: PEO IWS - 1A1C																									
P-35 Category	FY 2012		FY 2016																												
	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)																											
Major Hardware	1	13.670	1	11.523																											
Technical Data and Documentation		3.434		1.120																											
Spares		1.030		1.093																											
System Engineering		6.489		10.517																											
Technical Engineering Services		2.366		3.915																											
Other Costs		16.084		18.033																											
Total	1	43.073	1	46.201																											
Description: The Ship Self Defense System (SSDS) MK2 provides primary support for force/own ship 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.																															
Contract Data: <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 5px;"> <tr> <th>Program Year</th> <th>Hull</th> <th>Prime Contractor</th> <th>Contract Method/Type</th> <th>Award Date</th> <th>New/Option</th> <th>Quantity (Each)</th> <th>Unit Cost (\$ M)</th> </tr> <tr> <td>FY 2012</td> <td>CVN 72</td> <td>RAYTHEON/LOCKHEED MARTIN</td> <td>C/CPFF</td> <td>Jan 2012</td> <td>Option</td> <td style="text-align: center;">1</td> <td style="text-align: right;">13.670</td> </tr> <tr> <td>FY 2016</td> <td>CVN 73</td> <td>RAYTHEON/LOCKHEED MARTIN</td> <td>C/CPFF</td> <td>Jul 2017</td> <td>Option</td> <td style="text-align: center;">1</td> <td style="text-align: right;">11.523</td> </tr> </table>								Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity (Each)	Unit Cost (\$ M)	FY 2012	CVN 72	RAYTHEON/LOCKHEED MARTIN	C/CPFF	Jan 2012	Option	1	13.670	FY 2016	CVN 73	RAYTHEON/LOCKHEED MARTIN	C/CPFF	Jul 2017	Option	1	11.523
Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity (Each)	Unit Cost (\$ M)																								
FY 2012	CVN 72	RAYTHEON/LOCKHEED MARTIN	C/CPFF	Jan 2012	Option	1	13.670																								
FY 2016	CVN 73	RAYTHEON/LOCKHEED MARTIN	C/CPFF	Jul 2017	Option	1	11.523																								
Delivery Date: <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 5px;"> <tr> <th>Program Year</th> <th>Hull</th> <th>Earliest Ship Delivery Date</th> <th>Months Required Before Delivery</th> <th>Production Leadtime</th> <th>Required Award Date</th> </tr> <tr> <td>FY 2012</td> <td>CVN 72</td> <td style="text-align: center;">May 2017</td> <td style="text-align: center;">19</td> <td style="text-align: center;">34</td> <td style="text-align: center;">Sep 2012</td> </tr> <tr> <td>FY 2016</td> <td>CVN 73</td> <td style="text-align: center;">Aug 2021</td> <td style="text-align: center;">27</td> <td style="text-align: center;">24</td> <td style="text-align: center;">Jan 2017</td> </tr> </table>								Program Year	Hull	Earliest Ship Delivery Date	Months Required Before Delivery	Production Leadtime	Required Award Date	FY 2012	CVN 72	May 2017	19	34	Sep 2012	FY 2016	CVN 73	Aug 2021	27	24	Jan 2017						
Program Year	Hull	Earliest Ship Delivery Date	Months Required Before Delivery	Production Leadtime	Required Award Date																										
FY 2012	CVN 72	May 2017	19	34	Sep 2012																										
FY 2016	CVN 73	Aug 2021	27	24	Jan 2017																										
Competition/Second Source Initiatives: N/A																															
Remarks: Systems Engineering and "Other Cost" increase on CVN73 is due to the reallocation of CADIP efforts identified in the CVN 72 P-8a CADIP Major line item to various CVN 73 P-35s (SSDS, BFTT, CEC, SPS-48, CV-TSC). There is an overall 72-73 cost reduction in CADIP related efforts. Technical Engineering Services cost growth on CVN73 is due to the increased use of government AITs vice using shipyard install teams. Government install teams are approximately 25% less costly and are an overall cost savings to the program. Installation efforts on CVN72 were performed by the shipbuilder, Huntington Ingalls Industries (HII), and executed under the Basic Construction contract. The use of AITs avoids higher cost growth to the Basic Construction Contract.																															

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Exhibit P-35, Major Ship Component Fact Sheet: FY 2018 Navy						Date: May 2017	
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 02 / 1				P-1 Line Item Number / Title: 2086 / CVN Refueling Overhauls			
Equipment Item: COOPERATIVE ENGAGEMENT CAPABILITY (CEC)						PARM Code: PEO IWS 6.0	
P-35 Category	FY 2012		FY 2016				
	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)			
Major Hardware	1	4.775	1	4.973			
Technical Data and Documentation		2.303		-			
Spares		0.243		0.476			
System Engineering		0.637		0.680			
Technical Engineering Services		0.331		1.910			
Other Costs		1.335		4.291			
Total	1	9.624	1	12.330			

Description:
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.

Contract Data:

Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity (Each)	Unit Cost (\$ M)
FY 2012	CVN 72	RAYTHEON/SECHAN	C/FFP	Apr 2011	New	1	4.775
FY 2016	CVN 73	RAYTHEON/SECHAN	C/FFP	Jan 2016	Option	1	4.973

Delivery Date:

Program Year	Hull	Earliest Ship Delivery Date	Months Required Before Delivery	Production Leadtime	Required Award Date
FY 2012	CVN 72	May 2017	36	18	Aug 2012
FY 2016	CVN 73	Aug 2021	30	18	Apr 2017

Competition/Second Source Initiatives:
N/A

Remarks:
Technical Engineering Services cost growth on CVN73 has increased due to the use of government AITs vice using shipyard install teams. Government install teams are approximately 25% less costly and are an overall cost savings to the program. Installation efforts on CVN72 were performed by the shipbuilder, Huntington Ingalls Industries (HII), and executed under the Basic Construction contract. The use of AITs avoids higher cost growth to the Basic Construction Contract.

"Other Cost" increase on CVN73 is due to the reallocation of CADIP efforts identified in the CVN 72 P-8a CADIP Major line item to various CVN 73 P-35s (SSDS, BFTT, CEC, SPS-48, CV-TSC). There is an overall 72-73 cost reduction in CADIP related efforts.

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Exhibit P-35, Major Ship Component Fact Sheet: FY 2018 Navy						Date: May 2017																									
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 02 / 1				P-1 Line Item Number / Title: 2086 / CVN Refueling Overhauls																											
Equipment Item: AN/SPN-46 OVERHAUL/UPGRADE						PARM Code: PMA 2131																									
P-35 Category	FY 2012		FY 2016																												
	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)																											
Major Hardware	1	5.770	1	6.661																											
System Engineering		0.466		0.628																											
Technical Engineering Services		0.200		3.360																											
Other Costs		2.508		2.618																											
Total	1	8.944	1	13.267																											
Description: 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.																															
Contract Data: <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 5px;"> <tr> <th style="text-align: center;">Program Year</th> <th style="text-align: center;">Hull</th> <th style="text-align: center;">Prime Contractor</th> <th style="text-align: center;">Contract Method/Type</th> <th style="text-align: center;">Award Date</th> <th style="text-align: center;">New/Option</th> <th style="text-align: center;">Quantity (Each)</th> <th style="text-align: center;">Unit Cost (\$ M)</th> </tr> <tr> <td style="text-align: center;">FY 2012</td> <td style="text-align: center;">CVN 72</td> <td style="text-align: center;">NAWCAD</td> <td style="text-align: center;">WR</td> <td style="text-align: center;">Dec 2010</td> <td></td> <td style="text-align: center;">1</td> <td style="text-align: right;">5.770</td> </tr> <tr> <td style="text-align: center;">FY 2016</td> <td style="text-align: center;">CVN 73</td> <td style="text-align: center;">NAWCAD</td> <td style="text-align: center;">WR</td> <td style="text-align: center;">Jan 2015</td> <td></td> <td style="text-align: center;">1</td> <td style="text-align: right;">6.661</td> </tr> </table>								Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity (Each)	Unit Cost (\$ M)	FY 2012	CVN 72	NAWCAD	WR	Dec 2010		1	5.770	FY 2016	CVN 73	NAWCAD	WR	Jan 2015		1	6.661
Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity (Each)	Unit Cost (\$ M)																								
FY 2012	CVN 72	NAWCAD	WR	Dec 2010		1	5.770																								
FY 2016	CVN 73	NAWCAD	WR	Jan 2015		1	6.661																								
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FY 2012	CVN 72	May 2017	24	39	Nov 2011																										
FY 2016	CVN 73	Aug 2021	26	24	Feb 2017																										
Competition/Second Source Initiatives: N/A																															
Remarks: Major Hardware increase on CVN73 is due to new modernization requirements (TS-4176/UPM (Unit 26) Replacement). The CVN73 RCOH Modernization requirements have been validated by the Assistant Deputy Chief of Naval Operations, Integration of Capabilities & Resources (N8B) Ser N8B 134050 20 Jun 16. This modernization needs to occur during the RCOH due to limited shipyard availabilities for Forward Deployed Naval ships. Technical Engineering Services cost growth on CVN73 is due to the increased use of government AITs vice using shipyard install teams. Government install teams are approximately 25% less costly and are an overall cost savings to the program. Installation efforts on CVN 72 were performed by the shipbuilder, Huntington Ingalls Industries (HII), and executed under the Basic Construction contract. The use of AITs avoids higher cost growth to the Basic Construction Contract. CVN 73 2017-2018 Comments: Overall increase due to added AIT effort. This work was originally screened to the shipbuilder. Planning efforts are now complete and work has been re-screened to an AIT, which is approximately 25% less costly than a shipbuilder install and an overall cost savings to the RCOH program.																															

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Exhibit P-35, Major Ship Component Fact Sheet: FY 2018 Navy						Date: May 2017	
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 02 / 1				P-1 Line Item Number / Title: 2086 / CVN Refueling Overhauls			
Equipment Item: NAVAL STRIKE WARFARE PLANNING CENTER (NSWPC)						PARM Code: NAVAIR PMA 281	
P-35 Category	FY 2012		FY 2016				
	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)			
Major Hardware	1	0.399	1	0.586			
Technical Data and Documentation		0.189		0.027			
System Engineering		5.874		5.267			
Technical Engineering Services		2.016		0.876			
Other Costs		0.092		0.662			
Total	1	8.570	1	7.418			

Description:
 The Naval Strike Warfare Planning Center (NSWPC) effort provides System Engineering, Integration and Testing (SEI&T) support for the Carrier Intelligence Center (CVIC) to ensure the delivery of an Integrated Strike Planning and Execution capability enabled by NAVAIR and SPAWAR Component Systems. These Component Systems include DCRS (Digital Camera Receiving System), JMPS (Joint Mission Planning Systems), GCCS-M (Global Command and Control System - Maritime), DCGS-N (Distributed Common Ground System - Navy), ADMACS (Aviation Data Management and Control System), TBMCS (Theater Battle Management Core System), SVDS/CVIS (Consolidated Visual Information System), TC2S-CSG (Tomahawk Command and Control-Carrier Strike Group), and ISNS (Integrated Shipboard Network System). The PMA-281 NSWPC systems are: Tomahawk Command and Control (TC2S), Digital Camera Receiving System (DCRS) and Naval Mission Planning Systems (Air Wing Embarked Joint Mission Planning Systems (JMPS)). The effort also includes the installation of the Strike Warfare Commander Watch station (STWC, a.k.a. Bravo Papa, BP) and the full implementation of the revised CVIC general arrangement.

Contract Data:

Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity (Each)	Unit Cost (\$ M)
FY 2012	CVN 72	NAWCAD	WR	Feb 2013	Option	1	0.399
FY 2016	CVN 73	NAWCAD	WR	Jun 2017	Option	1	0.586

Delivery Date:

Program Year	Hull	Earliest Ship Delivery Date	Months Required Before Delivery	Production Leadtime	Required Award Date
FY 2012	CVN 72	May 2017	22	6	Oct 2014
FY 2016	CVN 73	Aug 2021	23	6	Nov 2018

Competition/Second Source Initiatives:
 N/A

Remarks:
 Overall cost reduction. Many NSWPC systems have already been modernized on CVN73 prior to the RCOH.

CVN 73 2017-2018 Comments: No comment or cost increase.

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Exhibit P-35, Major Ship Component Fact Sheet: FY 2018 Navy						Date: May 2017																									
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 02 / 1				P-1 Line Item Number / Title: 2086 / CVN Refueling Overhauls																											
Equipment Item: BATTLE FORCE TACTICAL TRAINER (BFTT)						PARM Code: IWS 7C																									
P-35 Category	FY 2012		FY 2016																												
	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)																											
Major Hardware	1	3.193	1	0.310																											
Technical Data and Documentation		-		0.225																											
Spares		0.129		0.015																											
System Engineering		0.712		1.143																											
Technical Engineering Services		1.565		2.030																											
Other Costs		1.246		4.122																											
Total	1	6.845	1	7.845																											
Description: 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.																															
Contract Data: <table border="1" style="width:100%; border-collapse: collapse; margin-top: 5px;"> <tr> <th>Program Year</th> <th>Hull</th> <th>Prime Contractor</th> <th>Contract Method/Type</th> <th>Award Date</th> <th>New/Option</th> <th>Quantity (Each)</th> <th>Unit Cost (\$ M)</th> </tr> <tr> <td>FY 2012</td> <td>CVN 72</td> <td>Various</td> <td>C/FFP</td> <td>Aug 2011</td> <td></td> <td align="center">1</td> <td align="right">3.193</td> </tr> <tr> <td>FY 2016</td> <td>CVN 73</td> <td>Various</td> <td>C/FFP</td> <td>Jan 2017</td> <td></td> <td align="center">1</td> <td align="right">0.310</td> </tr> </table>								Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity (Each)	Unit Cost (\$ M)	FY 2012	CVN 72	Various	C/FFP	Aug 2011		1	3.193	FY 2016	CVN 73	Various	C/FFP	Jan 2017		1	0.310
Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity (Each)	Unit Cost (\$ M)																								
FY 2012	CVN 72	Various	C/FFP	Aug 2011		1	3.193																								
FY 2016	CVN 73	Various	C/FFP	Jan 2017		1	0.310																								
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Program Year	Hull	Earliest Ship Delivery Date	Months Required Before Delivery	Production Leadtime	Required Award Date																										
FY 2012	CVN 72	May 2017	19	24	Jul 2013																										
FY 2016	CVN 73	Aug 2021	28	24	Dec 2016																										
Competition/Second Source Initiatives: N/A																															
Remarks: Technical Engineering Services cost growth on CVN73 is due to the use of government AITs vice using shipyard install teams. Government install teams are approximately 25% less costly and are an overall cost savings to the program. Installation efforts on CVN72 were performed by the shipbuilder, Huntington Ingalls Industries (HII), and executed under the Basic Construction contract. The use of AITs avoids cost growth to the Basic Construction Contract. "Other Cost" increase on CVN73 is due to the reallocation of CADIP efforts identified in the CVN 72 P-8a CADIP Major line item to various CVN 73 P-35s (SSDS, BFTT, CEC, SPS-48, CV-TSC). There is an overall 72-73 cost reduction in CADIP related efforts. CVN 73 2017-2018 Comments: Small decrease in cost due to changes in hardware.																															

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Exhibit P-35, Major Ship Component Fact Sheet: FY 2018 Navy						Date: May 2017	
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 02 / 1				P-1 Line Item Number / Title: 2086 / CVN Refueling Overhauls			
Equipment Item: READY ROOM TRANSFORMATIONAL TECHNOLOGIES UPGRADE						PARM Code: PMA 281	
P-35 Category	FY 2012		FY 2016				
	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)			
Major Hardware	1	2.513	0	-			
Technical Engineering Services		3.661		-			
Other Costs		0.320		-			
Total	1	6.494	0	-			
Description: 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.							
Contract Data:							
Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity (Each)	Unit Cost (\$ M)
FY 2012	CVN 72	NAWCAD	WR	Aug 2014		1	2.513
Delivery Date:							
Program Year	Hull	Earliest Ship Delivery Date	Months Required Before Delivery	Production Leadtime	Required Award Date		
FY 2012	CVN 72	May 2017	16	6	Apr 2015		
Competition/Second Source Initiatives: N/A							
Remarks: This modernization has already occurred on CVN73 and is not required during the RCOH.							

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Exhibit P-35, Major Ship Component Fact Sheet: FY 2018 Navy						Date: May 2017																	
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 02 / 1				P-1 Line Item Number / Title: 2086 / CVN Refueling Overhauls																			
Equipment Item: IFF INTERROGATOR SET (AN/UPX-29)						PARM Code: PMA 2133																	
P-35 Category	FY 2012		FY 2016																				
	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)																			
Major Hardware	1	4.787	0	-																			
Ancillary Equipment		0.036		-																			
Technical Data and Documentation		0.013		-																			
Spares		0.084		-																			
System Engineering		0.571		0.378																			
Technical Engineering Services		0.105		1.537																			
Other Costs		0.373		0.179																			
Total	1	5.969	0	2.094																			
Description: 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.																							
Contract Data: <table border="1" style="width:100%; border-collapse: collapse; margin-top: 5px;"> <tr> <th style="text-align: center;">Program Year</th> <th style="text-align: center;">Hull</th> <th style="text-align: center;">Prime Contractor</th> <th style="text-align: center;">Contract Method/Type</th> <th style="text-align: center;">Award Date</th> <th style="text-align: center;">New/Option</th> <th style="text-align: center;">Quantity (Each)</th> <th style="text-align: center;">Unit Cost (\$ M)</th> </tr> <tr> <td align="center">FY 2012</td> <td align="center">CVN 72</td> <td align="center">LITTON & BAE</td> <td align="center">SS/FP</td> <td align="center">Jun 2012</td> <td align="center">New</td> <td align="center">1</td> <td align="right">4.787</td> </tr> </table>								Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity (Each)	Unit Cost (\$ M)	FY 2012	CVN 72	LITTON & BAE	SS/FP	Jun 2012	New	1	4.787
Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity (Each)	Unit Cost (\$ M)																
FY 2012	CVN 72	LITTON & BAE	SS/FP	Jun 2012	New	1	4.787																
Delivery Date: <table border="1" style="width:100%; border-collapse: collapse; margin-top: 5px;"> <tr> <th style="text-align: center;">Program Year</th> <th style="text-align: center;">Hull</th> <th style="text-align: center;">Earliest Ship Delivery Date</th> <th style="text-align: center;">Months Required Before Delivery</th> <th style="text-align: center;">Production Leadtime</th> <th style="text-align: center;">Required Award Date</th> </tr> <tr> <td align="center">FY 2012</td> <td align="center">CVN 72</td> <td align="center">May 2017</td> <td align="center">29</td> <td align="center">24</td> <td align="center">Sep 2012</td> </tr> </table>								Program Year	Hull	Earliest Ship Delivery Date	Months Required Before Delivery	Production Leadtime	Required Award Date	FY 2012	CVN 72	May 2017	29	24	Sep 2012				
Program Year	Hull	Earliest Ship Delivery Date	Months Required Before Delivery	Production Leadtime	Required Award Date																		
FY 2012	CVN 72	May 2017	29	24	Sep 2012																		
Competition/Second Source Initiatives: N/A																							
Remarks: Overall cost decrease. This Modernization has already occurred on CVN73 and is not required during the RCOH. Technical Engineering Services cost increase. CVN 72 - installation costs are included in Basic Construction (P-5) and were performed by the shipbuilder, Huntington Ingalls Industries (HII). CVN 73 - installation costs increase the total P-35 GFE cost as work is performed by government AITs. Install teams are approximately 25% less costly than HII shipyard teams. Savings are realized in Basic Construction (P-5). CVN 73 2017-2018 Comments: New cost. New requirement identified to remove and refurbish the equipment instead of laying up the equipment on the ship. Leaving this equipment on the ship increases the risk of damage during the availability.																							

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Exhibit P-35, Major Ship Component Fact Sheet: FY 2018 Navy						Date: May 2017																	
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 02 / 1				P-1 Line Item Number / Title: 2086 / CVN Refueling Overhauls																			
Equipment Item: JOINT PRECISION APPROACH AND LANDING SYSTEM (JPALS)						PARM Code: PMA 213																	
P-35 Category	FY 2012		FY 2016																				
	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)																			
Major Hardware	0	0.560	1	4.576																			
Ancillary Equipment		0.039		0.040																			
Spares		-		1.346																			
System Engineering		0.410		0.289																			
Technical Engineering Services		1.094		1.117																			
Other Costs		1.629		1.993																			
Total	0	3.732	1	9.361																			
Description: The Joint Precision Approach and Landing System (JPALS) is the future precision approach and landing system which will support the F-35B/F-35C, MQ-25A and future aircraft platforms onboard CVN and LHA/LHD Type Ships. JPALS encompasses a Navy certified Sea Based system having the capabilities necessary to provide ship range/bearing for JPALS equipped aircraft operating within 200NM; air traffic control surveillance of JPALS equipped aircraft via secure, two way data link with the ship; and in support of auto-land for the F-35C, MQ-25A, and future platforms to CVNs.																							
Contract Data: <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th>Program Year</th> <th>Hull</th> <th>Prime Contractor</th> <th>Contract Method/Type</th> <th>Award Date</th> <th>New/Option</th> <th>Quantity (Each)</th> <th>Unit Cost (\$ M)</th> </tr> <tr> <td>FY 2016</td> <td>CVN 73</td> <td>TBD</td> <td></td> <td>Mar 2019</td> <td>New</td> <td style="text-align: center;">1</td> <td style="text-align: center;">4.576</td> </tr> </table>								Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity (Each)	Unit Cost (\$ M)	FY 2016	CVN 73	TBD		Mar 2019	New	1	4.576
Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity (Each)	Unit Cost (\$ M)																
FY 2016	CVN 73	TBD		Mar 2019	New	1	4.576																
Delivery Date: <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th>Program Year</th> <th>Hull</th> <th>Earliest Ship Delivery Date</th> <th>Months Required Before Delivery</th> <th>Production Leadtime</th> <th>Required Award Date</th> </tr> <tr> <td>FY 2016</td> <td>CVN 73</td> <td>Aug 2021</td> <td style="text-align: center;">6</td> <td style="text-align: center;">15</td> <td style="text-align: center;">Mar 2019</td> </tr> </table>								Program Year	Hull	Earliest Ship Delivery Date	Months Required Before Delivery	Production Leadtime	Required Award Date	FY 2016	CVN 73	Aug 2021	6	15	Mar 2019				
Program Year	Hull	Earliest Ship Delivery Date	Months Required Before Delivery	Production Leadtime	Required Award Date																		
FY 2016	CVN 73	Aug 2021	6	15	Mar 2019																		
Competition/Second Source Initiatives: N/A																							
Remarks: Cost increased in hardware. CVN 72 infrastructure hardware was provided but bulk of hardware costs were avoided because an Engineering Development Model (EDM) was supplied at no cost. Infrastructure hardware was required to support CIA installation of the EDM to complete the modernization effort. Cost for JPALS on CVN 73 RCOH at PB 2017 included planned hardware costs using an EDM. Revised plan increases cost above PB 2017 by \$3.1M. Program will purchase Full Production Units (FPU) as JPALS program reached full maturity.																							

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Exhibit P-35, Major Ship Component Fact Sheet: FY 2018 Navy						Date: May 2017																									
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 02 / 1				P-1 Line Item Number / Title: 2086 / CVN Refueling Overhauls																											
Equipment Item: AN/SPN-41 REFURBISHMENT						PARM Code: PMA 2131																									
P-35 Category	FY 2012		FY 2016																												
	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)																											
Major Hardware	1	1.722	1	3.577																											
Ancillary Equipment		0.006		-																											
System Engineering		0.374		0.408																											
Technical Engineering Services		0.107		1.255																											
Other Costs		1.326		0.246																											
Total	1	3.535	1	5.486																											
Description: The AN/SPN-41B transmitting set provides azimuth and elevation alignment information to approaching aircraft.																															
Contract Data: <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 5px;"> <tr> <th style="text-align: center;">Program Year</th> <th style="text-align: center;">Hull</th> <th style="text-align: center;">Prime Contractor</th> <th style="text-align: center;">Contract Method/Type</th> <th style="text-align: center;">Award Date</th> <th style="text-align: center;">New/Option</th> <th style="text-align: center;">Quantity (Each)</th> <th style="text-align: center;">Unit Cost (\$ M)</th> </tr> <tr> <td style="text-align: center;">FY 2012</td> <td style="text-align: center;">CVN 72</td> <td style="text-align: center;">NAWCAD</td> <td style="text-align: center;">WR</td> <td style="text-align: center;">Dec 2011</td> <td></td> <td style="text-align: center;">1</td> <td style="text-align: right;">1.722</td> </tr> <tr> <td style="text-align: center;">FY 2016</td> <td style="text-align: center;">CVN 73</td> <td style="text-align: center;">NAWCAD</td> <td style="text-align: center;">WR</td> <td style="text-align: center;">Jan 2015</td> <td></td> <td style="text-align: center;">1</td> <td style="text-align: right;">3.577</td> </tr> </table>								Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity (Each)	Unit Cost (\$ M)	FY 2012	CVN 72	NAWCAD	WR	Dec 2011		1	1.722	FY 2016	CVN 73	NAWCAD	WR	Jan 2015		1	3.577
Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity (Each)	Unit Cost (\$ M)																								
FY 2012	CVN 72	NAWCAD	WR	Dec 2011		1	1.722																								
FY 2016	CVN 73	NAWCAD	WR	Jan 2015		1	3.577																								
Delivery Date: <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 5px;"> <tr> <th style="text-align: center;">Program Year</th> <th style="text-align: center;">Hull</th> <th style="text-align: center;">Earliest Ship Delivery Date</th> <th style="text-align: center;">Months Required Before Delivery</th> <th style="text-align: center;">Production Leadtime</th> <th style="text-align: center;">Required Award Date</th> </tr> <tr> <td style="text-align: center;">FY 2012</td> <td style="text-align: center;">CVN 72</td> <td style="text-align: center;">May 2017</td> <td style="text-align: center;">15</td> <td style="text-align: center;">39</td> <td style="text-align: center;">Aug 2012</td> </tr> <tr> <td style="text-align: center;">FY 2016</td> <td style="text-align: center;">CVN 73</td> <td style="text-align: center;">Aug 2021</td> <td style="text-align: center;">21</td> <td style="text-align: center;">24</td> <td style="text-align: center;">Jul 2017</td> </tr> </table>								Program Year	Hull	Earliest Ship Delivery Date	Months Required Before Delivery	Production Leadtime	Required Award Date	FY 2012	CVN 72	May 2017	15	39	Aug 2012	FY 2016	CVN 73	Aug 2021	21	24	Jul 2017						
Program Year	Hull	Earliest Ship Delivery Date	Months Required Before Delivery	Production Leadtime	Required Award Date																										
FY 2012	CVN 72	May 2017	15	39	Aug 2012																										
FY 2016	CVN 73	Aug 2021	21	24	Jul 2017																										
Competition/Second Source Initiatives: N/A																															
Remarks: Major Hardware increase on CVN73 is due to new modernization requirements (C-12831/SPN-41B Transmitter Control Unit). Modernization requirements have been validated by the Assistant Deputy Chief of Naval Operations, Integration of Capabilities & Resources (N8B) Ser N8B 134050 20 Jun 16. This modernization needs to occur during the CVN73 RCOH due to limited shipyard availabilities for Forward Deployed Naval ships. Technical Engineering Services cost growth on CVN73 is due to the increased use of government AITs vice using shipyard install teams. Government install teams are approximately 25% less costly and are an overall cost savings to the program. Installation efforts on CVN72 were performed by the shipbuilder, Huntington Ingalls Industries (HII), and executed under the Basic Construction contract. The use of AITs avoids higher cost growth to the Basic Construction Contract. CVN 73 2017-2018 Comments: Overall increase due to added AIT effort. This work was originally screened to the shipbuilder. As a cost saving initiative the work was re-screened to an AIT.																															

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Exhibit P-35, Major Ship Component Fact Sheet: FY 2018 Navy						Date: May 2017	
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 02 / 1				P-1 Line Item Number / Title: 2086 / CVN Refueling Overhauls			
Equipment Item: AN/SLQ-32A(V)4						PARM Code: PEO IWS 2E	
P-35 Category	FY 2012		FY 2016				
	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)			
Major Hardware	1	1.336	1	1.370			
Ancillary Equipment		-		0.995			
Spares		-		0.117			
Technical Engineering Services		-		0.850			
Other Costs		-		0.329			
Total	1	1.336	1	3.661			

Description:
 The AN/SLQ-32 Electronic Warfare (EW) system performs the mission of early detection, signal analysis, threat warning and protection from anti-ship missiles. It is an integrated shipboard combat system that provides a full suite of EW capabilities that can be managed and controlled manually from a console or semi-manually/auto by the host combat management system. The Surface Electronic Warfare Improvement Program (SEWIP) is an evolutionary development block upgrade program for the AN/SLQ-32(V) EW system offering incremental enhancements in capability.

SEWIP Block 1 provides enhanced EW capabilities to existing and new ship combat systems to improve anti-ship missile defense, counter targeting and counter surveillance capabilities. The upgrade addresses obsolescence mitigation through introduction of Electronic Surveillance Enhancements (ESE) and Improved Control and Display (ICAD) as well as incorporation of adjunct receivers for special signal intercept including Specific Emitter ID (SEI) and High Gain/High Sensitivity (HGHS). The SEI and HGHS capability provides improved battlefield situational awareness.

SEWIP Block 2 provides enhanced Electronic Support (ES) capability by means of an upgraded ES antenna, ES receiver and an open combat system interface for the AN/SLQ-32. These upgrades are necessary in order to pace the threat and improve detection and accuracy capabilities of the AN/SLQ-32.

Contract Data:

Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity (Each)	Unit Cost (\$ M)
FY 2016	CVN 73	NSWC Crane	TBD			1	1.370

Delivery Date:

Program Year	Hull	Earliest Ship Delivery Date	Months Required Before Delivery	Production Leadtime	Required Award Date
FY 2016	CVN 73	Aug 2021	18	18	Apr 2018

Competition/Second Source Initiatives:
N/A

Remarks:

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Exhibit P-35, Major Ship Component Fact Sheet: FY 2018 Navy		Date: May 2017
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 02 / 1	P-1 Line Item Number / Title: 2086 / CVN Refueling Overhauls	
Equipment Item: AN/SLQ-32A(V)4		PARM Code: PEO IWS 2E
CVN 72 - installation costs are included in Basic Construction (P-5) and were performed by the shipbuilder, Huntington Ingalls Industries (HII).		
CVN 73 - installation costs increase the total P-35 GFE cost as work is performed by government AITs. Install teams are approximately 25% less costly than HII shipyard teams. Savings are realized in Basic Construction (P-5).		

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Exhibit P-35, Major Ship Component Fact Sheet: FY 2018 Navy						Date: May 2017	
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 02 / 1				P-1 Line Item Number / Title: 2086 / CVN Refueling Overhauls			
Equipment Item: ELECTRONIC CONSOLIDATED AUTOMATED SUPPORT SYSTEM (ECASS)						PARM Code: PMA 260	
P-35 Category	FY 2012		FY 2016				
	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)			
Major Hardware	0	-	1	35.000			
Technical Engineering Services		-		1.225			
Other Costs		-		0.400			
Total	0	-	1	36.625			
Description: Electronic Consolidated Automated Support System for Aircraft WRA/SRA Repair. 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.							
Contract Data:							
Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity (Each)	Unit Cost (\$ M)
FY 2016	CVN 73	TBD	TBD	TBD		1	35.000
Delivery Date:							
Program Year	Hull	Earliest Ship Delivery Date	Months Required Before Delivery	Production Leadtime	Required Award Date		
FY 2016	CVN 73	Aug 2021	31	12	Sep 2017		
Competition/Second Source Initiatives: N/A							
Remarks: New modernization requirements for the CVN73 to support UCLASS and Osprey aircraft. The CVN73 Modernization requirements have been validated by the Assistant Deputy Chief of Naval Operations, Integration of Capabilities & Resources (N8B) Ser N8B 134050 20 Jun 16. This work was not performed on CVN 72. CVN 73 2017-2018 Comments: No comment or cost increase. Contract Data is "TBD" due to ongoing contract actions.							

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Exhibit P-35, Major Ship Component Fact Sheet: FY 2018 Navy						Date: May 2017																	
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 02 / 1				P-1 Line Item Number / Title: 2086 / CVN Refueling Overhauls																			
Equipment Item: UNMANNED CARRIER LAUNCHED AIRBORNE SURVEILLANCE AND STRIKE (UCLASS)						PARM Code: PMA 268																	
P-35 Category	FY 2012		FY 2016																				
	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)																			
Major Hardware	0	-	1	14.155																			
Ancillary Equipment		-		0.061																			
Technical Data and Documentation		-		0.283																			
Spares		-		0.727																			
System Engineering		-		1.796																			
Technical Engineering Services		-		7.358																			
Other Costs		-		2.320																			
Total	0	-	1	26.700																			
Description: Unmanned Carrier Launched Airborne Surveillance and Strike (UCLASS) will incorporate a family of systems providing a carrier-based unmanned aircraft system that supports long-endurance, proven Intelligence, Surveillance, Reconnaissance, and Targeting (ISR&T) and precision strike capability to Joint and Naval Warfare Commanders.																							
Contract Data: <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 5px;"> <tr> <th style="text-align: center;">Program Year</th> <th style="text-align: center;">Hull</th> <th style="text-align: center;">Prime Contractor</th> <th style="text-align: center;">Contract Method/Type</th> <th style="text-align: center;">Award Date</th> <th style="text-align: center;">New/Option</th> <th style="text-align: center;">Quantity (Each)</th> <th style="text-align: center;">Unit Cost (\$ M)</th> </tr> <tr> <td style="text-align: center;">FY 2016</td> <td style="text-align: center;">CVN 73</td> <td style="text-align: center;">Various</td> <td style="text-align: center;">Various</td> <td style="text-align: center;">Sep 2016</td> <td style="text-align: center;">Option</td> <td style="text-align: center;">1</td> <td style="text-align: center;">14.155</td> </tr> </table>								Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity (Each)	Unit Cost (\$ M)	FY 2016	CVN 73	Various	Various	Sep 2016	Option	1	14.155
Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity (Each)	Unit Cost (\$ M)																
FY 2016	CVN 73	Various	Various	Sep 2016	Option	1	14.155																
Delivery Date: <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 5px;"> <tr> <th style="text-align: center;">Program Year</th> <th style="text-align: center;">Hull</th> <th style="text-align: center;">Earliest Ship Delivery Date</th> <th style="text-align: center;">Months Required Before Delivery</th> <th style="text-align: center;">Production Leadtime</th> <th style="text-align: center;">Required Award Date</th> </tr> <tr> <td style="text-align: center;">FY 2016</td> <td style="text-align: center;">CVN 73</td> <td style="text-align: center;">Aug 2021</td> <td style="text-align: center;">16</td> <td style="text-align: center;">14</td> <td style="text-align: center;">Oct 2018</td> </tr> </table>								Program Year	Hull	Earliest Ship Delivery Date	Months Required Before Delivery	Production Leadtime	Required Award Date	FY 2016	CVN 73	Aug 2021	16	14	Oct 2018				
Program Year	Hull	Earliest Ship Delivery Date	Months Required Before Delivery	Production Leadtime	Required Award Date																		
FY 2016	CVN 73	Aug 2021	16	14	Oct 2018																		
Competition/Second Source Initiatives: N/A																							
Remarks: New shipboard modernization requirements for the CVN73 to support the UCLASS aircraft. The CVN73 RCOH Modernization requirements have been validated by the Assistant Deputy Chief of Naval Operations, Integration of Capabilities & Resources (N8B) Ser N8B 134050 20 Jun 16. This modernization needs to occur during the RCOH due to limited shipyard availabilities for Forward Deployed Naval ships. This work was not performed on CVN 72. CVN 73 2017-2018 Comments: No comment or cost increase.																							

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Exhibit P-35, Major Ship Component Fact Sheet: FY 2018 Navy						Date: May 2017																									
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 02 / 1				P-1 Line Item Number / Title: 2086 / CVN Refueling Overhauls																											
Equipment Item: FURNITURE (NON PROPULSION PLANT)						PARM Code: NAVSSES 912																									
P-35 Category	FY 2012		FY 2016																												
	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)																											
Major Hardware	1	7.975	1	4.650																											
System Engineering		0.575		0.724																											
Technical Engineering Services		12.650		5.982																											
Other Costs		0.510		-																											
Total	1	21.710	1	11.356																											
Description: Shipboard Furniture Procurement and Installation in Non-Propulsion Spaces.																															
Contract Data: <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 5px;"> <tr> <th style="text-align: center;">Program Year</th> <th style="text-align: center;">Hull</th> <th style="text-align: center;">Prime Contractor</th> <th style="text-align: center;">Contract Method/Type</th> <th style="text-align: center;">Award Date</th> <th style="text-align: center;">New/Option</th> <th style="text-align: center;">Quantity (Each)</th> <th style="text-align: center;">Unit Cost (\$ M)</th> </tr> <tr> <td style="text-align: center;">FY 2012</td> <td style="text-align: center;">CVN 72</td> <td style="text-align: center;">Various</td> <td style="text-align: center;">C/IDIQ</td> <td style="text-align: center;">Jul 2012</td> <td style="text-align: center;">New</td> <td style="text-align: center;">1</td> <td style="text-align: right;">7.975</td> </tr> <tr> <td style="text-align: center;">FY 2016</td> <td style="text-align: center;">CVN 73</td> <td style="text-align: center;">Technico</td> <td style="text-align: center;">C/CPFF</td> <td style="text-align: center;">Dec 2016</td> <td style="text-align: center;">New</td> <td style="text-align: center;">1</td> <td style="text-align: right;">4.650</td> </tr> </table>								Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity (Each)	Unit Cost (\$ M)	FY 2012	CVN 72	Various	C/IDIQ	Jul 2012	New	1	7.975	FY 2016	CVN 73	Technico	C/CPFF	Dec 2016	New	1	4.650
Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity (Each)	Unit Cost (\$ M)																								
FY 2012	CVN 72	Various	C/IDIQ	Jul 2012	New	1	7.975																								
FY 2016	CVN 73	Technico	C/CPFF	Dec 2016	New	1	4.650																								
Delivery Date: <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 5px;"> <tr> <th style="text-align: center;">Program Year</th> <th style="text-align: center;">Hull</th> <th style="text-align: center;">Earliest Ship Delivery Date</th> <th style="text-align: center;">Months Required Before Delivery</th> <th style="text-align: center;">Production Leadtime</th> <th style="text-align: center;">Required Award Date</th> </tr> <tr> <td style="text-align: center;">FY 2012</td> <td style="text-align: center;">CVN 72</td> <td style="text-align: center;">May 2017</td> <td style="text-align: center;">32</td> <td style="text-align: center;">12</td> <td style="text-align: center;">Jun 2013</td> </tr> <tr> <td style="text-align: center;">FY 2016</td> <td style="text-align: center;">CVN 73</td> <td style="text-align: center;">Aug 2021</td> <td style="text-align: center;">35</td> <td style="text-align: center;">6</td> <td style="text-align: center;">Nov 2017</td> </tr> </table>								Program Year	Hull	Earliest Ship Delivery Date	Months Required Before Delivery	Production Leadtime	Required Award Date	FY 2012	CVN 72	May 2017	32	12	Jun 2013	FY 2016	CVN 73	Aug 2021	35	6	Nov 2017						
Program Year	Hull	Earliest Ship Delivery Date	Months Required Before Delivery	Production Leadtime	Required Award Date																										
FY 2012	CVN 72	May 2017	32	12	Jun 2013																										
FY 2016	CVN 73	Aug 2021	35	6	Nov 2017																										
Competition/Second Source Initiatives: N/A																															
Remarks: Overall reduction in effort for CVN73 RCOH. This is a cost savings initiative to reuse existing furniture and only replace damaged furniture. CVN 73 2017-2018 Comments: Cost reduction due to the scope reduction.																															

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Exhibit P-35, Major Ship Component Fact Sheet: FY 2018 Navy						Date: May 2017	
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 02 / 1				P-1 Line Item Number / Title: 2086 / CVN Refueling Overhauls			
Equipment Item: AIR CONDITIONING (AC) PLANT / RETUBE AC PLANT CONDENSER AND EVAPORATOR						PARM Code: NAVSSES 912	
P-35 Category	FY 2012		FY 2016				
	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)			
Major Hardware	1	1.128	0	-			
System Engineering		0.293		-			
Technical Engineering Services		4.715		-			
Other Costs		0.230		-			
Total	1	6.366	0	-			
Description: Accomplishes modifications to the Ship's Air Conditioning Plant.							
Contract Data:							
Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity (Each)	Unit Cost (\$ M)
FY 2012	CVN 72	QED	C/CPFF	Sep 2011	New	1	1.128
FY 2016	CVN 73	N/A	TBD			1	0.000
Delivery Date:							
Program Year	Hull	Earliest Ship Delivery Date	Months Required Before Delivery	Production Leadtime	Required Award Date		
FY 2012	CVN 72	May 2017	42	12	Aug 2012		
FY 2016	CVN 73	Aug 2021	47	12	May 2016		
Competition/Second Source Initiatives: N/A							
Remarks: This work will be accomplished by the shipbuilder on CVN 73 and is a reduced scope from CVN72. This work on CVN72 was full AC Plant Modernization and was accomplished by a Customer Contract Teams (CCT).							

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Exhibit P-35, Major Ship Component Fact Sheet: FY 2018 Navy						Date: May 2017	
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 02 / 1				P-1 Line Item Number / Title: 2086 / CVN Refueling Overhauls			
Equipment Item: LOW PRESSURE AIR PLANT (LPAP)						PARM Code: NAVSSES 912	
P-35 Category	FY 2012		FY 2016				
	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)			
Major Hardware	1	3.115	1	3.881			
Spares		0.374		-			
System Engineering		0.044		0.113			
Technical Engineering Services		0.155		0.085			
Other Costs		0.130		0.119			
Total	1	3.818	1	4.198			
Description: Low Pressure Air Plants (LPAPs) serve both Ship Service and Control Air Systems.							
Contract Data:							
Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity (Each)	Unit Cost (\$ M)
FY 2012	CVN 72	RIX INDUSTRIES	C/FFP	Jul 2011	Option	1	3.115
FY 2016	CVN 73	RIX INDUSTRIES	C/FFP	Feb 2015	Option	1	3.881
Delivery Date:							
Program Year	Hull	Earliest Ship Delivery Date	Months Required Before Delivery	Production Leadtime	Required Award Date		
FY 2012	CVN 72	May 2017	39	12	Nov 2012		
FY 2016	CVN 73	Aug 2021	47	12	May 2016		
Competition/Second Source Initiatives: N/A							
Remarks: Major Hardware increased due to the Original Equipment Manufacturer (OEM) providing updated cost estimates.							

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Exhibit P-35, Major Ship Component Fact Sheet: FY 2018 Navy						Date: May 2017	
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 02 / 1				P-1 Line Item Number / Title: 2086 / CVN Refueling Overhauls			
Equipment Item: EMERGENCY ESCAPE BREATHING DEVICE (EEBD)						PARM Code: NAVSSES 912	
P-35 Category	FY 2012		FY 2016				
	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)			
Major Hardware	1	0.193	0	-			
Technical Data and Documentation		0.120		-			
System Engineering		0.457		-			
Technical Engineering Services		1.134		-			
Other Costs		0.121		-			
Total	1	2.025	0	-			
Description: This effort installs Emergency Escape Breathing Device (EEBD) containers inside/outside ship spaces.							
Contract Data:							
Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity (Each)	Unit Cost (\$ M)
FY 2012	CVN 72	Various	C/CPFF	May 2012	New	1	0.193
Delivery Date:							
Program Year	Hull	Earliest Ship Delivery Date	Months Required Before Delivery	Production Leadtime	Required Award Date		
FY 2012	CVN 72	May 2017	38	11	Jan 2013		
Competition/Second Source Initiatives: N/A							
Remarks: This work is not required on CVN 73 CVN 73 2017-2018 Comments: No comment or cost increase.							

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Exhibit P-35, Major Ship Component Fact Sheet: FY 2018 Navy						Date: May 2017																	
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 02 / 1				P-1 Line Item Number / Title: 2086 / CVN Refueling Overhauls																			
Equipment Item: AIRCRAFT ELECTRICAL SERVICE STATION (AESS) INSTALL						PARM Code: NAVSSES 912																	
P-35 Category	FY 2012		FY 2016																				
	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)																			
Major Hardware	0	-	1	6.891																			
System Engineering		-		0.250																			
Technical Engineering Services		-		7.035																			
Other Costs		-		0.320																			
Total	0	-	1	14.496																			
Description: Install Aircraft Electrical Servicing System (AESS), SCD 1108. This SCD installs upgraded 400Hz for legacy aircraft and 270VDC for JSF (F-35) AIT Install.																							
Contract Data: <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 5px;"> <tr> <th style="text-align: center;">Program Year</th> <th style="text-align: center;">Hull</th> <th style="text-align: center;">Prime Contractor</th> <th style="text-align: center;">Contract Method/Type</th> <th style="text-align: center;">Award Date</th> <th style="text-align: center;">New/Option</th> <th style="text-align: center;">Quantity (Each)</th> <th style="text-align: center;">Unit Cost (\$ M)</th> </tr> <tr> <td style="text-align: center;">FY 2016</td> <td style="text-align: center;">CVN 73</td> <td style="text-align: center;">Various</td> <td style="text-align: center;">C/FFP</td> <td style="text-align: center;">Jan 2017</td> <td style="text-align: center;">New</td> <td style="text-align: center;">1</td> <td style="text-align: center;">6.891</td> </tr> </table>								Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity (Each)	Unit Cost (\$ M)	FY 2016	CVN 73	Various	C/FFP	Jan 2017	New	1	6.891
Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity (Each)	Unit Cost (\$ M)																
FY 2016	CVN 73	Various	C/FFP	Jan 2017	New	1	6.891																
Delivery Date: <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 5px;"> <tr> <th style="text-align: center;">Program Year</th> <th style="text-align: center;">Hull</th> <th style="text-align: center;">Earliest Ship Delivery Date</th> <th style="text-align: center;">Months Required Before Delivery</th> <th style="text-align: center;">Production Leadtime</th> <th style="text-align: center;">Required Award Date</th> </tr> <tr> <td style="text-align: center;">FY 2016</td> <td style="text-align: center;">CVN 73</td> <td style="text-align: center;">Aug 2021</td> <td style="text-align: center;">47</td> <td style="text-align: center;">12</td> <td style="text-align: center;">May 2016</td> </tr> </table>								Program Year	Hull	Earliest Ship Delivery Date	Months Required Before Delivery	Production Leadtime	Required Award Date	FY 2016	CVN 73	Aug 2021	47	12	May 2016				
Program Year	Hull	Earliest Ship Delivery Date	Months Required Before Delivery	Production Leadtime	Required Award Date																		
FY 2016	CVN 73	Aug 2021	47	12	May 2016																		
Competition/Second Source Initiatives: N/A																							
Remarks: New shipboard modernization requirement for CVN73 RCOH to support UCLASS and Osprey aircraft. The CVN73 RCOH Modernization requirements have been validated by the Assistant Deputy Chief of Naval Operations, Integration of Capabilities & Resources (N8B) Ser N8B 134050 20 Jun 16. This modernization needs to occur during the RCOH due to limited shipyard availabilities for Forward Deployed Naval ships. This work was not performed on CVN 72 because it received this modernization prior to RCOH. CVN 73 2017-2018 Comments: No comment or cost increase.																							

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Exhibit P-35, Major Ship Component Fact Sheet: FY 2018 Navy						Date: May 2017	
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 02 / 1				P-1 Line Item Number / Title: 2086 / CVN Refueling Overhauls			
Equipment Item: DECK EDGE AND HANGAR DIVISIONAL DOORS						PARM Code: NAVSSES 912	
P-35 Category	FY 2012		FY 2016				
	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)			
Major Hardware	1	1.065	0	-			
Technical Data and Documentation		0.246		-			
System Engineering		1.472		-			
Technical Engineering Services		0.182		-			
Other Costs		0.637		-			
Total	1	3.602	0	-			
Description: This effort completes required modifications to the ship's deck edge and hangar divisional doors.							
Contract Data:							
Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity (Each)	Unit Cost (\$ M)
FY 2012	CVN 72	ROCKWELL CORP	C/IDIQ	Aug 2012	Option	1	1.065
Delivery Date:							
Program Year	Hull	Earliest Ship Delivery Date	Months Required Before Delivery	Production Leadtime	Required Award Date		
FY 2012	CVN 72	May 2017	42	8	Dec 2012		
Competition/Second Source Initiatives: N/A							
Remarks: For CVN 72, this item is listed on the P-35 exhibit. For CVN 73, the two cost elements were broken out and displayed in the list of Major Items on the P-8A exhibit #(2) HM&E as DECK EDGE DOOR UPGRADE and HANGAR DIVISION DOOR UPGRADE. CVN 73 2017-2018 Comments: No comment or cost increase.							

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Exhibit P-35, Major Ship Component Fact Sheet: FY 2018 Navy						Date: May 2017	
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 02 / 1				P-1 Line Item Number / Title: 2086 / CVN Refueling Overhauls			
Equipment Item: AUTOMATIC VOLTAGE REGULATOR						PARM Code: NAVSSES 912	
P-35 Category	FY 2012		FY 2016				
	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)			
Major Hardware	0	1.550	1	4.569			
Technical Data and Documentation		-		0.005			
Spares		-		0.300			
System Engineering		-		0.030			
Other Costs		-		0.010			
Total	0	1.550	1	4.914			
Description: Digital Variable Frequency Voltage Regulator (replacement for Analog Static Voltage Regulator for power generators -SSTG, CTG)							
Contract Data:							
Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity (Each)	Unit Cost (\$ M)
FY 2016	CVN 73	NG P/CS	C/FFP	Aug 2015	Option	1	4.569
Delivery Date:							
Program Year	Hull	Earliest Ship Delivery Date	Months Required Before Delivery	Production Leadtime	Required Award Date		
FY 2016	CVN 73	Aug 2021	27	26	Nov 2016		
Competition/Second Source Initiatives: N/A							
Remarks: Cost increase on CVN 73 due to installation of a full AVR ship set. CVN 72 only required half of a ship set installation during RCOH to complete the entire modernization effort. CVN 72 had half of a ship set installed prior to RCOH. CVN 73 2017-2018 Comments: No comment or cost increase.							

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Exhibit P-35, Major Ship Component Fact Sheet: FY 2018 Navy	Date: May 2017
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Appropriation / Budget Activity / Budget Sub Activity: 1611N / 02 / 1	P-1 Line Item Number / Title: 2086 / CVN Refueling Overhauls
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Equipment Item: AVIATION EQUIPMENT & SUPPORT	PARM Code: NAVAIR PMA 251
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P-35 Category	FY 2012		FY 2016	
	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Major Hardware	1	28.660	1	30.173
Ancillary Equipment		0.045		-
Technical Data and Documentation		0.382		0.193
Spares		0.333		0.266
System Engineering		2.674		3.936
Technical Engineering Services		9.073		9.994
Other Costs		4.613		4.371
Total	1	45.780	1	48.933

Description:

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

Contract Data:

Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity (Each)	Unit Cost (\$ M)
FY 2012	CVN 72					1	28.660
FY 2016	CVN 73					1	30.173

Delivery Date:

Program Year	Hull	Earliest Ship Delivery Date	Months Required Before Delivery	Production Leadtime	Required Award Date
FY 2012	CVN 72	May 2017	0		Various
FY 2016	CVN 73	Aug 2021	0		Various

Competition/Second Source Initiatives:

N/A

Remarks:

Major Hardware cost growth on CVN73 is due an increased unit cost for the Catapult Low Loss and Capacity Selector Valves.

Systems Engineering cost increase due to Government requirements from CVN 72 requiring additional NAVAIR systems engineering to complete necessary inspections and check points for Newport News Shipbuilding (NNS) and Voyage Repair Teams (VRT) Aviation Launch and Recovery Equipment (ALRE) work.

Technical Engineering Services cost growth on CVN73 id due to the increased use of government AITs vice using shipyard install teams. Government install teams are approximately 25% less costly and are an overall cost savings to the program. Installation efforts on CVN72 were performed by the shipbuilder, Huntington Ingalls Industries (HII), and executed under the Basic Construction contract. The use of AITs avoids higher cost growth to the Basic Construction Contract.

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Exhibit P-35, Major Ship Component Fact Sheet: FY 2018 Navy		Date: May 2017
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 02 / 1		P-1 Line Item Number / Title: 2086 / CVN Refueling Overhauls
Equipment Item: AVIATION EQUIPMENT & SUPPORT		PARM Code: NAVAIR PMA 251
CVN 73 2017-2018 Comments: No comment or cost increase.		

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Exhibit P-35, Major Ship Component Fact Sheet: FY 2018 Navy						Date: May 2017																									
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 02 / 1				P-1 Line Item Number / Title: 2086 / CVN Refueling Overhauls																											
Equipment Item: NATO SEASPARROW MISSILE SYSTEM (NSSMS)						PARM Code: PEO IWS - 3D																									
P-35 Category	FY 2012		FY 2016																												
	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)																											
Major Hardware	1	31.179	1	0.100																											
Ancillary Equipment		0.339		-																											
Spares		1.527		-																											
System Engineering		1.604		-																											
Technical Engineering Services		7.981		8.100																											
Other Costs		0.834		-																											
Total	1	43.464	1	8.200																											
Description: The NSSMS Mk 57 Mod 13 is a COTS upgrade of the legacy systems originally installed on CVN 71, consisting of new procurement computers/displays, refurbish/overhaul of legacy equipment (Radars/launchers), and an upgrade to the Guided Missile Launch System for ESSM compatibility. The NSSMS is a medium range self defense missile system capable of defeating near/mid-term air/surface threats.																															
Contract Data: <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 5px;"> <tr> <th>Program Year</th> <th>Hull</th> <th>Prime Contractor</th> <th>Contract Method/Type</th> <th>Award Date</th> <th>New/Option</th> <th>Quantity (Each)</th> <th>Unit Cost (\$ M)</th> </tr> <tr> <td>FY 2012</td> <td>CVN 72</td> <td>RAYTHEON</td> <td>SS/FFP</td> <td>Dec 2011</td> <td>New</td> <td style="text-align: center;">1</td> <td style="text-align: right;">31.179</td> </tr> <tr> <td>FY 2016</td> <td>CVN 73</td> <td>NSWC PHD</td> <td>SS/FFP</td> <td>Apr 2017</td> <td>New</td> <td style="text-align: center;">1</td> <td style="text-align: right;">0.100</td> </tr> </table>								Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity (Each)	Unit Cost (\$ M)	FY 2012	CVN 72	RAYTHEON	SS/FFP	Dec 2011	New	1	31.179	FY 2016	CVN 73	NSWC PHD	SS/FFP	Apr 2017	New	1	0.100
Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity (Each)	Unit Cost (\$ M)																								
FY 2012	CVN 72	RAYTHEON	SS/FFP	Dec 2011	New	1	31.179																								
FY 2016	CVN 73	NSWC PHD	SS/FFP	Apr 2017	New	1	0.100																								
Delivery Date: <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 5px;"> <tr> <th>Program Year</th> <th>Hull</th> <th>Earliest Ship Delivery Date</th> <th>Months Required Before Delivery</th> <th>Production Leadtime</th> <th>Required Award Date</th> </tr> <tr> <td>FY 2012</td> <td>CVN 72</td> <td>May 2017</td> <td style="text-align: center;">30</td> <td style="text-align: center;">29</td> <td style="text-align: center;">Mar 2012</td> </tr> <tr> <td>FY 2016</td> <td>CVN 73</td> <td>Aug 2021</td> <td style="text-align: center;">18</td> <td style="text-align: center;">30</td> <td style="text-align: center;">Apr 2017</td> </tr> </table>								Program Year	Hull	Earliest Ship Delivery Date	Months Required Before Delivery	Production Leadtime	Required Award Date	FY 2012	CVN 72	May 2017	30	29	Mar 2012	FY 2016	CVN 73	Aug 2021	18	30	Apr 2017						
Program Year	Hull	Earliest Ship Delivery Date	Months Required Before Delivery	Production Leadtime	Required Award Date																										
FY 2012	CVN 72	May 2017	30	29	Mar 2012																										
FY 2016	CVN 73	Aug 2021	18	30	Apr 2017																										
Competition/Second Source Initiatives: N/A																															
Remarks: Overall cost reduction. CVN73 NSSM (Nato Seasparrow Missile System) Modernization occurred prior to the RCOH. CVN 73 equipment will be refurbished vice modernized at a significantly reduced cost. CVN 73 2017-2018 Comments: No comment or cost increase.																															

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Exhibit P-35, Major Ship Component Fact Sheet: FY 2018 Navy						Date: May 2017																									
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 02 / 1				P-1 Line Item Number / Title: 2086 / CVN Refueling Overhauls																											
Equipment Item: AN/SPS-48G (V1) RAPID OVERT AIR RECONNAISSANCE (ROAR)						PARM Code: PEO IWS 2R1																									
P-35 Category	FY 2012		FY 2016																												
	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)																											
Major Hardware	1	7.800	1	8.938																											
Technical Data and Documentation		0.030		0.033																											
Spares		0.335		-																											
System Engineering		0.687		0.851																											
Technical Engineering Services		3.244		4.328																											
Other Costs		0.750		2.209																											
Total	1	12.846	1	16.359																											
Description: 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.																															
Contract Data: <table border="1" style="width:100%; border-collapse: collapse; margin-top: 5px;"> <tr> <th>Program Year</th> <th>Hull</th> <th>Prime Contractor</th> <th>Contract Method/Type</th> <th>Award Date</th> <th>New/Option</th> <th>Quantity (Each)</th> <th>Unit Cost (\$ M)</th> </tr> <tr> <td>FY 2012</td> <td>CVN 72</td> <td>ITT GILFILLAN</td> <td>C/FFP</td> <td>Apr 2012</td> <td>Option</td> <td align="center">1</td> <td align="right">7.800</td> </tr> <tr> <td>FY 2016</td> <td>CVN 73</td> <td>HARRIS</td> <td>SS/FPIF</td> <td>Sep 2016</td> <td>Option</td> <td align="center">1</td> <td align="right">8.938</td> </tr> </table>								Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity (Each)	Unit Cost (\$ M)	FY 2012	CVN 72	ITT GILFILLAN	C/FFP	Apr 2012	Option	1	7.800	FY 2016	CVN 73	HARRIS	SS/FPIF	Sep 2016	Option	1	8.938
Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity (Each)	Unit Cost (\$ M)																								
FY 2012	CVN 72	ITT GILFILLAN	C/FFP	Apr 2012	Option	1	7.800																								
FY 2016	CVN 73	HARRIS	SS/FPIF	Sep 2016	Option	1	8.938																								
Delivery Date: <table border="1" style="width:100%; border-collapse: collapse; margin-top: 5px;"> <tr> <th>Program Year</th> <th>Hull</th> <th>Earliest Ship Delivery Date</th> <th>Months Required Before Delivery</th> <th>Production Leadtime</th> <th>Required Award Date</th> </tr> <tr> <td>FY 2012</td> <td>CVN 72</td> <td align="center">May 2017</td> <td align="center">30</td> <td align="center">25</td> <td align="center">Jul 2012</td> </tr> <tr> <td>FY 2016</td> <td>CVN 73</td> <td align="center">Aug 2021</td> <td align="center">18</td> <td align="center">24</td> <td align="center">Oct 2017</td> </tr> </table>								Program Year	Hull	Earliest Ship Delivery Date	Months Required Before Delivery	Production Leadtime	Required Award Date	FY 2012	CVN 72	May 2017	30	25	Jul 2012	FY 2016	CVN 73	Aug 2021	18	24	Oct 2017						
Program Year	Hull	Earliest Ship Delivery Date	Months Required Before Delivery	Production Leadtime	Required Award Date																										
FY 2012	CVN 72	May 2017	30	25	Jul 2012																										
FY 2016	CVN 73	Aug 2021	18	24	Oct 2017																										
Competition/Second Source Initiatives: N/A																															
Remarks: Major Hardware increase on CVN73 is due to additional Antenna and Cross Field Amplifier refurbishments. The CVN 73 equipment assessment indicates excessive wear on the CVN 73 components. Technical Engineering Services cost growth on CVN73 is due to the increased use of government AITs vice using shipyard install teams. Government install teams are approximately 25% less costly and are an overall cost savings to the program. Installation efforts on CVN72 were performed by the shipbuilder, Huntington Ingalls Industries (HII), and executed under the Basic Construction contract. The use of AITs avoids higher cost growth to the Basic Construction Contract. "Other Cost" increase on CVN73 is due to the reallocation of CADIP efforts identified in the CVN 72 P-8a CADIP Major line item to various CVN 73 P-35s (SSDS, BFTT, CEC, SPS-48, CV-TSC). There is an overall 72-73 cost reduction in CADIP related efforts. CVN 73 2017-2018 Comments: No comment or cost increase.																															

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Exhibit P-35, Major Ship Component Fact Sheet: FY 2018 Navy						Date: May 2017																									
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 02 / 1				P-1 Line Item Number / Title: 2086 / CVN Refueling Overhauls																											
Equipment Item: AN/SPS-49(V)5 UPGRADE/REPAIR						PARM Code: PEO IWS 2R1																									
P-35 Category	FY 2012		FY 2016																												
	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)																											
Major Hardware	1	6.331	1	3.298																											
Ancillary Equipment		-		0.030																											
Technical Data and Documentation		0.134		-																											
Spares		0.275		0.275																											
System Engineering		0.665		0.705																											
Technical Engineering Services		3.755		3.657																											
Other Costs		1.394		0.818																											
Total	1	12.554	1	8.783																											
Description: 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.																															
Contract Data: <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 5px;"> <tr> <th>Program Year</th> <th>Hull</th> <th>Prime Contractor</th> <th>Contract Method/Type</th> <th>Award Date</th> <th>New/Option</th> <th>Quantity (Each)</th> <th>Unit Cost (\$ M)</th> </tr> <tr> <td>FY 2012</td> <td>CVN 72</td> <td>NSWC CRANE</td> <td>WR</td> <td>Jul 2011</td> <td></td> <td style="text-align: center;">1</td> <td style="text-align: center;">6.331</td> </tr> <tr> <td>FY 2016</td> <td>CVN 73</td> <td>NSWC CRANE</td> <td>WR</td> <td>Apr 2017</td> <td></td> <td style="text-align: center;">1</td> <td style="text-align: center;">3.298</td> </tr> </table>								Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity (Each)	Unit Cost (\$ M)	FY 2012	CVN 72	NSWC CRANE	WR	Jul 2011		1	6.331	FY 2016	CVN 73	NSWC CRANE	WR	Apr 2017		1	3.298
Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity (Each)	Unit Cost (\$ M)																								
FY 2012	CVN 72	NSWC CRANE	WR	Jul 2011		1	6.331																								
FY 2016	CVN 73	NSWC CRANE	WR	Apr 2017		1	3.298																								
Delivery Date: <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 5px;"> <tr> <th>Program Year</th> <th>Hull</th> <th>Earliest Ship Delivery Date</th> <th>Months Required Before Delivery</th> <th>Production Leadtime</th> <th>Required Award Date</th> </tr> <tr> <td>FY 2012</td> <td>CVN 72</td> <td>May 2017</td> <td style="text-align: center;">31</td> <td style="text-align: center;">29</td> <td style="text-align: center;">Feb 2012</td> </tr> <tr> <td>FY 2016</td> <td>CVN 73</td> <td>Aug 2021</td> <td style="text-align: center;">18</td> <td style="text-align: center;">30</td> <td style="text-align: center;">Apr 2017</td> </tr> </table>								Program Year	Hull	Earliest Ship Delivery Date	Months Required Before Delivery	Production Leadtime	Required Award Date	FY 2012	CVN 72	May 2017	31	29	Feb 2012	FY 2016	CVN 73	Aug 2021	18	30	Apr 2017						
Program Year	Hull	Earliest Ship Delivery Date	Months Required Before Delivery	Production Leadtime	Required Award Date																										
FY 2012	CVN 72	May 2017	31	29	Feb 2012																										
FY 2016	CVN 73	Aug 2021	18	30	Apr 2017																										
Competition/Second Source Initiatives: N/A																															
Remarks: Overall cost decrease on CVN73 is due to modernization being accomplished prior to RCOH. The CVN 73 system will be refurbished. CVN 73 2017-2018 Comments: No comment or cost increase.																															

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Exhibit P-35, Major Ship Component Fact Sheet: FY 2018 Navy						Date: May 2017																	
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 02 / 1				P-1 Line Item Number / Title: 2086 / CVN Refueling Overhauls																			
Equipment Item: AN/SPQ-9B RADAR						PARM Code: IWS 2RI																	
P-35 Category	FY 2012		FY 2016																				
	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)																			
Major Hardware	1	4.388	0	-																			
Ancillary Equipment		0.012		-																			
Technical Data and Documentation		0.075		-																			
Spares		0.373		0.150																			
System Engineering		0.349		-																			
Technical Engineering Services		1.627		2.536																			
Other Costs		2.444		0.060																			
Total	1	9.268	0	2.746																			
Description: 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.																							
Contract Data: <table border="1" style="width:100%; border-collapse: collapse; margin-top: 5px;"> <tr> <th style="text-align: center;">Program Year</th> <th style="text-align: center;">Hull</th> <th style="text-align: center;">Prime Contractor</th> <th style="text-align: center;">Contract Method/Type</th> <th style="text-align: center;">Award Date</th> <th style="text-align: center;">New/Option</th> <th style="text-align: center;">Quantity (Each)</th> <th style="text-align: center;">Unit Cost (\$ M)</th> </tr> <tr> <td align="center">FY 2012</td> <td align="center">CVN 72</td> <td align="center">NORTHROP GRUMMAN</td> <td align="center">SS/FFP</td> <td align="center">May 2011</td> <td align="center">Option</td> <td align="center">1</td> <td align="right">4.388</td> </tr> </table>								Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity (Each)	Unit Cost (\$ M)	FY 2012	CVN 72	NORTHROP GRUMMAN	SS/FFP	May 2011	Option	1	4.388
Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity (Each)	Unit Cost (\$ M)																
FY 2012	CVN 72	NORTHROP GRUMMAN	SS/FFP	May 2011	Option	1	4.388																
Delivery Date: <table border="1" style="width:100%; border-collapse: collapse; margin-top: 5px;"> <tr> <th style="text-align: center;">Program Year</th> <th style="text-align: center;">Hull</th> <th style="text-align: center;">Earliest Ship Delivery Date</th> <th style="text-align: center;">Months Required Before Delivery</th> <th style="text-align: center;">Production Leadtime</th> <th style="text-align: center;">Required Award Date</th> </tr> <tr> <td align="center">FY 2012</td> <td align="center">CVN 72</td> <td align="center">May 2017</td> <td align="center">35</td> <td align="center">30</td> <td align="center">Sep 2011</td> </tr> </table>								Program Year	Hull	Earliest Ship Delivery Date	Months Required Before Delivery	Production Leadtime	Required Award Date	FY 2012	CVN 72	May 2017	35	30	Sep 2011				
Program Year	Hull	Earliest Ship Delivery Date	Months Required Before Delivery	Production Leadtime	Required Award Date																		
FY 2012	CVN 72	May 2017	35	30	Sep 2011																		
Competition/Second Source Initiatives: N/A																							
Remarks: Overall cost decrease on CVN 73 is due to modernization being accomplished prior to RCOH. The CVN 73 system will be refurbished with minor upgrades. CVN 72 was modernized and required new hardware.																							

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Exhibit P-35, Major Ship Component Fact Sheet: FY 2018 Navy						Date: May 2017																									
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 02 / 1				P-1 Line Item Number / Title: 2086 / CVN Refueling Overhauls																											
Equipment Item: MK38 MOD 2 GUN SYSTEM						PARM Code: PMS 480																									
P-35 Category	FY 2012		FY 2016																												
	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)																											
Major Hardware	1	5.100	1	7.217																											
Spares		0.140		0.068																											
System Engineering		0.355		0.080																											
Technical Engineering Services		0.710		3.404																											
Other Costs		0.970		0.370																											
Total	1	7.275	1	11.139																											
Description: 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.																															
Contract Data: <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 5px;"> <tr> <th>Program Year</th> <th>Hull</th> <th>Prime Contractor</th> <th>Contract Method/Type</th> <th>Award Date</th> <th>New/Option</th> <th>Quantity (Each)</th> <th>Unit Cost (\$ M)</th> </tr> <tr> <td>FY 2012</td> <td>CVN 72</td> <td>BAE SYSTEMS</td> <td>C/FFP</td> <td>Nov 2012</td> <td>New</td> <td style="text-align: center;">1</td> <td style="text-align: right;">5.100</td> </tr> <tr> <td>FY 2016</td> <td>CVN 73</td> <td>BAE SYSTEMS</td> <td>C/FFP</td> <td>Apr 2018</td> <td>Option</td> <td style="text-align: center;">1</td> <td style="text-align: right;">7.217</td> </tr> </table>								Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity (Each)	Unit Cost (\$ M)	FY 2012	CVN 72	BAE SYSTEMS	C/FFP	Nov 2012	New	1	5.100	FY 2016	CVN 73	BAE SYSTEMS	C/FFP	Apr 2018	Option	1	7.217
Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity (Each)	Unit Cost (\$ M)																								
FY 2012	CVN 72	BAE SYSTEMS	C/FFP	Nov 2012	New	1	5.100																								
FY 2016	CVN 73	BAE SYSTEMS	C/FFP	Apr 2018	Option	1	7.217																								
Delivery Date: <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 5px;"> <tr> <th>Program Year</th> <th>Hull</th> <th>Earliest Ship Delivery Date</th> <th>Months Required Before Delivery</th> <th>Production Leadtime</th> <th>Required Award Date</th> </tr> <tr> <td>FY 2012</td> <td>CVN 72</td> <td>May 2017</td> <td style="text-align: center;">29</td> <td style="text-align: center;">12</td> <td style="text-align: center;">Sep 2013</td> </tr> <tr> <td>FY 2016</td> <td>CVN 73</td> <td>Aug 2021</td> <td style="text-align: center;">12</td> <td style="text-align: center;">24</td> <td style="text-align: center;">Apr 2018</td> </tr> </table>								Program Year	Hull	Earliest Ship Delivery Date	Months Required Before Delivery	Production Leadtime	Required Award Date	FY 2012	CVN 72	May 2017	29	12	Sep 2013	FY 2016	CVN 73	Aug 2021	12	24	Apr 2018						
Program Year	Hull	Earliest Ship Delivery Date	Months Required Before Delivery	Production Leadtime	Required Award Date																										
FY 2012	CVN 72	May 2017	29	12	Sep 2013																										
FY 2016	CVN 73	Aug 2021	12	24	Apr 2018																										
Competition/Second Source Initiatives: N/A																															
Remarks: Major Hardware costs increase on CVN 73 is due to added capabilities to the system; i.e. a co-axially mounted 7.62mm gun, an improved remotely operated loud hailer, and improved electro-optical/infrared sensor. These improvements increase the operational availability and reliability of the system. Technical Engineering Services cost growth on CVN73 is due to the increased use of government AITs vice using shipyard install teams. Government install teams are approximately 25% less costly and are an overall cost savings to the program. Installation efforts on CVN72 were performed by the shipbuilder, Huntington Ingalls Industries (HII), and executed under the Basic Construction contract. The use of AITs avoids higher cost growth to the Basic Construction Contract. CVN 73 2017-2018 Comments: No comment or cost increase.																															

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Exhibit P-35, Major Ship Component Fact Sheet: FY 2018 Navy						Date: May 2017																									
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 02 / 1				P-1 Line Item Number / Title: 2086 / CVN Refueling Overhauls																											
Equipment Item: AN/SQQ-34C(V) CARRIER TACTICAL SUPPORT CENTER						PARM Code: PEO IWS 5E																									
P-35 Category	FY 2012		FY 2016																												
	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)																											
Major Hardware	1	2.107	1	2.200																											
Ancillary Equipment		0.020		-																											
Technical Data and Documentation		0.253		-																											
Spares		0.035		0.050																											
System Engineering		0.941		1.065																											
Technical Engineering Services		0.676		1.460																											
Other Costs		0.965		1.885																											
Total	1	4.997	1	6.660																											
Description: Support tactical employment of carrier ASW aircraft and provide real-time Command, Control, & Communications as ASW module of the Carrier CDS.																															
Contract Data: <table border="1" style="width:100%; border-collapse: collapse; margin-top: 5px;"> <tr> <th style="text-align: center;">Program Year</th> <th style="text-align: center;">Hull</th> <th style="text-align: center;">Prime Contractor</th> <th style="text-align: center;">Contract Method/Type</th> <th style="text-align: center;">Award Date</th> <th style="text-align: center;">New/Option</th> <th style="text-align: center;">Quantity (Each)</th> <th style="text-align: center;">Unit Cost (\$ M)</th> </tr> <tr> <td align="center">FY 2012</td> <td align="center">CVN 72</td> <td align="center">LOCKHEED MARTIN</td> <td align="center">C/CPFF</td> <td></td> <td></td> <td align="center">1</td> <td align="right">2.107</td> </tr> <tr> <td align="center">FY 2016</td> <td align="center">CVN 73</td> <td align="center">NUWC Keyport</td> <td align="center">Various</td> <td align="center">Various</td> <td></td> <td align="center">1</td> <td align="right">2.200</td> </tr> </table>								Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity (Each)	Unit Cost (\$ M)	FY 2012	CVN 72	LOCKHEED MARTIN	C/CPFF			1	2.107	FY 2016	CVN 73	NUWC Keyport	Various	Various		1	2.200
Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity (Each)	Unit Cost (\$ M)																								
FY 2012	CVN 72	LOCKHEED MARTIN	C/CPFF			1	2.107																								
FY 2016	CVN 73	NUWC Keyport	Various	Various		1	2.200																								
Delivery Date: <table border="1" style="width:100%; border-collapse: collapse; margin-top: 5px;"> <tr> <th style="text-align: center;">Program Year</th> <th style="text-align: center;">Hull</th> <th style="text-align: center;">Earliest Ship Delivery Date</th> <th style="text-align: center;">Months Required Before Delivery</th> <th style="text-align: center;">Production Leadtime</th> <th style="text-align: center;">Required Award Date</th> </tr> <tr> <td align="center">FY 2012</td> <td align="center">CVN 72</td> <td align="center">May 2017</td> <td align="center">30</td> <td align="center">24</td> <td align="center">Aug 2012</td> </tr> <tr> <td align="center">FY 2016</td> <td align="center">CVN 73</td> <td align="center">Aug 2021</td> <td align="center">27</td> <td align="center">18</td> <td align="center">Jul 2017</td> </tr> </table>								Program Year	Hull	Earliest Ship Delivery Date	Months Required Before Delivery	Production Leadtime	Required Award Date	FY 2012	CVN 72	May 2017	30	24	Aug 2012	FY 2016	CVN 73	Aug 2021	27	18	Jul 2017						
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FY 2012	CVN 72	May 2017	30	24	Aug 2012																										
FY 2016	CVN 73	Aug 2021	27	18	Jul 2017																										
Competition/Second Source Initiatives: N/A																															
Remarks: Technical Engineering Services cost growth on CVN73 is due to the increased use of government AITs vice using shipyard install teams. Government install teams are approximately 25% less costly and are an overall cost savings to the program. Installation efforts on CVN72 were performed by the shipbuilder, Huntington Ingalls Industries (HII), and executed under the Basic Construction contract. The use of AITs avoids higher cost growth to the Basic Construction Contract. "Other Cost" increase on CVN73 is due to the reallocation of CADIP efforts identified in the CVN 72 P-8a CADIP Major line item to various CVN 73 P-35s (SSDS, BFTT, CEC, SPS-48, CV-TSC). There is an overall 72-73 cost reduction in CADIP related efforts. CVN 73 2017-2018 Comments: No comment or cost increase.																															

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Exhibit P-35, Major Ship Component Fact Sheet: FY 2018 Navy						Date: May 2017																									
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 02 / 1				P-1 Line Item Number / Title: 2086 / CVN Refueling Overhauls																											
Equipment Item: ADVANCED SENSOR DISTRIBUTION SYSTEM (ASDS)						PARM Code: PEO IWS 2R1																									
P-35 Category	FY 2012		FY 2016																												
	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)																											
Major Hardware	1	2.317	1	1.247																											
Ancillary Equipment		-		0.010																											
Spares		0.037		0.045																											
System Engineering		0.759		0.103																											
Technical Engineering Services		0.360		1.196																											
Other Costs		0.804		1.257																											
Total	1	4.277	1	3.858																											
Description: ASDS provides the distribution of RADAR sensor data and video to RADAR displays on board the ship.																															
Contract Data: <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 5px;"> <tr> <th style="text-align: center;">Program Year</th> <th style="text-align: center;">Hull</th> <th style="text-align: center;">Prime Contractor</th> <th style="text-align: center;">Contract Method/Type</th> <th style="text-align: center;">Award Date</th> <th style="text-align: center;">New/Option</th> <th style="text-align: center;">Quantity (Each)</th> <th style="text-align: center;">Unit Cost (\$ M)</th> </tr> <tr> <td style="text-align: center;">FY 2012</td> <td style="text-align: center;">CVN 72</td> <td style="text-align: center;">OTHER ELECTRONICS</td> <td style="text-align: center;">C/IDIQ</td> <td style="text-align: center;">Jan 2014</td> <td style="text-align: center;">New</td> <td style="text-align: center;">1</td> <td style="text-align: right;">2.317</td> </tr> <tr> <td style="text-align: center;">FY 2016</td> <td style="text-align: center;">CVN 73</td> <td style="text-align: center;">LM/DRS</td> <td style="text-align: center;">C/FFP</td> <td style="text-align: center;">Oct 2016</td> <td style="text-align: center;">Option</td> <td style="text-align: center;">1</td> <td style="text-align: right;">1.247</td> </tr> </table>								Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity (Each)	Unit Cost (\$ M)	FY 2012	CVN 72	OTHER ELECTRONICS	C/IDIQ	Jan 2014	New	1	2.317	FY 2016	CVN 73	LM/DRS	C/FFP	Oct 2016	Option	1	1.247
Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity (Each)	Unit Cost (\$ M)																								
FY 2012	CVN 72	OTHER ELECTRONICS	C/IDIQ	Jan 2014	New	1	2.317																								
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Delivery Date: <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 5px;"> <tr> <th style="text-align: center;">Program Year</th> <th style="text-align: center;">Hull</th> <th style="text-align: center;">Earliest Ship Delivery Date</th> <th style="text-align: center;">Months Required Before Delivery</th> <th style="text-align: center;">Production Leadtime</th> <th style="text-align: center;">Required Award Date</th> </tr> <tr> <td style="text-align: center;">FY 2012</td> <td style="text-align: center;">CVN 72</td> <td style="text-align: center;">May 2017</td> <td style="text-align: center;">17</td> <td style="text-align: center;">12</td> <td style="text-align: center;">Sep 2014</td> </tr> <tr> <td style="text-align: center;">FY 2016</td> <td style="text-align: center;">CVN 73</td> <td style="text-align: center;">Aug 2021</td> <td style="text-align: center;">18</td> <td style="text-align: center;">18</td> <td style="text-align: center;">Apr 2018</td> </tr> </table>								Program Year	Hull	Earliest Ship Delivery Date	Months Required Before Delivery	Production Leadtime	Required Award Date	FY 2012	CVN 72	May 2017	17	12	Sep 2014	FY 2016	CVN 73	Aug 2021	18	18	Apr 2018						
Program Year	Hull	Earliest Ship Delivery Date	Months Required Before Delivery	Production Leadtime	Required Award Date																										
FY 2012	CVN 72	May 2017	17	12	Sep 2014																										
FY 2016	CVN 73	Aug 2021	18	18	Apr 2018																										
Competition/Second Source Initiatives: N/A																															
Remarks: Technical Engineering Services cost growth on CVN73 is due to the increased use of government AITs vice using shipyard install teams. Government install teams are approximately 25% less costly and are an overall cost savings to the program. Installation efforts on CVN72 were performed by the shipbuilder, Huntington Ingalls Industries (HII), and executed under the Basic Construction contract. The use of AITs avoids higher cost growth to the Basic Construction Contract. CVN 73 2017-2018 Comments: No comment or cost increase.																															

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Exhibit P-35, Major Ship Component Fact Sheet: FY 2018 Navy						Date: May 2017	
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 02 / 1				P-1 Line Item Number / Title: 2086 / CVN Refueling Overhauls			
Equipment Item: EW DECOY LAUNCHING SYSTEM						PARM Code: PEO IWS 2E	
P-35 Category	FY 2012		FY 2016				
	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)			
Major Hardware	1	0.349	0	-			
Technical Data and Documentation		0.055		-			
Spares		0.060		-			
System Engineering		0.833		-			
Technical Engineering Services		1.543		-			
Other Costs		0.611		-			
Total	1	3.451	0	-			
Description: 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							
Contract Data:							
Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity (Each)	Unit Cost (\$ M)
FY 2012	CVN 72	SECHAN ELECTRONICS	C/FFP	Nov 2011	New	1	0.349
Delivery Date:							
Program Year	Hull	Earliest Ship Delivery Date	Months Required Before Delivery	Production Leadtime	Required Award Date		
FY 2012	CVN 72	May 2017	40	18	Apr 2012		
Competition/Second Source Initiatives: N/A							

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Exhibit P-10, Advance Procurement Requirements Analysis (page 1 - Budget Funding Justification): FY 2018 Navy							Date: May 2017			
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 02 / 1				P-1 Line Item Number / Title: 2086 / CVN Refueling Overhauls						
First System (2018) Award Date: January 2021		First System (2018) Completion Date: January 2025			Interval Between Systems: 38 Months					
Cost Elements		Production Leadtime (Months)	When Required* (Months)	FY 2016 (\$ M)	FY 2017 (\$ M)	FY 2018 (\$ M)	FY 2019 (\$ M)	FY 2020 (\$ M)	FY 2021 (\$ M)	FY 2022 (\$ M)
Advance Procurement										
Plans	-	Various	1.212	18.000	21.501	21.930	31.046	19.000	24.700	
Basic	-	Various	3.151	175.499	22.986	330.084	445.946	154.405	369.751	
Other	-	Various	0.838	7.500	10.050	10.404	22.606	8.000	11.800	
Propulsion Equipment	-	Various	9.700	41.200	15.100	15.402	19.160	46.000	16.900	
HM&E	-	Various	-	-	0.000	4.080	33.762	-	4.600	
Electronics	-	Various	0.050	6.300	4.660	70.992	47.752	7.700	92.000	
Ordnance	-	Various	-	0.100	1.600	7.038	25.194	1.100	21.700	
Total: Advance Procurement			14.951	248.599	75.897	459.930	625.466	236.205	541.451	
Total Advance Procurement/Obligation Authority			14.951	248.599	75.897	459.930	625.466	236.205	541.451	

*Note: "When Required" is the number of months required before ship delivery.

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Exhibit P-10, Advance Procurement Requirements Analysis (page 2 - Budget Funding Justification): FY 2018 Navy	Date: May 2017
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Appropriation / Budget Activity / Budget Sub Activity: 1611N / 02 / 1	P-1 Line Item Number / Title: 2086 / CVN Refueling Overhauls
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Cost Elements	FY 2018						
	Production Leadtime (Months)	When Required* (Months)	Unit Cost (\$ M)	Contract Forecast Date	2018 Qty (Each)	For FY	Total Cost Request (\$ M)
Advance Procurement							
Plans	-	Various	-	Dec 2017	-	2021	21.501
Basic	-	Various	22.986	Jan 2018	1	2021	22.986
Other	-	Various	-	Dec 2017	-	2021	10.050
Propulsion Equipment	-	Various	-	Nov 2017	-	2021	15.100
HM&E	-	Various	-	Jan 2018	-	2021	0.000
Electronics	-	Various	-	Jan 2018	-	2021	4.660
Ordnance	-	Various	-	Jan 2018	-	2021	1.600
<i>Total: Advance Procurement</i>							75.897
Total Advance Procurement/Obligation Authority							75.897

Description:

FY 2018 is the third of five years of advance procurement for CVN 74 RCOH. The FY 2018 request for advance procurement funding fully funds required efforts for CVN 74 in FY 2018.

CVN 74 RCOH: FY 2018 funding is required to procure long-lead items and to support long-lead nuclear material for execution contract award. Efforts will include work package planning, shipchecks, drawings, and government furnished equipment (GFE) engineering and hardware procurements. The advance planning contract with the prime contractor is funded under Basic.

Plans: Advance planning engineering support; authorized work package (AWP) development; shipchecks and shipcheck oversight; government furnished information (GFI) development; and technical oversight and authority.

Basic: Procurement of long-lead material and fabrication of temporary support systems for nuclear component replacement; prime contractor advance planning; integration of the AWP into the execution integrated master schedule; Ship's Force work package material procurement; customer contracted teams' GFE; and technical support. The requirement to award the first year of the advance planning contract has shifted from FY 2017 to FY 2018.

Other: Risk management program; logistics and work package review; aircraft carrier RCOH maintenance cost reduction initiatives; Carriers Integrated Digital Environment; and essential program management. Carrier Team One support begins in FY 2018.

Propulsion Equipment: Nuclear component procurements and technical engineering services. There are fewer nuclear procurement requirements in FY 2018 than FY 2017.

HM&E: GFI/GFE and technical support services. The 10-month schedule change has shifted all requirements from FY 2018 to FY 2019.

Electronics: GFI/GFE and technical support services for combat systems, interior communications, and C4I. The 10-month schedule change has shifted system detail design for Integrated Communication Network, SSDS MK 2, and Cooperative Engagement Capability from FY 2018 to FY 2019.

Ordnance: GFI/GFE and technical support services for radars and weapons systems. The 10-month schedule change has shifted system detail design for weapons systems, including NATO Seasparrow Missile System, AN/SPS-49 radar, and MK38 Mod 2 Gun System, from FY 2018 to FY 2019.

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Exhibit P-10, Advance Procurement Requirements Analysis (page 2 - Budget Funding Justification): FY 2018 Navy		Date: May 2017
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 02 / 1	P-1 Line Item Number / Title: 2086 / CVN Refueling Overhauls	

*Note: "When Required" is the number of months required before ship delivery.

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Exhibit P-40, Budget Line Item Justification: FY 2018 Navy									Date: May 2017			
Appropriation / Budget Activity / Budget Sub Activity: 1611N: Shipbuilding and Conversion, Navy / BA 02: Other Warships / BSA 1: Other Warships						P-1 Line Item Number / Title: 2119 / DDG 1000						
ID Code (A=Service Ready, B=Not Service Ready): A			Program Elements for Code B Items: N/A					Other Related Program Elements: N/A				
Line Item MDAP/MAIS Code: N/A												
Resource Summary	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
Procurement Quantity (Units in Each)	3	-	-	-	-	-	-	-	-	-	-	3
Gross/Weapon System Cost (\$ in Millions)	12,882.015	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-	12,882.015
Less PY Advance Procurement (\$ in Millions)	1,160.116	-	-	-	-	-	-	-	-	-	-	1,160.116
Less Subsequent Year Full Funding (\$ in Millions)	7,630.034	-	-	-	-	-	-	-	-	-	-	7,630.034
Net Procurement (P-1) (\$ in Millions)	4,091.865	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-	4,091.865
Plus Subsequent Year Full Funding (\$ in Millions)	6,541.935	433.404	271.756	223.968	-	223.968	130.402	28.569	-	-	-	7,630.034
Full Funding TOA (\$ in Millions)	10,633.800	433.404	271.756	223.968	-	223.968	130.402	28.569	-	-	-	11,721.899
Plus CY Advance Procurement (\$ in Millions)	1,160.116	-	-	-	-	-	-	-	-	-	-	1,160.116
Total Obligation Authority (\$ in Millions)	11,793.916	433.404	271.756	223.968	0.000	223.968	130.402	28.569	0.000	0.000	-	12,882.015
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Plus Outfitting and Post Delivery (\$ in Millions)	122.897	45.621	38.059	43.526	-	43.526	77.624	35.828	39.071	40.915	136.318	579.859
Total (\$ in Millions)	11,916.813	479.025	309.815	267.494	-	267.494	208.026	64.397	39.071	40.915	136.318	13,461.874
Gross/Weapon System Unit Cost (\$ in Millions)	4,294.005	-	-	-	-	-	-	-	-	-	-	4,294.005

Description:

DDG 1000, a multi-mission surface combatant will serve as a versatile asset in the context of future Naval Strategy. Armed with an array of weapons, DDG 1000 will provide the Joint Force Commander with precision strike and volume fires. Designed with sustainable payload, multi-spectral stealth and optimal manning, DDG 1000 will take the fight to the enemy with unprecedented striking power, sustainability, survivability and information dominance. This Budget Submission is based on a DDG 1000 of 15,742 tons displacement with two Advanced Gun Systems (AGS) including a total magazine capacity of 600 rounds. FY18 funding will support continued construction, Class Services, and GFE / Mission Systems Equipment (MSE) procurement.

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Exhibit P-40, Budget Line Item Justification: FY 2018 Navy				Date: May 2017																																																	
Appropriation / Budget Activity / Budget Sub Activity: 1611N: Shipbuilding and Conversion, Navy / BA 02: Other Warships / BSA 1: Other Warships			P-1 Line Item Number / Title: 2119 / DDG 1000																																																		
ID Code (A=Service Ready, B=Not Service Ready): A		Program Elements for Code B Items: N/A		Other Related Program Elements: N/A																																																	
Line Item MDAP/MAIS Code: N/A																																																					
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Design Schedule	Start / Issue	Complete / Response	Reissue	Reissue Complete / Response																																																	
Issue Date for TLR	N/A	N/A																																																			
Issue Date for TLS	N/A	N/A																																																			
Preliminary Design	N/A	N/A																																																			
Contract Design	N/A	N/A																																																			
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Exhibit P-5c, Ship Cost Analysis: FY 2018 Navy			Date: May 2017	
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 02 / 1		P-1 Line Item Number / Title: 2119 / DDG 1000		
Cost Categories <small>(†) indicates the presence of a P-8a</small>	FY 2007		FY 2009	
	Qty <i>(Each)</i>	Total Cost <i>(\$ M)</i>	Qty <i>(Each)</i>	Total Cost <i>(\$ M)</i>
Plan Costs	2	1,537.338	1	547.938
Basic Construction/Conversion		3,586.425		1,225.470
Change Orders		283.530		63.708
Electronics ^(†)		2,666.293		1,423.988
Hull, Mechanical, and Electrical (HM&E) ^(†)		199.666		62.334
Ordnance ^(†)		525.693		265.057
Other Cost		349.869		144.706
Total Ship Estimate		9,148.814		3,733.201
Less Advance Procurement FY 2005		304.046		-
Less Advance Procurement FY 2006		706.240		-
Less Advance Procurement FY 2008		-		149.830
Less Subsequent Full Funding FY 2008		3,009.929		-
Less Subsequent Full Funding FY 2010		313.025		1,065.507
Less Subsequent Full Funding FY 2011		107.027		140.055
Less Subsequent Full Funding FY 2012		435.932		72.795
Less Subsequent Full Funding FY 2013		536.145		138.378
Less Subsequent Full Funding FY 2014		236.315		25.978
Less Subsequent Full Funding FY 2015		374.729		86.120
Less Subsequent Full Funding FY 2016		262.988		170.416
Less Subsequent Full Funding FY 2017		166.910		104.846
Less Subsequent Full Funding FY 2018		89.151		134.817
Less Subsequent Full Funding FY 2019		18.809		111.593
Less Subsequent Full Funding FY 2020		-		28.569
Net P-1 Funding		2,587.568		1,504.297

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Exhibit P-27, Ship Production Schedule: FY 2018 Navy	Date: May 2017
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Appropriation / Budget Activity / Budget Sub Activity: 1611N / 02 / 1	P-1 Line Item Number / Title: 2119 / DDG 1000
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Ship	Shipbuilder	Fiscal Year	Contract Award	Start of Construction	Delivery Date
DDG 1000 ⁽¹⁾	BIW	2007	Feb 2008	Feb 2009	May 2018
DDG 1001 ⁽²⁾	BIW	2007	Sep 2011	Mar 2010	May 2020
DDG 1002 ⁽³⁾	BIW	2009	Sep 2011	Apr 2012	Dec 2021

Footnotes:

⁽¹⁾ DDG 1000 HM&E delivery from the shipbuilder was May 2016. Delivery is May 2018.

⁽²⁾ DDG 1001 was re-awarded to BIW in September 2011. DDG 1001 HM&E contractual delivery from the shipbuilder is March 2018. Delivery is May 2020.

⁽³⁾ DDG 1002 HM&E contractual delivery from the shipbuilder is March 2020. Delivery is December 2021.

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Exhibit P-8a, Analysis of Ship Cost Estimates: FY 2018 Navy				Date: May 2017	
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 02 / 1			P-1 Line Item Number / Title: 2119 / DDG 1000		
Electronics	FY 2007		FY 2009		
	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	
P-35 Items					
EXTERIOR COMMUNICATIONS (EXCOMMS)	2	470.348	1	79.962	
INTEGRATED UNDERSEA WARFARE (IUSW) SYSTEM	2	216.263	1	105.136	
MULTI FUNCTION RADAR (MFR)	2	519.609	1	262.999	
COMMON ARRAY POWER SYSTEM (CAPS)	2	97.017	1	16.409	
TOTAL SHIP COMPUTING ENVIRONMENT (TSCE)	2	374.577	1	279.991	
ELECTRO-OPTICAL / INFRARED (EO/IR)	2	94.411	1	31.452	
IDENTIFICATION FRIEND OR FOE (IFF)	2	35.532	1	28.138	
COMMON ARRAY COOLING SYSTEM (CACS)	2	20.065	1	0.965	
SHIP CONTROL SYSTEM (SCS)	2	111.527	1	117.229	
COOPERATIVE ENGAGEMENT CAPABILITY (CEC)	2	16.025	1	7.800	
SURFACE ELECTRONIC WARFARE IMPROVEMENT PROGRAM (SEWIP)	2	40.242	1	17.682	
VERTICAL LAUNCHING SYSTEM (VLS) MK 57 4-CELL MODULES	40	276.782	20	302.815	
P-35 Items Subtotal		2,272.398		1,250.578	
Other Cost Elements					
MISSION SYSTEM ENGR INTEGR & TEST (MSEIT)		322.274		132.510	
MISSION SYSTEM ACTIVATION		71.621		40.900	
Other Cost Elements Subtotal		393.895		173.410	
Total Electronics		2,666.293		1,423.988	
Remarks: An increase of \$4.9M in DDG 1000/1001 Mission Systems Activation is due to the DDG1000 first of its class activation costs on unique mission systems.					

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Exhibit P-8a, Analysis of Ship Cost Estimates: FY 2018 Navy			Date: May 2017	
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 02 / 1		P-1 Line Item Number / Title: 2119 / DDG 1000		
Hull, Mechanical, and Electrical (HM&E)	FY 2007		FY 2009	
	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
P-35 Items				
MAIN TURBINE GENERATOR (MTG)	4	78.125	2	39.412
P-35 Items Subtotal		78.125		39.412
Major Items				
BATTLE SPARES (MTG)		32.168		-
RIGID HULL INFLATABLE BOAT (RHIB)	4	2.100	2	1.100
Major Items Subtotal		34.268		1.100
Other Cost Elements				
HM&E (NGVLA, Moriah Wind Measurement System (WMS), Aviation Integration)		68.492		12.432
MISSION SYSTEM ACTIVATION		18.781		9.390
Other Cost Elements Subtotal		87.273		21.822
Total Hull, Mechanical, and Electrical (HM&E)		199.666		62.334

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Exhibit P-8a, Analysis of Ship Cost Estimates: FY 2018 Navy				Date: May 2017	
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 02 / 1			P-1 Line Item Number / Title: 2119 / DDG 1000		
Ordnance	FY 2007		FY 2009		
	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	
P-35 Items					
ADVANCED GUN SYSTEM (AGS)	4	468.593	2	248.762	
CLOSE-IN GUN SYSTEM (CIGS)	4	36.151	2	13.795	
P-35 Items Subtotal		504.744		262.557	
Major Items					
BATTLE SPARES (AGS)		18.449		-	
Major Items Subtotal		18.449		-	
Other Cost Elements					
MISSION SYSTEM ACTIVATION		2.500		2.500	
Other Cost Elements Subtotal		2.500		2.500	
Total Ordnance		525.693		265.057	

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Exhibit P-35, Major Ship Component Fact Sheet: FY 2018 Navy						Date: May 2017	
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 02 / 1				P-1 Line Item Number / Title: 2119 / DDG 1000			
Equipment Item: EXTERIOR COMMUNICATIONS (EXCOMMS)						PARM Code: PEOC4I	
P-35 Category	FY 2007		FY 2009				
	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)			
Major Hardware	2	195.953	1	20.600			
Technical Support Services		33.947		6.585			
Other / NRE		240.448		52.777			
Total	2	470.348	1	79.962			
Description: 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).							
Contract Data:							
Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity (Each)	Unit Cost (\$ M)
FY 2007	DDG 1000	Raytheon	C/CPIF	May 2008		2	97.977
FY 2009	DDG 1002	Raytheon	C/CPIF	May 2012		1	20.600
Delivery Date:							
Program Year	Hull	Earliest Ship Delivery Date	Months Required Before Delivery	Production Leadtime	Required Award Date		
FY 2007	DDG 1000	May 2018	43	26	Aug 2012		
FY 2009	DDG 1002	Dec 2021	43	26	Mar 2016		
Competition/Second Source Initiatives: N/A							

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Exhibit P-35, Major Ship Component Fact Sheet: FY 2018 Navy						Date: May 2017	
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 02 / 1				P-1 Line Item Number / Title: 2119 / DDG 1000			
Equipment Item: INTEGRATED UNDERSEA WARFARE (IUSW) SYSTEM						PARM Code: IWS 5.0 XR	
P-35 Category	FY 2007		FY 2009				
	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)			
Major Hardware	2	95.829	1	54.300			
Technical Support Services		11.293		5.639			
Other / NRE		109.141		45.197			
Total	2	216.263	1	105.136			
Description: The IUSW suite supports DDG-1000 in achieving Undersea and Surface Dominance with the capability to detect and track hostile surface vessels, submarines, and moored volume mines. It supports the Sensor Systems Segment in accomplishing its Integrated Air and Surface Dominance (IASD) and Integrated Undersea Dominance (IUSD) objectives by providing the capability to conduct Anti-Submarine Warfare (ASW), Torpedo Defense (TD) and Mine Warfare (MIW) missions. Military Operations Other than War (MOOTW) objectives, such as Search and Rescue (SAR) (locating downed aircraft and vessels in the ocean) are also supported. There are four major subcomponents: Bow Array Component, Towed Array Component, Towed Torpedo Countermeasures Component, as well as software.							
Contract Data:							
Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity (Each)	Unit Cost (\$ M)
FY 2007	DDG 1000	Raytheon	C/CPIF	May 2008		2	47.915
FY 2009	DDG 1002	Raytheon	C/CPIF	Oct 2012		1	54.300
Delivery Date:							
Program Year	Hull	Earliest Ship Delivery Date	Months Required Before Delivery	Production Leadtime	Required Award Date		
FY 2007	DDG 1000	May 2018	47	18	Dec 2012		
FY 2009	DDG 1002	Dec 2021	46	18	Aug 2016		
Competition/Second Source Initiatives: N/A							

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Exhibit P-35, Major Ship Component Fact Sheet: FY 2018 Navy						Date: May 2017	
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 02 / 1				P-1 Line Item Number / Title: 2119 / DDG 1000			
Equipment Item: MULTI FUNCTION RADAR (MFR)						PARM Code: IWS 2.0 SQ	
P-35 Category	FY 2007		FY 2009				
	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)			
Major Hardware	2	314.313	1	189.573			
Technical Support Services		21.993		8.145			
Other / NRE		183.303		65.281			
Total	2	519.609	1	262.999			
Description: The Multi Function Radar (MFR) 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.							
Contract Data:							
Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity (Each)	Unit Cost (\$ M)
FY 2007	DDG 1000	Raytheon	C/CPIF	Mar 2008		2	157.157
FY 2009	DDG 1002	Raytheon	C/CPIF	Oct 2012		1	189.573
Delivery Date:							
Program Year	Hull	Earliest Ship Delivery Date	Months Required Before Delivery	Production Leadtime	Required Award Date		
FY 2007	DDG 1000	May 2018	45	28	Apr 2012		
FY 2009	DDG 1002	Dec 2021	36	28	Aug 2016		
Competition/Second Source Initiatives: N/A							
Remarks: Volume Search Radar (VSR) was removed from the DDG-1000 class per the Nunn McCurdy Certification. VSR procured for DDG-1002 will be transferred to the CVN-79.							

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Exhibit P-35, Major Ship Component Fact Sheet: FY 2018 Navy						Date: May 2017	
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 02 / 1				P-1 Line Item Number / Title: 2119 / DDG 1000			
Equipment Item: COMMON ARRAY POWER SYSTEM (CAPS)						PARM Code: IWS 2.0 SQ	
P-35 Category	FY 2007		FY 2009				
	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)			
Major Hardware	2	56.185	1	12.624			
Battle Spares		1.000		-			
Technical Support Services		4.490		0.420			
Other / NRE		35.342		3.365			
Total	2	97.017	1	16.409			
Description: The Common Array Power System (CAPS) provides electrical power for the Multi Function Radar (MFR), Identification of Friend or Foe (IFF), EW/Cryptology and External Communications (EXCOMMs) Elements. The CAPS is a distributed power system designed to operate from the ship-supplied medium voltage distribution Integrated Power System's (IPS) 13.8 kV AC power source. The CAPS consists of two Power Distribution Units (PDUs) and four Power Conversion Units (PCUs).							
Contract Data:							
Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity (Each)	Unit Cost (\$ M)
FY 2007	DDG 1000	Raytheon	C/CPIF	Mar 2008		2	28.093
FY 2009	DDG 1002	Raytheon	C/CPIF	Nov 2012		1	12.624
Delivery Date:							
Program Year	Hull	Earliest Ship Delivery Date	Months Required Before Delivery	Production Leadtime	Required Award Date		
FY 2007	DDG 1000	May 2018	48	28	Jan 2012		
FY 2009	DDG 1002	Dec 2021	35	28	Sep 2016		
Competition/Second Source Initiatives: N/A							

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Exhibit P-35, Major Ship Component Fact Sheet: FY 2018 Navy						Date: May 2017	
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 02 / 1				P-1 Line Item Number / Title: 2119 / DDG 1000			
Equipment Item: TOTAL SHIP COMPUTING ENVIRONMENT (TSCE)						PARM Code: IWS 9.0 XV	
P-35 Category	FY 2007		FY 2009				
	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)			
Major Hardware	2	196.450	1	147.453			
Technical Support Services		21.834		14.224			
Other / NRE		156.293		118.314			
Total	2	374.577	1	279.991			
Description: 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.							
Contract Data:							
Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity (Each)	Unit Cost (\$ M)
FY 2007	DDG 1000	Raytheon	C/CPIF	May 2008		2	98.225
FY 2009	DDG 1002	Raytheon	C/CPIF	Oct 2012		1	147.453
Delivery Date:							
Program Year	Hull	Earliest Ship Delivery Date	Months Required Before Delivery	Production Leadtime	Required Award Date		
FY 2007	DDG 1000	May 2018	48	21	Aug 2012		
FY 2009	DDG 1002	Dec 2021	43	21	Aug 2016		
Competition/Second Source Initiatives: N/A							

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Exhibit P-35, Major Ship Component Fact Sheet: FY 2018 Navy						Date: May 2017	
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 02 / 1				P-1 Line Item Number / Title: 2119 / DDG 1000			
Equipment Item: ELECTRO-OPTICAL / INFRARED (EO/IR)						PARM Code: IWS 2.0 SJ	
P-35 Category	FY 2007		FY 2009				
	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)			
Major Hardware	2	33.368	1	12.973			
Technical Support Services		6.900		1.551			
Other / NRE		54.143		16.928			
Total	2	94.411	1	31.452			
Description: 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) gimballed 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.							
Contract Data:							
Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity (Each)	Unit Cost (\$ M)
FY 2007	DDG 1000	Raytheon	C/CPIF	May 2008		2	16.684
FY 2009	DDG 1002	Raytheon	C/CPIF	Nov 2012		1	12.973
Delivery Date:							
Program Year	Hull	Earliest Ship Delivery Date	Months Required Before Delivery	Production Leadtime	Required Award Date		
FY 2007	DDG 1000	May 2018	47	22	Aug 2012		
FY 2009	DDG 1002	Dec 2021	41	22	Sep 2016		
Competition/Second Source Initiatives: N/A							

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Exhibit P-35, Major Ship Component Fact Sheet: FY 2018 Navy						Date: May 2017	
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 02 / 1				P-1 Line Item Number / Title: 2119 / DDG 1000			
Equipment Item: IDENTIFICATION FRIEND OR FOE (IFF)						PARM Code: NAVAIR	
P-35 Category	FY 2007		FY 2009				
	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)			
Major Hardware	2	16.018	1	8.640			
Technical Support Services		2.186		2.163			
Other / NRE		17.328		17.335			
Total	2	35.532	1	28.138			
Description: 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.							
Contract Data:							
Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity (Each)	Unit Cost (\$ M)
FY 2007	DDG 1000	Raytheon	C/CPIF	May 2008		2	8.009
FY 2009	DDG 1002	Raytheon	C/CPIF	Dec 2012		1	8.640
Delivery Date:							
Program Year	Hull	Earliest Ship Delivery Date	Months Required Before Delivery	Production Leadtime	Required Award Date		
FY 2007	DDG 1000	May 2018	40	29	Aug 2012		
FY 2009	DDG 1002	Dec 2021	33	29	Oct 2016		
Competition/Second Source Initiatives: N/A							

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Exhibit P-35, Major Ship Component Fact Sheet: FY 2018 Navy						Date: May 2017																									
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 02 / 1				P-1 Line Item Number / Title: 2119 / DDG 1000																											
Equipment Item: COMMON ARRAY COOLING SYSTEM (CACS)						PARM Code: IWS 2.0 SQ																									
P-35 Category	FY 2007		FY 2009																												
	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)																											
Major Hardware	2	11.766	1	-																											
Battle Spares		1.000		-																											
Technical Support Services		0.824		0.107																											
Other / NRE		6.475		0.858																											
Total	2	20.065	1	0.965																											
Description: 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.																															
Contract Data: <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 5px;"> <tr> <th style="text-align: center;">Program Year</th> <th style="text-align: center;">Hull</th> <th style="text-align: center;">Prime Contractor</th> <th style="text-align: center;">Contract Method/Type</th> <th style="text-align: center;">Award Date</th> <th style="text-align: center;">New/Option</th> <th style="text-align: center;">Quantity (Each)</th> <th style="text-align: center;">Unit Cost (\$ M)</th> </tr> <tr> <td style="text-align: center;">FY 2007</td> <td style="text-align: center;">DDG 1000</td> <td style="text-align: center;">Raytheon</td> <td style="text-align: center;">C/CPIF</td> <td style="text-align: center;">May 2008</td> <td></td> <td style="text-align: center;">2</td> <td style="text-align: right;">5.883</td> </tr> <tr> <td style="text-align: center;">FY 2009</td> <td style="text-align: center;">DDG 1002</td> <td style="text-align: center;">Raytheon</td> <td style="text-align: center;">C/CPIF</td> <td style="text-align: center;">Nov 2012</td> <td></td> <td style="text-align: center;">1</td> <td style="text-align: right;">0.000</td> </tr> </table>								Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity (Each)	Unit Cost (\$ M)	FY 2007	DDG 1000	Raytheon	C/CPIF	May 2008		2	5.883	FY 2009	DDG 1002	Raytheon	C/CPIF	Nov 2012		1	0.000
Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity (Each)	Unit Cost (\$ M)																								
FY 2007	DDG 1000	Raytheon	C/CPIF	May 2008		2	5.883																								
FY 2009	DDG 1002	Raytheon	C/CPIF	Nov 2012		1	0.000																								
Delivery Date: <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 5px;"> <tr> <th style="text-align: center;">Program Year</th> <th style="text-align: center;">Hull</th> <th style="text-align: center;">Earliest Ship Delivery Date</th> <th style="text-align: center;">Months Required Before Delivery</th> <th style="text-align: center;">Production Leadtime</th> <th style="text-align: center;">Required Award Date</th> </tr> <tr> <td style="text-align: center;">FY 2007</td> <td style="text-align: center;">DDG 1000</td> <td style="text-align: center;">May 2018</td> <td style="text-align: center;">49</td> <td style="text-align: center;">28</td> <td style="text-align: center;">Dec 2011</td> </tr> <tr> <td style="text-align: center;">FY 2009</td> <td style="text-align: center;">DDG 1002</td> <td style="text-align: center;">Dec 2021</td> <td style="text-align: center;">35</td> <td style="text-align: center;">28</td> <td style="text-align: center;">Sep 2016</td> </tr> </table>								Program Year	Hull	Earliest Ship Delivery Date	Months Required Before Delivery	Production Leadtime	Required Award Date	FY 2007	DDG 1000	May 2018	49	28	Dec 2011	FY 2009	DDG 1002	Dec 2021	35	28	Sep 2016						
Program Year	Hull	Earliest Ship Delivery Date	Months Required Before Delivery	Production Leadtime	Required Award Date																										
FY 2007	DDG 1000	May 2018	49	28	Dec 2011																										
FY 2009	DDG 1002	Dec 2021	35	28	Sep 2016																										
Competition/Second Source Initiatives: N/A																															
Remarks: CACS Technical Services are incorporated into DBR Technical Services. DDG 1002 CACS costs are included in the DDG 1002 MFR value.																															

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Exhibit P-35, Major Ship Component Fact Sheet: FY 2018 Navy						Date: May 2017	
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 02 / 1				P-1 Line Item Number / Title: 2119 / DDG 1000			
Equipment Item: SHIP CONTROL SYSTEM (SCS)						PARM Code: SPAWAR	
P-35 Category	FY 2007		FY 2009				
	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)			
Major Hardware	2	58.000	1	42.801			
Technical Support Services		6.031		8.256			
Other / NRE		47.496		66.172			
Total	2	111.527	1	117.229			
Description: 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.							
Contract Data:							
Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity (Each)	Unit Cost (\$ M)
FY 2007	DDG 1000	Raytheon	C/CPIF	May 2008		2	29.000
FY 2009	DDG 1002	Raytheon	C/CPIF	May 2012		1	42.801
Delivery Date:							
Program Year	Hull	Earliest Ship Delivery Date	Months Required Before Delivery	Production Leadtime	Required Award Date		
FY 2007	DDG 1000	May 2018	38	31	Aug 2012		
FY 2009	DDG 1002	Dec 2021	38	31	Mar 2016		
Competition/Second Source Initiatives: N/A							

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Exhibit P-35, Major Ship Component Fact Sheet: FY 2018 Navy						Date: May 2017	
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 02 / 1				P-1 Line Item Number / Title: 2119 / DDG 1000			
Equipment Item: COOPERATIVE ENGAGEMENT CAPABILITY (CEC)						PARM Code: IWS 6.0 XN	
P-35 Category	FY 2007		FY 2009				
	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)			
Major Hardware	2	12.000	1	6.800			
Technical Support Services		4.025		1.000			
Total	2	16.025	1	7.800			
Description: 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.							
Contract Data:							
Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity (Each)	Unit Cost (\$ M)
FY 2007	DDG 1000	Raytheon	C/FPIF	Feb 2007		2	6.000
FY 2009	DDG 1002	Raytheon	C/FPIF	Oct 2013		1	6.800
Delivery Date:							
Program Year	Hull	Earliest Ship Delivery Date	Months Required Before Delivery	Production Leadtime	Required Award Date		
FY 2007	DDG 1000	May 2018	34	18	Jan 2014		
FY 2009	DDG 1002	Dec 2021	34	18	Aug 2017		
Competition/Second Source Initiatives: N/A							

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Exhibit P-35, Major Ship Component Fact Sheet: FY 2018 Navy						Date: May 2017	
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 02 / 1				P-1 Line Item Number / Title: 2119 / DDG 1000			
Equipment Item: SURFACE ELECTRONIC WARFARE IMPROVEMENT PROGRAM (SEWIP)						PARM Code: IWS 2.0 SJ	
P-35 Category	FY 2007		FY 2009				
	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)			
Major Hardware	2	36.214	1	15.906			
Technical Support Services		2.406		0.935			
Other / NRE		1.622		0.841			
Total	2	40.242	1	17.682			
Description: SEWIP provides enhanced Electronic Warfare (EW) capabilities to improve anti-ship missile defense, counter-targeting and counter surveillance capabilities, as well as improved situational awareness to pace the threat, improving detection, accuracy, and mitigation of EMI. The SEWIP Block 2 is an upgraded antenna, receiver and combat system interface for AN/SLQ-32.							
Contract Data:							
Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity (Each)	Unit Cost (\$ M)
FY 2007	DDG 1000	Lockheed Martin	C/FPIF	Jul 2012		2	18.107
FY 2009	DDG 1002	Lockheed Martin	C/FPIF	Jan 2015		1	15.906
Delivery Date:							
Program Year	Hull	Earliest Ship Delivery Date	Months Required Before Delivery	Production Leadtime	Required Award Date		
FY 2007	DDG 1000	May 2018	2	19	Aug 2016		
FY 2009	DDG 1002	Dec 2021	2	16	Jun 2020		
Competition/Second Source Initiatives: N/A							

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Exhibit P-35, Major Ship Component Fact Sheet: FY 2018 Navy				Date: May 2017			
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 02 / 1				P-1 Line Item Number / Title: 2119 / DDG 1000			
Equipment Item: VERTICAL LAUNCHING SYSTEM (VLS) MK 57 4-CELL MODULES					PARM Code: IWS 3L S8		
P-35 Category	FY 2007		FY 2009				
	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)			
Major Hardware	40	180.987	20	234.670			
Technical Support Services		9.029		4.231			
Other / NRE		86.766		63.914			
Total	40	276.782	20	302.815			
Description: The MK 57 VLS is a general purpose, operationally unmanned launching system capable of stowing, preparing, and launching missiles in support of DDG-1000 mission areas including: land attack warfare, integrated air and surface dominance, and integrated undersea dominance. The MK57 VLS provides the capability for rapid launch of missiles into a 360-degree hemispherical volume above and about the ship. The canistered missiles are stowed within the launching systems below-deck cells. DDG-1000 will have 80 total cells grouped into 20 four cell modules. Flight 1 missiles to be carried include: Enhanced Sea Sparrow Missile (ESSM), Standard Missile-2 (SM-2) Blk III, Tomahawk Land Attack Missile (TLAM) Blk III/IV, and Vertical Launch Anti-Submarine Rocket (VLA).							
Contract Data:							
Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity (Each)	Unit Cost (\$ M)
FY 2007	DDG 1000	Raytheon	C/CPIF	May 2008		40	4.525
FY 2009	DDG 1002	Raytheon	C/CPIF	Oct 2012		20	11.734
Delivery Date:							
Program Year	Hull	Earliest Ship Delivery Date	Months Required Before Delivery	Production Leadtime	Required Award Date		
FY 2007	DDG 1000	May 2018	40	24	Jan 2013		
FY 2009	DDG 1002	Dec 2021	40	24	Aug 2016		
Competition/Second Source Initiatives: N/A							
Remarks: In December 2015, the Mission Systems Equipment for DDG 1002 contract was exercised on FY16/FY17 options including an increase of \$16.8M for MK57 VLS.							

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Exhibit P-35, Major Ship Component Fact Sheet: FY 2018 Navy						Date: May 2017	
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 02 / 1				P-1 Line Item Number / Title: 2119 / DDG 1000			
Equipment Item: MAIN TURBINE GENERATOR (MTG)						PARM Code: PMS 500 WA	
P-35 Category	FY 2007		FY 2009				
	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)			
Major Hardware	4	73.262	2	39.412			
Technical Support Services		1.485		-			
Other / NRE		3.378		-			
Total	4	78.125	2	39.412			
Description: 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 35.25 MWe. The engine utilizes a Full Authority Digital Control Local Operating Panel (FADC LOCOP) and electric start system. The generator contains redundant automatic voltage regulators (AVR) with automatic changeover.							
Contract Data:							
Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity (Each)	Unit Cost (\$ M)
FY 2007	DDG 1000	Rolls-Royce	C/FFP	Mar 2007	New	4	18.316
FY 2009	DDG 1002	Rolls-Royce	C/FFP	Jan 2008	Option	2	19.706
Delivery Date:							
Program Year	Hull	Earliest Ship Delivery Date	Months Required Before Delivery	Production Leadtime	Required Award Date		
FY 2007	DDG 1000	May 2018	33	24	Aug 2013		
FY 2009	DDG 1002	Dec 2021	33	24	Mar 2017		
Competition/Second Source Initiatives: N/A							

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Exhibit P-35, Major Ship Component Fact Sheet: FY 2018 Navy						Date: May 2017	
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 02 / 1				P-1 Line Item Number / Title: 2119 / DDG 1000			
Equipment Item: ADVANCED GUN SYSTEM (AGS)						PARM Code: IWS 3C YF	
P-35 Category	FY 2007		FY 2009				
	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)			
Major Hardware	4	298.654	2	206.747			
Technical Support Services		14.500		3.860			
Other / NRE		155.439		38.155			
Total	4	468.593	2	248.762			
Description: 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.							
Contract Data:							
Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity (Each)	Unit Cost (\$ M)
FY 2007	DDG 1000	BAE	C/CPIF	Apr 2008		4	74.664
FY 2009	DDG 1002	BAE	C/CPIF	Apr 2012		2	103.374
Delivery Date:							
Program Year	Hull	Earliest Ship Delivery Date	Months Required Before Delivery	Production Leadtime	Required Award Date		
FY 2007	DDG 1000	May 2018	31	39	Jul 2012		
FY 2009	DDG 1002	Dec 2021	31	39	Feb 2016		
Competition/Second Source Initiatives: N/A							

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Exhibit P-35, Major Ship Component Fact Sheet: FY 2018 Navy						Date: May 2017	
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 02 / 1				P-1 Line Item Number / Title: 2119 / DDG 1000			
Equipment Item: CLOSE-IN GUN SYSTEM (CIGS)						PARM Code: IWS 3C YF	
P-35 Category	FY 2007		FY 2009				
	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)			
Major Hardware	4	16.034	2	7.534			
Technical Support Services		7.177		3.381			
Other / NRE		12.940		2.880			
Total	4	36.151	2	13.795			
Description: The Close-In Gun System (CIGS) supports the DDG-1000 system in achieving Integrated Air and Surface Dominance with the capability to neutralize hostile surface vessels and aircraft at short ranges. CIGS also supports the Military Operations Other than War (MOOTW) missions, such as performing maritime interdiction, conducting maritime law enforcement, and supporting hostage rescue. Two (2) CIGS will be mounted on the aft end of the hanger. The CIGS MK 46 MOD 2 GWS is composed of a turret assembly that houses the MK 44 MOD 2 cannon and an advanced Fire Control System that includes a ballistic solution computer, an electro-optical sensor package, and an eye-safe laser range finder. The system uses a forward-looking infrared sensor, a low-light television camera, and eye safe laser range finder with a closed-loop tracking system to optimize accuracy against small, high-speed surface targets. The system can be operated locally from the gun control station inside the turret, remotely from the MK 46 MOD 2 GWS Remote Gun Station Operator (RGSO) panel in the Combat Information Center (CIC), or manually using hand cranks from inside the turret. The 30mm cannon, MK 44 MOD 2, is a single barrel, open bolt, dual feed, electrically powered, chain-driven automatic cannon. The system has a magazine capacity of 424 rounds, a dual-feed capability with a firing rate of 200 rounds per minute, and is capable of selectively switching between ammunition types and firing modes.							
Contract Data:							
Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity (Each)	Unit Cost (\$ M)
FY 2007	DDG 1000	General Dynamics Land Systems	C/FFP	Jan 2015		4	4.008
FY 2009	DDG 1002	General Dynamics Land Systems	C/FFP	Mar 2016		2	3.767
Delivery Date:							
Program Year	Hull	Earliest Ship Delivery Date	Months Required Before Delivery	Production Leadtime	Required Award Date		
FY 2007	DDG 1000	May 2018	6	22	Jan 2016		
FY 2009	DDG 1002	Dec 2021	6	18	Dec 2019		
Competition/Second Source Initiatives: N/A							

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Exhibit P-40, Budget Line Item Justification: FY 2018 Navy										Date: May 2017		
Appropriation / Budget Activity / Budget Sub Activity: 1611N: Shipbuilding and Conversion, Navy / BA 02: Other Warships / BSA 1: Other Warships							P-1 Line Item Number / Title: 2122 / DDG-51					
ID Code (A=Service Ready, B=Not Service Ready): A				Program Elements for Code B Items: N/A				Other Related Program Elements: N/A				
Line Item MDAP/MAIS Code: N/A												
Resource Summary	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	72	3	2	2	-	2	2	2	2	2	2	89
Gross/Weapon System Cost (<i>\$ in Millions</i>)	72,754.114	4,938.684	3,393.881	3,499.079	0.000	3,499.079	3,512.647	3,559.310	3,619.198	3,675.199	3,834.720	102,786.832
Less PY Advance Procurement (<i>\$ in Millions</i>)	2,777.480	134.039	-	-	-	-	-	-	-	-	-	2,911.519
Less Cost To Complete (<i>\$ in Millions</i>)	1,217.162	-	-	-	-	-	-	-	-	-	-	1,217.162
Less Subsequent Year Full Funding (<i>\$ in Millions</i>)	-	433.000	-	-	-	-	-	-	-	-	-	433.000
Less Hurricane (<i>\$ in Millions</i>)	227.100	-	-	-	-	-	-	-	-	-	-	227.100
Less EOQ (<i>\$ in Millions</i>)	-	238.995	182.589	-	-	-	39.362	114.503	227.187	227.187	-	1,029.823
Less Escalation (<i>\$ in Millions</i>)	48.200	-	-	-	-	-	-	-	-	-	-	48.200
Less Transfer (<i>\$ in Millions</i>)	218.500	-	-	-	-	-	-	-	-	-	-	218.500
Net Procurement (P-1) (<i>\$ in Millions</i>)	68,265.672	4,132.650	3,211.292	3,499.079	0.000	3,499.079	3,473.285	3,444.807	3,392.011	3,448.012	3,834.720	96,701.528
Plus Subsequent Year Full Funding (<i>\$ in Millions</i>)	-	-	433.000	-	-	-	-	-	-	-	-	433.000
Full Funding TOA (<i>\$ in Millions</i>)	68,265.672	4,132.650	3,644.292	3,499.079	-	3,499.079	3,473.285	3,444.807	3,392.011	3,448.012	3,834.720	97,134.528
Plus CY Advance Procurement (<i>\$ in Millions</i>)	3,333.103	-	-	-	-	-	-	-	-	-	-	3,333.103
Plus Cost To Complete (<i>\$ in Millions</i>)	959.835	75.014	15.959	51.377	-	51.377	53.966	61.011	-	-	-	1,217.162
Plus EOQ (<i>\$ in Millions</i>)	-	-	-	90.336	-	90.336	292.713	225.190	-	-	-	608.239
Plus Escalation (<i>\$ in Millions</i>)	48.200	-	-	-	-	-	-	-	-	-	-	48.200
Plus Transfer (<i>\$ in Millions</i>)	218.500	-	-	-	-	-	-	-	-	-	-	218.500
Plus Hurricane (<i>\$ in Millions</i>)	227.100	-	-	-	-	-	-	-	-	-	-	227.100
Total Obligation Authority (<i>\$ in Millions</i>)	73,052.410	4,207.664	3,660.251	3,640.792	0.000	3,640.792	3,819.964	3,731.008	3,392.011	3,448.012	3,834.720	102,786.832
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Plus Outfitting and Post Delivery (<i>\$ in Millions</i>)	2,196.869	58.641	121.661	84.797	-	84.797	90.383	148.281	110.505	108.081	544.068	3,463.286
Total (<i>\$ in Millions</i>)	75,249.279	4,266.305	3,781.912	3,725.589	-	3,725.589	3,910.347	3,879.289	3,502.516	3,556.093	4,378.788	106,250.118
Gross/Weapon System Unit Cost (<i>\$ in Millions</i>)	1,010.474	1,646.228	1,696.941	1,749.540	-	1,749.540	1,756.324	1,779.655	1,809.599	1,837.600	1,917.360	1,168.032
Description: 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 multi-threat 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. DDG 51 Flight III with the Air and Missile Defense Radar (SPY-6) will significantly enhance Integrated Air and Missile Defense capability against current and future threats.												
Note: 												

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Exhibit P-40, Budget Line Item Justification: FY 2018 Navy					Date: May 2017		
Appropriation / Budget Activity / Budget Sub Activity: 1611N: Shipbuilding and Conversion, Navy / BA 02: Other Warships / BSA 1: Other Warships				P-1 Line Item Number / Title: 2122 / DDG-51			
ID Code (A=Service Ready, B=Not Service Ready): A		Program Elements for Code B Items: N/A			Other Related Program Elements: N/A		
Line Item MDAP/MAIS Code: N/A							
(1) FY17 reflects add of \$433M included in the FY17 Request for Additional Appropriations. (2) Flight III/SPY-6 configuration will be implemented on one FY16 ship and both FY17 ships. (3) Cost to Complete funds in FY17 are for the Government responsible portion for the shipbuilding construction contract overrun for DDG 115 (\$16.0M).							
Characteristics:	FLIGHT IIA	FLIGHT III					
Length Overall	509 ft	509 ft					
Beam	59 ft	59 ft					
Displacement	9217 TONS	9650 TONS					
Draft	-						
Production Status:	DDG 114	DDG 116	DDG 117	DDG 118	DDG 120	DDG 119	DDG 121
Contract Award Date	Sep 2011	Feb 2012	Jun 2013	Jun 2013	Mar 2014	Jun 2013	Jun 2013
Months to Completion							
a) Award to Delivery	72 months	74 months	60 months	78 months	79 months	72 months	83 months
b) Construction Start to Delivery	48 months	62 months	45 months	52 months	49 months	47 months	49 months
Delivery Date	Sep 2017	Apr 2018	Jun 2018	Dec 2019	Oct 2020	Jun 2019	May 2020
Completion Of Fitting Out	Jan 2018	Aug 2018	Oct 2018	Mar 2020	Feb 2021	Oct 2019	Sep 2020
Obligation Work Limit Date	Dec 2018	Jul 2019	Sep 2019	Feb 2021	Jan 2022	Sep 2020	Aug 2021
Production Status:	DDG 122	DDG 123	DDG 124	DDG 127 ⁽¹⁾	DDG 125	DDG 126	DDG 128 ⁽²⁾
Contract Award Date	Jun 2013	Jun 2013	Jun 2013	Sep 2017	Jun 2013	Jun 2013	Jun 2018
Months to Completion							
a) Award to Delivery	97 months	97 months	108 months	62 months	109 months	119 months	61 months
b) Construction Start to Delivery	49 months	54 months	46 months	46 months	37 months	46 months	48 months
Delivery Date	Jul 2021	Jul 2021	Jun 2022	Nov 2022	Jul 2022	May 2023	Jul 2023
Completion Of Fitting Out	Oct 2021	Nov 2021	Oct 2022	Feb 2023	Nov 2022	Sep 2023	Nov 2023
Obligation Work Limit Date	Sep 2022	Oct 2022	Sep 2023	Jan 2024	Oct 2023	Aug 2024	Oct 2024
Production Status:	DDG 129						
Contract Award Date	Jun 2018						
Months to Completion							
a) Award to Delivery	61 months						
b) Construction Start to Delivery	48 months						
Delivery Date	Jul 2023						
Completion Of Fitting Out	Nov 2023						
Obligation Work Limit Date	Oct 2024						
Design Schedule	Start / Issue		Complete / Response		Reissue	Reissue Complete / Response	
Issue Date for TLR	Jun 1983		N/A				
Issue Date for TLS	N/A		N/A				
Preliminary Design	Mar 1982		Dec 1982				
Contract Design	May 1983		Jun 1984				

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Exhibit P-40, Budget Line Item Justification: FY 2018 Navy				Date: May 2017	
Appropriation / Budget Activity / Budget Sub Activity: 1611N: Shipbuilding and Conversion, Navy / BA 02: Other Warships / BSA 1: Other Warships			P-1 Line Item Number / Title: 2122 / DDG-51		
ID Code (A=Service Ready, B=Not Service Ready): A		Program Elements for Code B Items: N/A		Other Related Program Elements: N/A	
Line Item MDAP/MAIS Code: N/A					
<u>Design Schedule</u>	<u>Start / Issue</u>	<u>Complete / Response</u>	<u>Reissue</u>	<u>Reissue Complete / Response</u>	
Detail Design	N/A	N/A			
Request for Proposals	N/A	N/A			
Design Agent	BIW				
Classification of Cost Estimate: CLASS C BUDGET ESTIMATE					
Footnotes: ⁽¹⁾ DDG 127 is a congressional add and dates are pending contract negotiations. ⁽²⁾ DDG 128 and follow dates are notional.					

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Exhibit P-5c, Ship Cost Analysis: FY 2018 Navy	Date: May 2017
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Appropriation / Budget Activity / Budget Sub Activity: 1611N / 02 / 1	P-1 Line Item Number / Title: 2122 / DDG-51
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Cost Categories <small>^(†) indicates the presence of a P-8a</small>	FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		FY 2016		FY 2017		FY 2018	
	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Plan Costs	2	77.174	1	122.109	3	67.450	1	74.980	2	68.814	3	204.160	2	81.454	2	72.811
Basic Construction/Conversion		1,485.412		761.786		2,188.286		718.189		1,463.210		2,287.880		1,478.206		1,772.877
Change Orders		62.882		20.823		60.461		21.087		42.133		254.803		229.002		53.196
Electronics ^(†)		357.084		219.431		544.024		226.095		349.746		526.003		346.044		352.897
Hull, Mechanical, and Electrical (HM&E) ^(†)		151.731		80.265		201.246		91.207		159.533		219.585		161.437		153.633
Ordnance ^(†)		916.154		629.228		1,185.255		523.108		838.247		1,366.220		1,016.231		1,017.935
Other Cost		71.949		70.327		81.240		76.736		77.775		80.033		81.507		75.730
Total Ship Estimate		3,122.386		1,903.969		4,327.962		1,731.402		2,999.458		4,938.684		3,393.881		3,499.079
Less Advance Procurement FY 2010		577.210		-		-		-		-		-		-		-
Less Advance Procurement FY 2011		-		47.719		-		-		-		-		-		-
Less Advance Procurement FY 2012		-		-		92.454		-		-		-		-		-
Less Advance Procurement FY 2015		-		-		-		-		-		134.039		-		-
Less Subsequent Full Funding FY 2017		-		-		-		-		-		433.000		-		-
Less Cost to Complete FY 2014		-		-		100.000		-		-		-		-		-
Less Cost to Complete FY 2015		63.373		-		-		-		-		-		-		-
Less Cost to Complete FY 2016		-		75.014		-		-		-		-		-		-
Less Cost to Complete FY 2017		15.959		-		-		-		-		-		-		-
Less Cost to Complete FY 2018		-		19.436		31.941		-		-		-		-		-
Less Cost to Complete FY 2019		-		-		53.966		-		-		-		-		-
Less Cost to Complete FY 2020		-		-		18.300		-		42.711		-		-		-
Less EOQ FY 2013		-		-		-		115.838		224.851		108.345		13.677		-
Less EOQ FY 2014		-		-		-		-		69.989		130.650		168.912		-
Net P-1 Funding		2,465.844		1,761.800		4,031.301		1,615.564		2,661.907		4,132.650		3,211.292		3,499.079

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Exhibit P-27, Ship Production Schedule: FY 2018 Navy	Date: May 2017
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Appropriation / Budget Activity / Budget Sub Activity:
1611N / 02 / 1

P-1 Line Item Number / Title:
2122 / DDG-51

Ship	Shipbuilder	Fiscal Year	Contract Award	Start of Construction	Delivery Date
DDG 114	Huntington Ingalls Industries	2011	Sep 2011	Sep 2013	Sep 2017
DDG 116	Bath Iron Works	2012	Feb 2012	Feb 2013	Apr 2018
DDG 117	Huntington Ingalls Industries	2013	Jun 2013	Sep 2014	Jun 2018
DDG 118	Bath Iron Works	2013	Jun 2013	Aug 2015	Dec 2019
DDG 120	Bath Iron Works	2013	Mar 2014	Sep 2016	Oct 2020
DDG 119	Huntington Ingalls Industries	2014	Jun 2013	Jul 2015	Jun 2019
DDG 121	Huntington Ingalls Industries	2015	Jun 2013	Apr 2016	May 2020
DDG 122	Bath Iron Works	2015	Jun 2013	Jun 2017	Jul 2021
DDG 123	Huntington Ingalls Industries	2016	Jun 2013	Jan 2017	Jul 2021
DDG 124	Bath Iron Works	2016	Jun 2013	Aug 2018	Jun 2022
DDG 127 ⁽¹⁾	Bath Iron Works	2016	Sep 2017	Jan 2019	Nov 2022
DDG 125	Huntington Ingalls Industries	2017	Jun 2013	Jun 2019	Jul 2022
DDG 126	Bath Iron Works	2017	Jun 2013	Jul 2019	May 2023
DDG 128 ⁽²⁾	TBD	2018	Jun 2018	Jul 2019	Jul 2023
DDG 129	TBD	2018	Jun 2018	Jul 2019	Jul 2023
DDG 130	TBD	2019	Jun 2018	Jul 2020	Jul 2024
DDG 131	TBD	2019	Jun 2018	Jul 2020	Jul 2024
DDG 132	TBD	2020	Jun 2018	Jul 2021	Jul 2025
DDG 133	TBD	2020	Jun 2018	Jul 2021	Jul 2025
DDG 134	TBD	2021	Jun 2018	Jul 2022	Jul 2026
DDG 135	TBD	2021	Jun 2018	Jul 2022	Jul 2026
DDG 136	TBD	2022	Jun 2018	Jul 2023	Jul 2027
DDG 137	TBD	2022	Jun 2018	Jul 2023	Jul 2027

Footnotes:

⁽¹⁾ DDG 127 is a congressional add and dates are pending contract negotiations.

⁽²⁾ DDG 128 and follow dates are notional.

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Exhibit P-8a, Analysis of Ship Cost Estimates: FY 2018 Navy					Date: May 2017	
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 02 / 1			P-1 Line Item Number / Title: 2122 / DDG-51			
Electronics	FY 2016		FY 2017		FY 2018	
	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
P-35 Items						
SQQ 89 ASW	3	118.197	2	80.107	2	81.693
AN/SLQ-32 (V)6 SEWIP	3	45.288	2	30.697	2	31.305
USQ 82(V) GEDMS	3	40.833	2	27.684	2	28.232
EXCOMM	3	145.332	2	98.485	2	100.435
AN/UPX 29(V) IFF and TACAN	3	21.045	2	14.269	2	14.552
CEC	3	15.972	2	10.860	2	11.075
P-35 Items Subtotal		386.667		262.102		267.292
Major Items						
NAVIGATION SYSTEM	3	11.376	2	7.713	2	7.866
SLQ 25 NIXIE	3	4.701	2	3.186	2	3.249
SRQ 4 LAMPS III	3	12.582	2	8.530	2	8.699
MIDS	3	9.792	2	6.638	2	6.769
MK 53 NULKA	3	6.417	2	4.351	2	4.437
SSEE TSA ANTENNA	3	5.112	2	3.465	2	3.534
Major Items Subtotal		49.980		33.883		34.554
Other Cost Elements						
MISC. ELECTRONICS	3	89.356	2	50.059	2	51.051
Other Cost Elements Subtotal		89.356		50.059		51.051
Total Electronics		526.003		346.044		352.897

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Exhibit P-8a, Analysis of Ship Cost Estimates: FY 2018 Navy					Date: May 2017	
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 02 / 1			P-1 Line Item Number / Title: 2122 / DDG-51			
Hull, Mechanical, and Electrical (HM&E)	FY 2016		FY 2017		FY 2018	
	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
P-35 Items						
STC 3 IVCS	3	22.026	2	14.931	2	15.227
Main Reduction Gear	3	116.892	2	83.958	2	74.620
P-35 Items Subtotal		138.918		98.889		89.847
Major Items						
Machinery Control System	3	15.363	2	10.416	2	10.622
Integrated Bridge Navigation System	3	13.266	2	8.986	2	9.164
Major Items Subtotal		28.629		19.402		19.786
Other Cost Elements						
MISC. HM&E	3	52.038	2	43.146	2	44.000
Other Cost Elements Subtotal		52.038		43.146		44.000
Total Hull, Mechanical, and Electrical (HM&E)		219.585		161.437		153.633

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Exhibit P-8a, Analysis of Ship Cost Estimates: FY 2018 Navy					Date: May 2017	
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 02 / 1			P-1 Line Item Number / Title: 2122 / DDG-51			
Ordnance	FY 2016		FY 2017		FY 2018	
	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
P-35 Items						
AEGIS WEAPON SYSTEM (MK-7)	3	571.821	2	262.078	2	267.267
AN/SPY-6 (AMDR)	1	262.296	2	351.645	2	340.103
VLS MK 41	3	137.859	2	104.589	2	106.748
MK 45 LWG	3	76.481	2	51.853	2	52.880
MK 37 TOMAHAWK	3	35.193	2	25.498	2	26.003
PHALANX (CIWS)	3	24.372	2	16.573	2	16.901
SPQ-9B Radar	3	27.609	2	18.734	2	19.105
P-35 Items Subtotal		1,135.631		830.970		829.007
Major Items						
MK 32 SVTT	3	8.826	2	5.983	2	6.101
ELECTRO-OPTICAL SYSTEM	3	9.339	2	6.331	2	6.456
MK 160 GFCS	3	9.711	2	6.584	2	6.714
Major Items Subtotal		27.876		18.898		19.271
Other Cost Elements						
MISC. ORDNANCE	3	202.713	2	166.363	2	169.657
Other Cost Elements Subtotal		202.713		166.363		169.657
Total Ordnance		1,366.220		1,016.231		1,017.935

Remarks:

1) AN/SPY-6 (AMDR): SPY-6 introduced on one ship in FY16.

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Exhibit P-35, Major Ship Component Fact Sheet: FY 2018 Navy						Date: May 2017	
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 02 / 1				P-1 Line Item Number / Title: 2122 / DDG-51			
Equipment Item: SQQ 89 ASW						PARM Code: N/A	
P-35 Category	FY 2016		FY 2017		FY 2018		
	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	
Major Hardware	3	68.541	2	46.453	2	47.373	
Spares		1.458		0.988		1.008	
System Engineering		12.240		8.296		8.460	
Technical Engineering Services		7.110		4.818		4.913	
Other Costs		28.848		19.552		19.939	
Total	3	118.197	2	80.107	2	81.693	
Description: 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.							
Contract Data:							
Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity (Each)	Unit Cost (\$ M)
FY 2016	DDG 123	LOCKHEED MARTIN	C/FFP	Jul 2016	Option	3	22.847
FY 2017	DDG 125	LOCKHEED MARTIN	C/FFP	Jul 2017	Option	2	23.227
FY 2018	DDG 128	LOCKHEED MARTIN	C/FFP	Jul 2018	Option	2	23.687
Delivery Date:							
Program Year	Hull	Earliest Ship Delivery Date	Months Required Before Delivery	Production Leadtime	Required Award Date		
FY 2016	DDG 123	Jul 2021	14	24	May 2018		
FY 2017	DDG 125	Jul 2022	14	24	May 2019		
FY 2018	DDG 128	Jul 2023	14	24	May 2020		
Competition/Second Source Initiatives: Competitive							

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Exhibit P-35, Major Ship Component Fact Sheet: FY 2018 Navy	Date: May 2017
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Appropriation / Budget Activity / Budget Sub Activity: 1611N / 02 / 1	P-1 Line Item Number / Title: 2122 / DDG-51
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Equipment Item: AN/SLQ-32 (V)6 SEWIP	PARM Code: N/A
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P-35 Category	FY 2016		FY 2017		FY 2018	
	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Major Hardware	3	38.499	2	26.095	2	26.611
Spares		1.095		0.742		0.757
System Engineering		2.655		1.800		1.836
Technical Engineering Services		0.387		0.262		0.267
Other Costs		2.652		1.798		1.834
Total	3	45.288	2	30.697	2	31.305

Description:

SLQ-32(V)6 Surface Electronic Warfare Improvement Program (SEWIP) 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.

Contract Data:

Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity (Each)	Unit Cost (\$ M)
FY 2016	DDG 123	Competitive	C/FFP	Sep 2016	New	3	12.833
FY 2017	DDG 125	Option	C/FFP	Mar 2017	Option	2	13.048
FY 2018	DDG 128	Option	C/FFP	Mar 2018	Option	2	13.306

Delivery Date:

Program Year	Hull	Earliest Ship Delivery Date	Months Required Before Delivery	Production Leadtime	Required Award Date
FY 2016	DDG 123	Jul 2021	19	16	Aug 2018
FY 2017	DDG 125	Jul 2022	19	16	Aug 2019
FY 2018	DDG 128	Jul 2023	19	16	Aug 2020

Competition/Second Source Initiatives:

Competitive

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Exhibit P-35, Major Ship Component Fact Sheet: FY 2018 Navy						Date: May 2017	
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 02 / 1				P-1 Line Item Number / Title: 2122 / DDG-51			
Equipment Item: USQ 82(V) GEDMS						PARM Code: N/A	
P-35 Category	FY 2016		FY 2017		FY 2018		
	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	
Major Hardware	3	21.840	2	14.808	2	15.101	
Technical Data and Documentation		1.943		1.317		1.343	
System Engineering		4.709		3.192		3.255	
Technical Engineering Services		0.794		0.538		0.549	
Other Costs		11.547		7.829		7.984	
Total	3	40.833	2	27.684	2	28.232	

Description:
Gigabit Ethernet Data Multiplex System (GEDMS) is the mission critical ship-wide network that transfers data associated with Machinery, Steering, Navigation, Combat, Alarms & Indicating, and Damage Control Systems. It is a general purpose modular data transfer system that provides high speed, reliable and survivable data from source systems to user systems automatically or on demand.

Contract Data:

Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity (Each)	Unit Cost (\$ M)
FY 2016	DDG 123	COMPETITIVE	C/FFP	Mar 2017	New	3	7.280
FY 2017	DDG 125	COMPETITIVE	C/FFP	Mar 2017	New	2	7.404
FY 2018	DDG 128	OPTION	C/FFP	Mar 2018	Option	2	7.551

Delivery Date:

Program Year	Hull	Earliest Ship Delivery Date	Months Required Before Delivery	Production Leadtime	Required Award Date
FY 2016	DDG 123	Jul 2021	25	18	Dec 2017
FY 2017	DDG 125	Jul 2022	25	18	Dec 2018
FY 2018	DDG 128	Jul 2023	25	18	Dec 2019

Competition/Second Source Initiatives:
Competitive

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Exhibit P-35, Major Ship Component Fact Sheet: FY 2018 Navy						Date: May 2017	
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 02 / 1				P-1 Line Item Number / Title: 2122 / DDG-51			
Equipment Item: EXCOMM						PARM Code: N/A	

P-35 Category	FY 2016		FY 2017		FY 2018	
	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Major Hardware	3	86.883	2	58.877	2	60.043
Technical Data and Documentation		0.347		0.235		0.240
Spares		0.801		0.543		0.554
System Engineering		9.044		6.128		6.249
Technical Engineering Services		5.277		3.576		3.647
Other Costs		17.087		11.579		11.808
Assembly & Integration		25.893		17.547		17.894
Total	3	145.332	2	98.485	2	100.435

Description:
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.

Contract Data:

Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity (Each)	Unit Cost (\$ M)
FY 2016	DDG 123	VARIOUS	Various	Various	Various	3	28.961
FY 2017	DDG 125	VARIOUS	Various	Various	Various	2	29.439
FY 2018	DDG 128	VARIOUS	Various	Various	Various	2	30.022

Delivery Date:

Program Year	Hull	Earliest Ship Delivery Date	Months Required Before Delivery	Production Leadtime	Required Award Date
FY 2016	DDG 123	Jul 2021	15	9	Jul 2019
FY 2017	DDG 125	Jul 2022	15	9	Jul 2020
FY 2018	DDG 128	Jul 2023	15	9	Jul 2021

Competition/Second Source Initiatives:
Numerous contract arrangements (sole source/competitive)

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

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Exhibit P-35, Major Ship Component Fact Sheet: FY 2018 Navy						Date: May 2017	
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 02 / 1				P-1 Line Item Number / Title: 2122 / DDG-51			
Equipment Item: AN/UPX 29(V) IFF and TACAN						PARM Code: N/A	
P-35 Category	FY 2016		FY 2017		FY 2018		
	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	
Major Hardware	3	18.092	2	12.267	2	12.510	
Spares		0.226		0.154		0.157	
System Engineering		1.097		0.743		0.758	
Technical Engineering Services		0.462		0.313		0.319	
Other Costs		1.168		0.792		0.808	
Total	3	21.045	2	14.269	2	14.552	

Description:
 The UPX-29 Interrogator System is a centralized Mark XIIA interrogator and target processor. It employs a cooperative challenge and reply technique to positively identify friendly platforms. The system is capable of interrogating Mark XII, Mark XIIA, International Civil Aviation Organization (ICAO), or Federal Aviation Administration (FAA)-compliant IFF transponders using a standard shipboard interrogator set, a target processor, and an Electronically Steerable Antenna (ESA) system. TACAN is a navigational beacon system that provides azimuth, slant range, and station identification information to TACAN equipped aircraft, permitting 24/7, all weather landing operations.

Contract Data:

Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity (Each)	Unit Cost (\$ M)
FY 2016	DDG 123	BAE	SS/FFP	May 2016	Option	3	6.031
FY 2017	DDG 125	BAE	SS/FFP	May 2016	Option	2	6.134
FY 2018	DDG 128	BAE	SS/FFP	Jul 2018	New	2	6.255

Delivery Date:

Program Year	Hull	Earliest Ship Delivery Date	Months Required Before Delivery	Production Leadtime	Required Award Date
FY 2016	DDG 123	Jul 2021	6	24	Jan 2019
FY 2017	DDG 125	Jul 2022	6	24	Jan 2020
FY 2018	DDG 128	Jul 2023	6	24	Jan 2021

Competition/Second Source Initiatives:
 N/A

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Exhibit P-35, Major Ship Component Fact Sheet: FY 2018 Navy						Date: May 2017	
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 02 / 1				P-1 Line Item Number / Title: 2122 / DDG-51			
Equipment Item: CEC						PARM Code: N/A	
P-35 Category	FY 2016		FY 2017		FY 2018		
	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	
Major Hardware	3	13.679	2	9.301	2	9.485	
System Engineering		0.702		0.477		0.486	
Technical Engineering Services		0.502		0.341		0.348	
Other Costs		1.089		0.741		0.756	
Total	3	15.972	2	10.860	2	11.075	
Description: Cooperative Engagement Capability (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.							
Contract Data:							
Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity (Each)	Unit Cost (\$ M)
FY 2016	DDG 123	DRS	C/FFP	Jun 2016	Option	3	4.560
FY 2017	DDG 125	DRS	C/FFP	Feb 2017	Option	2	4.651
FY 2018	DDG 128	DRS	C/FFP	Feb 2018	Option	2	4.743
Delivery Date:							
Program Year	Hull	Earliest Ship Delivery Date	Months Required Before Delivery	Production Leadtime	Required Award Date		
FY 2016	DDG 123	Jul 2021	30	24	Jan 2017		
FY 2017	DDG 125	Jul 2022	30	24	Jan 2018		
FY 2018	DDG 128	Jul 2023	30	24	Jan 2019		
Competition/Second Source Initiatives: N/A							

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Exhibit P-35, Major Ship Component Fact Sheet: FY 2018 Navy						Date: May 2017																																
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 02 / 1				P-1 Line Item Number / Title: 2122 / DDG-51																																		
Equipment Item: STC 3 IVCS						PARM Code: N/A																																
P-35 Category	FY 2016		FY 2017		FY 2018																																	
	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)																																
Major Hardware	3	14.172	2	9.608	2	9.798																																
Spares		0.768		0.519		0.529																																
System Engineering		2.664		1.806		1.842																																
Technical Engineering Services		0.678		0.460		0.470																																
Other Costs		3.744		2.538		2.588																																
Total	3	22.026	2	14.931	2	15.227																																
Description: A solid state integrated voice communication system (IVCS) for application with the AEGIS combat system.																																						
Contract Data: <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th>Program Year</th> <th>Hull</th> <th>Prime Contractor</th> <th>Contract Method/Type</th> <th>Award Date</th> <th>New/Option</th> <th>Quantity (Each)</th> <th>Unit Cost (\$ M)</th> </tr> <tr> <td>FY 2016</td> <td>DDG 123</td> <td>DRS</td> <td>C/FFP</td> <td>Jul 2016</td> <td>Option</td> <td>3</td> <td>4.724</td> </tr> <tr> <td>FY 2017</td> <td>DDG 125</td> <td>DRS</td> <td>C/FFP</td> <td>Jul 2017</td> <td>Option</td> <td>2</td> <td>4.804</td> </tr> <tr> <td>FY 2018</td> <td>DDG 128</td> <td>DRS</td> <td>C/FFP</td> <td>Jul 2018</td> <td>Option</td> <td>2</td> <td>4.899</td> </tr> </table>							Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity (Each)	Unit Cost (\$ M)	FY 2016	DDG 123	DRS	C/FFP	Jul 2016	Option	3	4.724	FY 2017	DDG 125	DRS	C/FFP	Jul 2017	Option	2	4.804	FY 2018	DDG 128	DRS	C/FFP	Jul 2018	Option	2	4.899
Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity (Each)	Unit Cost (\$ M)																															
FY 2016	DDG 123	DRS	C/FFP	Jul 2016	Option	3	4.724																															
FY 2017	DDG 125	DRS	C/FFP	Jul 2017	Option	2	4.804																															
FY 2018	DDG 128	DRS	C/FFP	Jul 2018	Option	2	4.899																															
Delivery Date: <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th>Program Year</th> <th>Hull</th> <th>Earliest Ship Delivery Date</th> <th>Months Required Before Delivery</th> <th>Production Leadtime</th> <th>Required Award Date</th> </tr> <tr> <td>FY 2016</td> <td>DDG 123</td> <td>Jul 2021</td> <td>30</td> <td>16</td> <td>Sep 2017</td> </tr> <tr> <td>FY 2017</td> <td>DDG 125</td> <td>Jul 2022</td> <td>30</td> <td>16</td> <td>Sep 2018</td> </tr> <tr> <td>FY 2018</td> <td>DDG 128</td> <td>Jul 2023</td> <td>30</td> <td>16</td> <td>Sep 2019</td> </tr> </table>							Program Year	Hull	Earliest Ship Delivery Date	Months Required Before Delivery	Production Leadtime	Required Award Date	FY 2016	DDG 123	Jul 2021	30	16	Sep 2017	FY 2017	DDG 125	Jul 2022	30	16	Sep 2018	FY 2018	DDG 128	Jul 2023	30	16	Sep 2019								
Program Year	Hull	Earliest Ship Delivery Date	Months Required Before Delivery	Production Leadtime	Required Award Date																																	
FY 2016	DDG 123	Jul 2021	30	16	Sep 2017																																	
FY 2017	DDG 125	Jul 2022	30	16	Sep 2018																																	
FY 2018	DDG 128	Jul 2023	30	16	Sep 2019																																	
Competition/Second Source Initiatives: Competitive																																						

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Exhibit P-35, Major Ship Component Fact Sheet: FY 2018 Navy						Date: May 2017	
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 02 / 1				P-1 Line Item Number / Title: 2122 / DDG-51			
Equipment Item: Main Reduction Gear						PARM Code: N/A	
P-35 Category	FY 2016		FY 2017		FY 2018		
	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	
Major Hardware	3	98.225	2	65.398	2	71.020	
System Engineering		9.301		9.035		-	
Technical Engineering Services		7.411		7.537		3.600	
Other Costs		1.955		1.988		-	
Total	3	116.892	2	83.958	2	74.620	

Description:
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.

Contract Data:

Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity (Each)	Unit Cost (\$ M)
FY 2016	DDG 123	PHILADELPHIA GEAR	C/FFP	Mar 2016	Option	3	32.742
FY 2017	DDG 125	PHILADELPHIA GEAR	C/FFP	Mar 2017	New	2	32.699
FY 2018	DDG 128	PHILADELPHIA GEAR	C/FFP	Mar 2018	Option	2	35.510

Delivery Date:

Program Year	Hull	Earliest Ship Delivery Date	Months Required Before Delivery	Production Leadtime	Required Award Date
FY 2016	DDG 123	Jul 2021	32	30	May 2016
FY 2017	DDG 125	Jul 2022	32	30	May 2017
FY 2018	DDG 128	Jul 2023	32	30	May 2018

Competition/Second Source Initiatives:
Competitive

Remarks:
FY 2016 reflects option exercise date extension within existing MRG contract.
FY 2017 and FY 2018 reflect new contract award inclusive of contractor's technical engineering services. Government technical engineering services still required for FY 2017.

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Exhibit P-35, Major Ship Component Fact Sheet: FY 2018 Navy						Date: May 2017	
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 02 / 1				P-1 Line Item Number / Title: 2122 / DDG-51			
Equipment Item: AEGIS WEAPON SYSTEM (MK-7)						PARM Code: N/A	
P-35 Category	FY 2016		FY 2017		FY 2018		
	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	
Major Hardware	3	365.761	2	153.718	2	156.763	
System Engineering		6.464		1.734		1.768	
Technical Engineering Services		13.716		1.632		1.664	
Other Costs		30.960		12.632		12.882	
Logistics Support		48.138		19.822		20.214	
Combat System Integration		106.782		72.540		73.976	
Total	3	571.821	2	262.078	2	267.267	

Description:
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 digitalized 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.

Contract Data:

Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity (Each)	Unit Cost (\$ M)
FY 2016	DDG 123	LM/ RTN/ GD	Various	May 2016	Option	3	121.920
FY 2017	DDG 125	LM/ RTN/ GD	Various	Jan 2017	Option	2	76.859
FY 2018	DDG 128	LM/ RTN/ GD	Various	Jan 2018	New	2	78.382

Delivery Date:

Program Year	Hull	Earliest Ship Delivery Date	Months Required Before Delivery	Production Leadtime	Required Award Date
FY 2016	DDG 123	Jul 2021	15	36	Apr 2017
FY 2017	DDG 125	Jul 2022	15	36	Apr 2018
FY 2018	DDG 128	Jul 2023	15	36	Apr 2019

Competition/Second Source Initiatives:
Multiple contract arrangements (sole source/competitive)

Remarks:
1) Power Conversion Modules (PCMs) are introduced beginning with the FY16 Flight III ship.
2) AWS MYP includes a SPY-D(V) radar through one FY16 Flight IIA ship. A SPY-D(V) radar will also be procured with FMS buys for the second FY16 Flight IIA ship. Equipment common to both Flight IIA and Flight III ships is being procured for the third FY16 ship and all follow ships.
3) Funding for AN/SPY-6 (AMDR) is broken out on a separate P-35 for one FY16 and all follow ships (as part of Flight III).

Contract Data Notes:

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Exhibit P-35, Major Ship Component Fact Sheet: FY 2018 Navy		Date: May 2017
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 02 / 1		P-1 Line Item Number / Title: 2122 / DDG-51
Equipment Item: AEGIS WEAPON SYSTEM (MK-7)		PARM Code: N/A
<div>AWS Antenna and Signal Processors - Contractor: Lockheed Martin</div> <div>AWS Spy Transmitter and Fire Control System Transmitter - Contractor: Raytheon</div> <div>AWS Director/Director Controller - General Dynamics</div>		

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Exhibit P-35, Major Ship Component Fact Sheet: FY 2018 Navy						Date: May 2017																																
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 02 / 1				P-1 Line Item Number / Title: 2122 / DDG-51																																		
Equipment Item: AN/SPY-6 (AMDR)						PARM Code: N/A																																
P-35 Category	FY 2016		FY 2017		FY 2018																																	
	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)																																
Major Hardware	1	198.696	2	282.545	2	273.103																																
System Engineering		14.392		21.002		19.792																																
Technical Engineering Services		11.654		15.140		15.435																																
Other Costs		31.266		23.406		22.035																																
Logistics		6.288		9.552		9.738																																
Total	1	262.296	2	351.645	2	340.103																																
Description: The AN/SPY-6 Air and Missile Defense Radar (AMDR) suite consists of an S-Band radar (AMDR-S), an X-band radar (via SPQ-9B on the first 11 SCN ships), and a Radar Suite Controller (RSC). AMDR will provide multi-mission capabilities, simultaneously supporting both long range, exoatmospheric detection, tracking and discrimination of ballistic missiles, as well as Area and Self Defense against air and surface threats.																																						
Contract Data: <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 5px;"> <tr> <th style="text-align: center;">Program Year</th> <th style="text-align: center;">Hull</th> <th style="text-align: center;">Prime Contractor</th> <th style="text-align: center;">Contract Method/Type</th> <th style="text-align: center;">Award Date</th> <th style="text-align: center;">New/Option</th> <th style="text-align: center;">Quantity (Each)</th> <th style="text-align: center;">Unit Cost (\$ M)</th> </tr> <tr> <td style="text-align: center;">FY 2016</td> <td style="text-align: center;">DDG 123</td> <td style="text-align: center;">Raytheon</td> <td style="text-align: center;">C/FPIF</td> <td style="text-align: center;">Sep 2016</td> <td style="text-align: center;">Option</td> <td style="text-align: center;">1</td> <td style="text-align: right;">198.696</td> </tr> <tr> <td style="text-align: center;">FY 2017</td> <td style="text-align: center;">DDG 125</td> <td style="text-align: center;">Raytheon</td> <td style="text-align: center;">C/FPIF</td> <td style="text-align: center;">May 2017</td> <td style="text-align: center;">Option</td> <td style="text-align: center;">2</td> <td style="text-align: right;">141.273</td> </tr> <tr> <td style="text-align: center;">FY 2018</td> <td style="text-align: center;">DDG 128</td> <td style="text-align: center;">Raytheon</td> <td style="text-align: center;">C/CPIF</td> <td style="text-align: center;">May 2018</td> <td style="text-align: center;">Option</td> <td style="text-align: center;">2</td> <td style="text-align: right;">136.552</td> </tr> </table>							Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity (Each)	Unit Cost (\$ M)	FY 2016	DDG 123	Raytheon	C/FPIF	Sep 2016	Option	1	198.696	FY 2017	DDG 125	Raytheon	C/FPIF	May 2017	Option	2	141.273	FY 2018	DDG 128	Raytheon	C/CPIF	May 2018	Option	2	136.552
Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity (Each)	Unit Cost (\$ M)																															
FY 2016	DDG 123	Raytheon	C/FPIF	Sep 2016	Option	1	198.696																															
FY 2017	DDG 125	Raytheon	C/FPIF	May 2017	Option	2	141.273																															
FY 2018	DDG 128	Raytheon	C/CPIF	May 2018	Option	2	136.552																															
Delivery Date: <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 5px;"> <tr> <th style="text-align: center;">Program Year</th> <th style="text-align: center;">Hull</th> <th style="text-align: center;">Earliest Ship Delivery Date</th> <th style="text-align: center;">Months Required Before Delivery</th> <th style="text-align: center;">Production Leadtime</th> <th style="text-align: center;">Required Award Date</th> </tr> <tr> <td style="text-align: center;">FY 2016</td> <td style="text-align: center;">DDG 123</td> <td style="text-align: center;">Jul 2021</td> <td style="text-align: center;">6</td> <td style="text-align: center;">40</td> <td style="text-align: center;">Sep 2017</td> </tr> <tr> <td style="text-align: center;">FY 2017</td> <td style="text-align: center;">DDG 125</td> <td style="text-align: center;">Jul 2022</td> <td style="text-align: center;">6</td> <td style="text-align: center;">40</td> <td style="text-align: center;">Sep 2018</td> </tr> <tr> <td style="text-align: center;">FY 2018</td> <td style="text-align: center;">DDG 128</td> <td style="text-align: center;">Jul 2023</td> <td style="text-align: center;">6</td> <td style="text-align: center;">40</td> <td style="text-align: center;">Sep 2019</td> </tr> </table>							Program Year	Hull	Earliest Ship Delivery Date	Months Required Before Delivery	Production Leadtime	Required Award Date	FY 2016	DDG 123	Jul 2021	6	40	Sep 2017	FY 2017	DDG 125	Jul 2022	6	40	Sep 2018	FY 2018	DDG 128	Jul 2023	6	40	Sep 2019								
Program Year	Hull	Earliest Ship Delivery Date	Months Required Before Delivery	Production Leadtime	Required Award Date																																	
FY 2016	DDG 123	Jul 2021	6	40	Sep 2017																																	
FY 2017	DDG 125	Jul 2022	6	40	Sep 2018																																	
FY 2018	DDG 128	Jul 2023	6	40	Sep 2019																																	
Competition/Second Source Initiatives: Competitive																																						

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Exhibit P-35, Major Ship Component Fact Sheet: FY 2018 Navy	Date: May 2017
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Appropriation / Budget Activity / Budget Sub Activity: 1611N / 02 / 1	P-1 Line Item Number / Title: 2122 / DDG-51
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Equipment Item: VLS MK 41	PARM Code: N/A
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P-35 Category	FY 2016		FY 2017		FY 2018	
	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Major Hardware	3	99.243	2	67.207	2	68.626
Ancillary Equipment		4.620		3.129		3.191
Technical Data and Documentation		0.816		0.553		0.564
System Engineering		13.685		13.899		14.174
Technical Engineering Services		12.619		12.816		13.070
Other Costs		6.876		6.985		7.123
Total	3	137.859	2	104.589	2	106.748

Description:

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.

Contract Data:

Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity (Each)	Unit Cost (\$ M)
FY 2016	DDG 123	LOCKHEED MARTIN	C/FFP	Dec 2014		3	33.081
FY 2017	DDG 125	LOCKHEED MARTIN	C/FFP	Dec 2014		2	33.604
FY 2018	DDG 128	COMPETITIVE	C/FFP	Jan 2018	New	2	34.313

Delivery Date:

Program Year	Hull	Earliest Ship Delivery Date	Months Required Before Delivery	Production Leadtime	Required Award Date
FY 2016	DDG 123	Jul 2021	18	24	Jan 2018
FY 2017	DDG 125	Jul 2022	18	24	Jan 2019
FY 2018	DDG 128	Jul 2023	18	24	Jan 2020

Competition/Second Source Initiatives:

Competitive

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Exhibit P-35, Major Ship Component Fact Sheet: FY 2018 Navy	Date: May 2017
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Appropriation / Budget Activity / Budget Sub Activity: 1611N / 02 / 1	P-1 Line Item Number / Title: 2122 / DDG-51
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Equipment Item: MK 45 LWG	PARM Code: N/A
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P-35 Category	FY 2016		FY 2017		FY 2018	
	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Major Hardware	3	56.618	2	38.387	2	39.148
Spares		0.485		0.328		0.334
System Engineering		6.842		4.639		4.731
Technical Engineering Services		3.674		2.491		2.540
Other Costs		8.862		6.008		6.127
Total	3	76.481	2	51.853	2	52.880

Description:

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.

Contract Data:

Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity (Each)	Unit Cost (\$ M)
FY 2016	DDG 123	BAE AD/MCNALLY	Various	Jan 2016	Option	3	18.873
FY 2017	DDG 125	BAE AD/MCNALLY	Various	Jan 2017	Option	2	19.194
FY 2018	DDG 128	BAE AD/MCNALLY	Various	Jan 2018	Option	2	19.574

Delivery Date:

Program Year	Hull	Earliest Ship Delivery Date	Months Required Before Delivery	Production Leadtime	Required Award Date
FY 2016	DDG 123	Jul 2021	18	24	Jan 2018
FY 2017	DDG 125	Jul 2022	18	24	Jan 2019
FY 2018	DDG 128	Jul 2023	18	24	Jan 2020

Competition/Second Source Initiatives:

Sole Source

Remarks:

Contract Data notes:

Gun Mount contract: BAE Armament Division - Sole Source

Lower Hoist contract: McNally - Sole Source

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Exhibit P-35, Major Ship Component Fact Sheet: FY 2018 Navy	Date: May 2017
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Appropriation / Budget Activity / Budget Sub Activity: 1611N / 02 / 1	P-1 Line Item Number / Title: 2122 / DDG-51
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Equipment Item: MK 37 TOMAHAWK	PARM Code: N/A
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P-35 Category	FY 2016		FY 2017		FY 2018	
	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Major Hardware	3	12.932	2	8.766	2	8.940
Spares		2.103		1.426		1.454
System Engineering		5.485		4.435		4.523
Technical Engineering Services		5.360		4.213		4.296
Other Costs		9.313		6.658		6.790
Total	3	35.193	2	25.498	2	26.003

Description:

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.

Contract Data:

Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity (Each)	Unit Cost (\$ M)
FY 2016	DDG 123	NSWC PT HUENEME	WR	Apr 2017	Various	3	4.311
FY 2017	DDG 125	NSWC PT HUENEME	WR	Apr 2018	Various	2	4.383
FY 2018	DDG 128	NSWC PT HUENEME	WR	Apr 2019	Various	2	4.470

Delivery Date:

Program Year	Hull	Earliest Ship Delivery Date	Months Required Before Delivery	Production Leadtime	Required Award Date
FY 2016	DDG 123	Jul 2021	19	8	Apr 2019
FY 2017	DDG 125	Jul 2022	19	8	Apr 2020
FY 2018	DDG 128	Jul 2023	19	8	Apr 2021

Competition/Second Source Initiatives:

Navy construction

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Exhibit P-35, Major Ship Component Fact Sheet: FY 2018 Navy						Date: May 2017	
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 02 / 1				P-1 Line Item Number / Title: 2122 / DDG-51			
Equipment Item: PHALANX (CIWS)						PARM Code: N/A	
P-35 Category	FY 2016		FY 2017		FY 2018		
	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	
Major Hardware	3	18.042	2	12.281	2	12.524	
System Engineering		1.226		0.831		0.847	
Technical Engineering Services		2.192		1.486		1.516	
Other Costs		2.912		1.975		2.014	
Total	3	24.372	2	16.573	2	16.901	
Description: Phalanx Close-In Weapon System (CIWS) provides fast reaction terminal defense against anti-ship missiles, aircraft, helicopters, low-slow flyers (e.g. unmanned aerial vehicles) and surface threats. The system is an automatic, self-contained unit consisting of search/track radar, threat evaluation and fire control subsystem, and a 20 mm M61A1 Gatling gun subsystem all mounted in a single structure requiring a minimum of integration with other ship systems.							
Contract Data:							
Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity (Each)	Unit Cost (\$ M)
FY 2016	DDG 123	RAYTHEON	SS/FFP	Apr 2016	Option	3	6.014
FY 2017	DDG 125	RAYTHEON	SS/FFP	Apr 2017	Option	2	6.141
FY 2018	DDG 128	RAYTHEON	SS/FFP	Apr 2018	Option	2	6.262
Delivery Date:							
Program Year	Hull	Earliest Ship Delivery Date	Months Required Before Delivery	Production Leadtime	Required Award Date		
FY 2016	DDG 123	Jul 2021	25	22	Aug 2017		
FY 2017	DDG 125	Jul 2022	25	22	Aug 2018		
FY 2018	DDG 128	Jul 2023	25	22	Aug 2019		
Competition/Second Source Initiatives: Sole Source							

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Exhibit P-35, Major Ship Component Fact Sheet: FY 2018 Navy						Date: May 2017	
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 02 / 1				P-1 Line Item Number / Title: 2122 / DDG-51			
Equipment Item: SPQ-9B Radar						PARM Code: N/A	
P-35 Category	FY 2016		FY 2017		FY 2018		
	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	
Major Hardware	3	23.352	2	15.848	2	16.162	
Spares		0.305		0.207		0.212	
System Engineering		1.221		0.827		0.843	
Technical Engineering Services		1.296		0.879		0.896	
Other Costs		1.435		0.973		0.992	
Total	3	27.609	2	18.734	2	19.105	
Description: The AN/SPQ-9B Radar detects and tracks low flying Anti-Ship Missile targets in heavy clutter. The mission of the AN/SPQ-9B is currently being expanded to include the capability to detect and classify periscopes with the completion and incorporation of a Periscope Detection and Discrimination (PDD) capability designed to operate concurrently with the AN/SPY-6 capability.							
Contract Data:							
Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity (Each)	Unit Cost (\$ M)
FY 2016	DDG 123	NORTHROP GRUMMAN	SS/FFP	Aug 2016	Option	3	7.784
FY 2017	DDG 125	NORTHROP GRUMMAN	SS/FFP	Nov 2017	New	2	7.924
FY 2018	DDG 128	NORTHROP GRUMMAN	SS/FFP	Feb 2018	Option	2	8.081
Delivery Date:							
Program Year	Hull	Earliest Ship Delivery Date	Months Required Before Delivery	Production Leadtime	Required Award Date		
FY 2016	DDG 123	Jul 2021	24	18	Jan 2018		
FY 2017	DDG 125	Jul 2022	24	18	Jan 2019		
FY 2018	DDG 128	Jul 2023	24	18	Jan 2020		
Competition/Second Source Initiatives: N/A							

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Exhibit P-10, Advance Procurement Requirements Analysis (page 1 - Budget Funding Justification): FY 2018 Navy							Date: May 2017			
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 02 / 1				P-1 Line Item Number / Title: 2122 / DDG-51						
First System (2018) Award Date:		First System (2018) Completion Date:				Interval Between Systems: 0 Months				
Cost Elements		Production Leadtime (Months)	When Required* (Months)	FY 2016 (\$ M)	FY 2017 (\$ M)	FY 2018 (\$ M)	FY 2019 (\$ M)	FY 2020 (\$ M)	FY 2021 (\$ M)	FY 2022 (\$ M)
SHIP CONSTRUCTION EOQ										
SHIP Construction EOQ FY19 Ships ⁽⁷⁾		Various	Various	-	-	12.501	-	-	-	-
SHIP Construction EOQ FY20 Ships		Various	Various	-	-	12.500	75.000	-	-	-
SHIP Construction EOQ FY21 Ships		Various	Various	-	-	12.517	75.000	112.595	-	-
SHIP Construction EOQ FY22 Ships		Various	Various	-	-	12.517	75.000	112.595	-	-
Total: SHIP CONSTRUCTION EOQ				-	-	50.035	225.000	225.190	-	-
VLS Advanced Procurement										
VLS EOQ FY19 Ships ⁽⁸⁾		Various	Various	-	-	26.861	-	-	-	-
VLS EOQ FY20 Ships		Various	Various	-	-	13.440	13.563	-	-	-
VLS EOQ FY21 Ships		Various	Various	-	-	0.000	27.075	-	-	-
VLS EOQ FY22 Ships		Various	Various	-	-	0.000	27.075	-	-	-
Total: VLS Advanced Procurement				-	-	40.301	67.713	-	-	-
Total Advance Procurement/Obligation Authority				-	-	90.336	292.713	225.190	-	-

*Note: "When Required" is the number of months required before ship delivery.

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Exhibit P-10, Advance Procurement Requirements Analysis (page 2 - Budget Funding Justification): FY 2018 Navy	Date: May 2017
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Appropriation / Budget Activity / Budget Sub Activity: 1611N / 02 / 1	P-1 Line Item Number / Title: 2122 / DDG-51
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Cost Elements	FY 2018						
	Production Leadtime (Months)	When Required* (Months)	Unit Cost (\$ M)	Contract Forecast Date	2018 Qty (Each)	For FY	Total Cost Request (\$ M)
SHIP CONSTRUCTION EOQ							
SHIP Construction EOQ FY19 Ships ⁽⁷⁾	Various	Various	-	Jun 2018	-	2019	12.501
SHIP Construction EOQ FY20 Ships	Various	Various	-	Jun 2018	-	2020	12.500
SHIP Construction EOQ FY21 Ships	Various	Various	-	Jun 2018	-	2021	12.517
SHIP Construction EOQ FY22 Ships	Various	Various	-	Jun 2018	-	2022	12.517
<i>Total: SHIP CONSTRUCTION EOQ</i>							<i>50.035</i>
VLS Advanced Procurement							
VLS EOQ FY19 Ships ⁽⁸⁾	Various	Various	-	Jan 2018	-	2019	26.861
VLS EOQ FY20 Ships	Various	Various	-	Jan 2018	-	2020	13.440
VLS EOQ FY21 Ships	Various	Various	-	Jan 2019	-	2021	0.000
VLS EOQ FY22 Ships	Various	Various	-	Jan 2019	-	2022	0.000
<i>Total: VLS Advanced Procurement</i>							<i>40.301</i>
Total Advance Procurement/Obligation Authority							90.336

*Note: "When Required" is the number of months required before ship delivery.

Footnotes:

⁽⁷⁾ AP is required for shipbuilder Economic Order Quantity procurements for material items to achieve savings under the FY18-22 MYP contract.

⁽⁸⁾ AP is required for VLS Economic Order Quantity procurements for material items to achieve savings under the FY18-22 MYP contract.

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Exhibit P-40, Budget Line Item Justification: FY 2018 Navy										Date: May 2017		
Appropriation / Budget Activity / Budget Sub Activity: 1611N: Shipbuilding and Conversion, Navy / BA 02: Other Warships / BSA 1: Other Warships							P-1 Line Item Number / Title: 2127 / Littoral Combat Ship (LCS)					
ID Code (A=Service Ready, B=Not Service Ready): A				Program Elements for Code B Items: N/A				Other Related Program Elements: N/A				
Line Item MDAP/MAIS Code: N/A												
Resource Summary	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	21	3	2	1	-	1	1	1	1	2	6	38
Gross/Weapon System Cost (<i>\$ in Millions</i>)	10,605.523	1,445.888	1,125.625	636.146	0.000	636.146	655.010	1,201.113	1,155.019	2,061.188	8,770.151	27,655.663
Less PY Advance Procurement (<i>\$ in Millions</i>)	78.900	80.000	-	-	-	-	-	-	-	-	-	158.900
Less Cost To Complete (<i>\$ in Millions</i>)	375.768	34.297	-	-	-	-	-	-	-	-	-	410.065
Net Procurement (P-1) (<i>\$ in Millions</i>)	10,150.855	1,331.591	1,125.625	636.146	0.000	636.146	655.010	1,201.113	1,155.019	2,061.188	8,770.151	27,086.698
Full Funding TOA (<i>\$ in Millions</i>)	10,150.855	1,331.591	1,125.625	636.146	-	636.146	655.010	1,201.113	1,155.019	2,061.188	8,770.151	27,086.698
Plus CY Advance Procurement (<i>\$ in Millions</i>)	158.900	-	-	-	-	-	-	-	-	-	-	158.900
Plus Cost To Complete (<i>\$ in Millions</i>)	77.045	82.674	86.000	26.865	-	26.865	103.184	34.297	-	-	-	410.065
Total Obligation Authority (<i>\$ in Millions</i>)	10,386.800	1,414.265	1,211.625	663.011	0.000	663.011	758.194	1,235.410	1,155.019	2,061.188	8,770.151	27,655.663
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Plus Outfitting and Post Delivery (<i>\$ in Millions</i>)	257.534	188.816	176.399	169.731	-	169.731	198.375	128.155	125.041	126.278	818.390	2,188.719
Total (<i>\$ in Millions</i>)	10,644.334	1,603.081	1,388.024	832.742	-	832.742	956.569	1,363.565	1,280.060	2,187.466	9,588.541	29,844.382
Gross/Weapon System Unit Cost (<i>\$ in Millions</i>)	505.025	481.963	562.813	636.146	-	636.146	655.010	1,201.113	1,155.019	1,030.594	1,461.692	727.781

Description:
Provides for the design, construction, integration, and testing of the Littoral Combat Ship (LCS) and the Frigate (FF), including ordnance, government furnished equipment (GFE), plans and change order costs.

LCS: Operates with focused-mission packages that deploy manned and unmanned vehicles to execute a variety of missions, including anti-submarine warfare (ASW), surface warfare (SUW), and mine countermeasures (MCM). LCS also possesses inherent capabilities, regardless of the mission package installed, including intelligence, surveillance, and reconnaissance (ISR), maritime interdiction/interception operations (MIO), anti-terrorism/force protection (AT/FP), air warfare self-defense, joint littoral mobility, and logistic support for movement of personnel and supplies. This relatively small, shallow-draft, high-speed surface combatant complements the U.S. Navy's Surface Fleet by operating in environments where it is impossible or undesirable to employ larger deeper-draft, multi-mission ships. LCS can deploy independently to overseas littoral regions or remain on station for extended periods of time either with a battle group or through a forward-basing arrangement. LCS will operate with Carrier Strike Groups, Surface Action Groups, or independently as dictated by the mission and environment. Additionally, LCS can operate cooperatively with the U.S. Coast Guard and Allies.

Frigate (starting in FY20): As directed by the Secretary of Defense (SECDEF) in 2014, the Navy via the Small Surface Combatant Task Force (SSCTF) reviewed the capabilities of Littoral Combat Ship (LCS) and explored alternatives to provide a more lethal and survivable ship to meet future missions. The SSCTF recommendations served as the foundation for the revised requirements for the modified LCS (designated as the Frigate (FF)). Previous budgets and schedules supported the plan to develop the FF. As a result of the Navy's 2016 Force Structure Assessment and to address increasingly complex threats in the global maritime environment, the Navy is reassessing the capabilities required to ensure the Frigate paces future threats. The Navy desires to maximize the capability of the future Guided Missile Frigate (FFG(X)) in anti-surface warfare (SUW), anti-submarine warfare (ASW) and local air defense (LAD) mission areas, while keeping the ship affordable and part of a "high-low" mix of surface combatants. Our updated assessment will be completed to support finalization of FFG(X) requirements in 2017.

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Exhibit P-40, Budget Line Item Justification: FY 2018 Navy						Date: May 2017		
Appropriation / Budget Activity / Budget Sub Activity: 1611N: Shipbuilding and Conversion, Navy / BA 02: Other Warships / BSA 1: Other Warships				P-1 Line Item Number / Title: 2127 / Littoral Combat Ship (LCS)				
ID Code (A=Service Ready, B=Not Service Ready): A			Program Elements for Code B Items: N/A			Other Related Program Elements: N/A		
Line Item MDAP/MAIS Code: N/A								
Characteristics:	LM	AUSTAL	Systems:					
Length Overall	115.3m	127.6m	Electronics		Ordnance			
Beam	17.5m	31.6m	-AN/WSC-6E(V)9 SUPER HIGH FREQUENCY (SHF) DUAL TERMINAL/NAVY MULTIBAND TERMINAL (NMT)		-SEARAM			
Displacement	3089 mt	2842 mt						
Draft	4.3m	4.4m						
Production Status:	LCS 9		LCS 11	LCS 12	LCS 13	LCS 14	LCS 16	LCS 15
Contract Award Date	Mar 2012		Mar 2012	Mar 2012	Mar 2013	Mar 2013	Mar 2013	Mar 2013
Months to Completion								
a) Award to Delivery	66 months		67 months	63 months	63 months	54 months	61 months	69 months
b) Construction Start to Delivery	56 months		50 months	45 months	52 months	43 months	43 months	48 months
Delivery Date	Sep 2017		Oct 2017	Jun 2017	Jun 2018	Sep 2017	Apr 2018	Dec 2018
Completion Of Fitting Out	Nov 2017		Dec 2017	Nov 2017	Oct 2018	Jan 2018	Sep 2018	Apr 2019
Obligation Work Limit Date	Oct 2018		Nov 2018	Oct 2018	Sep 2019	Dec 2018	Aug 2019	Mar 2020
Production Status:	LCS 18		LCS 17	LCS 20	LCS 19	LCS 22	LCS 21	LCS 24
Contract Award Date	Mar 2014		Mar 2014	Mar 2014	Mar 2014	Mar 2015	Mar 2015	Mar 2015
Months to Completion								
a) Award to Delivery	52 months		63 months	60 months	69 months	53 months	63 months	61 months
b) Construction Start to Delivery	40 months		46 months	37 months	40 months	32 months	40 months	33 months
Delivery Date	Jul 2018		Jun 2019	Mar 2019	Dec 2019	Aug 2019	Jun 2020	Apr 2020
Completion Of Fitting Out	Nov 2018		Nov 2019	Jul 2019	Apr 2020	Jan 2020	Oct 2020	Sep 2020
Obligation Work Limit Date	Oct 2019		Oct 2020	Jul 2020	Mar 2021	Dec 2020	Sep 2021	Aug 2021
Production Status:	LCS 23		LCS 26	LCS 25	LCS 28	LCS 27	LCS 29	
Contract Award Date	Dec 2015		Mar 2016	Mar 2016	Jun 2017	Jun 2017	Mar 2018	
Months to Completion								
a) Award to Delivery	59 months		56 months	63 months	47 months	54 months	57 months	
b) Construction Start to Delivery	40 months		37 months	42 months	37 months	42 months	45 months	
Delivery Date	Nov 2020		Nov 2020	Jun 2021	May 2021	Dec 2021	Dec 2022	
Completion Of Fitting Out	Mar 2021		Apr 2021	Oct 2021	Sep 2021	Mar 2022	Apr 2023	
Obligation Work Limit Date	Feb 2022		Mar 2022	Sep 2022	Aug 2022	Feb 2023	Mar 2024	
Design Schedule	Start / Issue		Complete / Response		Reissue	Reissue Complete / Response		
Issue Date for TLR	N/A		N/A					
Issue Date for TLS	N/A		N/A					
Preliminary Design	Jul 2003		Dec 2003					
Contract Design	May 2004		Dec 2004					

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Exhibit P-40, Budget Line Item Justification: FY 2018 Navy				Date: May 2017	
Appropriation / Budget Activity / Budget Sub Activity: 1611N: Shipbuilding and Conversion, Navy / BA 02: Other Warships / BSA 1: Other Warships			P-1 Line Item Number / Title: 2127 / Littoral Combat Ship (LCS)		
ID Code (A=Service Ready, B=Not Service Ready): A		Program Elements for Code B Items: N/A		Other Related Program Elements: N/A	
Line Item MDAP/MAIS Code: N/A					
<u>Design Schedule</u>		<u>Start / Issue</u>		<u>Complete / Response</u>	
Detail Design		Dec 2004		Jun 2007	
Request for Proposals		N/A		Jan 2010	
Design Agent		LOCKHEED MARTIN - AUSTAL			
<u>Classification of Cost Estimate:</u> CLASS C					

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Exhibit P-5c, Ship Cost Analysis: FY 2018 Navy										Date: May 2017				
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 02 / 1							P-1 Line Item Number / Title: 2127 / Littoral Combat Ship (LCS)							
Cost Categories <small>^(†) indicates the presence of a P-8a</small>	FY 2012		FY 2013		FY 2014		FY 2015		FY 2016		FY 2017		FY 2018	
	Qty <small>(Each)</small>	Total Cost <small>(\$ M)</small>	Qty <small>(Each)</small>	Total Cost <small>(\$ M)</small>	Qty <small>(Each)</small>	Total Cost <small>(\$ M)</small>	Qty <small>(Each)</small>	Total Cost <small>(\$ M)</small>	Qty <small>(Each)</small>	Total Cost <small>(\$ M)</small>	Qty <small>(Each)</small>	Total Cost <small>(\$ M)</small>	Qty <small>(Each)</small>	Total Cost <small>(\$ M)</small>
Plan Costs	4	74.504	4	81.025	4	84.706	3	86.146	3	87.490	2	86.300	1	63.172
Basic Construction/Conversion		1,553.971		1,512.613		1,504.933		1,221.901		1,165.412		876.799		448.383
Change Orders		60.991		64.438		72.896		47.383		33.998		26.284		13.451
Electronics ^(†)		47.420		48.249		49.336		43.626		45.411		34.624		20.257
Hull, Mechanical, and Electrical (HM&E) ^(†)		13.843		14.078		14.318		11.041		11.228		7.836		4.487
Ordnance ^(†)		37.295		33.996		37.759		29.169		29.665		20.315		11.856
Other Cost		76.927		67.038		69.035		71.469		72.684		73.467		74.540
Total Ship Estimate		1,864.951		1,821.437		1,832.983		1,510.735		1,445.888		1,125.625		636.146
Less Advance Procurement FY 2011		78.949		-		-		-		-		-		-
Less Advance Procurement FY 2015		-		-		-		-		80.000		-		-
Less Cost to Complete FY 2016		82.674		-		-		-		-		-		-
Less Cost to Complete FY 2017		3.600		82.400		-		-		-		-		-
Less Cost to Complete FY 2018		6.394		-		20.471		-		-		-		-
Less Cost to Complete FY 2019		-		-		19.498		83.686		-		-		-
Less Cost to Complete FY 2020		-		-		-		-		34.297		-		-
Net P-1 Funding		1,693.334		1,739.037		1,793.014		1,427.049		1,331.591		1,125.625		636.146
Remarks: First Frigate will be awarded in FY20.														
FY18 Budget assumes that the current LCS Shipbuilders will construct the Frigate ships. FY19 Budget assumes that the current LCS Shipbuilders will construct the Frigate ships.														

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Exhibit P-27, Ship Production Schedule: FY 2018 Navy					Date: May 2017
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 02 / 1			P-1 Line Item Number / Title: 2127 / Littoral Combat Ship (LCS)		
Ship	Shipbuilder	Fiscal Year	Contract Award	Start of Construction	Delivery Date
LCS 9	LOCKHEED MARTIN	2012	Mar 2012	Jan 2013	Sep 2017
LCS 11	LOCKHEED MARTIN	2012	Mar 2012	Aug 2013	Oct 2017
LCS 12	AUSTAL	2012	Mar 2012	Sep 2013	Jun 2017
LCS 13	LOCKHEED MARTIN	2013	Mar 2013	Feb 2014	Jun 2018
LCS 14	AUSTAL	2013	Mar 2013	Feb 2014	Sep 2017
LCS 16	AUSTAL	2013	Mar 2013	Sep 2014	Apr 2018
LCS 15	LOCKHEED MARTIN	2013	Mar 2013	Dec 2014	Dec 2018
LCS 18	AUSTAL	2014	Mar 2014	Mar 2015	Jul 2018
LCS 17	LOCKHEED MARTIN	2014	Mar 2014	Aug 2015	Jun 2019
LCS 20	AUSTAL	2014	Mar 2014	Feb 2016	Mar 2019
LCS 19	LOCKHEED MARTIN	2014	Mar 2014	Aug 2016	Dec 2019
LCS 22	AUSTAL	2015	Mar 2015	Dec 2016	Aug 2019
LCS 21	LOCKHEED MARTIN	2015	Mar 2015	Feb 2017	Jun 2020
LCS 24	AUSTAL	2015	Mar 2015	Jul 2017	Apr 2020
LCS 23	LOCKHEED MARTIN	2016	Dec 2015	Jul 2017	Nov 2020
LCS 26	AUSTAL	2016	Mar 2016	Oct 2017	Nov 2020
LCS 25	LOCKHEED MARTIN	2016	Mar 2016	Dec 2017	Jun 2021
LCS 28	TBD	2017	Jun 2017	Apr 2018	May 2021
LCS 27	TBD	2017	Jun 2017	Jun 2018	Dec 2021
LCS 29	TBD	2018	Mar 2018	Mar 2019	Dec 2022
LCS 30	TBD	2019	Mar 2019	Mar 2020	Dec 2023
FF 1	TBD	2020	Jul 2020	Jan 2022	Jan 2026
FF 2	TBD	2021	Mar 2021	Jun 2022	May 2026
FF 4	TBD	2022	Mar 2022	May 2022	Feb 2026
FF 3	TBD	2022	Mar 2022	Nov 2022	Sep 2026

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Exhibit P-8a, Analysis of Ship Cost Estimates: FY 2018 Navy	Date: May 2017
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Appropriation / Budget Activity / Budget Sub Activity:
1611N / 02 / 1

P-1 Line Item Number / Title:
2127 / Littoral Combat Ship (LCS)

Electronics	FY 2016		FY 2017		FY 2018	
	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
P-35 Items						
AN/WSC-6E(V)9 SUPER HIGH FREQUENCY (SHF) DUAL TERMINAL/NAVY MULTIBAND TERMINAL (NMT)	3	12.096	2	8.299	1	4.779
P-35 Items Subtotal		12.096		8.299		4.779
Major Items						
AN/URC-141 (C) MIDS ON SHIP (MOS)	3	8.127	2	5.576	1	2.875
MULTI-VEHICLE COMMUNICATION SYSTEM (MVCS)	3	5.409	2	3.711	1	2.127
AN/USQ-172(V)5 GLOBAL COMMAND AND CONTROL SYSTEM - MARITIME (GCCS-M)	3	2.226	2	1.527	1	0.916
COMMON DATA LINK MANAGEMENT SYSTEM (CDLMS) Link-11 (C2P)	2	2.087	1	1.043	1	1.095
AN/USQ-144J(V)2 AUTOMATED DIGITAL NETWORK SYSTEM (ADNS)	3	1.909	2	1.310	1	0.786
ELECTRONIC KEY MANAGEMENT SYSTEM (EKMS)/CRYPTO SYSTEM	3	1.781	2	1.222	1	0.733
DS- LOGISTICS MAINTENANCE AUTOMATED INFO SYSTEM - BAR CODE SUPPLY (BCS) NAVY TACTICAL COMMAND SPT SY	3	1.243	2	0.853	1	0.695
Major Items Subtotal		22.782		15.242		9.227
Other Cost Elements						
OTHER ELECTRONICS	0	10.533	0	11.083	0	6.251
Other Cost Elements Subtotal		10.533		11.083		6.251
Total Electronics		45.411		34.624		20.257

Remarks:

LCS: In FY17 GFE pricing assumes award of one ship to each shipyard. In FY16, the Other Electronics Budget reflects procurement of Tactical Common Data Link (TCDL) as Government Furnished Equipment(GFE)in lieu of Contract Furnished Equipment(CFE).

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Exhibit P-8a, Analysis of Ship Cost Estimates: FY 2018 Navy					Date: May 2017	
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 02 / 1			P-1 Line Item Number / Title: 2127 / Littoral Combat Ship (LCS)			
Hull, Mechanical, and Electrical (HM&E)	FY 2016		FY 2017		FY 2018	
	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Major Items						
VISUAL LANDING AIDS (VLA)	3	6.834	2	4.769	1	2.637
AN/SRC-59 SHIPWIDE INTERIOR WIRELESS COMMUNICATION SYSTEM (SIWCS)	3	1.791	2	1.250	1	0.725
TRASH DISPOSAL - SMALL PULPER	3	0.515	2	0.360	1	0.198
JOINT BIOLOGICAL POINT DETECTION SYSTEM (JBPDS)	3	0.462	2	0.323	1	0.178
Major Items Subtotal		9.602		6.702		3.738
Other Cost Elements						
OTHER HM&E	0	1.626	0	1.134	0	0.749
Other Cost Elements Subtotal		1.626		1.134		0.749
Total Hull, Mechanical, and Electrical (HM&E)		11.228		7.836		4.487

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Exhibit P-8a, Analysis of Ship Cost Estimates: FY 2018 Navy					Date: May 2017	
Appropriation / Budget Activity / Budget Sub Activity:			P-1 Line Item Number / Title:			
1611N / 02 / 1			2127 / Littoral Combat Ship (LCS)			
Ordnance	FY 2016		FY 2017		FY 2018	
	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
P-35 Items						
SEARAM	3	27.648	2	18.942	1	10.931
P-35 Items Subtotal		27.648		18.942		10.931
Major Items						
ORDNANCE HANDLING EQUIPMENT	3	1.284	2	0.879	1	0.550
SMALL ARMS, MACHINE GUNS	3	0.733	2	0.494	1	0.375
Major Items Subtotal		2.017		1.373		0.925
Total Ordnance		29.665		20.315		11.856

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Exhibit P-35, Major Ship Component Fact Sheet: FY 2018 Navy						Date: May 2017	
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 02 / 1				P-1 Line Item Number / Title: 2127 / Littoral Combat Ship (LCS)			
Equipment Item: AN/WSC-6E(V)9 SUPER HIGH FREQUENCY (SHF) DUAL TERMINAL/NAVY MULTIBAND TERMINAL (NMT)						PARM Code: PMW170	

P-35 Category	FY 2016		FY 2017		FY 2018	
	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Major Hardware	3	10.654	2	7.309	1	4.209
System Engineering		0.192		0.132		0.076
Engr/ILS/Mgmt Spt		0.240		0.165		0.095
Technical Support Services		0.832		0.571		0.329
Program Management		0.178		0.122		0.070
Total	3	12.096	2	8.299	1	4.779

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

Contract Data:

Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity (Each)	Unit Cost (\$ M)
FY 2016	LCS 23	RAYTHEON	SS/FFP	Dec 2015	New	3	3.551
FY 2017	LCS 27	RAYTHEON	SS/FFP	Dec 2015	Option	2	3.655
FY 2018	LCS 29	RAYTHEON	SS/FFP	Dec 2015	Option	1	4.209

Delivery Date:

Program Year	Hull	Earliest Ship Delivery Date	Months Required Before Delivery	Production Leadtime	Required Award Date
FY 2016	LCS 23	Nov 2020	21	14	Jul 2017
FY 2017	LCS 27	May 2021	21	14	Jun 2018
FY 2018	LCS 29	Dec 2022	21	14	Jun 2019

Competition/Second Source Initiatives:
N/A

Remarks:
LCS program transitioned to Navy Multiband Terminal (NMT) beginning on FY 2014 Ships.

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Exhibit P-35, Major Ship Component Fact Sheet: FY 2018 Navy						Date: May 2017																																
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 02 / 1				P-1 Line Item Number / Title: 2127 / Littoral Combat Ship (LCS)																																		
Equipment Item: SEARAM						PARM Code: IWS11																																
P-35 Category	FY 2016		FY 2017		FY 2018																																	
	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)																																
Major Hardware	3	23.451	2	16.060	1	8.974																																
Technical Data and Documentation		0.140		0.100		0.068																																
System Engineering		1.030		0.706		0.522																																
Technical Engineering Services		1.467		1.005		0.632																																
Software		0.145		0.099		0.078																																
Test & Evaluation		0.878		0.605		0.455																																
Program Management		0.537		0.367		0.202																																
Total	3	27.648	2	18.942	1	10.931																																
Description: 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.																																						
Contract Data: <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th>Program Year</th> <th>Hull</th> <th>Prime Contractor</th> <th>Contract Method/Type</th> <th>Award Date</th> <th>New/Option</th> <th>Quantity (Each)</th> <th>Unit Cost (\$ M)</th> </tr> <tr> <td>FY 2016</td> <td>LCS 23</td> <td>RAYTHEON</td> <td>SS/FFP</td> <td>Dec 2015</td> <td>Option</td> <td>3</td> <td>7.817</td> </tr> <tr> <td>FY 2017</td> <td>LCS 27</td> <td>RAYTHEON</td> <td>SS/FFP</td> <td>Dec 2015</td> <td>Option</td> <td>2</td> <td>8.030</td> </tr> <tr> <td>FY 2018</td> <td>LCS 29</td> <td>RAYTHEON</td> <td>SS/FFP</td> <td>Dec 2015</td> <td>Option</td> <td>1</td> <td>8.974</td> </tr> </table>							Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity (Each)	Unit Cost (\$ M)	FY 2016	LCS 23	RAYTHEON	SS/FFP	Dec 2015	Option	3	7.817	FY 2017	LCS 27	RAYTHEON	SS/FFP	Dec 2015	Option	2	8.030	FY 2018	LCS 29	RAYTHEON	SS/FFP	Dec 2015	Option	1	8.974
Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity (Each)	Unit Cost (\$ M)																															
FY 2016	LCS 23	RAYTHEON	SS/FFP	Dec 2015	Option	3	7.817																															
FY 2017	LCS 27	RAYTHEON	SS/FFP	Dec 2015	Option	2	8.030																															
FY 2018	LCS 29	RAYTHEON	SS/FFP	Dec 2015	Option	1	8.974																															
Delivery Date: <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th>Program Year</th> <th>Hull</th> <th>Earliest Ship Delivery Date</th> <th>Months Required Before Delivery</th> <th>Production Leadtime</th> <th>Required Award Date</th> </tr> <tr> <td>FY 2016</td> <td>LCS 23</td> <td>Nov 2020</td> <td>13</td> <td>22</td> <td>Jul 2017</td> </tr> <tr> <td>FY 2017</td> <td>LCS 27</td> <td>May 2021</td> <td>13</td> <td>22</td> <td>Jun 2018</td> </tr> <tr> <td>FY 2018</td> <td>LCS 29</td> <td>Dec 2022</td> <td>13</td> <td>22</td> <td>Jun 2019</td> </tr> </table>							Program Year	Hull	Earliest Ship Delivery Date	Months Required Before Delivery	Production Leadtime	Required Award Date	FY 2016	LCS 23	Nov 2020	13	22	Jul 2017	FY 2017	LCS 27	May 2021	13	22	Jun 2018	FY 2018	LCS 29	Dec 2022	13	22	Jun 2019								
Program Year	Hull	Earliest Ship Delivery Date	Months Required Before Delivery	Production Leadtime	Required Award Date																																	
FY 2016	LCS 23	Nov 2020	13	22	Jul 2017																																	
FY 2017	LCS 27	May 2021	13	22	Jun 2018																																	
FY 2018	LCS 29	Dec 2022	13	22	Jun 2019																																	
Competition/Second Source Initiatives: N/A																																						
Remarks: N/A																																						

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Exhibit P-40, Budget Line Item Justification: FY 2018 Navy										Date: May 2017		
Appropriation / Budget Activity / Budget Sub Activity: 1611N: Shipbuilding and Conversion, Navy / BA 03: Amphibious Ships / BSA 1: Amphibious Ships							P-1 Line Item Number / Title: 3036 / LPD-17					
ID Code (A=Service Ready, B=Not Service Ready): A			Program Elements for Code B Items: N/A					Other Related Program Elements: N/A				
Line Item MDAP/MAIS Code: N/A												
Resource Summary	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	11	1	-	-	-	-	-	-	-	-	-	12
Gross/Weapon System Cost (<i>\$ in Millions</i>)	17,758.062	1,792.976	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-	19,551.038
Less PY Advance Procurement (<i>\$ in Millions</i>)	1,393.265	242.976	-	-	-	-	-	-	-	-	-	1,636.241
Less Cost To Complete (<i>\$ in Millions</i>)	2,050.608	-	-	-	-	-	-	-	-	-	-	2,050.608
Less Subsequent Year Full Funding (<i>\$ in Millions</i>)	869.394	-	-	-	-	-	-	-	-	-	-	869.394
Less Prior Year Full Funding (<i>\$ in Millions</i>)	-	1,000.000	-	-	-	-	-	-	-	-	-	1,000.000
Less Hurricane (<i>\$ in Millions</i>)	1,623.280	-	-	-	-	-	-	-	-	-	-	1,623.280
Less Transfer (<i>\$ in Millions</i>)	279.031	-	-	-	-	-	-	-	-	-	-	279.031
Net Procurement (P-1) (<i>\$ in Millions</i>)	11,542.484	550.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-	12,092.484
Plus Subsequent Year Full Funding (<i>\$ in Millions</i>)	869.394	-	-	-	-	-	-	-	-	-	-	869.394
Plus Prior Year FF (<i>\$ in Millions</i>)	1,000.000	-	-	-	-	-	-	-	-	-	-	1,000.000
Full Funding TOA (<i>\$ in Millions</i>)	13,411.878	550.000	-	-	-	-	-	-	-	-	-	13,961.878
Plus CY Advance Procurement (<i>\$ in Millions</i>)	1,636.241	-	-	-	-	-	-	-	-	-	-	1,636.241
Plus Cost To Complete (<i>\$ in Millions</i>)	1,944.196	61.352	45.060	-	-	-	-	-	-	-	-	2,050.608
Plus Transfer (<i>\$ in Millions</i>)	279.031	-	-	-	-	-	-	-	-	-	-	279.031
Plus Hurricane (<i>\$ in Millions</i>)	1,623.280	-	-	-	-	-	-	-	-	-	-	1,623.280
Plus Hurricane Supplemental (OF & PD) (<i>\$ in Millions</i>)	25.970	-	-	-	-	-	-	-	-	-	-	25.970
Total Obligation Authority (<i>\$ in Millions</i>)	18,894.626	611.352	45.060	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-	19,551.038
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Plus Outfitting and Post Delivery (<i>\$ in Millions</i>)	854.150	43.636	69.613	30.144	-	30.144	-	10.030	17.419	0.442	43.852	1,069.286
Total (<i>\$ in Millions</i>)	19,774.746	654.988	114.673	30.144	-	30.144	-	10.030	17.419	0.442	43.852	20,646.294
Gross/Weapon System Unit Cost (<i>\$ in Millions</i>)	1,614.369	1,792.976	-	-	-	-	-	-	-	-	-	-
Description: 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.												

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Exhibit P-40, Budget Line Item Justification: FY 2018 Navy				Date: May 2017																													
Appropriation / Budget Activity / Budget Sub Activity: 1611N: Shipbuilding and Conversion, Navy / BA 03: Amphibious Ships / BSA 1: Amphibious Ships				P-1 Line Item Number / Title: 3036 / LPD-17																													
ID Code (A=Service Ready, B=Not Service Ready): A		Program Elements for Code B Items: N/A		Other Related Program Elements: N/A																													
Line Item MDAP/MAIS Code: N/A																																	
Characteristics: - Length Overall 208.5 m 684 ft Beam 31.9 m 105 ft Displacement 25.3 lmt 24.9 klt Draft 7.0 m 23 ft			Systems: Electronics -Mission Systems																														
Production Status: Contract Award Date Jul 2012 Months to Completion a) Award to Delivery 63 months b) Construction Start to Delivery 62 months Delivery Date Oct 2017 Completion Of Fitting Out Mar 2018 Obligation Work Limit Date Feb 2019			LPD 27 Dec 2016 57 months 57 months Sep 2021 May 2022 Apr 2023																														
Design Schedule Issue Date for TLR Issue Date for TLS Preliminary Design Contract Design Detail Design Request for Proposals Design Agent			<table border="0" style="width: 100%;"> <thead> <tr> <th style="text-align: left;"><u>Start / Issue</u></th> <th style="text-align: left;"><u>Complete / Response</u></th> <th style="text-align: left;"><u>Reissue</u></th> <th style="text-align: left;"><u>Reissue Complete / Response</u></th> </tr> </thead> <tbody> <tr> <td>N/A</td> <td>Sep 1988</td> <td></td> <td></td> </tr> <tr> <td>N/A</td> <td>N/A</td> <td></td> <td></td> </tr> <tr> <td>Jan 1993</td> <td>Nov 1993</td> <td></td> <td></td> </tr> <tr> <td>Dec 1993</td> <td>Mar 1996</td> <td></td> <td></td> </tr> <tr> <td>Dec 1996</td> <td>Jul 2002</td> <td></td> <td></td> </tr> <tr> <td>N/A</td> <td>N/A</td> <td></td> <td></td> </tr> </tbody> </table>			<u>Start / Issue</u>	<u>Complete / Response</u>	<u>Reissue</u>	<u>Reissue Complete / Response</u>	N/A	Sep 1988			N/A	N/A			Jan 1993	Nov 1993			Dec 1993	Mar 1996			Dec 1996	Jul 2002			N/A	N/A		
<u>Start / Issue</u>	<u>Complete / Response</u>	<u>Reissue</u>	<u>Reissue Complete / Response</u>																														
N/A	Sep 1988																																
N/A	N/A																																
Jan 1993	Nov 1993																																
Dec 1993	Mar 1996																																
Dec 1996	Jul 2002																																
N/A	N/A																																
Classification of Cost Estimate: CLASS C																																	

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Exhibit P-5c, Ship Cost Analysis: FY 2018 Navy		Date: May 2017		
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 03 / 1		P-1 Line Item Number / Title: 3036 / LPD-17		
Cost Categories <small>(†) indicates the presence of a P-8a</small>	FY 2012		FY 2016	
	Qty <small>(Each)</small>	Total Cost <small>(\$ M)</small>	Qty <small>(Each)</small>	Total Cost <small>(\$ M)</small>
Basic Construction/Conversion		1,616.613		1,473.276
Change Orders		36.721		35.000
Electronics ^(†)		283.740		200.885
Hull, Mechanical, and Electrical (HM&E) ^(†)		62.241		15.826
Ordnance ^(†)		70.852		62.013
Other Cost		9.020		5.976
Total Ship Estimate		2,079.187		1,792.976
Less Advance Procurement FY 2010		183.986		-
Less Advance Procurement FY 2013		-		242.976
Less Cost to Complete FY 2016		38.733		-
Less Cost to Complete FY 2017		45.060		-
Less Prior Year Full Funding FY 2015		-		1,000.000
Net P-1 Funding		1,811.408		550.000

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Exhibit P-27, Ship Production Schedule: FY 2018 Navy					Date: May 2017
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 03 / 1			P-1 Line Item Number / Title: 3036 / LPD-17		
Ship	Shipbuilder	Fiscal Year	Contract Award	Start of Construction	Delivery Date
LPD 27	HUNTINGTON INGALLS INDUSTRIES	2012	Jul 2012	Aug 2012	Oct 2017
LPD 28	HUNTINGTON INGALLS INDUSTRIES	2016	Dec 2016	Dec 2016	Sep 2021

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Exhibit P-8a, Analysis of Ship Cost Estimates: FY 2018 Navy			Date: May 2017	
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 03 / 1		P-1 Line Item Number / Title: 3036 / LPD-17		
Electronics	FY 2012		FY 2016	
	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
P-35 Items				
Mission Systems	1	73.194	1	45.617
C4ISR	1	72.148	1	63.010
Ship Self Defense System (SSDS)	1	14.073	1	12.228
Cooperative Engagement Capability (CEC)	1	5.345	1	4.231
Interrogator System (IFF)	1	6.698	1	6.370
Surface Electronic Warfare Improvement Program (SEWIP)	1	5.520	1	13.612
P-35 Items Subtotal		176.978		145.068
Major Items				
Battle Force Tactical Training (BFTT)		4.005		-
AN/WSN-7(RLGN)		4.275		2.922
Nulka Decoy Launching System (DLS)		2.207		2.875
AADS		3.589		1.434
Torpedo Countermeasures Transmitting Set (Nixie)		1.285		1.191
RADIAC		0.085		0.077
AN/SPQ-14 (ASDS)		1.580		1.256
AN/UQN-4		0.220		-
DCAMS		0.328		0.180
DHYSL		0.546		0.450
Major Items Subtotal		18.120		10.385
Other Cost Elements				
Miscellaneous Electronics		88.642		42.119
IWS CSI		-		3.313
Other Cost Elements Subtotal		88.642		45.432
Total Electronics		283.740		200.885

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Exhibit P-8a, Analysis of Ship Cost Estimates: FY 2018 Navy			Date: May 2017	
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 03 / 1		P-1 Line Item Number / Title: 3036 / LPD-17		
Hull, Mechanical, and Electrical (HM&E)	FY 2012		FY 2016	
	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Major Items				
Boats		1.231		0.514
CCTV, Site 400		0.559		-
Circuit 27		0.774		-
Truck, Forklift		1.383		1.596
Chemical Warfare Detector		0.158		0.248
Military Payroll System		0.683		0.552
NSIPS		0.125		-
Integrated Condition Assessment System (ICAS)		0.421		0.208
Oily Water Separator		0.861		0.273
Plastic Waste Processing EQP		0.341		0.435
AC Plant		3.405		-
Major Items Subtotal		9.941		3.826
Other Cost Elements				
Miscellaneous HM&E		52.300		12.000
Other Cost Elements Subtotal		52.300		12.000
Total Hull, Mechanical, and Electrical (HM&E)		62.241		15.826

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Exhibit P-8a, Analysis of Ship Cost Estimates: FY 2018 Navy			Date: May 2017	
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 03 / 1		P-1 Line Item Number / Title: 3036 / LPD-17		
Ordnance	FY 2012		FY 2016	
	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
P-35 Items				
RAM BLOCK 2		17.642		23.328
MK 46 GUN		6.329		8.530
AN/SPS-48G (REFURB)		13.240		15.097
AN/SPQ-9B Radar Set		7.108		10.170
P-35 Items Subtotal		44.319		57.125
Major Items				
50 CAL MACHINE GUN		0.078		0.021
ASGSI/HOSS/MWS Fit Control & Inst Land Sys		2.897		3.440
MK-46 Gun Barrels		0.946		-
ORDNANCE HANDLING EQUIPMENT		0.495		0.427
AN/SPS-73				
Major Items Subtotal		4.416		3.888
Other Cost Elements				
MISCELLANEOUS ORDNANCE		22.117		1.000
Other Cost Elements Subtotal		22.117		1.000
Total Ordnance		70.852		62.013

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Exhibit P-35, Major Ship Component Fact Sheet: FY 2018 Navy						Date: May 2017	
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 03 / 1				P-1 Line Item Number / Title: 3036 / LPD-17			
Equipment Item: Mission Systems						PARM Code: PMS 317	
P-35 Category	FY 2012		FY 2016				
	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)			
Major Hardware	1	71.484	1	43.790			
Other Appropriate Costs		1.710		1.827			
Total	1	73.194	1	45.617			
Description: Mission Systems is a microcomputer-based integration of shipboard control electronics; Engineering Control System (ECS), Ship Control System (SCS), HM&E Network, Navigation Data Distribution System (NDDS), Interior Voice Network (IVN), and various distributed Sensors. Mission systems and associated integration will be provided by a combination of CFE and Government supplied material and services.							
Contract Data:							
Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity (Each)	Unit Cost (\$ M)
FY 2012	LPD 27	Raytheon	SS/FFP	May 2012	Option	1	71.484
FY 2016	LPD 28	Various	SS/FFP	Aug 2016	Option	1	43.790
Delivery Date:							
Program Year	Hull	Earliest Ship Delivery Date	Months Required Before Delivery	Production Leadtime	Required Award Date		
FY 2012	LPD 27	Oct 2017	37	24	Sep 2012		
FY 2016	LPD 28	Sep 2021	37	24	Aug 2016		
Competition/Second Source Initiatives: N/A							

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Exhibit P-35, Major Ship Component Fact Sheet: FY 2018 Navy						Date: May 2017	
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 03 / 1				P-1 Line Item Number / Title: 3036 / LPD-17			
Equipment Item: C4ISR						PARM Code: PMS 317	
P-35 Category	FY 2012		FY 2016				
	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)			
Major Hardware	1	43.051	1	33.791			
Spares		0.626		0.356			
Technical Engineering Services		3.912		5.996			
Ancillary Equipment		0.128		0.060			
Documentation and Systems Engineering		3.421		0.093			
Other Appropriate Costs		5.646		6.589			
Turnkey		15.364		16.125			
Total	1	72.148	1	63.010			
Description: To provide the link between the ship, the command hierarchy, and other units of the operating forces.							
Contract Data:							
Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity (Each)	Unit Cost (\$ M)
FY 2012	LPD 27	Various	Various	Dec 2012	Various	1	43.051
FY 2016	LPD 28	Various	Various	Mar 2016	Various	1	33.791
Delivery Date:							
Program Year	Hull	Earliest Ship Delivery Date	Months Required Before Delivery	Production Leadtime	Required Award Date		
FY 2012	LPD 27	Oct 2017	9	9	Apr 2016		
FY 2016	LPD 28	Sep 2021	16	16	Jan 2019		
Competition/Second Source Initiatives: N/A							

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Exhibit P-35, Major Ship Component Fact Sheet: FY 2018 Navy						Date: May 2017	
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 03 / 1				P-1 Line Item Number / Title: 3036 / LPD-17			
Equipment Item: Ship Self Defense System (SSDS)						PARM Code: PMS 317	
P-35 Category	FY 2012		FY 2016				
	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)			
Major Hardware	1	9.296	1	9.397			
Spares		0.381		0.122			
Technical Engineering Services		0.343		0.298			
Other Appropriate Costs		2.601		2.068			
Documentation and Systems Engineering		1.452		0.343			
Total	1	14.073	1	12.228			
Description: 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.							
Contract Data:							
Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity (Each)	Unit Cost (\$ M)
FY 2012	LPD 27	Raytheon	SS/CPFF	Jan 2010	Option	1	9.296
FY 2016	LPD 28	Raytheon	C/BA	Jan 2017	New	1	9.397
Delivery Date:							
Program Year	Hull	Earliest Ship Delivery Date	Months Required Before Delivery	Production Leadtime	Required Award Date		
FY 2012	LPD 27	Oct 2017	17	13	Apr 2015		
FY 2016	LPD 28	Sep 2021	17	13	Mar 2019		
Competition/Second Source Initiatives: N/A							

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Exhibit P-35, Major Ship Component Fact Sheet: FY 2018 Navy						Date: May 2017	
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 03 / 1				P-1 Line Item Number / Title: 3036 / LPD-17			
Equipment Item: Cooperative Engagement Capability (CEC)						PARM Code: PMS 317	
P-35 Category	FY 2012		FY 2016				
	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)			
Major Hardware	1	4.934	1	3.793			
Technical Engineering Services		0.265		0.259			
Documentation and Systems Engineering		0.097		0.111			
Other Appropriate Costs		0.049		0.068			
Total	1	5.345	1	4.231			
Description: Cooperative Engagement Capability (CEC) coordinates all anti-warfare sensors into single, real time, fire control quality composite track which improves battle force air defense.							
Contract Data:							
Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity (Each)	Unit Cost (\$ M)
FY 2012	LPD 27	Raytheon	SS/FFP	Various	Various	1	4.934
FY 2016	LPD 28	Raytheon	SS/FFP	Various	Various	1	3.793
Delivery Date:							
Program Year	Hull	Earliest Ship Delivery Date	Months Required Before Delivery	Production Leadtime	Required Award Date		
FY 2012	LPD 27	Oct 2017	24	18	Apr 2014		
FY 2016	LPD 28	Sep 2021	24	18	Mar 2018		
Competition/Second Source Initiatives: N/A							

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Exhibit P-35, Major Ship Component Fact Sheet: FY 2018 Navy						Date: May 2017	
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 03 / 1				P-1 Line Item Number / Title: 3036 / LPD-17			
Equipment Item: Interrogator System (IFF)						PARM Code: PMS 317	
P-35 Category	FY 2012		FY 2016				
	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)			
Major Hardware	1	4.886	1	4.093			
Spares		0.064		0.073			
Technical Engineering Services		0.433		0.596			
Other Appropriate Costs		0.549		0.681			
Documentation and Systems Engineering		0.766		0.927			
Total	1	6.698	1	6.370			
Description: 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.							
Contract Data:							
Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity (Each)	Unit Cost (\$ M)
FY 2012	LPD 27	BAE and NG	C/FFP	Various	New	1	4.886
FY 2016	LPD 28	TBD	TBD	Various	New	1	4.093
Delivery Date:							
Program Year	Hull	Earliest Ship Delivery Date	Months Required Before Delivery	Production Leadtime	Required Award Date		
FY 2012	LPD 27	Oct 2017	6	30	Oct 2014		
FY 2016	LPD 28	Sep 2021	6	30	Sep 2018		
Competition/Second Source Initiatives: N/A							

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Exhibit P-35, Major Ship Component Fact Sheet: FY 2018 Navy						Date: May 2017	
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 03 / 1				P-1 Line Item Number / Title: 3036 / LPD-17			
Equipment Item: Surface Electronic Warfare Improvement Program (SEWIP)						PARM Code: PMS 317	
P-35 Category	FY 2012		FY 2016				
	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)			
Major Hardware	1	4.772	1	12.920			
Spares		0.143		0.142			
Technical Engineering Services		0.071		0.057			
Other Appropriate Costs		0.477		0.486			
Documentation and Systems Engineering		0.057		0.007			
Total	1	5.520	1	13.612			
Description: The AN/SLQ-32(V)6 (SEWIP) is a shipboard system that provides a full suite of Electronic Warfare capabilities designed to protect against anti-cruise ship missile threats. Hardware increase on LPD 28 due to procuring a full SEWIP Block II system versus a refurbished SEWIP system used on LPD 27, now obsolete and unavailable for refurbishment.							
Contract Data:							
Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity (Each)	Unit Cost (\$ M)
FY 2012	LPD 27	Raytheon	SS/BOA	TBD		1	4.772
FY 2016	LPD 28	TBD	TBD	TBD		1	12.920
Delivery Date:							
Program Year	Hull	Earliest Ship Delivery Date	Months Required Before Delivery	Production Leadtime	Required Award Date		
FY 2012	LPD 27	Oct 2017	18	24	Apr 2014		
FY 2016	LPD 28	Sep 2021	24	24	Sep 2017		
Competition/Second Source Initiatives: N/A							

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Exhibit P-35, Major Ship Component Fact Sheet: FY 2018 Navy	Date: May 2017
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Appropriation / Budget Activity / Budget Sub Activity: 1611N / 03 / 1	P-1 Line Item Number / Title: 3036 / LPD-17
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Equipment Item: RAM BLOCK 2	PARM Code: PMS 317
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P-35 Category	FY 2012		FY 2016	
	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Major Hardware	2	13.038	2	22.153
Spares		0.129		0.141
Technical Engineering Services		-		0.071
Other Costs		2.999		0.503
Documentation and Systems Engineering		1.476		0.460
Total	2	17.642	2	23.328

Description:

The Rolling Airframe Missile (RAM) Block 2 system is a short-range, fast-reaction, high-firepower, lightweight weapon designed to destroy incoming anti-ship cruise missiles. Hardware increase on LPD 28 due to procuring a new RAM II launcher versus LPD 27 which used a refurbished RAM II launcher.

Contract Data:

Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity (Each)	Unit Cost (\$ M)
FY 2012	LPD 27	Raytheon	SS/FFP	Dec 2016	Option	2	6.519
FY 2016	LPD 28	TBD	TBD	TBD		2	11.077

Delivery Date:

Program Year	Hull	Earliest Ship Delivery Date	Months Required Before Delivery	Production Leadtime	Required Award Date
FY 2012	LPD 27	Oct 2017	22	24	Dec 2013
FY 2016	LPD 28	Sep 2021	22	24	Nov 2017

Competition/Second Source Initiatives:

N/A

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Exhibit P-35, Major Ship Component Fact Sheet: FY 2018 Navy						Date: May 2017																									
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 03 / 1				P-1 Line Item Number / Title: 3036 / LPD-17																											
Equipment Item: MK 46 GUN						PARM Code: PMS 317																									
P-35 Category	FY 2012		FY 2016																												
	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)																											
Major Hardware	2	6.329	2	8.385																											
Technical Engineering Services		-		0.145																											
Total	2	6.329	2	8.530																											
Description: 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.																															
Contract Data: <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 5px;"> <tr> <th style="text-align: center;">Program Year</th> <th style="text-align: center;">Hull</th> <th style="text-align: center;">Prime Contractor</th> <th style="text-align: center;">Contract Method/Type</th> <th style="text-align: center;">Award Date</th> <th style="text-align: center;">New/Option</th> <th style="text-align: center;">Quantity (Each)</th> <th style="text-align: center;">Unit Cost (\$ M)</th> </tr> <tr> <td style="text-align: center;">FY 2012</td> <td style="text-align: center;">LPD 27</td> <td style="text-align: center;">General Dynamics</td> <td style="text-align: center;">C/FFP</td> <td style="text-align: center;">Mar 2013</td> <td style="text-align: center;">Option</td> <td style="text-align: center;">2</td> <td style="text-align: center;">3.165</td> </tr> <tr> <td style="text-align: center;">FY 2016</td> <td style="text-align: center;">LPD 28</td> <td style="text-align: center;">General Dynamics</td> <td style="text-align: center;">C/FFP</td> <td style="text-align: center;">Mar 2016</td> <td style="text-align: center;">Option</td> <td style="text-align: center;">2</td> <td style="text-align: center;">4.193</td> </tr> </table>								Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity (Each)	Unit Cost (\$ M)	FY 2012	LPD 27	General Dynamics	C/FFP	Mar 2013	Option	2	3.165	FY 2016	LPD 28	General Dynamics	C/FFP	Mar 2016	Option	2	4.193
Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity (Each)	Unit Cost (\$ M)																								
FY 2012	LPD 27	General Dynamics	C/FFP	Mar 2013	Option	2	3.165																								
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FY 2016	LPD 28	Sep 2021	24	18	Mar 2018																										
Competition/Second Source Initiatives: N/A																															

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Exhibit P-35, Major Ship Component Fact Sheet: FY 2018 Navy						Date: May 2017	
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 03 / 1				P-1 Line Item Number / Title: 3036 / LPD-17			
Equipment Item: AN/SPS-48G (REFURB)						PARM Code: PMS 317	
P-35 Category	FY 2012		FY 2016				
	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)			
Major Hardware	1	11.465	1	13.799			
Spares		0.350		0.608			
Technical Engineering Services		0.209		0.182			
Other Costs		0.377		0.387			
Documentation and Systems Engineering		0.839		0.121			
Total	1	13.240	1	15.097			
Description: The AN/SPS-48G is a long-range, three dimensional, air-search radar system that provides contact range, bearing, and height information.							
Contract Data:							
Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity (Each)	Unit Cost (\$ M)
FY 2012	LPD 27	ITT/G	Various	TBD		1	11.465
FY 2016	LPD 28	TBD	TBD	TBD		1	13.799
Delivery Date:							
Program Year	Hull	Earliest Ship Delivery Date	Months Required Before Delivery	Production Leadtime	Required Award Date		
FY 2012	LPD 27	Oct 2017	18	27	Jan 2014		
FY 2016	LPD 28	Sep 2021	18	27	Dec 2017		
Competition/Second Source Initiatives: N/A							

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Exhibit P-35, Major Ship Component Fact Sheet: FY 2018 Navy						Date: May 2017																									
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 03 / 1				P-1 Line Item Number / Title: 3036 / LPD-17																											
Equipment Item: AN/SPQ-9B Radar Set						PARM Code: PMS 317																									
P-35 Category	FY 2012		FY 2016																												
	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)																											
Major Hardware	1	5.965	1	9.486																											
Spares		0.116		0.127																											
Technical Engineering Services		0.332		0.209																											
Other Costs		0.434		0.299																											
Documentation and Systems Engineering		0.261		0.049																											
Total	1	7.108	1	10.170																											
Description: The AN/SPQ-9B is a high resolution, X-band, narrow beam radar that provides both air and surface tracking information.																															
Contract Data: <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 5px;"> <tr> <th style="text-align: center;">Program Year</th> <th style="text-align: center;">Hull</th> <th style="text-align: center;">Prime Contractor</th> <th style="text-align: center;">Contract Method/Type</th> <th style="text-align: center;">Award Date</th> <th style="text-align: center;">New/Option</th> <th style="text-align: center;">Quantity (Each)</th> <th style="text-align: center;">Unit Cost (\$ M)</th> </tr> <tr> <td style="text-align: center;">FY 2012</td> <td style="text-align: center;">LPD 27</td> <td style="text-align: center;">Northrop Grumman</td> <td style="text-align: center;">C/FFP</td> <td style="text-align: center;">TBD</td> <td></td> <td style="text-align: center;">1</td> <td style="text-align: right;">5.965</td> </tr> <tr> <td style="text-align: center;">FY 2016</td> <td style="text-align: center;">LPD 28</td> <td style="text-align: center;">TBD</td> <td style="text-align: center;">TBD</td> <td style="text-align: center;">TBD</td> <td></td> <td style="text-align: center;">1</td> <td style="text-align: right;">9.486</td> </tr> </table>								Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity (Each)	Unit Cost (\$ M)	FY 2012	LPD 27	Northrop Grumman	C/FFP	TBD		1	5.965	FY 2016	LPD 28	TBD	TBD	TBD		1	9.486
Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity (Each)	Unit Cost (\$ M)																								
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Competition/Second Source Initiatives: N/A																															

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Exhibit P-40, Budget Line Item Justification: FY 2018 Navy										Date: May 2017		
Appropriation / Budget Activity / Budget Sub Activity: 1611N: Shipbuilding and Conversion, Navy / BA 03: Amphibious Ships / BSA 1: Amphibious Ships							P-1 Line Item Number / Title: 3039 / Expeditionary Sea Base (ESB)					
ID Code (A=Service Ready, B=Not Service Ready): A			Program Elements for Code B Items: N/A				Other Related Program Elements: N/A					
Line Item MDAP/MAIS Code: N/A												
Resource Summary	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	4	1	-	-	-	-	-	-	-	-	-	5
Gross/Weapon System Cost (<i>\$ in Millions</i>)	2,164.500	635.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-	2,799.500
Less PY Advance Procurement (<i>\$ in Millions</i>)	179.700	-	-	-	-	-	-	-	-	-	-	179.700
Less Cost To Complete (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	0.000
Less Subsequent Year Full Funding (<i>\$ in Millions</i>)	162.900	-	-	-	-	-	-	-	-	-	-	162.900
Net Procurement (P-1) (<i>\$ in Millions</i>)	1,821.900	635.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-	2,456.900
Plus Subsequent Year Full Funding (<i>\$ in Millions</i>)	162.900	-	-	-	-	-	-	-	-	-	-	162.900
Full Funding TOA (<i>\$ in Millions</i>)	1,984.800	635.000	-	-	-	-	-	-	-	-	-	2,619.800
Plus CY Advance Procurement (<i>\$ in Millions</i>)	179.700	-	-	-	-	-	-	-	-	-	-	179.700
Plus Cost To Complete (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	0.000
Total Obligation Authority (<i>\$ in Millions</i>)	2,164.500	635.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-	2,799.500
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Plus Outfitting and Post Delivery (<i>\$ in Millions</i>)	71.500	3.015	18.030	12.350	-	12.350	21.668	11.958	-	-	-	138.521
Total (<i>\$ in Millions</i>)	2,236.000	638.015	18.030	12.350	-	12.350	21.668	11.958	-	-	-	2,938.021
Gross/Weapon System Unit Cost (<i>\$ in Millions</i>)	541.125	635.000	-	-	-	-	-	-	-	-	-	559.900

Description:

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

Note:

1) The amounts in the Prior Year Column includes the NDSF MPF,F MLP BLI 00401 Procurement Costs for Expeditionary Transport Dock (ESD) 1, ESD 2, and ESB 3 as well as SCN BLI 3039 for the ESB 4.

2) The Outfitting and Post Delivery amounts in the Prior Year and FY 2015 through FY 2016 columns represent NDSF BLI 5000 for ESD 1, ESD 2, and ESB 3.

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Exhibit P-40, Budget Line Item Justification: FY 2018 Navy			Date: May 2017																																																																																																																									
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Exhibit P-5c, Ship Cost Analysis: FY 2018 Navy			Date: May 2017	
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 03 / 1		P-1 Line Item Number / Title: 3039 / Expeditionary Sea Base (ESB)		
Cost Categories <small>(†) indicates the presence of a P-8a</small>	FY 2014		FY 2016	
	Qty <small>(Each)</small>	Total Cost <small>(\$ M)</small>	Qty <small>(Each)</small>	Total Cost <small>(\$ M)</small>
Plan Costs	1		1	
Basic Construction/Conversion		558.717		547.908
Change Orders		5.000		5.517
Electronics (†)		24.000		65.550
Hull, Mechanical, and Electrical (HM&E)		12.583		12.260
Other Cost		3.000		3.765
Total Ship Estimate		603.300		635.000
Net P-1 Funding		603.300		635.000
Remarks: 1. Ship cost increase between FY2014 and FY2016 is to account for SOF requirements being backfitted (using other appropriations) on ESB 4 but included in SCN for ESB 5.				

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LI 3039 - Expeditionary Sea Base (ESB)
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Exhibit P-8a, Analysis of Ship Cost Estimates: FY 2018 Navy			Date: May 2017	
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 03 / 1		P-1 Line Item Number / Title: 3039 / Expeditionary Sea Base (ESB)		
Electronics	FY 2014		FY 2016	
	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
P-35 Items				
C4ISR	1	21.000	1	27.000
AVIATION ELECTRONICS	1	3.000	1	38.550
P-35 Items Subtotal		24.000		65.550
Total Electronics		24.000		65.550
Remarks: Electronics cost Increase between FY2014 to FY2016 is to account for SOF requirements being backfitted (using other appropriations) on ESB 4 but included in SCN for ESB 5.)				

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Exhibit P-35, Major Ship Component Fact Sheet: FY 2018 Navy						Date: May 2017	
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 03 / 1				P-1 Line Item Number / Title: 3039 / Expeditionary Sea Base (ESB)			
Equipment Item: C4ISR						PARM Code: N/A	
P-35 Category	FY 2014		FY 2016				
	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)			
Major Hardware	1	12.390	1	16.135			
Spares		1.470		1.855			
System Engineering		4.410		5.565			
Technical Engineering Services		0.840		1.060			
Other Costs		1.890		2.385			
Total	1	21.000	1	27.000			

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

Contract Data:

Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity (Each)	Unit Cost (\$ M)
FY 2014	ESB 4	Booz, Allen and Hamilton (BAH)	C/FFP	Aug 2015	Option	1	12.390
FY 2016	ESB 5	Booz, Allen and Hamilton (BAH)	C/FFP	Oct 2016	Option	1	16.135

Delivery Date:

Program Year	Hull	Earliest Ship Delivery Date	Months Required Before Delivery	Production Leadtime	Required Award Date
FY 2014	ESB 4	Mar 2018	19	12	Aug 2015
FY 2016	ESB 5	May 2019	19	12	Oct 2016

Competition/Second Source Initiatives:
N/A

Remarks:
 1) BAH is prime contractor with several other contractors. NSWCC Panama City is the coordinating activity for the C4ISR system.
 2) C4ISR: Cost for the ESB 5 includes the procurement, installation and testing of additional radios and antennas, satellite communication terminals, and network capabilities in support of the Special Operations Forces (SOF) capability. C4ISR cost increase between FY2104 to FY2016 is to account for SOF requirements being backfitted (using other appropriations) on ESB 4 but included in SCN for ESB 5.

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Exhibit P-35, Major Ship Component Fact Sheet: FY 2018 Navy						Date: May 2017																									
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 03 / 1				P-1 Line Item Number / Title: 3039 / Expeditionary Sea Base (ESB)																											
Equipment Item: AVIATION ELECTRONICS						PARM Code: N/A																									
P-35 Category	FY 2014		FY 2016																												
	Qty <i>(Each)</i>	Total Cost <i>(\$ M)</i>	Qty <i>(Each)</i>	Total Cost <i>(\$ M)</i>																											
Major Hardware	1	1.018	1	30.292																											
Spares		0.036		0.150																											
System Engineering		0.109		0.454																											
Technical Engineering Services		0.861		3.587																											
Technical Data		0.028		0.116																											
Other Costs		0.948		3.951																											
Total	1	3.000	1	38.550																											
Description: Consists of a Moriah wind measuring system to support helicopter operations, a Tactical Air Navigation System (TACAN) to provide a navigation beacon for aircraft, Advanced Stabilized Glide Slope Indicator (ASGSI) and Visual Landing Aids (VLA).																															
Contract Data: <table border="1" style="width:100%; border-collapse: collapse; margin-top: 5px;"> <tr> <th style="width:10%;">Program Year</th> <th style="width:10%;">Hull</th> <th style="width:25%;">Prime Contractor</th> <th style="width:15%;">Contract Method/Type</th> <th style="width:10%;">Award Date</th> <th style="width:10%;">New/Option</th> <th style="width:10%;">Quantity <i>(Each)</i></th> <th style="width:10%;">Unit Cost <i>(\$ M)</i></th> </tr> <tr> <td>FY 2014</td> <td>ESB 4</td> <td>Various</td> <td>Various</td> <td>Aug 2015</td> <td>Option</td> <td align="center">1</td> <td align="right">3.000</td> </tr> <tr> <td>FY 2016</td> <td>ESB 5</td> <td>Various</td> <td>Various</td> <td>Aug 2017</td> <td>Option</td> <td align="center">1</td> <td align="right">30.292</td> </tr> </table>								Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity <i>(Each)</i>	Unit Cost <i>(\$ M)</i>	FY 2014	ESB 4	Various	Various	Aug 2015	Option	1	3.000	FY 2016	ESB 5	Various	Various	Aug 2017	Option	1	30.292
Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity <i>(Each)</i>	Unit Cost <i>(\$ M)</i>																								
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FY 2016	ESB 5	May 2019	17	14	Oct 2016																										
Competition/Second Source Initiatives: N/A																															
Remarks: 1) AVIATION ELECTRONICS: Aviation navigation and landing system electronics. 2) Contract Data and Delivery Date information are estimated and provided based on planned execution. 3) Cost for the ESB 5 includes the procurement, installation and test infrastructure of antennas and control systems for the Air Search Radar, Small Tactical Unmanned Aerial System (STUAS), MQ-8C Ground Control Station (GCS) and Fire Scout UAV system in support of the Special Operations Forces (SOF) capability. Aviation Electronics cost increase between FY2014 to FY2016 is to account for SOF requirements being backfitted (using other appropriatons) on ESB 4 but included in SCN for ESB 5. 4) Aviation Electronics cost increase for ESB 5 from PB17 to PB18 is not a net cost increase, but instead reflects a realignment from Basic Construction to Electronics. The reason for this change is to shift the cost of procuring the Air Search Radar, Small Tactical Unmanned Aerial System (STUAS) GCS, and the MQ-8C Ground Control Station (GCS) from Contractor Furnished Equipment(CFE) to Government Furnished Equipment(GFE).																															

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Exhibit P-40, Budget Line Item Justification: FY 2018 Navy										Date: May 2017		
Appropriation / Budget Activity / Budget Sub Activity: 1611N: Shipbuilding and Conversion, Navy / BA 03: Amphibious Ships / BSA 1: Amphibious Ships							P-1 Line Item Number / Title: 3041 / LHA Replacement					
ID Code (A=Service Ready, B=Not Service Ready): A			Program Elements for Code B Items: N/A				Other Related Program Elements: 0604567N					
Line Item MDAP/MAIS Code: 333												
Resource Summary	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	2	-	1	-	-	-	-	-	-	-	-	3
Gross/Weapon System Cost (<i>\$ in Millions</i>)	6,430.910	0.000	3,839.587	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-	10,270.497
Less PY Advance Procurement (<i>\$ in Millions</i>)	641.841	-	505.636	-	-	-	-	-	-	-	-	1,147.477
Less Cost To Complete (<i>\$ in Millions</i>)	222.688	-	-	-	-	-	-	-	-	-	-	222.688
Less Subsequent Year Full Funding (<i>\$ in Millions</i>)	3,294.477	-	1,710.927	-	-	-	-	-	-	-	-	5,005.404
Less Hurricane (<i>\$ in Millions</i>)	202.000	-	-	-	-	-	-	-	-	-	-	202.000
Net Procurement (P-1) (<i>\$ in Millions</i>)	2,069.904	0.000	1,623.024	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-	3,692.928
Plus Subsequent Year Full Funding (<i>\$ in Millions</i>)	3,294.477	-	-	1,710.927	-	1,710.927	-	-	-	-	-	5,005.404
Full Funding TOA (<i>\$ in Millions</i>)	5,364.381	-	1,623.024	1,710.927	-	1,710.927	-	-	-	-	-	8,698.332
Plus CY Advance Procurement (<i>\$ in Millions</i>)	670.934	476.543	-	-	-	-	-	-	-	-	-	1,147.477
Plus Cost To Complete (<i>\$ in Millions</i>)	208.488	-	-	14.200	-	14.200	-	-	-	-	-	222.688
Plus Hurricane (<i>\$ in Millions</i>)	202.000	-	-	-	-	-	-	-	-	-	-	202.000
Total Obligation Authority (<i>\$ in Millions</i>)	6,445.803	476.543	1,623.024	1,725.127	0.000	1,725.127	0.000	0.000	0.000	0.000	-	10,270.497
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Plus Outfitting and Post Delivery (<i>\$ in Millions</i>)	95.580	12.627	15.731	14.969	-	14.969	34.053	21.080	-	-	-	194.040
Total (<i>\$ in Millions</i>)	6,541.383	489.170	1,638.755	1,740.096	-	1,740.096	34.053	21.080	-	-	-	10,464.537
Gross/Weapon System Unit Cost (<i>\$ in Millions</i>)	3,215.455	-	3,839.587	-	-	-	-	-	-	-	-	3,423.499

Description:

The LHA(R) Program replaces the Tarawa Class (LHA 1) General Purpose Amphibious Assault Class Ships. The Tarawa Class Ships are reaching the end of their extended service lives. The LHA(R) class program ensures 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. Provides forward presence and power projection as an integral part of joint, interagency, and multinational maritime expeditionary forces. Operates 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 and supporting forces by helicopters and tilt rotors supported by Joint Strike Fighters F-35B.

LHA(R) Flight 0 is considered a transitional increment intended to increase the aviation capabilities of amphibious assault ships. The LHA (R) Flight 1 design continues the incremental development of amphibious assault ships by adding a well deck, and increasing flight deck capacity by reducing the footprint of the island and adding a sponson. LHA(R) Flight 0 consisted of two ships, LHA 6 and LHA 7. LHA(R) Flight 1 is the second increment in the LHA 6 Class with LHA 8 being the first ship of Flight 1.

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Exhibit P-40, Budget Line Item Justification: FY 2018 Navy			Date: May 2017	
Appropriation / Budget Activity / Budget Sub Activity: 1611N: Shipbuilding and Conversion, Navy / BA 03: Amphibious Ships / BSA 1: Amphibious Ships		P-1 Line Item Number / Title: 3041 / LHA Replacement		
ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A		Other Related Program Elements: 0604567N	
Line Item MDAP/MAIS Code: 333				
<u>Design Schedule</u> Design Agent <u>Classification of Cost Estimate</u> : CLASS C	<u>Start / Issue</u> Huntington Ingalls Inc.	<u>Complete / Response</u>	<u>Reissue</u>	<u>Reissue Complete / Response</u>

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Exhibit P-5c, Ship Cost Analysis: FY 2018 Navy

Date: May 2017

Appropriation / Budget Activity / Budget Sub Activity:
1611N / 03 / 1P-1 Line Item Number / Title:
3041 / LHA Replacement

Cost Categories (^(†) indicates the presence of a P-8a)	FY 2011		FY 2017	
	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Plan Costs	1	60.084	1	329.093
Basic Construction/Conversion		2,513.175		2,770.836
Change Orders		121.628		103.095
Electronics (^(†))		260.786		314.754
Hull, Mechanical, and Electrical (HM&E) (^(†))		56.013		63.184
Ordnance (^(†))		115.562		158.708
Other Cost		98.945		99.917
Total Ship Estimate		3,226.193		3,839.587
Less Advance Procurement FY 2009		176.351		-
Less Advance Procurement FY 2010		169.320		-
Less Advance Procurement FY 2015		-		29.093
Less Advance Procurement FY 2016		-		476.543
Less Subsequent Full Funding FY 2012		1,928.692		-
Less Subsequent Full Funding FY 2018		-		1,710.927
Less Cost to Complete FY 2018		14.200		-
Net P-1 Funding		937.630		1,623.024

Remarks:

PB17 Plans amount for LHA 8 was based on \$300M non-recurring engineering (NRE) estimates included in the DD&C request for proposal. The increase of \$29M from PB17 in LHA 8 plans is to include the FY15 Advance Procurement SCN used for affordability and Systems Engineering efforts.

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Navy

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Exhibit P-8a, Analysis of Ship Cost Estimates: FY 2018 Navy		Date: May 2017	
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 03 / 1		P-1 Line Item Number / Title: 3041 / LHA Replacement	
Electronics	FY 2017		
	Qty (Each)	Total Cost (\$ M)	
P-35 Items			
Command, Control, Communication, Computer Intelligence Surveillance and Reconnaissance (C4ISR)	1	147.479	
MK 2 MOD 4E Ship Self Defense System (SSDS)	1	26.185	
Integrated Voice Network (IVN)	1	16.165	
AN/SLQ-32(V), Surface Warfare Improvement Program (SEWIP)	1	15.513	
AN/SPN-50 (V)1	1	11.145	
Joint Precision Approach and Landing System (JPALS)	1	7.893	
Hierarchical Yet Dynamically Reprogrammable Architecture (HYDRA) AN/SRC-55	1	7.503	
AN/UPX-29(V), Identification Friend or Foe (IFF) MK12	1	6.993	
Ring Laser Gyro Navigator (RLGN) AN/WSN-7	1	6.002	
Amphibious Air Traffic Control Direct Altitude and Identity Readout (AATC-DAIR) AN/TPX-42	1	5.729	
Aircraft Control Approach Central AN/SPN-35C	1	4.548	
Aircraft Approach Control Transmitting Set (AACTS) AN/SPN-41B	1	4.397	
P-35 Items Subtotal		259.552	
Major Items			
AN/USG-2, Cooperative Engagement Transmission Processing Set (CETPS)	1	10.397	
USQ-82, Gigabit Ethernet Data Multiplex System (GEDMS)	1	6.525	
AN/SLQ-25C, Torpedo Countermeasures Transmitting Set (NIXIE)	2	6.211	
AN/USQ-T46(V), Battle Force Tactical Training (BFTT)	1	4.002	
Announcing Systems AN/SIA-127H	1	3.007	
SATCC	1	2.035	
Amphibious Assault Direction System (AADS)	1	1.949	
Digital Photo Lab	1	1.870	
MK 53 NULKA Decoy Launching System (DLS) Mod 3	1	1.725	
Print Shop	1	1.539	
30 TV	1	1.263	
Next Generation Navigational Radar	1	1.173	
Major Items Subtotal		41.696	
Other Cost Elements			
Miscellaneous Electronics		13.506	
Other Cost Elements Subtotal		13.506	
Total Electronics		314.754	

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Exhibit P-8a, Analysis of Ship Cost Estimates: FY 2018 Navy		Date: May 2017
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 03 / 1		P-1 Line Item Number / Title: 3041 / LHA Replacement
<p>Remarks:</p> <p>-SPN-50 is required because EASR and SPN 50 are integrated systems and must operate together (i.e. SPS 48/49 cannot operate with SPN 50; EASR cannot operate with SPN 43C). The SPN-50 system provides aircraft position, radar signal and radar data. Air traffic controllers use the data for aircraft sequencing and separation, airspace identification and containment, safety alerts, traffic advisories and landing guidance.</p> <p>-CETPS: The dual mast configuration for CETPS is required to address SPN-50 electromagnetic interference (EMI) issues. CETPS dual mast antenna configuration allows the ship to maintain 360-degree data link coverage. EMI issues associated with AN/SPN-50 ship integration that can degrade combat systems capability of LHA 8 will be eliminated with the dual mast configuration.</p>		

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LI 3041 - LHA Replacement
Navy

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Exhibit P-8a, Analysis of Ship Cost Estimates: FY 2018 Navy		Date: May 2017	
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 03 / 1		P-1 Line Item Number / Title: 3041 / LHA Replacement	
Ordnance	FY 2017		
	Qty (Each)	Total Cost (\$ M)	
P-35 Items			
Enterprise Air Surveillance Radar (EASR)	1	40.063	
NATO Sea Sparrow Missile System (NSSMS) MK 57 Mod 14	1	32.302	
MK31 Mod 3, Rolling Airframe Missile (RAM) (Tech Refresh)	2	15.743	
PHALANX Block 1B MK15 Mod 21 & 22, Close-in Weapon System (CIWS)	1	14.431	
Vertical/Stationary Take-Off Landing Optical Landing System (VSTOL OLS)	1	13.824	
AN/SPQ-9B Radar Set	1	10.909	
P-35 Items Subtotal		127.272	
Major Items			
MK 38 Mod 2 Stabilized Gun Stand Assembly	3	6.145	
AN/SPQ-14	1	2.537	
MORIAH	1	1.762	
Major Items Subtotal		10.444	
Other Cost Elements			
Aviation Support		7.745	
Miscellaneous Ordnance		2.800	
Total Ship Test Program		10.447	
Other Cost Elements Subtotal		20.992	
Total Ordnance		158.708	
Remarks: -EASR: PB17 amounts were based on SPS-48/49 prices since EASR requirements were yet to be determined. Due to system unavailability and obsolescence issues with the SPS-48/49, the Navy has identified EASR as the future program of record for 3-D volume search radar.			

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Exhibit P-35, Major Ship Component Fact Sheet: FY 2018 Navy						Date: May 2017	
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 03 / 1				P-1 Line Item Number / Title: 3041 / LHA Replacement			
Equipment Item: Command, Control, Communication, Computer Intelligence Surveillance and Reconnaissance (C4ISR)						PARM Code: PEO C4I	
P-35 Category				FY 2017			
				Qty (Each)	Total Cost (\$ M)		
Major Hardware				1	89.070		
Technical Data and Documentation					0.965		
Spares					2.319		
System Engineering					14.809		
Technical Engineering Services					23.962		
Other Costs					16.354		
Total				1	147.479		
Description: The Command, Control, Communication, Computer Intelligence Surveillance and Reconnaissance (C4ISR) system is used to prove the link between the ship, the command hierarchy, and other units of the operating forces.							
Contract Data:							
Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity (Each)	Unit Cost (\$ M)
FY 2017	LHA 8	Various	Various	Various	Various	1	89.070
Delivery Date:							
Program Year	Hull	Earliest Ship Delivery Date	Months Required Before Delivery	Production Leadtime	Required Award Date		
FY 2017	LHA 8	Jan 2024	0		Various		
Competition/Second Source Initiatives: N/A							

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Exhibit P-35, Major Ship Component Fact Sheet: FY 2018 Navy						Date: May 2017	
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 03 / 1				P-1 Line Item Number / Title: 3041 / LHA Replacement			
Equipment Item: MK 2 MOD 4E Ship Self Defense System (SSDS)						PARM Code: PEO IWS1A5	
P-35 Category				FY 2017			
				Qty (Each)	Total Cost (\$ M)		
Major Hardware				1	8.414		
Technical Data and Documentation					1.483		
Spares					0.808		
System Engineering					5.590		
Technical Engineering Services					0.468		
Other Costs					9.422		
Total				1	26.185		
Description: The Ship Self Defense System (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.							
Contract Data:							
Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity (Each)	Unit Cost (\$ M)
FY 2017	LHA 8	Various	C/FFP	Nov 2018	New	1	8.414
Delivery Date:							
Program Year	Hull	Earliest Ship Delivery Date	Months Required Before Delivery	Production Leadtime	Required Award Date		
FY 2017	LHA 8	Jan 2024	38	24	Nov 2018		
Competition/Second Source Initiatives: N/A							

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Exhibit P-35, Major Ship Component Fact Sheet: FY 2018 Navy						Date: May 2017																	
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 03 / 1				P-1 Line Item Number / Title: 3041 / LHA Replacement																			
Equipment Item: Integrated Voice Network (IVN)						PARM Code: SEA05H																	
P-35 Category				FY 2017																			
				Qty (Each)		Total Cost (\$ M)																	
Major Hardware				1		12.650																	
Technical Data and Documentation						0.500																	
System Engineering						0.760																	
Technical Engineering Services						1.570																	
Other Costs						0.685																	
Total				1		16.165																	
Description: The Integrated Voice Communications Network (IVCN) is an overarching engineering approach to establish consistent engineering practices and integrated voice communication capabilities across the Fleet. IVN is a fully integrated, supportable communication voice solution.																							
Contract Data: <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 5px;"> <tr> <th style="width: 10%;">Program Year</th> <th style="width: 10%;">Hull</th> <th style="width: 25%;">Prime Contractor</th> <th style="width: 15%;">Contract Method/Type</th> <th style="width: 10%;">Award Date</th> <th style="width: 10%;">New/Option</th> <th style="width: 10%;">Quantity (Each)</th> <th style="width: 10%;">Unit Cost (\$ M)</th> </tr> <tr> <td>FY 2017</td> <td>LHA 8</td> <td>Various</td> <td>C/FFP</td> <td>Jan 2019</td> <td>New</td> <td style="text-align: center;">1</td> <td style="text-align: right;">12.650</td> </tr> </table>								Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity (Each)	Unit Cost (\$ M)	FY 2017	LHA 8	Various	C/FFP	Jan 2019	New	1	12.650
Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity (Each)	Unit Cost (\$ M)																
FY 2017	LHA 8	Various	C/FFP	Jan 2019	New	1	12.650																
Delivery Date: <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 5px;"> <tr> <th style="width: 10%;">Program Year</th> <th style="width: 10%;">Hull</th> <th style="width: 15%;">Earliest Ship Delivery Date</th> <th style="width: 15%;">Months Required Before Delivery</th> <th style="width: 15%;">Production Leadtime</th> <th style="width: 15%;">Required Award Date</th> </tr> <tr> <td>FY 2017</td> <td>LHA 8</td> <td style="text-align: center;">Jan 2024</td> <td style="text-align: center;">54</td> <td style="text-align: center;">6</td> <td style="text-align: center;">Jan 2019</td> </tr> </table>								Program Year	Hull	Earliest Ship Delivery Date	Months Required Before Delivery	Production Leadtime	Required Award Date	FY 2017	LHA 8	Jan 2024	54	6	Jan 2019				
Program Year	Hull	Earliest Ship Delivery Date	Months Required Before Delivery	Production Leadtime	Required Award Date																		
FY 2017	LHA 8	Jan 2024	54	6	Jan 2019																		
Competition/Second Source Initiatives: N/A																							

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Exhibit P-35, Major Ship Component Fact Sheet: FY 2018 Navy						Date: May 2017	
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 03 / 1				P-1 Line Item Number / Title: 3041 / LHA Replacement			
Equipment Item: AN/SLQ-32(V), Surface Warfare Improvement Program (SEWIP)						PARM Code: PEO IWS2E	
P-35 Category				FY 2017			
				Qty (Each)		Total Cost (\$ M)	
Major Hardware				1		13.421	
Technical Data and Documentation						0.039	
Spares						0.498	
System Engineering						0.919	
Technical Engineering Services						0.118	
Other Costs						0.518	
Total				1		15.513	
Description: 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.							
Contract Data:							
Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity (Each)	Unit Cost (\$ M)
FY 2017	LHA 8	Various	Various	Oct 2019	New	1	13.421
Delivery Date:							
Program Year	Hull	Earliest Ship Delivery Date	Months Required Before Delivery	Production Leadtime	Required Award Date		
FY 2017	LHA 8	Jan 2024	30	18	Jan 2020		
Competition/Second Source Initiatives: N/A							

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Exhibit P-35, Major Ship Component Fact Sheet: FY 2018 Navy						Date: May 2017																	
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 03 / 1				P-1 Line Item Number / Title: 3041 / LHA Replacement																			
Equipment Item: AN/SPN-50 (V)1						PARM Code: NAVAIR PMA213																	
P-35 Category				FY 2017																			
				Qty (Each)	Total Cost (\$ M)																		
Major Hardware				1	9.014																		
Technical Data and Documentation					0.120																		
Spares					0.716																		
System Engineering					0.703																		
Technical Engineering Services					0.095																		
Other Costs					0.497																		
Total				1	11.145																		
Description: AN/SPN-50 system provides aircraft position, radar signal and radar data. Air traffic controllers use the data for aircraft sequencing and separation, airspace identification and containment, safety alerts, traffic advisories and landing guidance.																							
Contract Data: <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 5px;"> <tr> <th style="width: 10%;">Program Year</th> <th style="width: 10%;">Hull</th> <th style="width: 25%;">Prime Contractor</th> <th style="width: 15%;">Contract Method/Type</th> <th style="width: 10%;">Award Date</th> <th style="width: 10%;">New/Option</th> <th style="width: 10%;">Quantity (Each)</th> <th style="width: 10%;">Unit Cost (\$ M)</th> </tr> <tr> <td>FY 2017</td> <td>LHA 8</td> <td>SAAB</td> <td>TBD</td> <td>Aug 2019</td> <td>New</td> <td style="text-align: center;">1</td> <td style="text-align: right;">9.014</td> </tr> </table>								Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity (Each)	Unit Cost (\$ M)	FY 2017	LHA 8	SAAB	TBD	Aug 2019	New	1	9.014
Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity (Each)	Unit Cost (\$ M)																
FY 2017	LHA 8	SAAB	TBD	Aug 2019	New	1	9.014																
Delivery Date: <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 5px;"> <tr> <th style="width: 10%;">Program Year</th> <th style="width: 10%;">Hull</th> <th style="width: 15%;">Earliest Ship Delivery Date</th> <th style="width: 20%;">Months Required Before Delivery</th> <th style="width: 20%;">Production Leadtime</th> <th style="width: 25%;">Required Award Date</th> </tr> <tr> <td>FY 2017</td> <td>LHA 8</td> <td style="text-align: center;">Jan 2024</td> <td style="text-align: center;">29</td> <td style="text-align: center;">24</td> <td style="text-align: center;">Aug 2019</td> </tr> </table>								Program Year	Hull	Earliest Ship Delivery Date	Months Required Before Delivery	Production Leadtime	Required Award Date	FY 2017	LHA 8	Jan 2024	29	24	Aug 2019				
Program Year	Hull	Earliest Ship Delivery Date	Months Required Before Delivery	Production Leadtime	Required Award Date																		
FY 2017	LHA 8	Jan 2024	29	24	Aug 2019																		
Competition/Second Source Initiatives: N/A																							
Remarks: SPN-50 is required because EASR and SPN 50 are integrated systems and must operate together (i.e. SPS 48/49 cannot operate with SPN 50; EASR cannot operate with SPN 43C). SPN-50 system provides aircraft position, radar signal and radar data. Air traffic controllers use the data for aircraft sequencing and separation, airspace identification and containment, safety alerts, traffic advisories and landing guidance.																							

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Exhibit P-35, Major Ship Component Fact Sheet: FY 2018 Navy						Date: May 2017	
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 03 / 1				P-1 Line Item Number / Title: 3041 / LHA Replacement			
Equipment Item: Joint Precision Approach and Landing System (JPALS)						PARM Code: NAVAIR PMA213	
P-35 Category				FY 2017			
				Qty (Each)		Total Cost (\$ M)	
Major Hardware				1		4.898	
Spares						0.914	
System Engineering						0.739	
Technical Engineering Services						1.075	
Other Costs						0.267	
Total				1		7.893	
Description: The Joint Precision Approach Landing System (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. JPALS is a differential GPS that will provide an adverse weather precision approach and landing capability.							
Contract Data:							
Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity (Each)	Unit Cost (\$ M)
FY 2017	LHA 8	TBD	TBD	May 2019	New	1	4.898
Delivery Date:							
Program Year	Hull	Earliest Ship Delivery Date	Months Required Before Delivery	Production Leadtime	Required Award Date		
FY 2017	LHA 8	Jan 2024	44	12	May 2019		
Competition/Second Source Initiatives: N/A							

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Exhibit P-35, Major Ship Component Fact Sheet: FY 2018 Navy						Date: May 2017	
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 03 / 1				P-1 Line Item Number / Title: 3041 / LHA Replacement			
Equipment Item: Hierarchical Yet Dynamically Reprogrammable Architecture (HYDRA) AN/SRC-55						PARM Code: SEA05H	
P-35 Category				FY 2017			
				Qty (Each)		Total Cost (\$ M)	
Major Hardware				1		4.542	
Technical Data and Documentation						0.301	
Spares						0.093	
System Engineering						1.139	
Technical Engineering Services						0.642	
Other Costs						0.786	
Total				1		7.503	
Description: AN/SRC-55 HYDRA is a Wireless Interior Communications System that provides wire free mobile communications throughout the ship. HYDRA supports security, navigation, combat systems, engineering, damage control, maintenance and general operations such as maneuvering and docking, shore patrol and beach guard. It is interoperable with other shipboard communication systems and it has improved capabilities over the legacy wireless systems.							
Contract Data:							
Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity (Each)	Unit Cost (\$ M)
FY 2017	LHA 8	Various	Various	Jul 2020	New	1	4.542
Delivery Date:							
Program Year	Hull	Earliest Ship Delivery Date	Months Required Before Delivery	Production Leadtime	Required Award Date		
FY 2017	LHA 8	Jan 2024	36	6	Jul 2020		
Competition/Second Source Initiatives: N/A							

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Exhibit P-35, Major Ship Component Fact Sheet: FY 2018 Navy						Date: May 2017	
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 03 / 1				P-1 Line Item Number / Title: 3041 / LHA Replacement			
Equipment Item: AN/UPX-29(V), Identification Friend or Foe (IFF) MK12						PARM Code: NAVAIR PMA213	
P-35 Category				FY 2017			
				Qty (Each)	Total Cost (\$ M)		
Major Hardware				1	6.061		
Spares					0.106		
System Engineering					0.293		
Technical Engineering Services					0.103		
Other Costs					0.430		
Total				1	6.993		
Description: Identification Friend or Foe (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, sectorized, 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.							
Contract Data:							
Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity (Each)	Unit Cost (\$ M)
FY 2017	LHA 8	Various	C/FFP	Feb 2019	New	1	6.061
Delivery Date:							
Program Year	Hull	Earliest Ship Delivery Date	Months Required Before Delivery	Production Leadtime	Required Award Date		
FY 2017	LHA 8	Jan 2024	35	24	Feb 2019		
Competition/Second Source Initiatives: N/A							

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Exhibit P-35, Major Ship Component Fact Sheet: FY 2018 Navy						Date: May 2017	
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 03 / 1				P-1 Line Item Number / Title: 3041 / LHA Replacement			
Equipment Item: Ring Laser Gyro Navigator (RLGN) AN/WSN-7						PARM Code: PEO IWS6.0	
P-35 Category				FY 2017			
				Qty (Each)		Total Cost (\$ M)	
Major Hardware				1		5.491	
System Engineering						0.072	
Technical Engineering Services						0.300	
Other Costs						0.139	
Total				1		6.002	
Description: The AN/WSN-7(V) Ring Laser Gyro Navigation System provides real-time navigation data for use by navigation and combat systems.							
Contract Data:							
Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity (Each)	Unit Cost (\$ M)
FY 2017	LHA 8	Various	C/FFP	May 2019	New	1	5.491
Delivery Date:							
Program Year	Hull	Earliest Ship Delivery Date	Months Required Before Delivery	Production Leadtime	Required Award Date		
FY 2017	LHA 8	Jan 2024	38	18	May 2019		
Competition/Second Source Initiatives: N/A							

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Exhibit P-35, Major Ship Component Fact Sheet: FY 2018 Navy						Date: May 2017	
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 03 / 1				P-1 Line Item Number / Title: 3041 / LHA Replacement			
Equipment Item: Amphibious Air Traffic Control Direct Altitude and Identity Readout (AATC-DAIR) AN/TPX-42						PARM Code: NAVAIR PMA213	
P-35 Category				FY 2017			
				Qty (Each)		Total Cost (\$ M)	
Major Hardware				1		4.246	
Spares						0.208	
System Engineering						0.506	
Technical Engineering Services						0.056	
Other Costs						0.713	
Total				1		5.729	
Description: The Amphibious Air Traffic Control (AATC) Direct Altitude and Identity Readout (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.							
Contract Data:							
Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity (Each)	Unit Cost (\$ M)
FY 2017	LHA 8	NAWCAD	WR	Jul 2019	New	1	4.246
Delivery Date:							
Program Year	Hull	Earliest Ship Delivery Date	Months Required Before Delivery	Production Leadtime	Required Award Date		
FY 2017	LHA 8	Jan 2024	30	24	Jul 2019		
Competition/Second Source Initiatives: N/A							

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Exhibit P-35, Major Ship Component Fact Sheet: FY 2018 Navy						Date: May 2017	
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 03 / 1				P-1 Line Item Number / Title: 3041 / LHA Replacement			
Equipment Item: Aircraft Control Approach Central AN/SPN-35C						PARM Code: NAVAIR PMA213	
P-35 Category				FY 2017			
				Qty (Each)	Total Cost (\$ M)		
Major Hardware				1	3.529		
System Engineering					0.603		
Technical Engineering Services					0.083		
Other Costs					0.333		
Total				1	4.548		
Description: The AN/SPN-35 is a precision approach radar that provides 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-41 Instrument Control Landing System for precision landing operations. It is also used for aircraft recovery during adverse weather and night conditions.							
Contract Data:							
Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity (Each)	Unit Cost (\$ M)
FY 2017	LHA 8	NAWCAD	WR	Jul 2018	New	1	3.529
Delivery Date:							
Program Year	Hull	Earliest Ship Delivery Date	Months Required Before Delivery	Production Leadtime	Required Award Date		
FY 2017	LHA 8	Jan 2024	30	36	Jul 2018		
Competition/Second Source Initiatives: N/A							

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Exhibit P-35, Major Ship Component Fact Sheet: FY 2018 Navy						Date: May 2017	
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 03 / 1				P-1 Line Item Number / Title: 3041 / LHA Replacement			
Equipment Item: Aircraft Approach Control Transmitting Set (AACTS) AN/SPN-41B						PARM Code: NAVAIR PMA213	
P-35 Category				FY 2017			
				Qty (Each)	Total Cost (\$ M)		
Major Hardware				1	3.381		
System Engineering					0.622		
Technical Engineering Services					0.063		
Other Costs					0.331		
Total				1	4.397		
Description: The AN/SPN-41 transmitting set is an electronic instrument control landing system that provides proper flight path data to an approaching aircraft. The AN/SPN-41 has two separate transmitters (azimuth and elevation) with individual antennas used for sector scanning. It provides primary or backup instrument approach capability.							
Contract Data:							
Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity (Each)	Unit Cost (\$ M)
FY 2017	LHA 8	NAWCAD	WR	Jun 2017	New	1	3.381
Delivery Date:							
Program Year	Hull	Earliest Ship Delivery Date	Months Required Before Delivery	Production Leadtime	Required Award Date		
FY 2017	LHA 8	Jan 2024	40	39	Jun 2017		
Competition/Second Source Initiatives: N/A							

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Exhibit P-35, Major Ship Component Fact Sheet: FY 2018 Navy						Date: May 2017	
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 03 / 1				P-1 Line Item Number / Title: 3041 / LHA Replacement			
Equipment Item: Enterprise Air Surveillance Radar (EASR)						PARM Code: PEO IWS2.0	
P-35 Category				FY 2017			
				Qty (Each)	Total Cost (\$ M)		
Major Hardware				1	28.932		
Technical Data and Documentation					0.042		
Spares					1.337		
System Engineering					0.472		
Technical Engineering Services					3.436		
Other Costs					5.844		
Total				1	40.063		
<p>Description: The Enterprise Air Surveillance Radar (EASR) suite will be a modern long-range, three-dimensional (3D) radar used to search, detect and provide space-stabilized, three-coordinate (range, bearing, height) data for air intercept control and designation to a weapon system and Air Traffic Control (ATC) system.</p> <p>EASR serves as the replacement for the AN/SPN-48/49. The LHA 8 configuration includes a rotating antenna array, below decks radar and cooling equipment.</p>							
Contract Data:							
Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity (Each)	Unit Cost (\$ M)
FY 2017	LHA 8	Various	Various	Jun 2018	New	1	28.932
Delivery Date:							
Program Year	Hull	Earliest Ship Delivery Date	Months Required Before Delivery	Production Leadtime	Required Award Date		
FY 2017	LHA 8	Jan 2024	37	30	Jun 2018		
<p>Competition/Second Source Initiatives: N/A</p> <p>Remarks: PB17 amounts were based on SPS-48/49 prices since EASR requirements were yet to be determined. Due to system unavailability and obsolescence issues with the SPS-48/49, the Navy has identified EASR as the future program of record for 3-D volume search radar.</p>							

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Exhibit P-35, Major Ship Component Fact Sheet: FY 2018 Navy						Date: May 2017	
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 03 / 1				P-1 Line Item Number / Title: 3041 / LHA Replacement			
Equipment Item: NATO Sea Sparrow Missile System (NSSMS) MK 57 Mod 14						PARM Code: PEO IWS3.0	
P-35 Category				FY 2017			
				Qty (Each)	Total Cost (\$ M)		
Major Hardware				1	21.343		
Spares					1.437		
System Engineering					1.486		
Technical Engineering Services					3.118		
Other Costs					4.918		
Total				1	32.302		
Description: The NSSMS MK 57 is a short-range weapon system, which provides self-defense capability against air-to-surface missiles, surface-to-surface missiles, manned attack aircraft, and surface craft. The system is designed to provide these capabilities under both clear and adverse environmental conditions as well as in a hostile electronics attack environment. NSSMS MK 57 performs target engageability; and provides launcher control, missile control and missing firing orders.							
Contract Data:							
Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity (Each)	Unit Cost (\$ M)
FY 2017	LHA 8	RAYTHEON	C/FFP	Apr 2018	New	1	21.343
Delivery Date:							
Program Year	Hull	Earliest Ship Delivery Date	Months Required Before Delivery	Production Leadtime	Required Award Date		
FY 2017	LHA 8	Jan 2024	33	36	Apr 2018		
Competition/Second Source Initiatives: N/A							

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Exhibit P-35, Major Ship Component Fact Sheet: FY 2018 Navy						Date: May 2017	
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 03 / 1				P-1 Line Item Number / Title: 3041 / LHA Replacement			
Equipment Item: MK31 Mod 3, Rolling Airframe Missile (RAM) (Tech Refresh)						PARM Code: PEO IWS3B	
P-35 Category				FY 2017			
				Qty (Each)	Total Cost (\$ M)		
Major Hardware				2	10.954		
Technical Data and Documentation					0.663		
Spares					0.103		
System Engineering					2.145		
Technical Engineering Services					0.083		
Other Costs					1.795		
Total				2	15.743		
Description: 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.							
Contract Data:							
Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity (Each)	Unit Cost (\$ M)
FY 2017	LHA 8	RAYTHEON	C/FFP	Feb 2018	New	2	5.477
Delivery Date:							
Program Year	Hull	Earliest Ship Delivery Date	Months Required Before Delivery	Production Leadtime	Required Award Date		
FY 2017	LHA 8	Jan 2024	47	24	Feb 2018		
Competition/Second Source Initiatives: N/A							

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Exhibit P-35, Major Ship Component Fact Sheet: FY 2018 Navy						Date: May 2017	
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 03 / 1				P-1 Line Item Number / Title: 3041 / LHA Replacement			
Equipment Item: PHALANX Block 1B MK15 Mod 21 & 22, Close-in Weapon System (CIWS)						PARM Code: PEO IWS3.0	
P-35 Category				FY 2017			
				Qty (Each)	Total Cost (\$ M)		
Major Hardware				1	11.627		
Technical Data and Documentation					0.098		
Spares					0.383		
System Engineering					0.514		
Technical Engineering Services					0.720		
Other Costs					1.089		
Total				1	14.431		
Description: 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.							
Contract Data:							
Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity (Each)	Unit Cost (\$ M)
FY 2017	LHA 8	RAYTHEON	C/FFP	Feb 2018	New	1	11.627
Delivery Date:							
Program Year	Hull	Earliest Ship Delivery Date	Months Required Before Delivery	Production Leadtime	Required Award Date		
FY 2017	LHA 8	Jan 2024	47	24	Feb 2018		
Competition/Second Source Initiatives: N/A							

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Exhibit P-35, Major Ship Component Fact Sheet: FY 2018 Navy						Date: May 2017	
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 03 / 1				P-1 Line Item Number / Title: 3041 / LHA Replacement			
Equipment Item: Vertical/Stationary Take-Off Landing Optical Landing System (VSTOL OLS)						PARM Code: NAVAIR PMA251	
P-35 Category				FY 2017			
				Qty (Each)	Total Cost (\$ M)		
Major Hardware				1	11.700		
Technical Data and Documentation					0.150		
Spares					0.413		
System Engineering					0.319		
Technical Engineering Services					0.781		
Other Costs					0.461		
Total				1	13.824		
Description: The Vertical/Stationary Take-Off Landing (VSTOL) Optical Landing System is a visual landing aid that displays glide path and trend information to the VSTOL pilot preparing to land on ship. The system can guide an aircraft to the ship from a distance of 0.8 nautical miles. The OLS guides the aircraft to 50 feet above the flight deck up to the final approach phase.							
Contract Data:							
Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity (Each)	Unit Cost (\$ M)
FY 2017	LHA 8	LAKEHURST MANUFACTURING	TBD	Jul 2017	New	1	11.700
Delivery Date:							
Program Year	Hull	Earliest Ship Delivery Date	Months Required Before Delivery	Production Leadtime	Required Award Date		
FY 2017	LHA 8	Jan 2024	30	48	Jul 2017		
Competition/Second Source Initiatives: N/A							

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Exhibit P-35, Major Ship Component Fact Sheet: FY 2018 Navy						Date: May 2017																	
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 03 / 1				P-1 Line Item Number / Title: 3041 / LHA Replacement																			
Equipment Item: AN/SPQ-9B Radar Set						PARM Code: PEO IWS2B																	
P-35 Category				FY 2017																			
				Qty (Each)		Total Cost (\$ M)																	
Major Hardware				1		8.890																	
Technical Data and Documentation						0.115																	
Spares						0.129																	
System Engineering						0.365																	
Technical Engineering Services						0.684																	
Other Costs						0.726																	
Total				1		10.909																	
Description: The AN/SPQ-9B is an X-Band Horizon Search, pulse Doppler, frequency agile radar designed for the littoral environment. It has a very high clutter improvement factor supporting a very low false track rate in the littorals and in high clutter environments.																							
Contract Data: <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 5px;"> <tr> <th style="width: 10%;">Program Year</th> <th style="width: 10%;">Hull</th> <th style="width: 25%;">Prime Contractor</th> <th style="width: 15%;">Contract Method/Type</th> <th style="width: 10%;">Award Date</th> <th style="width: 10%;">New/Option</th> <th style="width: 10%;">Quantity (Each)</th> <th style="width: 10%;">Unit Cost (\$ M)</th> </tr> <tr> <td>FY 2017</td> <td>LHA 8</td> <td>NGES</td> <td>SS/FFP</td> <td>Jul 2019</td> <td>New</td> <td style="text-align: center;">1</td> <td style="text-align: right;">8.890</td> </tr> </table>								Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity (Each)	Unit Cost (\$ M)	FY 2017	LHA 8	NGES	SS/FFP	Jul 2019	New	1	8.890
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Program Year	Hull	Earliest Ship Delivery Date	Months Required Before Delivery	Production Leadtime	Required Award Date																		
FY 2017	LHA 8	Jan 2024	30	24	Jul 2019																		
Competition/Second Source Initiatives: N/A																							

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Exhibit P-40, Budget Line Item Justification: FY 2018 Navy										Date: May 2017		
Appropriation / Budget Activity / Budget Sub Activity: 1611N: Shipbuilding and Conversion, Navy / BA 03: Amphibious Ships / BSA 1: Amphibious Ships							P-1 Line Item Number / Title: 3043 / Expeditionary Fast Transport (EPF)					
ID Code (A=Service Ready, B=Not Service Ready): A			Program Elements for Code B Items: N/A				Other Related Program Elements: N/A					
Line Item MDAP/MAIS Code: N/A												
Resource Summary	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	7	1	-	-	-	-	-	-	-	-	-	8
Gross/Weapon System Cost (<i>\$ in Millions</i>)	1,354.897	225.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-	1,579.897
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Less Cost To Complete (<i>\$ in Millions</i>)	61.090	-	-	-	-	-	-	-	-	-	-	61.090
Less Program Support (<i>\$ in Millions</i>)	2.732	-	-	-	-	-	-	-	-	-	-	2.732
Net Procurement (P-1) (<i>\$ in Millions</i>)	1,291.075	225.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-	1,516.075
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Plus Cost To Complete (<i>\$ in Millions</i>)	21.600	26.235	13.255	-	-	-	-	-	-	-	-	61.090
Plus Program Support (<i>\$ in Millions</i>)	2.732	-	-	-	-	-	-	-	-	-	-	2.732
Total Obligation Authority (<i>\$ in Millions</i>)	1,315.407	251.235	13.255	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-	1,579.897
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Plus Outfitting and Post Delivery (<i>\$ in Millions</i>)	47.998	14.021	15.628	9.987	-	9.987	9.902	4.723	-	-	-	102.259
Total (<i>\$ in Millions</i>)	1,363.405	265.256	28.883	9.987	-	9.987	9.902	4.723	-	-	-	1,682.156
Gross/Weapon System Unit Cost (<i>\$ in Millions</i>)	193.557	225.000	-	-	-	-	-	-	-	-	-	197.487
Description: 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. Expeditionary Fast Transport (EPF) (formerly Joint High Speed Vessel) will provide combatant commanders high-speed intra-theater sealift with inherent cargo handling capability and the agility to achieve positional advantage over operational distances. Not limited to major ports, the EPF will be able to operate in austere port environments.												

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Exhibit P-40, Budget Line Item Justification: FY 2018 Navy				Date: May 2017																																																	
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Request for Proposals	N/A	N/A																																																			
Design Agent																																																					
<u>Classification of Cost Estimate:</u> CLASS C																																																					

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Exhibit P-5c, Ship Cost Analysis: FY 2018 Navy						Date: May 2017		
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 03 / 1				P-1 Line Item Number / Title: 3043 / Expeditionary Fast Transport (EPF)				
Cost Categories <small>^(†) indicates the presence of a P-8a</small>	FY 2012		FY 2013		FY 2015		FY 2016	
	Qty <i>(Each)</i>	Total Cost <i>(\$ M)</i>	Qty <i>(Each)</i>	Total Cost <i>(\$ M)</i>	Qty <i>(Each)</i>	Total Cost <i>(\$ M)</i>	Qty <i>(Each)</i>	Total Cost <i>(\$ M)</i>
Plan Costs	2		1		1		1	
Basic Construction/Conversion		339.883		175.540		169.795		176.610
Change Orders		6.147		2.552		4.855		4.960
Electronics ^(†)		23.953		12.190		14.985		16.840
Hull, Mechanical, and Electrical (HM&E) ^(†)		12.429		3.893		5.908		14.050
Other Cost		11.027		4.048		4.457		12.540
Total Ship Estimate		393.439		198.223		200.000		225.000
Less Cost to Complete FY 2014		-		2.732		-		-
Less Cost to Complete FY 2015		2.620		2.040		-		-
Less Cost to Complete FY 2016		22.597		3.638		-		-
Less Cost to Complete FY 2017		6.710		6.545		-		-
Net P-1 Funding		361.512		183.268		200.000		225.000

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Exhibit P-27, Ship Production Schedule: FY 2018 Navy					Date: May 2017
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 03 / 1			P-1 Line Item Number / Title: 3043 / Expeditionary Fast Transport (EPF)		
Ship	Shipbuilder	Fiscal Year	Contract Award	Start of Construction	Delivery Date
EPF 9	AUSTAL	2012	Feb 2012	Nov 2015	Oct 2017
EPF 10	AUSTAL	2013	Dec 2012	Jun 2016	Jun 2018
EPF 11	AUSTAL	2015	Sep 2016	Jan 2017	Feb 2019
EPF 12	AUSTAL	2016	Sep 2016	Sep 2017	Sep 2019

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LI 3043 - Expeditionary Fast Transport (EPF)
Navy

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Exhibit P-8a, Analysis of Ship Cost Estimates: FY 2018 Navy			Date: May 2017	
Appropriation / Budget Activity / Budget Sub Activity:		P-1 Line Item Number / Title:		
1611N / 03 / 1		3043 / Expeditionary Fast Transport (EPF)		
Hull, Mechanical, and Electrical (HM&E)	FY 2015		FY 2016	
	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Major Items				
ENGINEERING SERVICES		3.730		8.900
SUPSHIP MATERIAL SERVICES		0.875		2.138
LOGISTICS SUPPORT SERVICES		0.485		1.978
TEST AND INSTRUMENTATION		0.818		1.034
Major Items Subtotal		5.908		14.050
Total Hull, Mechanical, and Electrical (HM&E)		5.908		14.050

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Exhibit P-35, Major Ship Component Fact Sheet: FY 2018 Navy						Date: May 2017	
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 03 / 1				P-1 Line Item Number / Title: 3043 / Expeditionary Fast Transport (EPF)			
Equipment Item: C4ISR						PARM Code: 3Z (SPAWAR)	
P-35 Category	FY 2015		FY 2016				
	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)			
Major Hardware	1	6.984	1	7.894			
Spares		0.570		0.640			
System Engineering		2.115		2.456			
Technical Engineering Services		0.865		1.050			
Other Costs		0.909		1.063			
Total	1	11.443	1	13.103			
Description: 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.							
Contract Data:							
Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity (Each)	Unit Cost (\$ M)
FY 2015	EPF 11	AUSTAL	Various	Sep 2016	Various	1	6.984
FY 2016	EPF 12	AUSTAL	Various	Sep 2016	Various	1	7.894
Delivery Date:							
Program Year	Hull	Earliest Ship Delivery Date	Months Required Before Delivery	Production Leadtime	Required Award Date		
FY 2015	EPF 11	Feb 2019	0		Various		
FY 2016	EPF 12	Sep 2019	0		Various		
Competition/Second Source Initiatives: N/A							
Remarks: Multiple systems comprise the C4ISR with varying delivery dates and leadtimes.							

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Exhibit P-40, Budget Line Item Justification: FY 2018 Navy										Date: May 2017		
Appropriation / Budget Activity / Budget Sub Activity: 1611N: Shipbuilding and Conversion, Navy / BA 05: Auxiliaries, Craft, and Prior-Year Program Costs / BSA 1: Auxiliaries, Craft and Prior Yr Program Cost							P-1 Line Item Number / Title: 5025 / TAO Fleet Oiler					
ID Code (A=Service Ready, B=Not Service Ready): A				Program Elements for Code B Items: N/A				Other Related Program Elements: N/A				
Line Item MDAP/MAIS Code: P452												
Resource Summary	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	1	-	1	-	1	1	1	1	1	11	17
Gross/Weapon System Cost (<i>\$ in Millions</i>)	0.000	674.190	0.000	539.067	0.000	539.067	520.635	534.518	528.111	536.282	7,261.598	10,594.401
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	73.079	-	73.079	75.068	75.046	75.058	75.066	1,211.598	1,584.915
Net Procurement (P-1) (<i>\$ in Millions</i>)	0.000	674.190	0.000	465.988	0.000	465.988	445.567	459.472	453.053	461.216	6,050.000	9,009.486
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	73.079	75.068	-	75.068	75.046	75.058	75.066	76.598	1,135.000	1,584.915
Total Obligation Authority (<i>\$ in Millions</i>)	0.000	674.190	73.079	541.056	0.000	541.056	520.613	534.530	528.119	537.814	7,185.000	10,594.401
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Plus Outfitting and Post Delivery (<i>\$ in Millions</i>)	-	-	-	-	-	-	17.875	30.093	52.676	27.449	458.960	587.053
Total (<i>\$ in Millions</i>)	-	674.190	73.079	541.056	-	541.056	538.488	564.623	580.795	565.263	7,643.960	11,181.454
Gross/Weapon System Unit Cost (<i>\$ in Millions</i>)	-	674.190	-	539.067	-	539.067	520.635	534.518	528.111	536.282	660.145	623.200
Description: T-AO 205 John Lewis Fleet Oiler Class will recapitalize the existing T-AO 187 fleet oiler class. The Navy's Combat Logistics Force (CLF) oilers supply fuel and dry cargo to Navy ships at sea. The T-AO Class will operate as a shuttle ships from resupply posts to customer ships. Additionally, in conjunction with a T-AKE, they will accompany and stay on-station with a Carrier Strike Group (CSG) to provide fuel as required to customer ships.												
Characteristics: <div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> T-AO Length Overall 741 ft Beam 106 ft Displacement 24400 T Draft 36 ft </div> <div style="width: 45%; text-align: right;"> (Lightship) </div> </div>												
Production Status: <div style="display: flex; justify-content: space-between;"> <div style="width: 30%;"> T-AO 205 Contract Award Date Jun 2016 Months to Completion a) Award to Delivery 53 months b) Construction Start to Delivery 26 months Delivery Date Nov 2020 Completion Of Fitting Out Feb 2021 Obligation Work Limit Date Jan 2022 </div> <div style="width: 30%;"> T-AO 206 Jan 2018 39 months 24 months Apr 2021 Jul 2021 Jun 2022 </div> </div>												
<div style="display: flex; justify-content: space-between;"> <div style="width: 30%;"> Design Schedule Issue Date for TLR Issue Date for TLS Preliminary Design </div> <div style="width: 20%; text-align: center;"> Start / Issue N/A N/A N/A </div> <div style="width: 20%; text-align: center;"> Complete / Response N/A N/A N/A </div> <div style="width: 30%; text-align: center;"> Reissue </div> <div style="width: 20%; text-align: center;"> Reissue Complete / Response </div> </div>												

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Exhibit P-40, Budget Line Item Justification: FY 2018 Navy			Date: May 2017	
Appropriation / Budget Activity / Budget Sub Activity: 1611N: Shipbuilding and Conversion, Navy / BA 05: Auxiliaries, Craft, and Prior-Year Program Costs / BSA 1: Auxiliaries, Craft and Prior Yr Program Cost		P-1 Line Item Number / Title: 5025 / TAO Fleet Oiler		
ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A		Other Related Program Elements: N/A	
Line Item MDAP/MAIS Code: P452				
<u>Design Schedule</u>	<u>Start / Issue</u>	<u>Complete / Response</u>	<u>Reissue</u>	<u>Reissue Complete / Response</u>
Contract Design	N/A	N/A		
Detail Design	Jun 2016	Jun 2018		
Request for Proposals	Jun 2015	Dec 2015		
Design Agent				
<u>Classification of Cost Estimate:</u>				

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Exhibit P-5c, Ship Cost Analysis: FY 2018 Navy			Date: May 2017	
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 05 / 1		P-1 Line Item Number / Title: 5025 / TAO Fleet Oiler		
Cost Categories <small>^(†) indicates the presence of a P-8a</small>	FY 2016		FY 2018	
	Qty <small>(Each)</small>	Total Cost <small>(\$ M)</small>	Qty <small>(Each)</small>	Total Cost <small>(\$ M)</small>
Plan Costs	1	102.121	1	-
Basic Construction/Conversion		540.086		489.027
Change Orders		5.418		4.890
Electronics ^(†)		22.500		22.950
Hull, Mechanical, and Electrical (HM&E) ^(†)		4.065		22.200
Total Ship Estimate		674.190		539.067
Less Advance Procurement FY 2017		-		73.079
Net P-1 Funding		674.190		465.988
<div>Remarks:</div> <div>FY16 HM&E supports FY16 4th Qtr class engineering and design efforts. \$8.2M of the FY18 HM&E will be funded with FY17 Advance Procurement and support class engineering and design efforts.</div>				

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Exhibit P-27, Ship Production Schedule: FY 2018 Navy				Date: May 2017	
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 05 / 1			P-1 Line Item Number / Title: 5025 / TAO Fleet Oiler		
Ship	Shipbuilder	Fiscal Year	Contract Award	Start of Construction	Delivery Date
T-AO 205	GD NASSCO	2016	Jun 2016	Sep 2018	Nov 2020
T-AO 206	GD NASSCO	2018	Jan 2018	Apr 2019	Apr 2021
T-AO 207	GD NASSCO	2019	Jan 2019	Oct 2019	Sep 2021
T-AO 208	GD NASSCO	2020	Jan 2020	Apr 2020	Mar 2022
T-AO 209	GD NASSCO	2021	Jan 2021	Jan 2021	Nov 2022
T-AO 210	GD NASSCO	2022	Jan 2022	Jan 2022	Nov 2023

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Exhibit P-8a, Analysis of Ship Cost Estimates: FY 2018 Navy			Date: May 2017	
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 05 / 1		P-1 Line Item Number / Title: 5025 / TAO Fleet Oiler		
Electronics	FY 2016		FY 2018	
	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
P-35 Items				
Radio Communication System (RCS) TURNKEY	1	6.688	1	6.463
P-35 Items Subtotal		6.688		6.463
Major Items				
Consolidated Afloat Networks and Enterprise Services (CANES)	1	2.736	1	2.828
Digital Modular Radio (DMR)	1	4.777	1	4.742
Commercial Broadband Satellite Program (CBSP)	1	1.815	1	1.915
AN/SLQ-25 NIXIE	1	1.856	1	1.921
AN/USQ-155 Tactical Variant Switch (TVS)	1	1.263	1	1.326
Major Items Subtotal		12.447		12.732
Other Cost Elements				
Minor Systems		3.365		3.755
Other Cost Elements Subtotal		3.365		3.755
Total Electronics		22.500		22.950

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Exhibit P-35, Major Ship Component Fact Sheet: FY 2018 Navy						Date: May 2017	
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 05 / 1				P-1 Line Item Number / Title: 5025 / TAO Fleet Oiler			
Equipment Item: Radio Communication System (RCS) TURNKEY						PARM Code: N/A	
P-35 Category	FY 2016		FY 2018				
	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)			
Major Hardware	1	1.616	1	1.208			
Ancillary Equipment		0.099		0.105			
Technical Engineering Services		0.996		1.009			
Ship Installation		3.665		3.741			
Program Management		0.312		0.400			
Total	1	6.688	1	6.463			

Description:
The Radio Communication System (RCS) consists of the subsystems that provide data and voice communications across the RF spectrum. The RCS will be comprised of subsystems provided from various sources, including SPAWAR Program of Record systems, commercial systems, and associated ancillary equipment that can be obtained through the stock system and bought commercially. These subsystems will be integrated into one system and will include the automated and manual patching equipment required to configure these subsystems. The subsystems included in the RCS include the High Frequency 400 Watt System, Digital Modular Radio (DMR) VHF/UHF Line of Sight and UHF SATCOM voice, Naval Modular Automated Communications System (NAVMACS) Naval Messaging System, Battle Force Tactical Network (BFTN), Tactical Variant Switch (TVS), Tactical Voice Terminal (TVT), Automated Digital Networks System (ADNS), Commercial Broadband Satellite Program (CBSP), Fleet Broadcast, Navy Order wire (NOW) Terminals, OE-570A/WSC UHF SATCOM Antenna, Portable Communications Equipment (PCE) and Cryptologic equipment. The subsystems are integrated by SPAWAR Systems Center Atlantic at the Charleston, SC Test and Integration Facility with the proper interfaces to operate as an overall system. The RCS subsystems and interfaces will be tested prior to shipment for installation on board the T-AO ships.

Contract Data:

Program Year	Hull	Prime Contractor	Contract Method/Type	Award Date	New/Option	Quantity (Each)	Unit Cost (\$ M)
FY 2016	T-AO 205	TBD	TBD	TBD		1	1.616
FY 2018	T-AO 206	TBD	TBD	TBD		1	1.208

Delivery Date:

Program Year	Hull	Earliest Ship Delivery Date	Months Required Before Delivery	Production Leadtime	Required Award Date
FY 2016	T-AO 205	Nov 2020	7	14	Oct 2018
FY 2018	T-AO 206	Apr 2021	7	14	Apr 2019

Competition/Second Source Initiatives:
N/A

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Exhibit P-10, Advance Procurement Requirements Analysis (page 1 - Budget Funding Justification): FY 2018 Navy						Date: May 2017				
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 05 / 1				P-1 Line Item Number / Title: 5025 / TAO Fleet Oiler						
First System (2018) Award Date: January 2018		First System (2018) Completion Date: January 2021			Interval Between Systems: 12 Months					
Cost Elements		Production Leadtime <i>(Months)</i>	When Required* <i>(Months)</i>	FY 2016 (\$ M)	FY 2017 (\$ M)	FY 2018 (\$ M)	FY 2019 (\$ M)	FY 2020 (\$ M)	FY 2021 (\$ M)	FY 2022 (\$ M)
Basic Construction/Conversion										
Propulsion, Auxiliary, Machinery, and Components ⁽⁹⁾		12-24	Various	-	59.975	71.572	71.481	71.421	71.356	72.814
Total: Basic Construction/Conversion				-	59.975	71.572	71.481	71.421	71.356	72.814
Electronics										
Digital Modular Radio (DMR) ⁽¹⁰⁾		15-22	26	-	3.427	3.496	3.565	3.637	3.710	3.784
AN/SLQ-25 NIXIE		-	-	-	1.477	0.000	-	-	-	-
Total: Electronics				-	4.904	3.496	3.565	3.637	3.710	3.784
Hull, Mechanical, and Electrical (HM&E)										
Class Engineering Efforts ⁽¹¹⁾		-	42	-	8.200	0.000	-	-	-	-
Total: Hull, Mechanical, and Electrical (HM&E)				-	8.200	-	-	-	-	-
Total Advance Procurement/Obligation Authority				-	73.079	75.068	75.046	75.058	75.066	76.598

*Note: "When Required" is the number of months required before ship delivery.

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Exhibit P-10, Advance Procurement Requirements Analysis (page 2 - Budget Funding Justification): FY 2018 Navy					Date: May 2017		
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 05 / 1				P-1 Line Item Number / Title: 5025 / TAO Fleet Oiler			
Cost Elements	FY 2018						
	Production Leadtime <i>(Months)</i>	When Required* <i>(Months)</i>	Unit Cost <i>(\$ M)</i>	Contract Forecast Date	2018 Qty <i>(Each)</i>	For FY	Total Cost Request <i>(\$ M)</i>
Basic Construction/Conversion							
Propulsion, Auxiliary, Machinery, and Components ⁽⁹⁾	12-24	Various	71.572	Jan 2018	1	2019	71.572
Total: Basic Construction/Conversion							71.572
Electronics							
Digital Modular Radio (DMR) ⁽¹⁰⁾	15-22	26	3.496	Jul 2018	1	2019	3.496
AN/SLQ-25 NIXIE	-	-	-		-		0.000
Total: Electronics							3.496
Hull, Mechanical, and Electrical (HM&E)							
Total: Hull, Mechanical, and Electrical (HM&E)							-
Total Advance Procurement/Obligation Authority							75.068

*Note: "When Required" is the number of months required before ship delivery.

Footnotes:

⁽⁹⁾ Funding to procure Contractor furnished Long Lead Time Materials (LLTM) and engineering related activities.

⁽¹⁰⁾ Funding to procure Government furnished Long Lead Time Materials (LLTM) and engineering related activities.

⁽¹¹⁾ FY16 HM&E supports FY16 4th Qtr class engineering and design efforts. \$8.2M of the FY18 HM&E will be funded with FY17 Advance Procurement and supports class engineering and design efforts.

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Exhibit P-40, Budget Line Item Justification: FY 2018 Navy										Date: May 2017		
Appropriation / Budget Activity / Budget Sub Activity: 1611N: Shipbuilding and Conversion, Navy / BA 05: Auxiliaries, Craft, and Prior-Year Program Costs / BSA 1: Auxiliaries, Craft and Prior Yr Program Cost							P-1 Line Item Number / Title: 5035 / Towing, Salvage, and Rescue Ship (ATS)					
ID Code (A=Service Ready, B=Not Service Ready): A				Program Elements for Code B Items: N/A				Other Related Program Elements: N/A				
Line Item MDAP/MAIS Code: N/A												
Resource Summary	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	1	-	1	-	1	1	1	1	1	2	8
Gross/Weapon System Cost (<i>\$ in Millions</i>)	0.000	75.000	0.000	76.204	0.000	76.204	77.517	79.083	75.339	76.017	186.865	646.025
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	0.000	75.000	0.000	76.204	0.000	76.204	77.517	79.083	75.339	76.017	186.865	646.025
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	0.000	75.000	0.000	76.204	0.000	76.204	77.517	79.083	75.339	76.017	186.865	646.025
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Plus Outfitting and Post Delivery (<i>\$ in Millions</i>)	-	-	-	-	-	-	5.013	7.522	9.532	-	50.072	72.139
Total (<i>\$ in Millions</i>)	-	75.000	-	76.204	-	76.204	82.530	86.605	84.871	76.017	236.937	718.164
Gross/Weapon System Unit Cost (<i>\$ in Millions</i>)	-	75.000	-	76.204	-	76.204	77.517	79.083	75.339	76.017	93.433	80.753

Description:

The Navy requires ocean-going towing, salvage, and rescue capabilities to support Fleet operations. The Navy's current capabilities are provided by four T-ATF 166 class Fleet Tugs and four T-ARS 50 class Salvage ships which reach the end of their expected service lives starting in 2020 and 2025, respectively. The T-ATS program will recapitalize the current Fleet Tugs and Salvage Ships with a common hull Towing, Salvage and Rescue Ship (T-ATS) that is capable of performing the missions of the retiring T-ATF and T-ARS classes.

Characteristics:

Notional

Length Overall 270 ft

Beam 59 ft

Displacement 5,000 tons

Draft 20 ft

Production Status:

T-ATS 1601

T-ATS 1801

Contract Award Date Sep 2017 Jan 2018

Months to Completion

a) Award to Delivery 29 months 28 months

b) Construction Start to Delivery 20 months 20 months

Delivery Date Feb 2020 May 2020

Completion Of Fitting Out Mar 2020 Jun 2020

Obligation Work Limit Date Feb 2021 May 2021

<u>Design Schedule</u>	<u>Start / Issue</u>	<u>Complete / Response</u>	<u>Reissue</u>	<u>Reissue Complete / Response</u>
Issue Date for TLR	Dec 2015	Mar 2016		
Issue Date for TLS	N/A	N/A		
Preliminary Design	N/A	N/A		

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Exhibit P-40, Budget Line Item Justification: FY 2018 Navy			Date: May 2017	
Appropriation / Budget Activity / Budget Sub Activity: 1611N: Shipbuilding and Conversion, Navy / BA 05: Auxiliaries, Craft, and Prior-Year Program Costs / BSA 1: Auxiliaries, Craft and Prior Yr Program Cost		P-1 Line Item Number / Title: 5035 / Towing, Salvage, and Rescue Ship (ATS)		
ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A		Other Related Program Elements: N/A	
Line Item MDAP/MAIS Code: N/A				
<u>Design Schedule</u>	<u>Start / Issue</u>	<u>Complete / Response</u>	<u>Reissue</u>	<u>Reissue Complete / Response</u>
Contract Design	N/A	N/A		
Detail Design	Oct 2017	Oct 2018		
Request for Proposals	Mar 2017	May 2017		
Design Agent				
<u>Classification of Cost Estimate:</u>				

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Exhibit P-5c, Ship Cost Analysis: FY 2018 Navy			Date: May 2017	
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 05 / 1		P-1 Line Item Number / Title: 5035 / Towing, Salvage, and Rescue Ship (ATS)		
Cost Categories	FY 2016		FY 2018	
	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Basic Construction/Conversion	1	64.500	1	65.790
Change Orders		3.225		2.237
Electronics		4.436		4.527
Hull, Mechanical, and Electrical (HM&E)		2.839		3.650
Total Ship Estimate		75.000		76.204
Net P-1 Funding		75.000		76.204

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Exhibit P-27, Ship Production Schedule: FY 2018 Navy				Date: May 2017	
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 05 / 1			P-1 Line Item Number / Title: 5035 / Towing, Salvage, and Rescue Ship (ATS)		
Ship	Shipbuilder	Fiscal Year	Contract Award	Start of Construction	Delivery Date
T-ATS 1601	TBD	2016	Sep 2017	Jun 2018	Feb 2020
T-ATS 1801	TBD	2018	Jan 2018	Sep 2018	May 2020
T-ATS 1901	TBD	2019	Feb 2019	Aug 2019	Apr 2021
T-ATS 2001	TBD	2020	Feb 2020	Aug 2020	Apr 2022
T-ATS 2101	TBD	2021	Feb 2021	Aug 2021	Apr 2023
T-ATS 2201	TBD	2022	Feb 2022	Aug 2022	Apr 2024

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Exhibit P-40, Budget Line Item Justification: FY 2018 Navy **Date:** May 2017

Appropriation / Budget Activity / Budget Sub Activity: 1611N: Shipbuilding and Conversion, Navy / BA 05: Auxiliaries, Craft, and Prior-Year Program Costs / BSA 1: Auxiliaries, Craft and Prior Yr Program Cost	P-1 Line Item Number / Title: 5092 / Moored Training Ship
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ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
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Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	1	-	1	-	-	-	-	-	-	-	-	2
Gross/Weapon System Cost (<i>\$ in Millions</i>)	1,322.021	0.000	864.315	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-	2,186.336
Less PY Advance Procurement (<i>\$ in Millions</i>)	584.753	-	239.788	-	-	-	-	-	-	-	-	824.541
Net Procurement (P-1) (<i>\$ in Millions</i>)	737.268	0.000	624.527	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-	1,361.795
Plus CY Advance Procurement (<i>\$ in Millions</i>)	686.341	138.200	-	-	-	-	-	-	-	-	-	824.541
Total Obligation Authority (<i>\$ in Millions</i>)	1,423.609	138.200	624.527	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-	2,186.336
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Plus Outfitting and Post Delivery (<i>\$ in Millions</i>)	-	-	14.810	9.803	-	9.803	4.978	-	-	-	-	29.591
Total (<i>\$ in Millions</i>)	1,423.609	138.200	639.337	9.803	-	9.803	4.978	-	-	-	-	2,215.927
Gross/Weapon System Unit Cost (<i>\$ in Millions</i>)	1,322.021	-	864.315	-	-	-	-	-	-	-	-	1,093.168

Description:

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

Characteristics:

	MTS-701	MTS-711
Length Overall	433 ft	433 ft
Beam	33 ft	33 ft
Displacement	7,500 LT	7,500 LT
Draft	27 ft	27 ft

Production Status:

	MTS- 701 ⁽¹⁾	MTS- 711
Contract Award Date	Feb 2015	May 2017
Months to Completion		
a) Award to Delivery	43 months	39 months
b) Construction Start to Delivery	43 months	39 months
Delivery Date	Sep 2018	Aug 2020
Completion Of Fitting Out	Sep 2018	Aug 2020
Obligation Work Limit Date	Aug 2019	Jul 2021

Design Schedule

	Start / Issue	Complete / Response	Reissue	Reissue Complete / Response
Issue Date for TLR	N/A	N/A		
Issue Date for TLS	Apr 2008	Jan 2015		
Preliminary Design	Jan 2012	N/A		
Contract Design	Feb 2012	N/A		

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Exhibit P-40, Budget Line Item Justification: FY 2018 Navy				Date: May 2017	
Appropriation / Budget Activity / Budget Sub Activity: 1611N: Shipbuilding and Conversion, Navy / BA 05: Auxiliaries, Craft, and Prior-Year Program Costs / BSA 1: Auxiliaries, Craft and Prior Yr Program Cost			P-1 Line Item Number / Title: 5092 / Moored Training Ship		
ID Code (A=Service Ready, B=Not Service Ready): A		Program Elements for Code B Items: N/A		Other Related Program Elements: N/A	
Line Item MDAP/MAIS Code: N/A					
<u>Design Schedule</u>		<u>Start / Issue</u>	<u>Complete / Response</u>	<u>Reissue</u>	<u>Reissue Complete / Response</u>
Detail Design		Feb 2012	N/A		
Request for Proposals		N/A	N/A		
Design Agent		ELECTRIC BOAT			
<u>Classification of Cost Estimate:</u>					
Footnotes: ⁽¹⁾ The details of this program are CONFIDENTIAL and are reported annually to Congress in the classified budget justification books.					

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Exhibit P-5c, Ship Cost Analysis: FY 2018 Navy			Date: May 2017	
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 05 / 1		P-1 Line Item Number / Title: 5092 / Moored Training Ship		
Cost Categories	FY 2015		FY 2017	
	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Design	1	482.400	1	46.449
Plans/Conversion		387.700		382.214
GFE		30.600		31.100
Basic Construction		421.321		404.552
Total Ship Estimate		1,322.021		864.315
Less Advance Procurement FY 2012		131.200		-
Less Advance Procurement FY 2013		283.453		-
Less Advance Procurement FY 2014		170.100		37.200
Less Advance Procurement FY 2015		-		64.388
Less Advance Procurement FY 2016		-		138.200
Net P-1 Funding		737.268		624.527

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Exhibit P-27, Ship Production Schedule: FY 2018 Navy	Date: May 2017
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Appropriation / Budget Activity / Budget Sub Activity: 1611N / 05 / 1	P-1 Line Item Number / Title: 5092 / Moored Training Ship
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Ship	Shipbuilder	Fiscal Year	Contract Award	Start of Construction	Delivery Date
MTS- 701 ⁽¹⁾	EB/NNSY	2015	Feb 2015	Feb 2015	Sep 2018
MTS- 711	EB/NNSY	2017	May 2017	May 2017	Aug 2020

Footnotes:
⁽¹⁾ The details of this program are CONFIDENTIAL and are reported annually to Congress in the classified budget justification books.

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Exhibit P-40, Budget Line Item Justification: FY 2018 Navy										Date: May 2017		
Appropriation / Budget Activity / Budget Sub Activity: 1611N: Shipbuilding and Conversion, Navy / BA 05: Auxiliaries, Craft, and Prior-Year Program Costs / BSA 1: Auxiliaries, Craft and Prior Yr Program Cost							P-1 Line Item Number / Title: 5100 / LCU 1700					
ID Code (A=Service Ready, B=Not Service Ready): A				Program Elements for Code B Items: N/A				Other Related Program Elements: N/A				
Line Item MDAP/MAIS Code: N/A												
Resource Summary	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	1	1	1	-	1	2	4	4	4	15	32
Gross/Weapon System Cost (<i>\$ in Millions</i>)	0.000	34.000	34.000	31.850	0.000	31.850	41.752	86.596	88.331	90.076	287.782	694.387
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	0.000	34.000	34.000	31.850	0.000	31.850	41.752	86.596	88.331	90.076	287.782	694.387
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	0.000	34.000	34.000	31.850	0.000	31.850	41.752	86.596	88.331	90.076	287.782	694.387
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Total (<i>\$ in Millions</i>)	-	34.000	34.000	31.850	-	31.850	41.752	86.596	88.331	90.076	287.782	694.387
Gross/Weapon System Unit Cost (<i>\$ in Millions</i>)	-	34.000	34.000	31.850	-	31.850	20.876	21.649	22.083	22.519	19.185	21.700

Description:

The Landing Craft Utility (LCU) 1700 program provides heavy lift capability to transport personnel, weapons, equipment, and cargo from the ship to shore and shore to shore across the range of military operations (ROMO). LCU 1700 will be able to conduct 24 hours/day operations for up to 10 days for continuous landing of troops, equipment, and supplies; provide support for missions requiring persistence such as Riverine sustainment, surveillance or port clearing; and execute missions to reinforce, reposition, and resupply forces over a wide operating area.

LCU 1700 provides the functional replacement for the LCU 1610 class of landing craft, all of which have significantly exceeded their 25 year service life (the average age is over 45 years old).

Program of record for the LCU 1700 is 32 craft.

Note:
Notional Characteristics based on Government Preliminary Design.
Production Status dates provided are based on a notional schedule.

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Exhibit P-40, Budget Line Item Justification: FY 2018 Navy		Date: May 2017																																																																																																	
Appropriation / Budget Activity / Budget Sub Activity: 1611N: Shipbuilding and Conversion, Navy / BA 05: Auxiliaries, Craft, and Prior-Year Program Costs / BSA 1: Auxiliaries, Craft and Prior Yr Program Cost		P-1 Line Item Number / Title: 5100 / LCU 1700																																																																																																	
ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A																																																																																																	
Line Item MDAP/MAIS Code: N/A																																																																																																			
<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%;">Characteristics:</td> <td style="width: 15%;">LCU</td> <td colspan="2"></td> </tr> <tr> <td>Length Overall</td> <td>139 ft</td> <td colspan="2"></td> </tr> <tr> <td>Beam</td> <td>31 ft</td> <td colspan="2"></td> </tr> <tr> <td>Displacement</td> <td>428 Tons</td> <td colspan="2"></td> </tr> <tr> <td>Draft</td> <td>7.3 ft</td> <td colspan="2"></td> </tr> <tr> <td colspan="4"> </td> </tr> <tr> <td>Production Status:</td> <td>LCU 1700</td> <td>LCU 1701</td> <td>LCU 1702</td> </tr> <tr> <td>Contract Award Date</td> <td>Oct 2017</td> <td>Jan 2018</td> <td>Jan 2018</td> </tr> <tr> <td>Months to Completion</td> <td></td> <td></td> <td></td> </tr> <tr> <td> a) Award to Delivery</td> <td>37 months</td> <td>37 months</td> <td>38 months</td> </tr> <tr> <td> b) Construction Start to Delivery</td> <td>24 months</td> <td>24 months</td> <td>23 months</td> </tr> <tr> <td>Delivery Date</td> <td>Nov 2020</td> <td>Feb 2021</td> <td>Mar 2021</td> </tr> <tr> <td>Completion Of Fitting Out</td> <td>Dec 2020</td> <td>Mar 2021</td> <td>Apr 2021</td> </tr> <tr> <td>Obligation Work Limit Date</td> <td>Nov 2021</td> <td>Feb 2022</td> <td>Mar 2022</td> </tr> <tr> <td colspan="4"> </td> </tr> <tr> <td><u>Design Schedule</u></td> <td><u>Start / Issue</u></td> <td><u>Complete / Response</u></td> <td><u>Reissue</u></td> </tr> <tr> <td>Issue Date for TLR</td> <td>N/A</td> <td>N/A</td> <td></td> </tr> <tr> <td>Issue Date for TLS</td> <td>N/A</td> <td>N/A</td> <td></td> </tr> <tr> <td>Preliminary Design</td> <td>Mar 2014</td> <td>May 2015</td> <td></td> </tr> <tr> <td>Contract Design</td> <td>Jun 2015</td> <td>Jun 2016</td> <td></td> </tr> <tr> <td>Detail Design</td> <td>Apr 2017</td> <td>Apr 2018</td> <td></td> </tr> <tr> <td>Request for Proposals</td> <td>Feb 2017</td> <td>Apr 2017</td> <td></td> </tr> <tr> <td>Design Agent</td> <td></td> <td></td> <td></td> </tr> <tr> <td colspan="4"><u>Classification of Cost Estimate:</u></td> </tr> </table>				Characteristics:	LCU			Length Overall	139 ft			Beam	31 ft			Displacement	428 Tons			Draft	7.3 ft			 				Production Status:	LCU 1700	LCU 1701	LCU 1702	Contract Award Date	Oct 2017	Jan 2018	Jan 2018	Months to Completion				a) Award to Delivery	37 months	37 months	38 months	b) Construction Start to Delivery	24 months	24 months	23 months	Delivery Date	Nov 2020	Feb 2021	Mar 2021	Completion Of Fitting Out	Dec 2020	Mar 2021	Apr 2021	Obligation Work Limit Date	Nov 2021	Feb 2022	Mar 2022	 				<u>Design Schedule</u>	<u>Start / Issue</u>	<u>Complete / Response</u>	<u>Reissue</u>	Issue Date for TLR	N/A	N/A		Issue Date for TLS	N/A	N/A		Preliminary Design	Mar 2014	May 2015		Contract Design	Jun 2015	Jun 2016		Detail Design	Apr 2017	Apr 2018		Request for Proposals	Feb 2017	Apr 2017		Design Agent				<u>Classification of Cost Estimate:</u>			
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Exhibit P-5c, Ship Cost Analysis: FY 2018 Navy

Date: May 2017

Appropriation / Budget Activity / Budget Sub Activity:
1611N / 05 / 1P-1 Line Item Number / Title:
5100 / LCU 1700

Cost Categories	FY 2016		FY 2017		FY 2018	
	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Plan Costs	1	6.000	1	6.000	1	-
Basic Construction/Conversion		16.050		16.050		19.531
Change Orders		1.600		1.600		1.563
Electronics		3.890		3.890		4.007
Hull, Mechanical, and Electrical (HM&E)		3.360		3.360		3.461
Other Cost		3.100		3.100		3.288
Total Ship Estimate		34.000		34.000		31.850
Net P-1 Funding		34.000		34.000		31.850

Remarks:

The higher FY18 price for Basic Construction is to support battle spares to ensure that prescribed readiness thresholds and objectives are achieved at the lowest possible cost. Sparing will include items such as propulsion and generator spares, anchor diesel-hydraulic system components, and unique ramp/ramp control components.

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Exhibit P-27, Ship Production Schedule: FY 2018 Navy		Date: May 2017
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 05 / 1	P-1 Line Item Number / Title: 5100 / LCU 1700	

Ship	Shipbuilder	Fiscal Year	Contract Award	Start of Construction	Delivery Date
LCU 1700	TBD	2016	Oct 2017	Nov 2018	Nov 2020
LCU 1701	TBD	2017	Jan 2018	Feb 2019	Feb 2021
LCU 1702	TBD	2018	Jan 2018	Apr 2019	Mar 2021
LCU 1703	TBD	2019	Jan 2019	Jul 2019	Apr 2021
LCU 1704	TBD	2019	Jan 2019	Sep 2019	Jun 2021
LCU 1705	TBD	2020	Dec 2019	Dec 2019	Jul 2021
LCU 1706	TBD	2020	Dec 2019	Mar 2020	Sep 2021
LCU 1707	TBD	2020	Dec 2019	Jun 2020	Dec 2021
LCU 1708	TBD	2020	Dec 2019	Sep 2020	Mar 2022
LCU 1709	TBD	2021	Dec 2020	Dec 2020	Apr 2022
LCU 1710	TBD	2021	Dec 2020	Mar 2021	Jul 2022
LCU 1711	TBD	2021	Dec 2020	Jun 2021	Aug 2022
LCU 1712	TBD	2021	Dec 2020	Sep 2021	Nov 2022
LCU 1713	TBD	2022	Dec 2021	Dec 2021	Dec 2022
LCU 1714	TBD	2022	Dec 2021	Mar 2022	Mar 2023
LCU 1715	TBD	2022	Dec 2021	Jun 2022	Jun 2023
LCU 1716	TBD	2022	Dec 2021	Sep 2022	Sep 2023

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Exhibit P-40, Budget Line Item Justification: FY 2018 Navy								Date: May 2017		
Appropriation / Budget Activity / Budget Sub Activity: 1611N: Shipbuilding and Conversion, Navy / BA 05: Auxiliaries, Craft, and Prior-Year Program Costs / BSA 1: Auxiliaries, Craft and Prior Yr Program Cost						P-1 Line Item Number / Title: 5110 / Outfitting				
ID Code (A=Service Ready, B=Not Service Ready): A			Program Elements for Code B Items: N/A				Other Related Program Elements: N/A			
Line Item MDAP/MAIS Code: N/A										
Resource Summary	Prior Years	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
Full Funding TOA - Outfitting <i>(\$ in Millions)</i>	426.202	227.586	174.469	121.387	218.917	226.915	218.825	183.065	392.705	2,190.071
Full Funding TOA - Post Delivery <i>(\$ in Millions)</i>	302.119	381.049	486.701	422.168	407.225	413.530	407.189	364.506	581.720	3,766.207
Full Funding TOA - First Destination <i>(\$ in Millions)</i>	23.560	5.123	4.988	5.148	5.233	5.344	5.454	5.567	5.581	65.998
Total Obligation Authority <i>(\$ in Millions)</i>	751.881	613.758	666.158	548.703	631.375	645.789	631.468	553.138	980.006	6,022.276
<p>Description:</p> <p>Outfitting funds are used to acquire on board repair parts, other secondary items, equipage, recreation items, precommissioning crew support and general use consumables furnished to the shipbuilder or the fitting-out activity to fill the ship's initial allowances as defined by the baseline coordinated shipboard allowance list (COSAL). The program also budgets for contractor-furnished spares, a lead-time away from delivery. The program ensures operational readiness of ships undergoing new construction, conversion, ship life extension program, and nuclear refueling. It ensures these ships receive their full allowances of spare parts and equipment which are vitally required to support the shipboard maintenance process; ensures ships are equipped with operating space items (tools, test equipment, damage control), personnel safety and survivability commodities for successful completion of builder sea trials; supports shipboard maintenance and thereby achieving the OPNAV-directed supply readiness goals for material on board ship at delivery. SCN funding for the initial fill of allowance list items are limited to those items on the COSAL and authorized requirements through the Obligation Work Limiting Date (OWLD). While most outfitting funds are executed prior to ships' completion of fitting out dates, some outfitting funding may be required in the fiscal year following the scheduled Delivery Date.</p> <p>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.</p> <p>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's Program Manager as a result of builders' trials (pre-delivery), acceptance or underway trials, final contract trials, trial board items, and correction of production-related defects or deficiencies which develop during the post delivery period. Although the majority of post delivery funding occurs after ships' delivery dates, some funding is required prior to the delivery date in preparation for post delivery events.</p> <p>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.</p>										

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Exhibit P-29, Outfitting: FY 2018 Navy

Date: May 2017

Appropriation / Budget Activity / Budget Sub Activity:
1611N / 05 / 1P-1 Line Item Number / Title:
5110 / Outfitting

Ship Class	Hull Number	Program Year	Contract Award	Start of Const.	Delivery Date	CFO	PSA Start	PSA Finish	OWL Date	Prior Years	FY 2016	FY 2017	FY 2018	To Complete	Total
CVN	78	2008	Sep 2008	Aug 2005	May 2017	Jul 2017	Mar 2018	Nov 2018	Nov 2018	112.131	33.687	-	-	-	145.818
CVN	79	2013	Jun 2015	Feb 2011	Sep 2024	Nov 2024	Mar 2023	Sep 2024	Oct 2025	-	-	-	-	170.627	170.627
CVN	80	2018	Mar 2018	Mar 2018	Sep 2027	Nov 2027	Apr 2028	Sep 2028	Oct 2028	-	-	-	-	172.568	172.568
CVN Total										112.131	33.687	-	-	343.195	489.013
VIRGINIA	783	2008	Jan 2004	Feb 2008	Jun 2013	Jun 2013	Feb 2014	Feb 2016	May 2016	12.418	0.257	-	-	-	12.675
VIRGINIA	784	2009	Dec 2008	Mar 2009	Aug 2014	Aug 2014	Sep 2015	Aug 2016	Nov 2016	17.175	0.259	-	-	-	17.434
VIRGINIA	785	2010	Dec 2008	Mar 2010	Jun 2015	Jun 2015	Mar 2016	May 2016	Aug 2016	17.785	0.588	-	-	-	18.373
VIRGINIA	786	2011	Dec 2008	Mar 2011	Aug 2016	Aug 2016	Feb 2017	Jul 2017	Jul 2017	16.769	0.469	0.250	-	-	17.488
VIRGINIA	787	2011	Dec 2008	Sep 2011	May 2017	May 2017	Aug 2017	Dec 2017	Apr 2018	15.310	2.304	0.275	-	-	17.889
VIRGINIA	788	2012	Dec 2008	Mar 2012	Aug 2017	Aug 2017	Jan 2018	May 2018	Jul 2018	14.631	2.175	0.408	-	-	17.214
VIRGINIA	789	2012	Dec 2008	Sep 2012	Feb 2018	Feb 2018	Mar 2018	Jul 2018	Jan 2019	12.778	2.638	1.077	-	-	16.493
VIRGINIA	790	2013	Dec 2008	Mar 2013	Aug 2018	Aug 2018	Jan 2019	Jul 2019	Jul 2019	-	14.975	2.029	-	-	17.004
VIRGINIA	791	2013	Dec 2008	Sep 2013	Feb 2019	Feb 2019	Mar 2019	Jul 2019	Jan 2020	-	12.772	4.933	-	-	17.705
VIRGINIA	792	2014	Apr 2014	May 2014	Jun 2019	Jun 2019	Sep 2019	Mar 2020	May 2020	-	-	22.783	0.566	-	23.349
VIRGINIA	793	2014	Apr 2014	Sep 2014	Nov 2019	Nov 2019	Jan 2020	May 2020	Oct 2020	-	-	-	14.415	4.938	19.353
VIRGINIA	794	2015	Apr 2014	Apr 2015	May 2020	May 2020	Sep 2020	Dec 2020	Apr 2021	-	-	-	2.147	15.173	17.320
VIRGINIA	795	2015	Apr 2014	Sep 2015	Sep 2020	Sep 2020	Nov 2020	Mar 2021	Aug 2021	-	-	-	-	16.605	16.605
VIRGINIA	796	2016	Apr 2014	Mar 2016	Feb 2021	Feb 2021	May 2021	Sep 2021	Jan 2022	-	-	-	-	23.467	23.467
VIRGINIA	797	2016	Apr 2014	Sep 2016	Aug 2021	Aug 2021	Oct 2021	Feb 2022	Jul 2022	-	-	-	-	23.097	23.097
VIRGINIA	798	2017	Apr 2014	Mar 2017	Feb 2022	Feb 2022	Apr 2022	Aug 2022	Jan 2023	-	-	-	-	23.516	23.516
VIRGINIA	799	2017	Apr 2014	Sep 2017	Aug 2022	Aug 2022	Sep 2022	Mar 2023	Jul 2023	-	-	-	-	23.233	23.233
VIRGINIA	800	2018	Apr 2014	Mar 2018	Feb 2023	Feb 2023	Mar 2023	Aug 2023	Jan 2024	-	-	-	-	24.888	24.888
VIRGINIA	801	2018	Apr 2014	Sep 2018	Aug 2023	Aug 2023	Sep 2023	Feb 2024	Jul 2024	-	-	-	-	24.405	24.405
VIRGINIA	802	2019	Oct 2018	Mar 2019	Jul 2024	Jul 2024	Aug 2024	Feb 2025	Jun 2025	-	-	-	-	25.177	25.177
VIRGINIA	803	2019	Oct 2018	Sep 2019	Apr 2025	Apr 2025	May 2025	Nov 2025	Mar 2026	-	-	-	-	25.178	25.178
VIRGINIA Total										106.866	36.437	31.755	17.128	229.677	421.863
CVN-RCOH	72	2012	Mar 2013	Mar 2013	May 2017	Jul 2017	May 2017	May 2018	Jun 2018	40.520	21.881	4.504	-	-	66.905
CVN-RCOH	73	2016	Aug 2017	Aug 2017	Aug 2021	Sep 2021	Jul 2021	Jul 2022	Aug 2022	-	-	-	6.486	61.259	67.745
CVN-RCOH	74	2021	Jan 2021	Jan 2021	Jan 2025	Mar 2025	Jan 2025	Jan 2026	Feb 2026	-	-	-	-	68.230	68.230
CVN-RCOH Total										40.520	21.881	4.504	6.486	129.489	202.880
DDG 1000	1000	2007	Feb 2008	Feb 2009	May 2018	May 2018	Aug 2018	Nov 2018	Apr 2019	47.722	4.525	2.000	0.250	0.250	54.747
DDG 1000	1001	2007	Sep 2011	Mar 2010	May 2020	May 2020	Mar 2021	Apr 2021	Apr 2021	8.633	-	5.137	7.723	4.384	25.877
DDG 1000	1002	2009	Sep 2011	Apr 2012	Dec 2021	Dec 2021	Aug 2022	Nov 2022	Nov 2022	0.029	-	-	-	30.505	30.534
DDG 1000 Total										56.384	4.525	7.137	7.973	35.139	111.158
DDG	113	2010	Jun 2011	Aug 2012	Dec 2016	Jun 2017	Jan 2018	Apr 2018	May 2018	8.658	15.389	-	-	-	24.047
DDG	115	2011	Sep 2011	Feb 2012	Feb 2017	Apr 2017	Nov 2017	Feb 2018	Mar 2018	1.046	14.798	3.859	-	-	19.703
DDG	114	2011	Sep 2011	Sep 2013	Sep 2017	Jan 2018	Oct 2018	Dec 2018	Dec 2018	0.106	7.883	11.155	-	-	19.144
DDG	116	2012	Feb 2012	Feb 2013	Apr 2018	Aug 2018	Mar 2019	Jul 2019	Jul 2019	-	0.941	11.931	1.888	-	14.760
DDG	117	2013	Jun 2013	Sep 2014	Jun 2018	Oct 2018	May 2019	Sep 2019	Sep 2019	-	-	7.035	8.348	-	15.383

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Exhibit P-29, Outfitting: FY 2018 Navy

Date: May 2017

Appropriation / Budget Activity / Budget Sub Activity:
1611N / 05 / 1P-1 Line Item Number / Title:
5110 / Outfitting

Ship Class	Hull Number	Program Year	Contract Award	Start of Const.	Delivery Date	CFO	PSA Start	PSA Finish	OWL Date	Prior Years	FY 2016	FY 2017	FY 2018	To Complete	Total
DDG	118	2013	Jun 2013	Aug 2015	Dec 2019	Mar 2020	Nov 2020	Feb 2021	Feb 2021	-	-	0.310	8.926	6.177	15.413
DDG	120	2013	Mar 2014	Sep 2016	Oct 2020	Feb 2021	Sep 2021	Dec 2021	Jan 2022	-	-	0.307	8.926	6.177	15.410
DDG	119	2014	Jun 2013	Jul 2015	Jun 2019	Oct 2019	May 2020	Sep 2020	Sep 2020	-	-	-	0.678	17.521	18.199
DDG	121	2015	Jun 2013	Apr 2016	May 2020	Sep 2020	Apr 2021	Jul 2021	Aug 2021	-	-	-	0.679	17.834	18.513
DDG	122	2015	Jun 2013	Jun 2017	Jul 2021	Oct 2021	Jun 2022	Sep 2022	Sep 2022	-	-	-	0.681	17.834	18.515
DDG	123	2016	Jun 2013	Jan 2017	Jul 2021	Nov 2021	Jul 2022	Oct 2022	Oct 2022	-	-	-	-	18.385	18.385
DDG	124	2016	Jun 2013	Aug 2018	Jun 2022	Oct 2022	Jun 2023	Sep 2023	Sep 2023	-	-	-	-	18.385	18.385
DDG	127	2016	Sep 2017	Jan 2019	Nov 2022	Feb 2023	Nov 2023	Jan 2024	Jan 2024	-	-	-	-	18.385	18.385
DDG	125	2017	Jun 2013	Jun 2019	Jul 2022	Nov 2022	Jul 2023	Oct 2023	Oct 2023	-	-	-	-	18.325	18.325
DDG	126	2017	Jun 2013	Jul 2019	May 2023	Sep 2023	Jun 2024	Aug 2024	Aug 2024	-	-	-	-	18.323	18.323
DDG	128	2018	Jun 2018	Jul 2019	Jul 2023	Nov 2023	Jul 2024	Oct 2024	Oct 2024	-	-	-	-	15.615	15.615
DDG	129	2018	Jun 2018	Jul 2019	Jul 2023	Nov 2023	Jul 2024	Oct 2024	Oct 2024	-	-	-	-	15.614	15.614
DDG Total										9.810	39.011	34.597	30.126	188.575	302.119
FF	1	2020	Jul 2020	Jan 2022	Jan 2026	Jun 2026	Mar 2027	Apr 2027	May 2027	-	-	-	-	9.303	9.303
FF	2	2021	Mar 2021	Jun 2022	May 2026	Sep 2026	May 2027	Jul 2027	Aug 2027	-	-	-	-	2.201	2.201
FF Total										-	-	-	-	11.504	11.504
LCS	6	2010	Dec 2010	Aug 2011	Aug 2015	Feb 2017	Jun 2017	Jan 2018	Jan 2018	5.550	0.163	-	-	-	5.713
LCS	5	2010	Dec 2010	Aug 2011	Oct 2015	Nov 2016	Jan 2017	Jul 2017	Oct 2017	6.719	0.153	-	-	-	6.872
LCS	8	2011	Mar 2011	Jul 2012	Jun 2016	Sep 2016	May 2017	Aug 2017	Aug 2017	5.514	2.213	-	-	-	7.727
LCS	7	2011	Mar 2011	Apr 2012	Aug 2016	Oct 2016	May 2017	Sep 2017	Sep 2017	7.813	0.653	-	-	-	8.466
LCS	10	2012	Mar 2012	Mar 2013	Dec 2016	May 2017	Dec 2017	Mar 2018	Apr 2018	4.834	2.294	0.500	-	-	7.628
LCS	12	2012	Mar 2012	Sep 2013	Jun 2017	Nov 2017	Jun 2018	Oct 2018	Oct 2018	3.645	0.207	2.471	-	-	6.323
LCS	9	2012	Mar 2012	Jan 2013	Sep 2017	Nov 2017	Jun 2018	Oct 2018	Oct 2018	5.004	1.238	0.500	-	-	6.742
LCS	11	2012	Mar 2012	Aug 2013	Oct 2017	Dec 2017	Jul 2018	Nov 2018	Nov 2018	4.169	1.508	1.821	-	-	7.498
LCS	14	2013	Mar 2013	Feb 2014	Sep 2017	Jan 2018	Aug 2018	Dec 2018	Dec 2018	1.850	4.828	1.550	-	-	8.228
LCS	16	2013	Mar 2013	Sep 2014	Apr 2018	Sep 2018	Apr 2019	Aug 2019	Aug 2019	-	6.116	0.580	1.426	-	8.122
LCS	13	2013	Mar 2013	Feb 2014	Jun 2018	Oct 2018	May 2019	Aug 2019	Sep 2019	2.184	4.406	0.467	-	-	7.057
LCS	15	2013	Mar 2013	Dec 2014	Dec 2018	Apr 2019	Nov 2019	Mar 2020	Mar 2020	2.221	4.116	0.840	0.844	-	8.021
LCS	18	2014	Mar 2014	Mar 2015	Jul 2018	Nov 2018	Jun 2019	Oct 2019	Oct 2019	-	1.491	2.047	1.173	0.948	5.659
LCS	20	2014	Mar 2014	Feb 2016	Mar 2019	Jul 2019	Mar 2020	Jul 2020	Jul 2020	-	1.200	1.757	1.023	2.398	6.378
LCS	17	2014	Mar 2014	Aug 2015	Jun 2019	Nov 2019	Jun 2020	Oct 2020	Oct 2020	-	2.767	1.269	1.333	1.182	6.551
LCS	19	2014	Mar 2014	Aug 2016	Dec 2019	Apr 2020	Nov 2020	Mar 2021	Mar 2021	-	2.500	0.663	1.212	1.269	5.644
LCS	22	2015	Mar 2015	Dec 2016	Aug 2019	Jan 2020	Aug 2020	Dec 2020	Dec 2020	-	-	-	3.682	2.946	6.628
LCS	24	2015	Mar 2015	Jul 2017	Apr 2020	Sep 2020	Apr 2021	Aug 2021	Aug 2021	-	-	1.800	1.553	5.260	8.613
LCS	21	2015	Mar 2015	Feb 2017	Jun 2020	Oct 2020	May 2021	Aug 2021	Sep 2021	-	-	1.800	2.213	2.260	6.273
LCS	23	2016	Dec 2015	Jul 2017	Nov 2020	Mar 2021	Oct 2021	Jan 2022	Feb 2022	-	-	-	1.548	6.025	7.573
LCS	26	2016	Mar 2016	Oct 2017	Nov 2020	Apr 2021	Nov 2021	Mar 2022	Mar 2022	-	-	-	-	7.973	7.973
LCS	25	2016	Mar 2016	Dec 2017	Jun 2021	Oct 2021	May 2022	Aug 2022	Sep 2022	-	-	-	-	6.988	6.988
LCS	28	2017	Jun 2017	Apr 2018	May 2021	Sep 2021	Apr 2022	Jul 2022	Aug 2022	-	-	-	-	7.958	7.958

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Exhibit P-29, Outfitting: FY 2018 Navy

Date: May 2017

Appropriation / Budget Activity / Budget Sub Activity:
1611N / 05 / 1P-1 Line Item Number / Title:
5110 / Outfitting

Ship Class	Hull Number	Program Year	Contract Award	Start of Const.	Delivery Date	CFO	PSA Start	PSA Finish	OWL Date	Prior Years	FY 2016	FY 2017	FY 2018	To Complete	Total
LCS	27	2017	Jun 2017	Jun 2018	Dec 2021	Mar 2022	Oct 2022	Jan 2023	Feb 2023	-	-	-	-	7.976	7.976
LCS	29	2018	Mar 2018	Mar 2019	Dec 2022	Apr 2023	Nov 2023	Feb 2024	Mar 2024	-	-	-	-	7.027	7.027
LCS	30	2019	Mar 2019	Mar 2020	Dec 2023	Jan 2024	Aug 2024	Dec 2024	Dec 2024	-	-	-	-	7.151	7.151
LCS Total										49.503	35.853	18.065	16.007	67.361	186.789
LPD	26	2009	Apr 2011	May 2011	May 2016	Mar 2017	Aug 2017	Feb 2018	Feb 2018	15.090	11.491	0.424	-	-	27.005
LPD	27	2012	Jul 2012	Aug 2012	Oct 2017	Mar 2018	Aug 2018	Feb 2019	Feb 2019	0.843	11.068	13.881	1.424	-	27.216
LPD	28	2016	Dec 2016	Dec 2016	Sep 2021	May 2022	Nov 2022	Apr 2023	Apr 2023	-	-	-	-	22.119	22.119
LPD Total										15.933	22.559	14.305	1.424	22.119	76.340
ESB	4	2014	Dec 2014	Oct 2015	Mar 2018	Jun 2018	Jan 2019	May 2019	May 2019	-	3.015	18.030	-	-	21.045
ESB	5	2016	Dec 2016	Jan 2017	May 2019	Aug 2019	May 2020	Jul 2020	Jul 2020	-	-	-	5.000	20.008	25.008
ESB Total										-	3.015	18.030	5.000	20.008	46.053
LHA	7	2011	May 2012	Jul 2013	Dec 2018	Sep 2019	Mar 2020	Jul 2020	Aug 2020	0.959	12.627	15.731	10.829	9.558	49.704
LHA Total										0.959	12.627	15.731	10.829	9.558	49.704
EPF	7	2011	Jun 2011	Sep 2014	Jun 2016	Sep 2016	Apr 2017	Jun 2017	Aug 2017	3.434	0.990	-	-	-	4.424
EPF	8	2012	Feb 2012	Apr 2015	Apr 2017	Jul 2017	Jan 2018	Mar 2018	Jun 2018	0.406	4.125	-	-	-	4.531
EPF	9	2012	Feb 2012	Nov 2015	Oct 2017	Jan 2018	Jul 2018	Sep 2018	Dec 2018	-	2.581	0.716	-	-	3.297
EPF	10	2013	Dec 2012	Jun 2016	Jun 2018	Sep 2018	Mar 2019	May 2019	Aug 2019	-	-	4.188	-	-	4.188
EPF	11	2015	Sep 2016	Jan 2017	Feb 2019	May 2019	Nov 2019	Jan 2020	Apr 2020	-	-	-	4.003	0.366	4.369
EPF	12	2016	Sep 2016	Sep 2017	Sep 2019	Dec 2019	Jun 2020	Aug 2020	Nov 2020	-	-	-	0.300	4.450	4.750
EPF Total										3.840	7.696	4.904	4.303	4.816	25.559
T-AO	205	2016	Jun 2016	Sep 2018	Nov 2020	Feb 2021	Jun 2021	Sep 2021	Jan 2022	-	-	-	-	19.494	19.494
T-AO	206	2018	Jan 2018	Apr 2019	Apr 2021	Jul 2021	Nov 2021	Feb 2022	Jun 2022	-	-	-	-	19.914	19.914
T-AO	207	2019	Jan 2019	Oct 2019	Sep 2021	Dec 2021	Apr 2022	Jul 2022	Nov 2022	-	-	-	-	19.246	19.246
T-AO	208	2020	Jan 2020	Apr 2020	Mar 2022	Jun 2022	Oct 2022	Jan 2023	May 2023	-	-	-	-	19.680	19.680
T-AO Total										-	-	-	-	78.334	78.334
T-ATS(X)	1601	2016	Sep 2017	Jun 2018	Feb 2020	Mar 2020	Sep 2020	Sep 2020	Feb 2021	-	-	-	-	4.325	4.325
T-ATS(X)	1801	2018	Jan 2018	Sep 2018	May 2020	Jun 2020	Jan 2021	Jan 2021	May 2021	-	-	-	-	4.213	4.213
T-ATS(X)	1901	2019	Feb 2019	Aug 2019	Apr 2021	May 2021	Dec 2021	Dec 2021	Apr 2022	-	-	-	-	4.187	4.187
T-ATS(X)	2001	2020	Feb 2020	Aug 2020	Apr 2022	May 2022	Dec 2022	Dec 2022	Apr 2023	-	-	-	-	4.320	4.320
T-ATS(X) Total										-	-	-	-	17.045	17.045
MTS	701	2015	Feb 2015	Feb 2015	Sep 2018	Sep 2018			Aug 2019	-	-	14.810	-	-	14.810
MTS	711	2017	May 2017	May 2017	Aug 2020	Aug 2020			Jul 2021	-	-	-	9.803	4.978	14.781
MTS Total										-	-	14.810	9.803	4.978	29.591
LCAC	101	2015	Dec 2012	Mar 2015	Mar 2018	Nov 2018	Dec 2018	Mar 2019	Oct 2019	-	-	-	0.919	-	0.919
LCAC	102	2015	Mar 2015	Sep 2016	Jan 2019	Jun 2019	Sep 2019	Nov 2019	May 2020	-	-	-	0.425	0.452	0.877
LCAC	103	2015	Mar 2015	Nov 2016	Apr 2019	Jun 2019	Jan 2020	Apr 2020	May 2020	-	-	-	-	0.789	0.789
LCAC	104	2016	Mar 2016	Mar 2017	Jul 2019	Mar 2020	Jul 2020	Nov 2020	Feb 2021	-	-	-	-	0.805	0.805
LCAC	105	2016	Mar 2016	May 2017	Sep 2019	Mar 2020	Aug 2020	Dec 2020	Feb 2021	-	-	-	-	0.804	0.804
LCAC	106	2016	Mar 2016	Aug 2017	Dec 2019	Mar 2020	Sep 2020	Jan 2021	Feb 2021	-	-	-	-	0.821	0.821

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Exhibit P-29, Outfitting: FY 2018 Navy

Date: May 2017

Appropriation / Budget Activity / Budget Sub Activity:
1611N / 05 / 1P-1 Line Item Number / Title:
5110 / Outfitting

Ship Class	Hull Number	Program Year	Contract Award	Start of Const.	Delivery Date	CFO	PSA Start	PSA Finish	OWL Date	Prior Years	FY 2016	FY 2017	FY 2018	To Complete	Total
LCAC	107	2016	Mar 2016	Nov 2017	Mar 2020	Sep 2020	Feb 2021	May 2021	Aug 2021	-	-	-	-	0.823	0.823
LCAC	108	2016	Mar 2016	Jan 2018	May 2020	Sep 2020	Mar 2021	Jun 2021	Aug 2021	-	-	-	-	0.811	0.811
LCAC	109	2017	Sep 2017	Mar 2018	Jul 2020	Sep 2020	Apr 2021	Jul 2021	Aug 2021	-	-	-	-	0.793	0.793
LCAC	110	2017	Sep 2017	Jun 2018	Sep 2020	Apr 2021	Sep 2021	Dec 2021	Mar 2022	-	-	-	-	0.795	0.795
LCAC	111	2017	Sep 2017	Aug 2018	Nov 2020	Apr 2021	Oct 2021	Jan 2022	Mar 2022	-	-	-	-	0.824	0.824
LCAC	112	2017	Sep 2017	Nov 2018	Feb 2021	Apr 2021	Nov 2021	Feb 2022	Mar 2022	-	-	-	-	0.815	0.815
LCAC	113	2017	Sep 2017	Jan 2019	Apr 2021	Oct 2021	Feb 2022	Jun 2022	Sep 2022	-	-	-	-	0.815	0.815
LCAC	114	2018	Mar 2018	Mar 2019	Jul 2021	Oct 2021	Mar 2022	Jul 2022	Sep 2022	-	-	-	-	0.815	0.815
LCAC	115	2018	Mar 2018	Jun 2019	Jul 2021	Oct 2021	Apr 2022	Aug 2022	Sep 2022	-	-	-	-	0.815	0.815
LCAC	116	2018	Mar 2018	Aug 2019	Oct 2021	May 2022	Oct 2022	Jan 2023	Apr 2023	-	-	-	-	0.811	0.811
LCAC	117	2019	Mar 2019	Nov 2019	Dec 2021	May 2022	Nov 2022	Feb 2023	Apr 2023	-	-	-	-	0.821	0.821
LCAC	118	2019	Mar 2019	Jan 2020	Mar 2022	May 2022	Dec 2022	Mar 2023	Apr 2023	-	-	-	-	0.821	0.821
LCAC	119	2019	Mar 2019	Mar 2020	May 2022	Dec 2022	May 2023	Aug 2023	Nov 2023	-	-	-	-	0.821	0.821
LCAC	120	2019	Mar 2019	Jun 2020	Jul 2022	Dec 2022	Jun 2023	Sep 2023	Nov 2023	-	-	-	-	0.824	0.824
LCAC	121	2019	Mar 2019	Aug 2020	Oct 2022	Dec 2022	Jul 2023	Oct 2023	Nov 2023	-	-	-	-	0.824	0.824
LCAC	122	2020	Mar 2020	Nov 2020	Dec 2022	Jul 2023	Dec 2023	Mar 2024	Jun 2024	-	-	-	-	0.824	0.824
LCAC	123	2020	Mar 2020	Jan 2021	Mar 2023	Jul 2023	Jan 2024	Apr 2024	Jun 2024	-	-	-	-	0.824	0.824
LCAC	124	2020	Mar 2020	Mar 2021	May 2023	Jul 2023	Feb 2024	May 2024	Jun 2024	-	-	-	-	0.824	0.824
LCAC	125	2020	Mar 2020	Jun 2021	Jul 2023	Feb 2024	Jul 2024	Oct 2024	Jan 2025	-	-	-	-	0.824	0.824
LCAC	126	2020	Mar 2020	Aug 2021	Oct 2023	Feb 2024	Aug 2024	Nov 2024	Jan 2025	-	-	-	-	0.840	0.840
LCAC	127	2021	Mar 2021	Nov 2021	Dec 2023	Feb 2024	Sep 2024	Dec 2024	Jan 2025	-	-	-	-	0.840	0.840
LCAC	128	2021	Mar 2021	Jan 2022	Mar 2024	Oct 2024	Feb 2025	Jun 2025	Sep 2025	-	-	-	-	0.840	0.840
LCAC	129	2021	Mar 2021	Mar 2022	May 2024	Oct 2024	Mar 2025	Jul 2025	Sep 2025	-	-	-	-	0.840	0.840
LCAC	130	2021	Mar 2021	Jun 2022	Jul 2024	Oct 2024	Apr 2025	Aug 2025	Sep 2025	-	-	-	-	0.840	0.840
LCAC	131	2021	Mar 2021	Aug 2022	Oct 2024	May 2025	Oct 2025	Jan 2026	Apr 2026	-	-	-	-	0.861	0.861
LCAC Total										-	-	-	1.344	24.256	25.600
LCAC SLEP	57	2014	Jun 2014	Jul 2015	Oct 2016	Nov 2016	Apr 2017	Jun 2017	Oct 2017	-	0.130	-	-	-	0.130
LCAC SLEP	84	2015	Sep 2015	Dec 2015	Mar 2017	Apr 2017	Jun 2017	Jul 2017	Mar 2018	-	0.129	0.013	-	-	0.142
LCAC SLEP	58	2015	Sep 2015	Dec 2015	Apr 2017	May 2017	Aug 2017	Sep 2017	Apr 2018	-	0.130	0.013	-	-	0.143
LCAC SLEP	85	2016	Mar 2016	Jun 2016	Sep 2017	Oct 2017	Nov 2017	Dec 2017	Sep 2018	-	-	0.234	-	-	0.234
LCAC SLEP	64	2016	Mar 2016	Jun 2016	Sep 2017	Oct 2017	Jan 2018	Feb 2018	Sep 2018	-	-	0.234	-	-	0.234
LCAC SLEP	65	2016	Mar 2016	Oct 2016	Feb 2018	Mar 2018	Jun 2018	Jul 2018	Feb 2019	-	-	0.156	0.078	-	0.234
LCAC SLEP	76	2016	Mar 2016	Feb 2017	May 2018	Jun 2018	Sep 2018	Oct 2018	May 2019	-	-	0.210	0.028	-	0.238
LCAC SLEP Total										-	0.389	0.860	0.106	-	1.355
YP SLEP	688	2016	Aug 2016	Apr 2017	Jan 2018	Apr 2018			Mar 2019	-	0.048	-	-	-	0.048
YP SLEP	694	2016	May 2017	Aug 2017	Jan 2018	Apr 2018			Mar 2019	-	-	0.047	-	-	0.047
YP SLEP	689	2016	Nov 2017	Feb 2018	Jul 2018	Oct 2018			Sep 2019	-	-	0.046	-	-	0.046
YP SLEP	692	2016	Jan 2018	Apr 2018	Sep 2018	Dec 2018			Nov 2019	-	-	0.046	-	-	0.046
YP SLEP	695	2016	Aug 2016	Feb 2018	Sep 2018	Dec 2018			Nov 2019	-	0.049	-	-	-	0.049

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Exhibit P-29, Outfitting: FY 2018 Navy	Date: May 2017
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Appropriation / Budget Activity / Budget Sub Activity: 1611N / 05 / 1	P-1 Line Item Number / Title: 5110 / Outfitting
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Ship Class	Hull Number	Program Year	Contract Award	Start of Const.	Delivery Date	CFO	PSA Start	PSA Finish	OWL Date	Prior Years	FY 2016	FY 2017	FY 2018	To Complete	Total
YP SLEP	686	2016	Jul 2018	Oct 2018	Mar 2019	Jun 2019			May 2020	-	0.049	-	-	-	0.049
YP SLEP	698	2017	Jun 2018	Oct 2018	Mar 2019	Jun 2019			May 2020	-	-	0.047	-	-	0.047
YP SLEP	690	2017	Jan 2019	Apr 2019	Sep 2019	Dec 2019			Nov 2020	-	-	0.047	-	-	0.047
YP SLEP	691	2017	Jan 2019	Apr 2019	Sep 2019	Dec 2019			Nov 2020	-	-	-	-	0.049	0.049
YP SLEP	683	2017	Jul 2019	Oct 2019	Mar 2020	Jun 2020			May 2021	-	-	0.047	-	-	0.047
YP SLEP	700	2017	Jul 2019	Oct 2019	Mar 2020	Jun 2020			May 2021	-	-	-	-	0.048	0.048
YP SLEP	684	2017	Jan 2020	Apr 2020	Sep 2020	Dec 2020			Nov 2021	-	-	-	-	0.048	0.048
YP SLEP Total										-	0.146	0.280	-	0.145	0.571
PUBS	0	2010								30.256	9.760	9.491	10.858	54.228	114.593
PUBS Total										30.256	9.760	9.491	10.858	54.228	114.593
Full Funding TOA - Outfitting Total										426.202	227.586	174.469	121.387	1,240.427	2,190.071

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Exhibit P-30, Delivery: FY 2018 Navy

Date: May 2017

Appropriation / Budget Activity / Budget Sub Activity:
1611N / 05 / 1P-1 Line Item Number / Title:
5110 / Outfitting

Ship Class	Hull Number	Program Year	Contract Award	Start of Const.	Delivery Date	CFO	PSA Start	PSA Finish	OWL Date	Prior Years	FY 2016	FY 2017	FY 2018	To Complete	Total
CVN	78	2008	Sep 2008	Aug 2005	May 2017	Jul 2017	Mar 2018	Nov 2018	Nov 2018	2.500	65.803	2.341	26.213	-	96.857
CVN	79	2013	Jun 2015	Feb 2011	Sep 2024	Nov 2024	Mar 2023	Sep 2024	Oct 2025	-	-	-	-	122.121	122.121
CVN	80	2018	Mar 2018	Mar 2018	Sep 2027	Nov 2027	Apr 2028	Sep 2028	Oct 2028	-	-	-	-	107.868	107.868
CVN Total										2.500	65.803	2.341	26.213	229.989	326.846
VIRGINIA	783	2008	Jan 2004	Feb 2008	Jun 2013	Jun 2013	Feb 2014	Feb 2016	May 2016	50.139	-	-	-	-	50.139
VIRGINIA	784	2009	Dec 2008	Mar 2009	Aug 2014	Aug 2014	Sep 2015	Aug 2016	Nov 2016	45.954	28.784	-	-	-	74.738
VIRGINIA	785	2010	Dec 2008	Mar 2010	Jun 2015	Jun 2015	Mar 2016	May 2016	Aug 2016	41.135	9.600	-	-	-	50.735
VIRGINIA	786	2011	Dec 2008	Mar 2011	Aug 2016	Aug 2016	Feb 2017	Jul 2017	Jul 2017	7.254	18.626	22.000	-	-	47.880
VIRGINIA	787	2011	Dec 2008	Sep 2011	May 2017	May 2017	Aug 2017	Dec 2017	Apr 2018	-	8.523	37.428	-	-	45.951
VIRGINIA	788	2012	Dec 2008	Mar 2012	Aug 2017	Aug 2017	Jan 2018	May 2018	Jul 2018	-	2.643	36.924	7.648	-	47.215
VIRGINIA	789	2012	Dec 2008	Sep 2012	Feb 2018	Feb 2018	Mar 2018	Jul 2018	Jan 2019	-	-	11.372	35.758	-	47.130
VIRGINIA	790	2013	Dec 2008	Mar 2013	Aug 2018	Aug 2018	Jan 2019	Jul 2019	Jul 2019	-	-	3.188	45.368	-	48.556
VIRGINIA	791	2013	Dec 2008	Sep 2013	Feb 2019	Feb 2019	Mar 2019	Jul 2019	Jan 2020	-	-	-	12.839	35.944	48.783
VIRGINIA	792	2014	Apr 2014	May 2014	Jun 2019	Jun 2019	Sep 2019	Mar 2020	May 2020	-	-	-	-	50.947	50.947
VIRGINIA	793	2014	Apr 2014	Sep 2014	Nov 2019	Nov 2019	Jan 2020	May 2020	Oct 2020	-	-	-	-	52.183	52.183
VIRGINIA	794	2015	Apr 2014	Apr 2015	May 2020	May 2020	Sep 2020	Dec 2020	Apr 2021	-	-	-	-	52.662	52.662
VIRGINIA	795	2015	Apr 2014	Sep 2015	Sep 2020	Sep 2020	Nov 2020	Mar 2021	Aug 2021	-	-	-	-	53.692	53.692
VIRGINIA	796	2016	Apr 2014	Mar 2016	Feb 2021	Feb 2021	May 2021	Sep 2021	Jan 2022	-	-	-	-	54.271	54.271
VIRGINIA	797	2016	Apr 2014	Sep 2016	Aug 2021	Aug 2021	Oct 2021	Feb 2022	Jul 2022	-	-	-	-	55.439	55.439
VIRGINIA	798	2017	Apr 2014	Mar 2017	Feb 2022	Feb 2022	Apr 2022	Aug 2022	Jan 2023	-	-	-	-	56.785	56.785
VIRGINIA	799	2017	Apr 2014	Sep 2017	Aug 2022	Aug 2022	Sep 2022	Mar 2023	Jul 2023	-	-	-	-	57.921	57.921
VIRGINIA Total										144.482	68.176	110.912	101.613	469.844	895.027
CVN-RCOH	72	2012	Mar 2013	Mar 2013	May 2017	Jul 2017	May 2017	May 2018	Jun 2018	-	2.845	29.912	-	-	32.757
CVN-RCOH	73	2016	Aug 2017	Aug 2017	Aug 2021	Sep 2021	Jul 2021	Jul 2022	Aug 2022	-	-	-	-	39.021	39.021
CVN-RCOH Total										-	2.845	29.912	-	39.021	71.778
DDG 1000	1000	2007	Feb 2008	Feb 2009	May 2018	May 2018	Aug 2018	Nov 2018	Apr 2019	64.048	41.096	29.973	14.418	21.490	171.025
DDG 1000	1001	2007	Sep 2011	Mar 2010	May 2020	May 2020	Mar 2021	Apr 2021	Apr 2021	1.265	-	0.949	21.135	113.590	136.939
DDG 1000	1002	2009	Sep 2011	Apr 2012	Dec 2021	Dec 2021	Aug 2022	Nov 2022	Nov 2022	1.200	-	-	-	159.537	160.737
DDG 1000 Total										66.513	41.096	30.922	35.553	294.617	468.701
DDG	113	2010	Jun 2011	Aug 2012	Dec 2016	Jun 2017	Jan 2018	Apr 2018	May 2018	-	7.048	30.358	-	-	37.406
DDG	115	2011	Sep 2011	Feb 2012	Feb 2017	Apr 2017	Nov 2017	Feb 2018	Mar 2018	-	12.582	24.422	-	-	37.004
DDG	114	2011	Sep 2011	Sep 2013	Sep 2017	Jan 2018	Oct 2018	Dec 2018	Dec 2018	-	-	23.736	10.768	-	34.504
DDG	116	2012	Feb 2012	Feb 2013	Apr 2018	Aug 2018	Mar 2019	Jul 2019	Jul 2019	-	-	8.548	26.237	-	34.785
DDG	117	2013	Jun 2013	Sep 2014	Jun 2018	Oct 2018	May 2019	Sep 2019	Sep 2019	-	-	-	17.666	13.592	31.258
DDG	118	2013	Jun 2013	Aug 2015	Dec 2019	Mar 2020	Nov 2020	Feb 2021	Feb 2021	-	-	-	-	31.317	31.317
DDG	120	2013	Mar 2014	Sep 2016	Oct 2020	Feb 2021	Sep 2021	Dec 2021	Jan 2022	-	-	-	-	40.680	40.680
DDG	119	2014	Jun 2013	Jul 2015	Jun 2019	Oct 2019	May 2020	Sep 2020	Sep 2020	-	-	-	-	38.711	38.711
DDG	121	2015	Jun 2013	Apr 2016	May 2020	Sep 2020	Apr 2021	Jul 2021	Aug 2021	-	-	-	-	40.690	40.690
DDG	122	2015	Jun 2013	Jun 2017	Jul 2021	Oct 2021	Jun 2022	Sep 2022	Sep 2022	-	-	-	-	40.689	40.689

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Date: May 2017

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Ship Class	Hull Number	Program Year	Contract Award	Start of Const.	Delivery Date	CFO	PSA Start	PSA Finish	OWL Date	Prior Years	FY 2016	FY 2017	FY 2018	To Complete	Total
DDG	123	2016	Jun 2013	Jan 2017	Jul 2021	Nov 2021	Jul 2022	Oct 2022	Oct 2022	-	-	-	-	33.934	33.934
DDG	124	2016	Jun 2013	Aug 2018	Jun 2022	Oct 2022	Jun 2023	Sep 2023	Sep 2023	-	-	-	-	33.934	33.934
DDG	127	2016	Sep 2017	Jan 2019	Nov 2022	Feb 2023	Nov 2023	Jan 2024	Jan 2024	-	-	-	-	33.934	33.934
DDG	125	2017	Jun 2013	Jun 2019	Jul 2022	Nov 2022	Jul 2023	Oct 2023	Oct 2023	-	-	-	-	34.280	34.280
DDG	126	2017	Jun 2013	Jul 2019	May 2023	Sep 2023	Jun 2024	Aug 2024	Aug 2024	-	-	-	-	34.280	34.280
DDG Total										-	19.630	87.064	54.671	376.041	537.406
LCS	6	2010	Dec 2010	Aug 2011	Aug 2015	Feb 2017	Jun 2017	Jan 2018	Jan 2018	32.977	21.349	8.018	-	-	62.344
LCS	5	2010	Dec 2010	Aug 2011	Oct 2015	Nov 2016	Jan 2017	Jul 2017	Oct 2017	34.820	41.524	10.433	-	-	86.777
LCS	8	2011	Mar 2011	Jul 2012	Jun 2016	Sep 2016	May 2017	Aug 2017	Aug 2017	0.744	31.125	9.365	-	-	41.234
LCS	7	2011	Mar 2011	Apr 2012	Aug 2016	Oct 2016	May 2017	Sep 2017	Sep 2017	6.236	26.480	10.556	-	-	43.272
LCS	10	2012	Mar 2012	Mar 2013	Dec 2016	May 2017	Dec 2017	Mar 2018	Apr 2018	0.207	15.255	24.548	1.802	-	41.812
LCS	12	2012	Mar 2012	Sep 2013	Jun 2017	Nov 2017	Jun 2018	Oct 2018	Oct 2018	-	0.283	28.273	10.670	-	39.226
LCS	9	2012	Mar 2012	Jan 2013	Sep 2017	Nov 2017	Jun 2018	Oct 2018	Oct 2018	0.123	16.665	22.730	1.282	-	40.800
LCS	11	2012	Mar 2012	Aug 2013	Oct 2017	Dec 2017	Jul 2018	Nov 2018	Nov 2018	-	0.282	22.792	17.015	-	40.089
LCS	14	2013	Mar 2013	Feb 2014	Sep 2017	Jan 2018	Aug 2018	Dec 2018	Dec 2018	-	-	13.616	27.873	-	41.489
LCS	16	2013	Mar 2013	Sep 2014	Apr 2018	Sep 2018	Apr 2019	Aug 2019	Aug 2019	-	-	2.155	20.097	19.085	41.337
LCS	13	2013	Mar 2013	Feb 2014	Jun 2018	Oct 2018	May 2019	Aug 2019	Sep 2019	-	-	4.938	35.254	-	40.192
LCS	15	2013	Mar 2013	Dec 2014	Dec 2018	Apr 2019	Nov 2019	Mar 2020	Mar 2020	-	-	0.455	19.488	19.297	39.240
LCS	18	2014	Mar 2014	Mar 2015	Jul 2018	Nov 2018	Jun 2019	Oct 2019	Oct 2019	-	-	0.455	18.842	21.047	40.344
LCS	20	2014	Mar 2014	Feb 2016	Mar 2019	Jul 2019	Mar 2020	Jul 2020	Jul 2020	-	-	-	0.463	39.227	39.690
LCS	17	2014	Mar 2014	Aug 2015	Jun 2019	Nov 2019	Jun 2020	Oct 2020	Oct 2020	-	-	-	0.464	39.360	39.824
LCS	19	2014	Mar 2014	Aug 2016	Dec 2019	Apr 2020	Nov 2020	Mar 2021	Mar 2021	-	-	-	0.474	39.059	39.533
LCS	22	2015	Mar 2015	Dec 2016	Aug 2019	Jan 2020	Aug 2020	Dec 2020	Dec 2020	-	-	-	-	39.301	39.301
LCS	24	2015	Mar 2015	Jul 2017	Apr 2020	Sep 2020	Apr 2021	Aug 2021	Aug 2021	-	-	-	-	39.025	39.025
LCS	21	2015	Mar 2015	Feb 2017	Jun 2020	Oct 2020	May 2021	Aug 2021	Sep 2021	-	-	-	-	39.994	39.994
LCS	23	2016	Dec 2015	Jul 2017	Nov 2020	Mar 2021	Oct 2021	Jan 2022	Feb 2022	-	-	-	-	39.281	39.281
LCS	26	2016	Mar 2016	Oct 2017	Nov 2020	Apr 2021	Nov 2021	Mar 2022	Mar 2022	-	-	-	-	39.226	39.226
LCS	25	2016	Mar 2016	Dec 2017	Jun 2021	Oct 2021	May 2022	Aug 2022	Sep 2022	-	-	-	-	39.435	39.435
LCS	28	2017	Jun 2017	Apr 2018	May 2021	Sep 2021	Apr 2022	Jul 2022	Aug 2022	-	-	-	-	45.779	45.779
LCS	27	2017	Jun 2017	Jun 2018	Dec 2021	Mar 2022	Oct 2022	Jan 2023	Feb 2023	-	-	-	-	39.868	39.868
LCS Total										75.107	152.963	158.334	153.724	498.984	1,039.112
LPD	26	2009	Apr 2011	May 2011	May 2016	Mar 2017	Aug 2017	Feb 2018	Feb 2018	5.648	21.077	33.406	-	-	60.131
LPD	27	2012	Jul 2012	Aug 2012	Oct 2017	Mar 2018	Aug 2018	Feb 2019	Feb 2019	-	-	21.902	28.720	-	50.622
LPD	28	2016	Dec 2016	Dec 2016	Sep 2021	May 2022	Nov 2022	Apr 2023	Apr 2023	-	-	-	-	49.624	49.624
LPD Total										5.648	21.077	55.308	28.720	49.624	160.377
ESB	4	2014	Dec 2014	Oct 2015	Mar 2018	Jun 2018	Jan 2019	May 2019	May 2019	-	-	-	7.350	7.787	15.137
ESB	5	2016	Dec 2016	Jan 2017	May 2019	Aug 2019	May 2020	Jul 2020	Jul 2020	-	-	-	-	15.831	15.831
ESB Total										-	-	-	7.350	23.618	30.968
LHA	7	2011	May 2012	Jul 2013	Dec 2018	Sep 2019	Mar 2020	Jul 2020	Aug 2020	-	-	-	4.140	45.575	49.715

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Exhibit P-30, Delivery: FY 2018 Navy	Date: May 2017
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Appropriation / Budget Activity / Budget Sub Activity: 1611N / 05 / 1	P-1 Line Item Number / Title: 5110 / Outfitting
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Ship Class	Hull Number	Program Year	Contract Award	Start of Const.	Delivery Date	CFO	PSA Start	PSA Finish	OWL Date	Prior Years	FY 2016	FY 2017	FY 2018	To Complete	Total
LHA Total										-	-	-	4.140	45.575	49.715
EPF	6	2011	Jun 2011	Jan 2014	Jan 2016	Apr 2016	Oct 2016	Dec 2016	Mar 2017	2.903	2.644	-	-	-	5.547
EPF	7	2011	Jun 2011	Sep 2014	Jun 2016	Sep 2016	Apr 2017	Jun 2017	Aug 2017	1.978	3.681	-	-	-	5.659
EPF	8	2012	Feb 2012	Apr 2015	Apr 2017	Jul 2017	Jan 2018	Mar 2018	Jun 2018	-	-	5.545	-	-	5.545
EPF	9	2012	Feb 2012	Nov 2015	Oct 2017	Jan 2018	Jul 2018	Sep 2018	Dec 2018	-	-	4.326	0.979	-	5.305
EPF	10	2013	Dec 2012	Jun 2016	Jun 2018	Sep 2018	Mar 2019	May 2019	Aug 2019	-	-	0.853	4.178	-	5.031
EPF	11	2015	Sep 2016	Jan 2017	Feb 2019	May 2019	Nov 2019	Jan 2020	Apr 2020	-	-	-	0.527	4.484	5.011
EPF	12	2016	Sep 2016	Sep 2017	Sep 2019	Dec 2019	Jun 2020	Aug 2020	Nov 2020	-	-	-	-	5.325	5.325
EPF Total										4.881	6.325	10.724	5.684	9.809	37.423
T-AO	205	2016	Jun 2016	Sep 2018	Nov 2020	Feb 2021	Jun 2021	Sep 2021	Jan 2022	-	-	-	-	21.223	21.223
T-AO	206	2018	Jan 2018	Apr 2019	Apr 2021	Jul 2021	Nov 2021	Feb 2022	Jun 2022	-	-	-	-	21.536	21.536
T-AO	207	2019	Jan 2019	Oct 2019	Sep 2021	Dec 2021	Apr 2022	Jul 2022	Nov 2022	-	-	-	-	21.854	21.854
T-AO	208	2020	Jan 2020	Apr 2020	Mar 2022	Jun 2022	Oct 2022	Jan 2023	May 2023	-	-	-	-	21.923	21.923
T-AO Total										-	-	-	-	86.536	86.536
T-ATS(X)	1601	2016	Sep 2017	Jun 2018	Feb 2020	Mar 2020	Sep 2020	Sep 2020	Feb 2021	-	-	-	-	4.307	4.307
T-ATS(X)	1801	2018	Jan 2018	Sep 2018	May 2020	Jun 2020	Jan 2021	Jan 2021	May 2021	-	-	-	-	4.715	4.715
T-ATS(X) Total										-	-	-	-	9.022	9.022
AGOR	28	2012	Feb 2012	Jul 2012	Jul 2016	Oct 2016	May 2017	May 2017	Sep 2017	1.750	1.300	-	-	-	3.050
AGOR Total										1.750	1.300	-	-	-	3.050
T-AGS	66	2007	Dec 2009	Sep 2010	Feb 2016	Oct 2016	May 2017	Jul 2017	Sep 2017	1.188	1.500	-	-	-	2.688
T-AGS Total										1.188	1.500	-	-	-	2.688
LCAC	101	2015	Dec 2012	Mar 2015	Mar 2018	Nov 2018	Dec 2018	Mar 2019	Oct 2019	-	-	-	3.738	-	3.738
LCAC	102	2015	Mar 2015	Sep 2016	Jan 2019	Jun 2019	Sep 2019	Nov 2019	May 2020	-	-	-	-	1.995	1.995
LCAC	103	2015	Mar 2015	Nov 2016	Apr 2019	Jun 2019	Jan 2020	Apr 2020	May 2020	-	-	-	-	1.985	1.985
LCAC	104	2016	Mar 2016	Mar 2017	Jul 2019	Mar 2020	Jul 2020	Nov 2020	Feb 2021	-	-	-	-	2.035	2.035
LCAC	105	2016	Mar 2016	May 2017	Sep 2019	Mar 2020	Aug 2020	Dec 2020	Feb 2021	-	-	-	-	2.030	2.030
LCAC	106	2016	Mar 2016	Aug 2017	Dec 2019	Mar 2020	Sep 2020	Jan 2021	Feb 2021	-	-	-	-	2.030	2.030
LCAC	107	2016	Mar 2016	Nov 2017	Mar 2020	Sep 2020	Feb 2021	May 2021	Aug 2021	-	-	-	-	2.030	2.030
LCAC	108	2016	Mar 2016	Jan 2018	May 2020	Sep 2020	Mar 2021	Jun 2021	Aug 2021	-	-	-	-	2.030	2.030
LCAC	109	2017	Sep 2017	Mar 2018	Jul 2020	Sep 2020	Apr 2021	Jul 2021	Aug 2021	-	-	-	-	2.217	2.217
LCAC	110	2017	Sep 2017	Jun 2018	Sep 2020	Apr 2021	Sep 2021	Dec 2021	Mar 2022	-	-	-	-	2.027	2.027
LCAC	111	2017	Sep 2017	Aug 2018	Nov 2020	Apr 2021	Oct 2021	Jan 2022	Mar 2022	-	-	-	-	1.922	1.922
LCAC	112	2017	Sep 2017	Nov 2018	Feb 2021	Apr 2021	Nov 2021	Feb 2022	Mar 2022	-	-	-	-	1.922	1.922
LCAC	113	2017	Sep 2017	Jan 2019	Apr 2021	Oct 2021	Feb 2022	Jun 2022	Sep 2022	-	-	-	-	1.921	1.921
LCAC	114	2018	Mar 2018	Mar 2019	Jul 2021	Oct 2021	Mar 2022	Jul 2022	Sep 2022	-	-	-	-	1.875	1.875
LCAC	115	2018	Mar 2018	Jun 2019	Jul 2021	Oct 2021	Apr 2022	Aug 2022	Sep 2022	-	-	-	-	1.875	1.875
LCAC	116	2018	Mar 2018	Aug 2019	Oct 2021	May 2022	Oct 2022	Jan 2023	Apr 2023	-	-	-	-	1.875	1.875
LCAC	117	2019	Mar 2019	Nov 2019	Dec 2021	May 2022	Nov 2022	Feb 2023	Apr 2023	-	-	-	-	1.875	1.875
LCAC	118	2019	Mar 2019	Jan 2020	Mar 2022	May 2022	Dec 2022	Mar 2023	Apr 2023	-	-	-	-	1.942	1.942

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Exhibit P-30, Delivery: FY 2018 Navy	Date: May 2017
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Appropriation / Budget Activity / Budget Sub Activity: 1611N / 05 / 1	P-1 Line Item Number / Title: 5110 / Outfitting
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Ship Class	Hull Number	Program Year	Contract Award	Start of Const.	Delivery Date	CFO	PSA Start	PSA Finish	OWL Date	Prior Years	FY 2016	FY 2017	FY 2018	To Complete	Total
LCAC	119	2019	Mar 2019	Mar 2020	May 2022	Dec 2022	May 2023	Aug 2023	Nov 2023	-	-	-	-	1.942	1.942
LCAC	120	2019	Mar 2019	Jun 2020	Jul 2022	Dec 2022	Jun 2023	Sep 2023	Nov 2023	-	-	-	-	1.942	1.942
LCAC	121	2019	Mar 2019	Aug 2020	Oct 2022	Dec 2022	Jul 2023	Oct 2023	Nov 2023	-	-	-	-	1.942	1.942
LCAC	122	2020	Mar 2020	Nov 2020	Dec 2022	Jul 2023	Dec 2023	Mar 2024	Jun 2024	-	-	-	-	1.944	1.944
LCAC Total										-	-	-	3.738	41.356	45.094
LCAC SLEP	89	2013	Sep 2013	Feb 2014	Jun 2015	Jul 2015	Aug 2015	Sep 2015	Jun 2016	0.050	0.039	-	-	-	0.089
LCAC SLEP	81	2013	Jun 2014	Jul 2014	Sep 2015	Oct 2015	Feb 2016	Mar 2016	Sep 2016	-	0.107	-	-	-	0.107
LCAC SLEP	90	2013	Jun 2014	Nov 2014	Feb 2016	Mar 2016	Aug 2016	Sep 2016	Feb 2017	-	0.175	-	-	-	0.175
LCAC SLEP	78	2014	Jun 2014	Aug 2014	Jan 2016	Feb 2016	Apr 2016	May 2016	Jan 2017	-	0.013	0.156	-	-	0.169
LCAC SLEP	52	2014	Jun 2014	Mar 2015	Jun 2016	Jul 2016	Jan 2017	Jan 2017	Jun 2017	-	-	0.200	-	-	0.200
LCAC SLEP	83	2014	Jun 2014	Feb 2015	Jul 2016	Aug 2016	Aug 2016	Sep 2016	Jul 2017	-	-	0.200	-	-	0.200
LCAC SLEP	57	2014	Jun 2014	Jul 2015	Oct 2016	Nov 2016	Apr 2017	Jun 2017	Oct 2017	-	-	0.200	-	-	0.200
LCAC SLEP	84	2015	Sep 2015	Dec 2015	Mar 2017	Apr 2017	Jun 2017	Jul 2017	Mar 2018	-	-	0.106	0.114	-	0.220
LCAC SLEP	58	2015	Sep 2015	Dec 2015	Apr 2017	May 2017	Aug 2017	Sep 2017	Apr 2018	-	-	0.215	-	-	0.215
LCAC SLEP	85	2016	Mar 2016	Jun 2016	Sep 2017	Oct 2017	Nov 2017	Dec 2017	Sep 2018	-	-	0.107	0.118	-	0.225
LCAC SLEP	64	2016	Mar 2016	Jun 2016	Sep 2017	Oct 2017	Jan 2018	Feb 2018	Sep 2018	-	-	-	0.220	-	0.220
LCAC SLEP	65	2016	Mar 2016	Oct 2016	Feb 2018	Mar 2018	Jun 2018	Jul 2018	Feb 2019	-	-	-	0.220	-	0.220
LCAC SLEP	76	2016	Mar 2016	Feb 2017	May 2018	Jun 2018	Sep 2018	Oct 2018	May 2019	-	-	-	0.090	0.134	0.224
LCAC SLEP Total										0.050	0.334	1.184	0.762	0.134	2.464
Full Funding TOA - Post Delivery Total										302.119	381.049	486.701	422.168	2,174.170	3,766.207

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Exhibit P-40, Budget Line Item Justification: FY 2018 Navy										Date: May 2017		
Appropriation / Budget Activity / Budget Sub Activity: 1611N: Shipbuilding and Conversion, Navy / BA 05: Auxiliaries, Craft, and Prior-Year Program Costs / BSA 1: Auxiliaries, Craft and Prior Yr Program Cost							P-1 Line Item Number / Title: 5112 / Ship to Shore Connector					
ID Code (A=Service Ready, B=Not Service Ready): A				Program Elements for Code B Items: N/A				Other Related Program Elements: N/A				
Line Item MDAP/MAIS Code: N/A												
Resource Summary	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	3	5	5	3	-	3	5	5	5	5	36	72
Gross/Weapon System Cost (<i>\$ in Millions</i>)	197.800	210.630	318.067	212.554	0.000	212.554	323.121	335.432	335.483	343.745	2,489.880	4,766.712
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Less Cost To Complete (<i>\$ in Millions</i>)	14.500	-	-	-	-	-	-	-	-	-	-	14.500
Less Previously Appropriated RDT&E,N (<i>\$ in Millions</i>)	23.700	-	-	-	-	-	-	-	-	-	-	23.700
Net Procurement (P-1) (<i>\$ in Millions</i>)	159.600	210.630	318.067	212.554	0.000	212.554	323.121	335.432	335.483	343.745	2,489.880	4,728.512
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Plus Cost To Complete (<i>\$ in Millions</i>)	-	-	-	5.100	-	5.100	9.400	-	-	-	-	14.500
Plus Previously Appropriated RDT&E,N (<i>\$ in Millions</i>)	23.700	-	-	-	-	-	-	-	-	-	-	23.700
Total Obligation Authority (<i>\$ in Millions</i>)	183.300	210.630	318.067	217.654	0.000	217.654	332.521	335.432	335.483	343.745	2,489.880	4,766.712
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Plus Outfitting and Post Delivery (<i>\$ in Millions</i>)	-	-	-	5.082	-	5.082	7.520	14.521	25.030	17.463	76.830	146.446
Total (<i>\$ in Millions</i>)	183.300	210.630	318.067	222.736	-	222.736	340.041	349.953	360.513	361.208	2,566.710	4,913.158
Gross/Weapon System Unit Cost (<i>\$ in Millions</i>)	65.933	42.126	63.613	70.851	-	70.851	64.624	67.086	67.097	68.749	69.163	66.204

Description:

The Ship to Shore Connector (SSC) program provides the capability to rapidly move assault forces with the littoral operational environment to accomplish Unified Command Plan (UCP) missions and ensures the Joint Force Commander's (JFCDR's) ability to conduct amphibious operations and operate over the high water mark, including movement over ice, mud, rivers, swamps and marshes. SSC provides the functional replacement for the LCAC Class of ships, which began reaching extended service life in 2015.

The Test and Training craft (Craft 100) and R&D costs for Craft 101 are funded in RDT&E PE 0604567N and PE 0605220N Project 3137.

The Department of Defense Appropriations Act, 2015 directed that the Department complete Craft 101 in the Shipbuilding and Conversion, Navy Appropriation. Craft 101 is partially financed with \$23.7M of FY 13/FY 14 R&D funding.

Note:
During FY 2016 execution, the Ship to Shore Connector program used Buy-to-Budget authority to procure 5 craft.

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Exhibit P-40, Budget Line Item Justification: FY 2018 Navy						Date: May 2017																																									
Appropriation / Budget Activity / Budget Sub Activity: 1611N: Shipbuilding and Conversion, Navy / BA 05: Auxiliaries, Craft, and Prior-Year Program Costs / BSA 1: Auxiliaries, Craft and Prior Yr Program Cost				P-1 Line Item Number / Title: 5112 / Ship to Shore Connector																																											
ID Code (A=Service Ready, B=Not Service Ready): A		Program Elements for Code B Items: N/A			Other Related Program Elements: N/A																																										
Line Item MDAP/MAIS Code: N/A																																															
<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%;">Characteristics:</td> <td style="width: 15%;">Aluminum</td> <td colspan="6"></td> </tr> <tr> <td>Length Overall</td> <td>91.8 ft</td> <td colspan="6"></td> </tr> <tr> <td>Beam</td> <td>48.3 ft</td> <td colspan="6"></td> </tr> <tr> <td>Displacement</td> <td>180.57 metric tons</td> <td colspan="6"></td> </tr> <tr> <td>Draft</td> <td>N/A</td> <td colspan="6"></td> </tr> </table>								Characteristics:	Aluminum							Length Overall	91.8 ft							Beam	48.3 ft							Displacement	180.57 metric tons							Draft	N/A						
Characteristics:	Aluminum																																														
Length Overall	91.8 ft																																														
Beam	48.3 ft																																														
Displacement	180.57 metric tons																																														
Draft	N/A																																														
Production Status:		LCAC 101	LCAC 102	LCAC 103	LCAC 104	LCAC 105	LCAC 106	LCAC 107																																							
Contract Award Date		Dec 2012	Mar 2015	Mar 2015	Mar 2016	Mar 2016	Mar 2016	Mar 2016																																							
Months to Completion																																															
a) Award to Delivery		63 months	46 months	49 months	40 months	42 months	45 months	48 months																																							
b) Construction Start to Delivery		36 months	28 months	29 months	28 months	28 months	28 months	28 months																																							
Delivery Date		Mar 2018	Jan 2019	Apr 2019	Jul 2019	Sep 2019	Dec 2019	Mar 2020																																							
Completion Of Fitting Out		Nov 2018	Jun 2019	Mar 2019	Mar 2020	Mar 2020	Mar 2020	Sep 2020																																							
Obligation Work Limit Date		Oct 2019	May 2020	May 2020	Feb 2021	Feb 2021	Feb 2021	Aug 2021																																							
Production Status:		LCAC 108	LCAC 109	LCAC 110	LCAC 111	LCAC 112	LCAC 113	LCAC 114																																							
Contract Award Date		Mar 2016	Sep 2017	Sep 2017	Sep 2017	Sep 2017	Sep 2017	Mar 2018																																							
Months to Completion																																															
a) Award to Delivery		50 months	34 months	36 months	38 months	41 months	43 months	40 months																																							
b) Construction Start to Delivery		28 months	28 months	27 months	27 months	27 months	27 months	28 months																																							
Delivery Date		May 2020	Jul 2020	Sep 2020	Nov 2020	Feb 2021	Apr 2021	Jul 2021																																							
Completion Of Fitting Out		Sep 2020	Sep 2020	Apr 2021	Apr 2021	Apr 2021	Oct 2021	Oct 2021																																							
Obligation Work Limit Date		Aug 2021	Aug 2021	Mar 2022	Mar 2022	Mar 2022	Sep 2022	Sep 2022																																							
Production Status:		LCAC 115	LCAC 116																																												
Contract Award Date		Mar 2018	Mar 2018																																												
Months to Completion																																															
a) Award to Delivery		40 months	43 months																																												
b) Construction Start to Delivery		25 months	26 months																																												
Delivery Date		Jul 2021	Oct 2021																																												
Completion Of Fitting Out		Oct 2021	May 2022																																												
Obligation Work Limit Date		Sep 2022	Apr 2023																																												

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
Apr 2008
May 2009
Jul 2012
May 2011

Complete / Response

N/A
N/A
May 2009
Jul 2010
Sep 2014
Jul 2012

Reissue

Reissue Complete / Response

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Exhibit P-40, Budget Line Item Justification: FY 2018 Navy			Date: May 2017	
Appropriation / Budget Activity / Budget Sub Activity: 1611N: Shipbuilding and Conversion, Navy / BA 05: Auxiliaries, Craft, and Prior-Year Program Costs / BSA 1: Auxiliaries, Craft and Prior Yr Program Cost		P-1 Line Item Number / Title: 5112 / Ship to Shore Connector		
ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A		Other Related Program Elements: N/A	
Line Item MDAP/MAIS Code: N/A				
<u>Design Schedule</u> Design Agent	<u>Start / Issue</u> NAVSEA/TEXTRON,INC	<u>Complete / Response</u>	<u>Reissue</u>	<u>Reissue Complete / Response</u>
<u>Classification of Cost Estimate:</u>				

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Exhibit P-5c, Ship Cost Analysis: FY 2018 Navy					Date: May 2017			
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 05 / 1			P-1 Line Item Number / Title: 5112 / Ship to Shore Connector					
Cost Categories	FY 2015		FY 2016		FY 2017		FY 2018	
	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Plan Costs	3		5		5		3	
Basic Construction/Conversion		158.751		193.347		281.747		184.217
Change Orders		10.857		3.480		6.723		4.122
Electronics		5.633		8.500		10.302		6.305
Hull, Mechanical, and Electrical (HM&E)		7.593		4.000		9.080		7.497
Ordnance		0.010		0.015		0.015		0.009
Other Cost		14.956		1.288		10.200		10.404
Total Ship Estimate		197.800		210.630		318.067		212.554
Less Cost to Complete FY 2018		5.100		-		-		-
Less Cost to Complete FY 2019		9.400		-		-		-
Less RDTEN FY 2013		21.486		-		-		-
Less RDTEN FY 2014		2.214		-		-		-
Net P-1 Funding		159.600		210.630		318.067		212.554
Remarks: The FY 2017 unit cost increase over FY 2016 craft is due to completion of the priced options contract in FY 2016 (new contract in FY 2017).								

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Exhibit P-27, Ship Production Schedule: FY 2018 Navy					Date: May 2017
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 05 / 1			P-1 Line Item Number / Title: 5112 / Ship to Shore Connector		
Ship	Shipbuilder	Fiscal Year	Contract Award	Start of Construction	Delivery Date
LCAC 101	TEXTRON, INC	2015	Dec 2012	Mar 2015	Mar 2018
LCAC 102	TEXTRON, INC	2015	Mar 2015	Sep 2016	Jan 2019
LCAC 103	TEXTRON, INC	2015	Mar 2015	Nov 2016	Apr 2019
LCAC 104	TEXTRON, INC	2016	Mar 2016	Mar 2017	Jul 2019
LCAC 105	TEXTRON, INC	2016	Mar 2016	May 2017	Sep 2019
LCAC 106	TEXTRON, INC	2016	Mar 2016	Aug 2017	Dec 2019
LCAC 107	TEXTRON, INC	2016	Mar 2016	Nov 2017	Mar 2020
LCAC 108	TEXTRON, INC	2016	Mar 2016	Jan 2018	May 2020
LCAC 109	TBD	2017	Sep 2017	Mar 2018	Jul 2020
LCAC 110	TBD	2017	Sep 2017	Jun 2018	Sep 2020
LCAC 111	TBD	2017	Sep 2017	Aug 2018	Nov 2020
LCAC 112	TBD	2017	Sep 2017	Nov 2018	Feb 2021
LCAC 113	TBD	2017	Sep 2017	Jan 2019	Apr 2021
LCAC 114	TBD	2018	Mar 2018	Mar 2019	Jul 2021
LCAC 115	TBD	2018	Mar 2018	Jun 2019	Jul 2021
LCAC 116	TBD	2018	Mar 2018	Aug 2019	Oct 2021
LCAC 117	TBD	2019	Mar 2019	Nov 2019	Dec 2021
LCAC 118	TBD	2019	Mar 2019	Jan 2020	Mar 2022
LCAC 119	TBD	2019	Mar 2019	Mar 2020	May 2022
LCAC 120	TBD	2019	Mar 2019	Jun 2020	Jul 2022
LCAC 121	TBD	2019	Mar 2019	Aug 2020	Oct 2022
LCAC 122	TBD	2020	Mar 2020	Nov 2020	Dec 2022
LCAC 123	TBD	2020	Mar 2020	Jan 2021	Mar 2023
LCAC 124	TBD	2020	Mar 2020	Mar 2021	May 2023
LCAC 125	TBD	2020	Mar 2020	Jun 2021	Jul 2023
LCAC 126	TBD	2020	Mar 2020	Aug 2021	Oct 2023
LCAC 127	TBD	2021	Mar 2021	Nov 2021	Dec 2023
LCAC 128	TBD	2021	Mar 2021	Jan 2022	Mar 2024
LCAC 129	TBD	2021	Mar 2021	Mar 2022	May 2024
LCAC 130	TBD	2021	Mar 2021	Jun 2022	Jul 2024
LCAC 131	TBD	2021	Mar 2021	Aug 2022	Oct 2024
LCAC 132	TBD	2022	Mar 2022	Nov 2022	Dec 2024
LCAC 133	TBD	2022	Mar 2022	Jan 2023	Mar 2025

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Exhibit P-27, Ship Production Schedule: FY 2018 Navy				Date: May 2017	
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 05 / 1			P-1 Line Item Number / Title: 5112 / Ship to Shore Connector		
Ship	Shipbuilder	Fiscal Year	Contract Award	Start of Construction	Delivery Date
LCAC 134	TBD	2022	Mar 2022	Mar 2023	May 2025
LCAC 135	TBD	2022	Mar 2022	Jun 2023	Jul 2025
LCAC 136	TBD	2022	Mar 2022	Aug 2023	Oct 2025

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Exhibit P-40, Budget Line Item Justification: FY 2018 Navy **Date:** May 2017

Appropriation / Budget Activity / Budget Sub Activity: 1611N: Shipbuilding and Conversion, Navy / BA 05: Auxiliaries, Craft, and Prior-Year Program Costs / BSA 1: Auxiliaries, Craft and Prior Yr Program Cost	P-1 Line Item Number / Title: 5113 / Service Craft
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ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
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Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	37	3	8	4	-	4	5	4	5	5	-	71
Gross/Weapon System Cost (<i>\$ in Millions</i>)	105.200	30.014	99.212	23.994	0.000	23.994	72.877	75.425	107.126	109.596	-	623.444
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	105.200	30.014	99.212	23.994	0.000	23.994	72.877	75.425	107.126	109.596	-	623.444
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	105.200	30.014	99.212	23.994	0.000	23.994	72.877	75.425	107.126	109.596	-	623.444
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Plus Outfitting and Post Delivery (<i>\$ in Millions</i>)	3.000	-	-	-	-	-	-	-	-	-	-	3.000
Total (<i>\$ in Millions</i>)	108.200	30.014	99.212	23.994	-	23.994	72.877	75.425	107.126	109.596	-	626.444
Gross/Weapon System Unit Cost (<i>\$ in Millions</i>)	2.843	10.005	12.402	5.999	-	5.999	14.575	18.856	21.425	21.919	-	8.781

Description:

The US Navy owns/operates approximately 366 Service Craft of 36 different classes at 56 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: Harbor Tug (YT) - To maneuver ships, tow barges and submarines in close quarters such as channel operations, harbors, coastal waters, mooring, docking or undocking; Fuel Oil Barge (YON) - To carry liquid petroleum products for refueling ships; Waste Oil Barge (YWO) - To offload waste oil from ships and transport for processing. Barracks Craft - Small (APL) - To provide crew messing, duty crew berthing and administrative training spaces to ships in CNO availabilities. Open Lighter (YC) - To transport cargo/equipment and serve as a work platform for ship maintenance.

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Exhibit P-40, Budget Line Item Justification: FY 2018 Navy						Date: May 2017																																									
Appropriation / Budget Activity / Budget Sub Activity: 1611N: Shipbuilding and Conversion, Navy / BA 05: Auxiliaries, Craft, and Prior-Year Program Costs / BSA 1: Auxiliaries, Craft and Prior Yr Program Cost				P-1 Line Item Number / Title: 5113 / Service Craft																																											
ID Code (A=Service Ready, B=Not Service Ready): A		Program Elements for Code B Items: N/A			Other Related Program Elements: N/A																																										
Line Item MDAP/MAIS Code: N/A																																															
<table border="0" style="width:100%;"> <tr> <td style="width:15%;">Characteristics:</td> <td style="width:15%;">Hull Various</td> <td style="width:15%;">Multiple Craft</td> <td colspan="5"></td> </tr> <tr> <td>Length Overall</td> <td>Various</td> <td>Various</td> <td colspan="5"></td> </tr> <tr> <td>Beam</td> <td>Various</td> <td>Various</td> <td colspan="5"></td> </tr> <tr> <td>Displacement</td> <td>Various</td> <td>Various</td> <td colspan="5"></td> </tr> <tr> <td>Draft</td> <td>Various</td> <td>Various</td> <td colspan="5"></td> </tr> </table>								Characteristics:	Hull Various	Multiple Craft						Length Overall	Various	Various						Beam	Various	Various						Displacement	Various	Various						Draft	Various	Various					
Characteristics:	Hull Various	Multiple Craft																																													
Length Overall	Various	Various																																													
Beam	Various	Various																																													
Displacement	Various	Various																																													
Draft	Various	Various																																													
Production Status:		YT 808	YT 809	YWO 03	YT 810	YT 811	YC 1687	YWO 04																																							
Contract Award Date		Jul 2017	Jul 2017	Sep 2017	Jul 2017	Jul 2017	Sep 2017	Sep 2017																																							
Months to Completion																																															
a) Award to Delivery		15 months	17 months	19 months	25 months	27 months	13 months	16 months																																							
b) Construction Start to Delivery		12 months	12 months	14 months	12 months	12 months	8 months	11 months																																							
Delivery Date		Oct 2018	Dec 2018	Apr 2019	Aug 2019	Oct 2019	Oct 2018	Jan 2019																																							
Completion Of Fitting Out		Jan 2019	Mar 2019	Jul 2019	Nov 2019	Jan 2020	Jan 2019	Apr 2019																																							
Obligation Work Limit Date		Dec 2019	Feb 2020	Jun 2020	Oct 2020	Dec 2020	Dec 2019	Mar 2020																																							
Production Status:		YWO 05	YT 812	YT 813	APL 67	YON 339	YWO 06	YWO 07																																							
Contract Award Date		Sep 2017	Sep 2017	Sep 2017	Nov 2017	Mar 2018	Mar 2018	Mar 2018																																							
Months to Completion																																															
a) Award to Delivery		18 months	18 months	19 months	18 months	15 months	13 months	15 months																																							
b) Construction Start to Delivery		11 months	11 months	9 months	14 months	14 months	10 months	9 months																																							
Delivery Date		Mar 2019	Mar 2019	Apr 2019	May 2019	Jun 2019	Apr 2019	Jun 2019																																							
Completion Of Fitting Out		Jun 2019	Jun 2019	Jul 2019	Aug 2019	Sep 2019	Jul 2019	Sep 2018																																							
Obligation Work Limit Date		May 2020	May 2020	Jun 2020	Jul 2020	Aug 2020	Jun 2020	Aug 2019																																							
Production Status:		YT 814																																													
Contract Award Date		Mar 2018																																													
Months to Completion																																															
a) Award to Delivery		26 months																																													
b) Construction Start to Delivery		12 months																																													
Delivery Date		May 2020																																													
Completion Of Fitting Out		Aug 2020																																													
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Design Schedule		Start / Issue	Complete / Response	Reissue	Reissue Complete / Response																																										
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Preliminary Design		N/A	N/A																																												
Contract Design		N/A	N/A																																												
Detail Design		N/A	N/A																																												
Request for Proposals		N/A	N/A																																												

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Exhibit P-40, Budget Line Item Justification: FY 2018 Navy			Date: May 2017	
Appropriation / Budget Activity / Budget Sub Activity: 1611N: Shipbuilding and Conversion, Navy / BA 05: Auxiliaries, Craft, and Prior-Year Program Costs / BSA 1: Auxiliaries, Craft and Prior Yr Program Cost		P-1 Line Item Number / Title: 5113 / Service Craft		
ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A		Other Related Program Elements: N/A	
Line Item MDAP/MAIS Code: N/A				
<u>Design Schedule</u> Design Agent <u>Classification of Cost Estimate:</u>	<u>Start / Issue</u>	<u>Complete / Response</u>	<u>Reissue</u>	<u>Reissue Complete / Response</u>

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Exhibit P-5c, Ship Cost Analysis: FY 2018 Navy					Date: May 2017	
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 05 / 1			P-1 Line Item Number / Title: 5113 / Service Craft			
Cost Categories	FY 2016		FY 2017		FY 2018	
	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Plan Costs	3		8		4	
Basic Construction/Conversion		28.217		95.788		23.114
Change Orders		1.400		2.460		0.580
Hull, Mechanical, and Electrical (HM&E)		0.397		0.964		0.300
Total Ship Estimate		30.014		99.212		23.994
Net P-1 Funding		30.014		99.212		23.994
Remarks: FY 16 Craft: 2 YT: 26.437 1 YWO: 3.577 TOTAL: \$30.014 FY 17 Craft: 1 APL: 39.000 4 YT: 52.384 2 YWO: 6.400 1 YC: 1.428 TOTAL: \$99.212 FY 18 Craft: 1 YT: 13.660 2 YWO: 6.000 1 YON: 4.334 TOTAL: \$23.994						

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Exhibit P-27, Ship Production Schedule: FY 2018 Navy				Date: May 2017	
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 05 / 1			P-1 Line Item Number / Title: 5113 / Service Craft		
Ship	Shipbuilder	Fiscal Year	Contract Award	Start of Construction	Delivery Date
YT 808	TBD	2016	Jul 2017	Oct 2017	Oct 2018
YT 809	TBD	2016	Jul 2017	Dec 2017	Dec 2018
YWO 03	TBD	2016	Sep 2017	Feb 2018	Apr 2019
YT 810	TBD	2017	Jul 2017	Aug 2018	Aug 2019
YT 811	TBD	2017	Jul 2017	Oct 2018	Oct 2019
YC 1687	TBD	2017	Sep 2017	Feb 2018	Oct 2018
YWO 04	TBD	2017	Sep 2017	Feb 2018	Jan 2019
YWO 05	TBD	2017	Sep 2017	Apr 2018	Mar 2019
YT 812	TBD	2017	Sep 2017	Apr 2018	Mar 2019
YT 813	TBD	2017	Sep 2017	Jul 2018	Apr 2019
APL 67	TBD	2017	Nov 2017	Mar 2018	May 2019
YON 339	TBD	2018	Mar 2018	Apr 2018	Jun 2019
YWO 06	TBD	2018	Mar 2018	Jun 2018	Apr 2019
YWO 07	TBD	2018	Mar 2018	Sep 2018	Jun 2019
YT 814	TBD	2018	Mar 2018	May 2019	May 2020
APL 68	TBD	2019	Feb 2019	Mar 2019	Apr 2020
YON 340	TBD	2019	Mar 2019	Apr 2019	Jun 2020
YWO 08	TBD	2019	Mar 2019	Apr 2019	Dec 2019
YT 815	TBD	2019	Mar 2019	May 2020	May 2021
YT 816	TBD	2019	Mar 2019	Jul 2020	Jul 2021
APL 69	TBD	2020	Feb 2020	Mar 2020	Apr 2021
YON 341	TBD	2020	Mar 2020	Apr 2020	Jun 2021
YT 817	TBD	2020	Mar 2020	May 2021	May 2022
YT 818	TBD	2020	Mar 2020	Jul 2021	Jul 2022
APL 70	TBD	2021	Feb 2021	Mar 2021	Apr 2022
APL 71	TBD	2021	Feb 2021	Jun 2021	Jul 2022
YON 342	TBD	2021	Mar 2021	Apr 2021	Jun 2022
YT 819	TBD	2021	Mar 2021	May 2022	May 2023
YT 820	TBD	2021	Mar 2021	Jul 2022	Jul 2023
APL 72	TBD	2022	Feb 2022	Mar 2022	Apr 2023
APL 73	TBD	2022	Feb 2022	Jun 2022	Jul 2023
YON 343	TBD	2022	Mar 2022	Apr 2022	Jun 2023
YT 821	TBD	2022	Mar 2022	May 2023	May 2024

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Exhibit P-27, Ship Production Schedule: FY 2018 Navy				Date: May 2017	
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 05 / 1			P-1 Line Item Number / Title: 5113 / Service Craft		
Ship	Shipbuilder	Fiscal Year	Contract Award	Start of Construction	Delivery Date
YT 822	TBD	2022	Mar 2022	Jul 2023	Jul 2024

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Exhibit P-40, Budget Line Item Justification: FY 2018 Navy										Date: May 2017		
Appropriation / Budget Activity / Budget Sub Activity: 1611N: Shipbuilding and Conversion, Navy / BA 05: Auxiliaries, Craft, and Prior-Year Program Costs / BSA 1: Auxiliaries, Craft and Prior Yr Program Cost							P-1 Line Item Number / Title: 5139 / LCAC SLEP					
ID Code (A=Service Ready, B=Not Service Ready): A				Program Elements for Code B Items: N/A				Other Related Program Elements: N/A				
Line Item MDAP/MAIS Code: N/A												
Resource Summary	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	60	4	-	-	-	-	1	-	-	-	-	65
Gross/Weapon System Cost (<i>\$ in Millions</i>)	1,257.685	82.512	0.000	0.000	0.000	0.000	23.723	0.000	0.000	0.000	-	1,363.920
Less PY Advance Procurement (<i>\$ in Millions</i>)	27.900	-	-	-	-	-	-	-	-	-	-	27.900
Less Cost To Complete (<i>\$ in Millions</i>)	14.000	-	-	-	-	-	-	-	-	-	-	14.000
Less Subsequent Year Full Funding (<i>\$ in Millions</i>)	-	1.774	-	-	-	-	-	-	-	-	-	1.774
Less Hurricane (<i>\$ in Millions</i>)	19.800	-	-	-	-	-	-	-	-	-	-	19.800
Less Transfer (<i>\$ in Millions</i>)	1.500	-	-	-	-	-	-	-	-	-	-	1.500
Net Procurement (P-1) (<i>\$ in Millions</i>)	1,194.485	80.738	0.000	0.000	0.000	0.000	23.723	0.000	0.000	0.000	-	1,298.946
Plus Subsequent Year Full Funding (<i>\$ in Millions</i>)	-	-	1.774	-	-	-	-	-	-	-	-	1.774
Full Funding TOA (<i>\$ in Millions</i>)	1,194.485	80.738	1.774	-	-	-	23.723	-	-	-	-	1,300.720
Plus CY Advance Procurement (<i>\$ in Millions</i>)	27.900	-	-	-	-	-	-	-	-	-	-	27.900
Plus Cost To Complete (<i>\$ in Millions</i>)	14.000	-	-	-	-	-	-	-	-	-	-	14.000
Plus Transfer (<i>\$ in Millions</i>)	1.500	-	-	-	-	-	-	-	-	-	-	1.500
Plus Hurricane (<i>\$ in Millions</i>)	19.800	-	-	-	-	-	-	-	-	-	-	19.800
Total Obligation Authority (<i>\$ in Millions</i>)	1,257.685	80.738	1.774	0.000	0.000	0.000	23.723	0.000	0.000	0.000	-	1,363.920
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Plus Outfitting and Post Delivery (<i>\$ in Millions</i>)	10.115	0.723	2.044	0.868	-	0.868	0.134	-	-	-	-	13.884
Total (<i>\$ in Millions</i>)	1,267.800	81.461	3.818	0.868	-	0.868	23.857	-	-	-	-	1,377.804
Gross/Weapon System Unit Cost (<i>\$ in Millions</i>)	20.961	20.628	-	-	-	-	23.723	-	-	-	-	20.983
Description: 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.												

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Exhibit P-40, Budget Line Item Justification: FY 2018 Navy				Date: May 2017																																																																																																																							
Appropriation / Budget Activity / Budget Sub Activity: 1611N: Shipbuilding and Conversion, Navy / BA 05: Auxiliaries, Craft, and Prior-Year Program Costs / BSA 1: Auxiliaries, Craft and Prior Yr Program Cost			P-1 Line Item Number / Title: 5139 / LCAC SLEP																																																																																																																								
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Characteristics:	Air Cushion																																																																																																																										
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LI 5139 - LCAC SLEP
Navy

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Exhibit P-27, Ship Production Schedule: FY 2018 Navy				Date: May 2017	
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 05 / 1			P-1 Line Item Number / Title: 5139 / LCAC SLEP		
Ship	Shipbuilder	Fiscal Year	Contract Award	Start of Construction	Delivery Date
LCAC SLEP 85	L-3 UNIDYNE, INC.	2016	Mar 2016	Jun 2016	Sep 2017
LCAC SLEP 64	L-3 UNIDYNE, INC.	2016	Mar 2016	Jun 2016	Sep 2017
LCAC SLEP 65	L-3 UNIDYNE, INC.	2016	Mar 2016	Oct 2016	Feb 2018
LCAC SLEP 76	L-3 UNIDYNE, INC.	2016	Mar 2016	Feb 2017	May 2018
LCAC SLEP TBD	TBD	2019	Mar 2019	Jun 2019	Sep 2020

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Exhibit P-40, Budget Line Item Justification: FY 2018 Navy									Date: May 2017			
Appropriation / Budget Activity / Budget Sub Activity: 1611N: Shipbuilding and Conversion, Navy / BA 05: Auxiliaries, Craft, and Prior-Year Program Costs / BSA 1: Auxiliaries, Craft and Prior Yr Program Cost						P-1 Line Item Number / Title: 5212 / YP Craft Maintenance/ROH/SLEP						
ID Code (A=Service Ready, B=Not Service Ready): A			Program Elements for Code B Items: N/A					Other Related Program Elements: N/A				
Line Item MDAP/MAIS Code: N/A												
Resource Summary	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	6	6	-	-	-	-	-	-	-	-	12
Gross/Weapon System Cost (<i>\$ in Millions</i>)	0.000	21.838	21.363	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-	43.201
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	0.000	21.838	21.363	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-	43.201
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	0.000	21.838	21.363	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-	43.201
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Plus Outfitting and Post Delivery (<i>\$ in Millions</i>)	-	0.146	0.280	-	-	-	-	0.145	-	-	-	0.571
Total (<i>\$ in Millions</i>)	-	21.984	21.643	-	-	-	-	0.145	-	-	-	43.772
Gross/Weapon System Unit Cost (<i>\$ in Millions</i>)	-	3.640	3.561	-	-	-	-	-	-	-	-	3.600

Description:

Naval Academy YP (Yard Patrol) craft are utilized to train midshipmen on piloting, seamanship, navigation, and engineering. The YP Service Life Extension Program (SLEP) extends the YP 676 Class service life approximately 10 years beyond the current average vessel age of 27 years. YP SLEP work items include but are not limited to the following: hull fendering, electronic navigation system components, paint and non-skid, damaged hull sections, hatches and deck planking, various pumps (bilge, seawater cooling, fire), and galley appliances. The SLEP will also include the overhaul of the engines and transformers, and propeller repair. The required repairs will vary by craft and will be conducted at both the U.S. Coast Guard Yard in Baltimore and other private facilities.

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Exhibit P-40, Budget Line Item Justification: FY 2018 Navy						Date: May 2017																																																																	
Appropriation / Budget Activity / Budget Sub Activity: 1611N: Shipbuilding and Conversion, Navy / BA 05: Auxiliaries, Craft, and Prior-Year Program Costs / BSA 1: Auxiliaries, Craft and Prior Yr Program Cost				P-1 Line Item Number / Title: 5212 / YP Craft Maintenance/ROH/SLEP																																																																			
ID Code (A=Service Ready, B=Not Service Ready): A		Program Elements for Code B Items: N/A			Other Related Program Elements: N/A																																																																		
Line Item MDAP/MAIS Code: N/A																																																																							
<table style="width:100%; border: none;"> <tr> <td style="width:15%;">Characteristics:</td> <td colspan="7">YP 676 Class</td> </tr> <tr> <td>Length Overall</td> <td colspan="7">108 ft</td> </tr> <tr> <td>Beam</td> <td colspan="7">24 ft</td> </tr> <tr> <td>Displacement</td> <td colspan="7">173 tons</td> </tr> <tr> <td>Draft</td> <td colspan="7">6 ft</td> </tr> </table>								Characteristics:	YP 676 Class							Length Overall	108 ft							Beam	24 ft							Displacement	173 tons							Draft	6 ft																														
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<table style="width:100%; border: none;"> <tr> <td style="width:15%;">Production Status:</td> <td style="width:12.5%;">YP SLEP 688</td> <td style="width:12.5%;">YP SLEP 695</td> <td style="width:12.5%;">YP SLEP 694</td> <td style="width:12.5%;">YP SLEP 689</td> <td style="width:12.5%;">YP SLEP 692</td> <td style="width:12.5%;">YP SLEP 686</td> <td style="width:12.5%;">YP SLEP 698</td> </tr> <tr> <td>Contract Award Date</td> <td>Aug 2016</td> <td>Aug 2016</td> <td>May 2017</td> <td>Nov 2017</td> <td>Jan 2018</td> <td>Jul 2018</td> <td>Jun 2018</td> </tr> <tr> <td>Months to Completion</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td> a) Award to Delivery</td> <td>17 months</td> <td>25 months</td> <td>8 months</td> <td>8 months</td> <td>8 months</td> <td>8 months</td> <td>9 months</td> </tr> <tr> <td> b) Construction Start to Delivery</td> <td>9 months</td> <td>7 months</td> <td>5 months</td> <td>5 months</td> <td>5 months</td> <td>5 months</td> <td>5 months</td> </tr> <tr> <td>Delivery Date</td> <td>Jan 2018</td> <td>Sep 2018</td> <td>Jan 2018</td> <td>Jul 2018</td> <td>Sep 2018</td> <td>Mar 2019</td> <td>Mar 2019</td> </tr> <tr> <td>Completion Of Fitting Out</td> <td>Apr 2018</td> <td>Dec 2018</td> <td>Apr 2018</td> <td>Oct 2018</td> <td>Dec 2018</td> <td>Jun 2019</td> <td>Jun 2019</td> </tr> <tr> <td>Obligation Work Limit Date</td> <td>Mar 2019</td> <td>Nov 2019</td> <td>Mar 2019</td> <td>Sep 2019</td> <td>Nov 2019</td> <td>May 2020</td> <td>May 2020</td> </tr> </table>								Production Status:	YP SLEP 688	YP SLEP 695	YP SLEP 694	YP SLEP 689	YP SLEP 692	YP SLEP 686	YP SLEP 698	Contract Award Date	Aug 2016	Aug 2016	May 2017	Nov 2017	Jan 2018	Jul 2018	Jun 2018	Months to Completion								a) Award to Delivery	17 months	25 months	8 months	8 months	8 months	8 months	9 months	b) Construction Start to Delivery	9 months	7 months	5 months	5 months	5 months	5 months	5 months	Delivery Date	Jan 2018	Sep 2018	Jan 2018	Jul 2018	Sep 2018	Mar 2019	Mar 2019	Completion Of Fitting Out	Apr 2018	Dec 2018	Apr 2018	Oct 2018	Dec 2018	Jun 2019	Jun 2019	Obligation Work Limit Date	Mar 2019	Nov 2019	Mar 2019	Sep 2019	Nov 2019	May 2020	May 2020
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<table style="width:100%; border: none;"> <tr> <td style="width:15%;">Production Status:</td> <td style="width:12.5%;">YP SLEP 690</td> <td style="width:12.5%;">YP SLEP 691</td> <td style="width:12.5%;">YP SLEP 683</td> <td style="width:12.5%;">YP SLEP 700</td> <td colspan="3">YP SLEP 684</td> </tr> <tr> <td>Contract Award Date</td> <td>Jan 2019</td> <td>Jan 2019</td> <td>Jul 2019</td> <td>Jul 2019</td> <td colspan="3">Jan 2020</td> </tr> <tr> <td>Months to Completion</td> <td></td> <td></td> <td></td> <td></td> <td colspan="3"></td> </tr> <tr> <td> a) Award to Delivery</td> <td>8 months</td> <td>8 months</td> <td>8 months</td> <td>8 months</td> <td colspan="3">8 months</td> </tr> <tr> <td> b) Construction Start to Delivery</td> <td>5 months</td> <td>5 months</td> <td>5 months</td> <td>5 months</td> <td colspan="3">5 months</td> </tr> <tr> <td>Delivery Date</td> <td>Sep 2019</td> <td>Sep 2019</td> <td>Mar 2020</td> <td>Mar 2020</td> <td colspan="3">Sep 2020</td> </tr> <tr> <td>Completion Of Fitting Out</td> <td>Dec 2019</td> <td>Dec 2019</td> <td>Jun 2020</td> <td>Jun 2020</td> <td colspan="3">Dec 2020</td> </tr> <tr> <td>Obligation Work Limit Date</td> <td>Nov 2020</td> <td>Nov 2020</td> <td>May 2021</td> <td>May 2021</td> <td colspan="3">Nov 2021</td> </tr> </table>								Production Status:	YP SLEP 690	YP SLEP 691	YP SLEP 683	YP SLEP 700	YP SLEP 684			Contract Award Date	Jan 2019	Jan 2019	Jul 2019	Jul 2019	Jan 2020			Months to Completion								a) Award to Delivery	8 months	8 months	8 months	8 months	8 months			b) Construction Start to Delivery	5 months	5 months	5 months	5 months	5 months			Delivery Date	Sep 2019	Sep 2019	Mar 2020	Mar 2020	Sep 2020			Completion Of Fitting Out	Dec 2019	Dec 2019	Jun 2020	Jun 2020	Dec 2020			Obligation Work Limit Date	Nov 2020	Nov 2020	May 2021	May 2021	Nov 2021		
Production Status:	YP SLEP 690	YP SLEP 691	YP SLEP 683	YP SLEP 700	YP SLEP 684																																																																		
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Obligation Work Limit Date	Nov 2020	Nov 2020	May 2021	May 2021	Nov 2021																																																																		
<table style="width:100%; border: none;"> <tr> <td style="width:35%;"><u>Design Schedule</u></td> <td style="width:15%;"><u>Start / Issue</u></td> <td style="width:15%;"><u>Complete / Response</u></td> <td style="width:15%;"><u>Reissue</u></td> <td style="width:20%;"><u>Reissue Complete / Response</u></td> </tr> <tr> <td>Issue Date for TLR</td> <td>N/A</td> <td>N/A</td> <td></td> <td></td> </tr> <tr> <td>Issue Date for TLS</td> <td>N/A</td> <td>N/A</td> <td></td> <td></td> </tr> <tr> <td>Preliminary Design</td> <td>N/A</td> <td>N/A</td> <td></td> <td></td> </tr> <tr> <td>Contract Design</td> <td>N/A</td> <td>N/A</td> <td></td> <td></td> </tr> <tr> <td>Detail Design</td> <td>N/A</td> <td>N/A</td> <td></td> <td></td> </tr> <tr> <td>Request for Proposals</td> <td>N/A</td> <td>N/A</td> <td></td> <td></td> </tr> <tr> <td>Design Agent</td> <td colspan="4">PEO (Ships), PMS 325 Detachment Boston</td> </tr> </table>								<u>Design Schedule</u>	<u>Start / Issue</u>	<u>Complete / Response</u>	<u>Reissue</u>	<u>Reissue Complete / Response</u>	Issue Date for TLR	N/A	N/A			Issue Date for TLS	N/A	N/A			Preliminary Design	N/A	N/A			Contract Design	N/A	N/A			Detail Design	N/A	N/A			Request for Proposals	N/A	N/A			Design Agent	PEO (Ships), PMS 325 Detachment Boston																											
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Request for Proposals	N/A	N/A																																																																					
Design Agent	PEO (Ships), PMS 325 Detachment Boston																																																																						
<u>Classification of Cost Estimate:</u> N/A																																																																							

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Exhibit P-5c, Ship Cost Analysis: FY 2018 Navy			Date: May 2017	
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 05 / 1		P-1 Line Item Number / Title: 5212 / YP Craft Maintenance/ROH/SLEP		
Cost Categories	FY 2016		FY 2017	
	Qty (Each)	Total Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Basic Construction/Conversion	6	17.936	6	17.936
Change Orders		0.944		0.469
Electronics		1.458		1.458
Hull, Mechanical, and Electrical (HM&E)		1.500		1.500
Total Ship Estimate		21.838		21.363
Net P-1 Funding		21.838		21.363

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Exhibit P-27, Ship Production Schedule: FY 2018 Navy	Date: May 2017
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Appropriation / Budget Activity / Budget Sub Activity: 1611N / 05 / 1	P-1 Line Item Number / Title: 5212 / YP Craft Maintenance/ROH/SLEP
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Ship	Shipbuilder	Fiscal Year	Contract Award	Start of Construction	Delivery Date
YP SLEP 688	USCG YARD	2016	Aug 2016	Apr 2017	Jan 2018
YP SLEP 695	USCG YARD	2016	Aug 2016	Feb 2018	Sep 2018
YP SLEP 694	TBD	2016	May 2017	Aug 2017	Jan 2018
YP SLEP 689	TBD	2016	Nov 2017	Feb 2018	Jul 2018
YP SLEP 692	TBD	2016	Jan 2018	Apr 2018	Sep 2018
YP SLEP 686	USCG YARD	2016	Jul 2018	Oct 2018	Mar 2019
YP SLEP 698	TBD	2017	Jun 2018	Oct 2018	Mar 2019
YP SLEP 690	TBD	2017	Jan 2019	Apr 2019	Sep 2019
YP SLEP 691	TBD	2017	Jan 2019	Apr 2019	Sep 2019
YP SLEP 683	TBD	2017	Jul 2019	Oct 2019	Mar 2020
YP SLEP 700	TBD	2017	Jul 2019	Oct 2019	Mar 2020
YP SLEP 684	TBD	2017	Jan 2020	Apr 2020	Sep 2020

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Exhibit P-40, Budget Line Item Justification: FY 2018 Navy								Date: May 2017				
Appropriation / Budget Activity / Budget Sub Activity: 1611N: Shipbuilding and Conversion, Navy / BA 05: Auxiliaries, Craft, and Prior-Year Program Costs / BSA 1: Auxiliaries, Craft and Prior Yr Program Cost						P-1 Line Item Number / Title: 5300 / Completion of PY Shpbldg Progr						
ID Code (A=Service Ready, B=Not Service Ready): A				Program Elements for Code B Items: N/A					Other Related Program Elements: N/A			
Line Item MDAP/MAIS Code: N/A												
Resource Summary	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	0.000	0.000	160.274	117.542	0.000	117.542	166.550	95.308	0.000	0.000	-	539.674
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	0.000	0.000	160.274	117.542	0.000	117.542	166.550	95.308	0.000	0.000	-	539.674
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
LPD 17 Class (<i>\$ in Millions</i>)	-	-	45.060	-	-	-	-	-	-	-	-	45.060
LCS (<i>\$ in Millions</i>)	-	-	86.000	26.865	-	26.865	103.184	34.297	-	-	-	250.346
CVN (<i>\$ in Millions</i>)	-	-	-	20.000	-	20.000	-	-	-	-	-	20.000
EPF (<i>\$ in Millions</i>)	-	-	13.255	-	-	-	-	-	-	-	-	13.255
DDG-51 (<i>\$ in Millions</i>)	-	-	15.959	51.377	-	51.377	53.966	61.011	-	-	-	182.313
LHA (<i>\$ in Millions</i>)	-	-	-	14.200	-	14.200	-	-	-	-	-	14.200
LCAC (<i>\$ in Millions</i>)	-	-	-	5.100	-	5.100	9.400	-	-	-	-	14.500
Total Obligation Authority (<i>\$ in Millions</i>)	0.000	0.000	160.274	117.542	0.000	117.542	166.550	95.308	0.000	0.000	-	539.674
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total (<i>\$ in Millions</i>)	-	-	160.274	117.542	-	117.542	166.550	95.308	-	-	-	539.674
Gross/Weapon System Unit Cost (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Description: Note: General Provision 8072 of the Consolidated Appropriations Act, 2016 directs that funds appropriated for the Completion of Prior Year Shipbuilding Programs be merged with and available for the same purposes as the appropriation to which transferred. [P5 / [3036] LPD]: Funds in FY 2017 are for the Government responsible portion of the shipbuilding construction contract overrun for LPD 27 (\$45.1M). [P5 / [2127] Littoral Combat Ship (LCS)]: Funds in FY 2017 are for Government responsible portion of the shipbuilding construction contract overrun for LCS 10 and LCS 12 (\$3.6M), restoration of descoped requirements resulting from sequestration reductions on LCS 13, LCS 14, LCS 15, and LCS 16 (\$43.6M) and Government responsible portion of the shipbuilding construction contract overrun for LCS 13, LCS 14, LCS 15, and LCS 16 (\$38.8M). Funds in FY 2018 are for the Government responsible portion of the shipbuilding construction contract overrun for LCS 9, LCS 10, LCS 11, and LCS 12 (\$6.4M) and for the Government responsible portion of the shipbuilding construction contract overrun for LCS 17, LCS 18, LCS 19, and LCS 20 (\$20.5M). [P5 / [2001] CVN (Carrier Replacement Program)]: Funds in FY 2018 are for the repairs to the Number 1 Main Turbine Generator on CVN 78. [P5 / [3043] Expeditionary Fast Transport (EPF)]: Funds in FY 2017 are required for the Government responsible portion of shipbuilding construction contract overrun on EPF 10 (\$6.5M), and for the Government responsible portion of shipbuilding construction contract overrun and increased H,M&E and Other costs on EPF 8 and EPF 9 (\$6.7M).												

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Exhibit P-40, Budget Line Item Justification: FY 2018 Navy		Date: May 2017
Appropriation / Budget Activity / Budget Sub Activity: 1611N: Shipbuilding and Conversion, Navy / BA 05: Auxiliaries, Craft, and Prior-Year Program Costs / BSA 1: Auxiliaries, Craft and Prior Yr Program Cost		P-1 Line Item Number / Title: 5300 / Completion of PY Shpbldg Progr
ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
Line Item MDAP/MAIS Code: N/A		
<p>[P5 / [2122] DDG-51]: Funds in FY 2017 are for the Government responsible portion for the shipbuilding construction contract overrun for DDG 115 (\$16.0M). Funds in FY 2018 are for the Government responsible portion for the shipbuilding construction contract overrun for DDG 116 (\$19.4M), and for the Government responsible portion for the shipbuilding construction contract overrun for DDG 117, DDG 118, and DDG 120 (\$31.9M).</p> <p>[P5 / [3041] LHA(R)]: Funds in FY 2018 are for the Government responsible portion for the shipbuilding construction contract overrun for LHA 7 (\$14.2M).</p> <p>[P5 / [5112] LCAC (Ship to Shore Connector)]: Funds in FY 2018 are for the Government responsible portion of the shipbuilding construction contract overrun for LCAC 101, 102, and 103 (\$5.1M).</p>		

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Exhibit P-40, Budget Line Item Justification: FY 2018 Navy								Date: May 2017		
Appropriation / Budget Activity / Budget Sub Activity: 1611N: Shipbuilding and Conversion, Navy / BA 05: Auxiliaries, Craft, and Prior-Year Program Costs / BSA 1: Auxiliaries, Craft and Prior Yr Program Cost						P-1 Line Item Number / Title: 5300 / Completion of PY Shpbldg Progr				
ID Code (A=Service Ready, B=Not Service Ready): A			Program Elements for Code B Items: N/A			Other Related Program Elements: N/A				
Line Item MDAP/MAIS Code: N/A										
Exhibits Schedule					Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-5	Ship Estimate				- / 0.000	- / 0.000	- / 160.274	- / 117.542	- / 0.000	- / 117.542
P-40	Total Gross/Weapon System Cost				- / 0.000	- / 0.000	- / 160.274	- / 117.542	- / 0.000	- / 117.542
*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.										
Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.										

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Exhibit P-5, Cost Analysis: FY 2018 Navy													Date: May 2017						
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 05 / 1							P-1 Line Item Number / Title: 5300 / Completion of PY Shpbldg Progr							Item Number / Title [DODIC]: - / Ship Estimate					
ID Code (A=Service Ready, B=Not Service Ready) :										MDAP/MAIS Code:									
Resource Summary				Prior Years		FY 2016		FY 2017		FY 2018 Base		FY 2018 OCO		FY 2018 Total					
Procurement Quantity <i>(Units in Each)</i>				-		-		-		-		-		-					
Gross/Weapon System Cost <i>(\$ in Millions)</i>				0.000		0.000		160.274		117.542		0.000		117.542					
Less PY Advance Procurement <i>(\$ in Millions)</i>				-		-		-		-		-		-					
Net Procurement (P-1) <i>(\$ in Millions)</i>				0.000		0.000		160.274		117.542		0.000		117.542					
Plus CY Advance Procurement <i>(\$ in Millions)</i>				-		-		-		-		-		-					
Total Obligation Authority <i>(\$ in Millions)</i>				0.000		0.000		160.274		117.542		0.000		117.542					
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)																			
Initial Spares <i>(\$ in Millions)</i>				-		-		-		-		-		-					
Gross/Weapon System Unit Cost <i>(\$ in Millions)</i>				-		-		-		-		-		-					
Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.																			
Cost Elements	Prior Years			FY 2016			FY 2017			FY 2018 Base			FY 2018 OCO			FY 2018 Total			
	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	
Completion of PY Shipbuilding Programs - [3036] LPD Cost																			
1.1) Government responsible portion of shipbuilding contract overrun for LPD 27	-	-	-	-	-	-	-	-	45.060	-	-	-	-	-	-	-	-	-	
Subtotal: Completion of PY Shipbuilding Programs - [3036] LPD Cost	-	-	-	-	-	-	-	-	45.060	-	-	-	-	-	-	-	-	-	
Completion of PY Shipbuilding Programs - [2127] Littoral Combat Ship (LCS) Cost																			
2.1) Government responsible portion of shipbuilding contract overrun for LCS 10 and LCS 12	-	-	-	-	-	-	-	-	3.600	-	-	-	-	-	-	-	-	-	
2.2) Restoration of Sequestration shortfall for LCS 13 through LCS 16	-	-	-	-	-	-	-	-	43.566	-	-	-	-	-	-	-	-	-	
2.3) Government responsible portion of shipbuilding contract overrun for LCS 13 through LCS 16	-	-	-	-	-	-	-	-	38.834	-	-	-	-	-	-	-	-	-	
2.4) Government responsible portion of shipbuilding contract overrun for LCS 9 through LCS 12	-	-	-	-	-	-	-	-	-	-	-	6.394	-	-	-	-	-	6.394	
2.5) Government responsible portion of	-	-	-	-	-	-	-	-	-	-	-	20.471	-	-	-	-	-	20.471	

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Exhibit P-5, Cost Analysis: FY 2018 Navy												Date: May 2017						
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 05 / 1						P-1 Line Item Number / Title: 5300 / Completion of PY Shpbldg Progr						Item Number / Title [DODIC]: - / Ship Estimate						
ID Code (A=Service Ready, B=Not Service Ready) :										MDAP/MAIS Code:								
Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.																		
Cost Elements	Prior Years			FY 2016			FY 2017			FY 2018 Base			FY 2018 OCO			FY 2018 Total		
	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
shipbuilding contract overrun for LCS 17 through LCS 20																		
Subtotal: Completion of PY Shipbuilding Programs - [2127] Littoral Combat Ship (LCS) Cost	-	-	-	-	-	-	-	-	86.000	-	-	26.865	-	-	-	-	-	26.865
Completion of PY Shipbuilding Programs - [2001] CVN (Carrier Replacement Program) Cost																		
3.1) Repairs to #1 Main Turbine Generator on CVN 78	-	-	-	-	-	-	-	-	-	-	-	20.000	-	-	-	-	-	20.000
Subtotal: Completion of PY Shipbuilding Programs - [2001] CVN (Carrier Replacement Program) Cost	-	-	-	-	-	-	-	-	-	-	-	20.000	-	-	-	-	-	20.000
Completion of PY Shipbuilding Programs - [3043] Expeditionary Fast Transport (EPF) Cost																		
4.1) Government responsible portion of shipbuilding contract overrun for EPF 10	-	-	-	-	-	-	-	-	6.545	-	-	-	-	-	-	-	-	-
4.2) Government responsible portion of shipbuilding contract overrun and HM&E/Other - EPF 8/9	-	-	-	-	-	-	-	-	6.710	-	-	-	-	-	-	-	-	-
Subtotal: Completion of PY Shipbuilding Programs - [3043] Expeditionary Fast Transport (EPF) Cost	-	-	-	-	-	-	-	-	13.255	-	-	-	-	-	-	-	-	-
Completion of PY Shipbuilding Programs - [2122] DDG-51 Cost																		
5.1) Government responsible portion of shipbuilding contract overrun for DDG 115	-	-	-	-	-	-	-	-	15.959	-	-	-	-	-	-	-	-	-
5.2) Government responsible portion of shipbuilding contract overrun for DDG 116	-	-	-	-	-	-	-	-	-	-	-	19.436	-	-	-	-	-	19.436
5.3) Government responsible portion of shipbuilding contract overrun for DDG 117, 118 and 120	-	-	-	-	-	-	-	-	-	-	-	31.941	-	-	-	-	-	31.941

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Exhibit P-5, Cost Analysis: FY 2018 Navy												Date: May 2017						
Appropriation / Budget Activity / Budget Sub Activity: 1611N / 05 / 1						P-1 Line Item Number / Title: 5300 / Completion of PY Shpbldg Progr						Item Number / Title [DODIC]: - / Ship Estimate						
ID Code (A=Service Ready, B=Not Service Ready) :										MDAP/MAIS Code:								
Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.																		
Cost Elements	Prior Years			FY 2016			FY 2017			FY 2018 Base			FY 2018 OCO			FY 2018 Total		
	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Subtotal: Completion of PY Shipbuilding Programs - [2122] DDG-51 Cost	-	-	-	-	-	-	-	-	15.959	-	-	51.377	-	-	-	-	-	51.377
Completion of PY Shipbuilding Programs - [3041] LHA(R) Cost																		
6.1) Government responsible portion of shipbuilding contract overrun for LHA 7	-	-	-	-	-	-	-	-	-	-	-	14.200	-	-	-	-	-	14.200
Subtotal: Completion of PY Shipbuilding Programs - [3041] LHA(R) Cost	-	-	-	-	-	-	-	-	-	-	-	14.200	-	-	-	-	-	14.200
Completion of PY Shipbuilding Programs - [5112] LCAC (Ship to Shore Connector) Cost																		
7.1) Government responsible portion of shipbuilding contract overrun for LCAC 101, 102, & 103	-	-	-	-	-	-	-	-	-	-	-	5.100	-	-	-	-	-	5.100
Subtotal: Completion of PY Shipbuilding Programs - [5112] LCAC (Ship to Shore Connector) Cost	-	-	-	-	-	-	-	-	-	-	-	5.100	-	-	-	-	-	5.100
Gross/Weapon System Cost	-	-	0.000	-	-	0.000	-	-	160.274	-	-	117.542	-	-	0.000	-	-	117.542