

Selected Acquisition Report (SAR)



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Department of Defense
OFFICE OF PREPUBLICATION AND SECURITY REVIEW

LPD 17 San Antonio Class Amphibious Transport Dock (LPD 17)

FY 2024 President's Budget

Defense Acquisition Visibility Environment
(DAVE)

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Common Acronyms and Abbreviations

\$B - Billions of Dollars
\$K - Thousands of Dollars
\$M - Millions of Dollars
ACAT - Acquisition Category
Acq O&M - Acquisition-Related Operations and Maintenance
ADM - Acquisition Decision Memorandum
APB - Acquisition Program Baseline
APPN - Appropriation
APUC - Average Procurement Unit Cost
BA - Budget Authority/Budget Activity
Blk - Block
BY - Base Year
CAPE - Cost Assessment and Program Evaluation
CARD - Cost Analysis Requirements Description
CDD - Capability Development Document
CLIN - Contract Line Item Number
CPD - Capability Production Document
CY - Calendar Year
DAB - Defense Acquisition Board
DAE - Defense Acquisition Executive
DAMIR - Defense Acquisition Management Information Retrieval
DoD - Department of Defense
DSN - Defense Switched Network
EMD - Engineering and Manufacturing Development
EVM - Earned Value Management
FMS - Foreign Military Sales
FOC - Full Operational Capability
FRP - Full Rate Production
FY - Fiscal Year
FYDP - Future Years Defense Program
ICE - Independent Cost Estimate
Inc - Increment
IOC - Initial Operational Capability
JROC - Joint Requirements Oversight Council
KPP - Key Performance Parameter
LRIP - Low Rate Initial Production
MDA - Milestone Decision Authority
MDAP - Major Defense Acquisition Program
MILCON - Military Construction
N/A - Not Applicable
O&M - Operations and Maintenance
O&S - Operating and Support
ORD - Operational Requirements Document
OSD - Office of the Secretary of Defense
PAUC - Program Acquisition Unit Cost
PB - President's Budget

PE - Program Element
PEO - Program Executive Officer
PM - Program Manager
POE - Program Office Estimate
RDT&E - Research, Development, Test, and Evaluation
SAR - Selected Acquisition Report
SCP - Service Cost Position
TBD - To Be Determined
TY - Then Year
U.S. - United States
UCR - Unit Cost Reporting
USD(A&S) - Under Secretary of Defense (Acquisition and Sustainment)
USD(AT&L) - Under Secretary of Defense (Acquisition, Technology and Logistics)

Program Information

Program Name

LPD 17 San Antonio Class Amphibious
Transport Dock

DoD Component

Navy

Responsible Office

Program Manager

Name: CAPT Cedric McNeal

Phone: 202-781-0940

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Mission and Description

The LPD 17 Flight I San Antonio Class Amphibious Transport Dock Ship (LPD 17) is the functional replacement for the LPD 4 Austin class, LSD 36 Anchorage class, LKA 113 Charleston class, and LST 1179 Newport classes of Amphibious Ships for 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 the primary amphibious warfare mission in order to win the current and future fight. The LPD 17 Flight II ships are the functional replacement for the LSD 41/49 Class ships. These ships support amphibious assault, special operations or expeditionary warfare missions and serve as aviation platforms for amphibious warfare. They are agile, versatile, multi-mission platforms that are adaptable with wide ranging utility. Core missions for an independently operating LPD 17 and embarked Marines include: Embassy Reinforcement, Maritime Interception Operations, Non-Combatant Evacuation Operations, Humanitarian Assistance/Disaster Response, Theater Security Cooperation, Tactical Recovery of Aircraft and Personnel, and Limited Amphibious Raids. All of these missions require an LPD 17 with organic aviation capacity, sufficient command and control capability to support all platform and embarked force needs, and sufficient medical capability and capacity required to support the operational force.

Executive Summary

LPD 17

Program Highlights Since Last Report

The LPD 17 Class has delivered 12 Flight I Ships to the Navy. Collectively they have successfully completed 31 deployments since the program inception in 1994. The final two Flight I ships are LPD 28 which commissioned on July 30, 2022 and LPD 29 which is under construction at Huntington Ingalls Industries (Ingalls Shipbuilding division) in Pascagoula, Mississippi. LPD 28 and LPD 29 are transition ships to phase in design, producibility, and fact-of-life changes as the program moves from LPD Flight I to LPD Flight II baselines.

The first two LPD Flight II ships, LPD 30 and LPD 31 are currently under construction.

USS FORT LAUDERDALE (LPD 28) is currently executing its Fitting-Out-Availability at BAE Ship Repair in Norfolk, VA, and is projected to complete Q3 FY 2023. Post Delivery Test & Trial events will follow, such as Tier 1 Certifying Events, Combat Systems Ship Qualification Trials and Final Contract Trials.

RICHARD M. McCOOL JR. (LPD 29) is 89.0% complete as of February 2023. LPD 29 was christened on June 11, 2022 and is progressing through major shipbuilding milestones in support of systems completion, activation, and test. LPD 29 is projected to deliver in Q2 FY 2024.

HARRISBURG (LPD 30) is 36.7% complete as of February 2023. LPD 30 is the First Flight II ship with a projected delivery in Q3 FY 2026.

PITTSBURGH (LPD 31) is 3.6% complete as of February 2023. LPD 31's Start of Fabrication was September 7, 2022 and is projected to deliver in Q2 FY 2028.

LPD 32 Long Lead Time Material procurement awarded on June 16, 2022 with a Priced Option for FY 2023 Detail Design & Construction.

LPD 33 appropriated \$250M of Advanced Procurement in FY 2023.

There are no significant software-related issues with this program at this time.

History of Significant Developments Since Program Initiation

History of Significant Developments Since Program Initiation	
Date	Significant Development Description
Mar 2019	LPD Flight II lead ship (LPD 30) Detail Design and Construction contract award.
Jan 2019	Acquisition Program Baseline revised to add LPD 17 Flight II ships.
Nov 2018	Flight II Acquisition Strategy signed.
Aug 2018	Long Lead Time Material contract for first LPD Flight II ship (LPD 30) awarded.
Apr 2018	LPD Flight II Acquisition Decision Memorandum Signed. LX(R) subsumed into the SAN ANTONIO Class Program.
Feb 2016	LX(R) Capability Development Document Signed.
Apr 2014	LX(R) Analysis of Alternatives completed.
Aug 2008	First deployment of lead ship (LPD 17).
Jan 2006	Lead ship commissioned (LPD 17).
Aug 2005	Hurricane Katrina causes significant damage to the Gulf Coast with the shipyards at Avondale, LA and Pascagoula, MS.
Jul 2005	Lead ship (LPD 17) delivered.

Dec 1996	Lead ship (LPD 17) contract award.
Jun 1996	Defense Acquisition Board Milestone II Approval.
May 1996	Operational Requirements Document (Rev. 03) Approval.
Oct 1994	PMS 317 Program Office established.
Jan 1993	Defense Acquisition Board Milestone I Approval.
Sep 1990	Joint Requirements Oversight Council Validates LX Mission Needs Statement.

Schedule**LPD 17**

Events	Milestone Baseline Objective	Current Baseline Objective/Threshold		Current Estimate/Actual	Deviation
Milestone I	Jan 1993	Jan 1993	Jan 1993	Jan 1993	
DT&E (DT-I)-Start (1)	Mar 1993	Mar 1993	Mar 1993	Mar 1993	
DT&E (DT-I)-Complete (2)	Feb 1996	Feb 1996	Feb 1996	Feb 1996	
OT&E (OT-IA)-Start (2)	Jan 1995	Jan 1995	Jan 1995	Jan 1995	
OT&E (OT-IA)-Complete (1)	Mar 1995	Mar 1995	Mar 1995	Mar 1995	
OT&E (OT-IB)-Start (3)	Feb 1996	Feb 1996	Feb 1996	Feb 1996	
OT&E (OT-IB)-Complete (3)	Apr 1996	Apr 1996	Apr 1996	Apr 1996	
Milestone II	Jun 1996	Jun 1996	Jun 1996	Jun 1996	
Lead Ship Award (2)	Aug 1996	Dec 1996	Dec 1996	Dec 1996	
DT&E (DT-IIA)-Start (4)	Apr 1997	Apr 1997	Apr 1997	Apr 1997	
DT&E (DT-IIA)-Complete (6)	Mar 2003	Mar 2003	Mar 2003	Mar 2003	
OT&E (IIA)-Start (5)	May 1999	May 1999	May 1999	May 1999	
OT&E (IIA)-Complete (5)	May 2000	May 2000	May 2000	May 2000	
DIT (OT-IIB)-Start (6)	Jan 2002	Jan 2002	Jan 2002	Jan 2002	
DIT (OT-IIB)-Complete (9)	Mar 2003	May 2003	May 2003	May 2003	
DT&E (DT-IIB)-Start (7)	Sep 2002	Sep 2002	Sep 2002	Sep 2002	
DT&E (DT-IIB)-Complete (10)	Jul 2005	Jul 2005	Jul 2005	Jul 2005	
Lead Ship Delivery (2)	Jul 2005	Jul 2005	Jul 2005	Jul 2005	
DT&E (DT-IIC)-Start (9)	Jul 2005	Jul 2005	Jul 2005	Jul 2005	
DT&E (DT-IIC)-Complete (11)	Nov 2006	May 2007	May 2007	May 2007	
IOT&E (OT-IIC)-Start (10)	Jan 2006	Jan 2006	Jan 2006	Jan 2006	
IOT&E (OT-IIC)-Complete (12)	Jun 2007	Dec 2008	Dec 2008	Dec 2008	
LEAD SHIP IOC (2)	Feb 2007	Apr 2008	Apr 2008	Apr 2008	
FOT&E (OT-III)-Start (12)	Jul 2010	Jul 2010	Jul 2010	Jul 2010	
LPD Flight II Lead Ship Contract Award		Jan 2019	Jul 2019	Mar 2019	

LPD Flight II Lead Ship Start Fabrication		May 2020	Nov 2020	Mar 2020	
LPD Flight II Lead Ship Delivery		Feb 2025	Aug 2025	May 2026	Yes
LPD Flight II IOC		Jun 2026	Dec 2026	Nov 2027	Yes

Notes

SHIP Delivery OWLD

LPD 28 March 2022 March 2024

LPD 29 January 2024 August 2025

LPD 30 May 2026 December 2027

LPD 31 March 2028 October 2029

LPD 32 September 2029 April 2031

Acronyms and Abbreviations

DIT - Design Integration Testing

DT - Developmental Test

DT&E - Developmental Test and Evaluation

EASR- Enterprise Air Surveillance Radar

FOT&E - Follow-on Operational Test and Evaluation

IOT&E - Initial Operational Test and Evaluation

NGSSR- Next Generation Surface Search Radar

OT - Operational Test

OT&E - Operational Test and Evaluation

OWLD - Obligation Work Limiting Date

PMEAC- Program Managers Estimate at Complete

SSDS- Ship Self-Defense System

Deviation Explanation

The PM (Current) estimate values are adjusted from the original contract delivery date and IOC, to account for projected schedule delays resulting from reduced manning stemming from the COVID 19 pandemic which extends post-COVID 19. These projections are consistent with the dates submitted in PB 2024.

Performance

LPD 17

Performance Characteristics					
Milestone Baseline	Current Baseline Objective/Threshold	Demonstrated Performance	Current Estimate/Actual	Deviation	
(KPP)Amphibious Warfare Embarkation (Net) - Bulk Fuel (Gals)(k)					
	325	250	307	307	
(KPP)Amphibious Warfare Embarkation (Net) - Cargo (Cubic Feet)(k)					
	25	22	34	34	
(KPP)Mobility - Endurance ((NM)(K) @ Kts)					
	10/22	9.5/20	10.6/20	10.6/20	
(KPP)Amphibious Warfare Embarkation (Net) - LCAC (2)					
	2	1(+1)	2	2	
(KPP) - LPD Flight II Aircraft Refueling and Arming					
	Simultaneous refueling and electrical service of four (4) aircraft and re-arming/de-arming of two (2) aircraft in any combination of MV-22, CH-53, H-1, and H-60	(T=O) Simultaneous refueling and electrical service of four (4) aircraft and re-arming/de-arming of two (2) aircraft in any combination of MV-22, CH-53, H-1, and H-60		Simultaneous refueling and electrical service of four (4) aircraft and rearming/ de-arming of two (2) aircraft in any combination of MV-22, CH-53, H-1, and H-60	
(KPP) - LPD Flight II Bulk Fuel (Gallons) (K)					
	310	(T=O) 310		310	
(KPP) - LPD Flight II Cargo (Cubic Feet) (K)					
	28 (after 0.75 broken stow factor is applied)	(T=O) 28 (after 0.75 broken stow factor is applied)		28 (after 0.75 broken stow factor is applied)	
(KPP) - LPD Flight II LCAC/SSC / LCU Spots					
	2 / 1	(T=O) 2 / 1		2/1	
(KPP) - LPD Flight II Operational Availability (Ao)					
	.80	(T=O) .80		0.8	
(KPP) - LPD Flight II Troops					
	552	(T=O) 552		552	
(KPP) - LPD Flight II Vehicles (Square Feet) (K)					

	20.88	(T=O) 20.88		20.88	
(KPP) - LPD Flight II VTOL Land and Launch Spots					
	Two (2) primary and four (4) expanded launch spots	(T=O) Two (2) primary and four (4) expanded launch spots		Two (2) primary and four (4) expanded launch spots	
(APA) - Operational Availability (Ao) (3)					
	.90	0.8	0.92	0.92	
(KPP)Ship To Shore Capability (LCAC) - Sustained Operations (reload 6 LCACs)(mins)					
	220	285	274	274	
(KPP)Mobility - Sustained Speed (Kts) (2)					
	23	21.5	24	24	
(KPP)Amphibious Warfare Embarkation (Net) - Troops (2)					
	750	650	720	720	
(KPP)Amphibious Warfare Embarkation (Net) - Vehicles (Sq Ft)(k)					
	25	22	22	22	
(KPP)Amphibious Warfare Embarkation (Net) - VTOL Land/Launch Spots (CH-46 or CH-53E or MV-22)					
	4/3/2	4/2/2	4/2/2	4/2/2	
(KPP)Amphibious Warfare Embarkation (Net) - VTOL Maint/Storage (CH-46 or CH-53E or MV-22)					
	3/1/1	2/1/1	2/1/1	2/1/1	

Requirement Reference

ORD Revision 3 dated April 8, 1996 and CDD for Amphibious Ship Replacement Program (LX(R)) dated October 17, 2016
-LPD Flight II only

Deviation Explanation

No deviations for this program/subprogram

Notes

Acronyms and Abbreviations
 Ao - Operational Availability
 BT - Builder's Trials
 Gals - gallons
 IOT&E - Initial Operational Test and Evaluation
 K/k - Thousands
 Kts - Knots
 LCAC - Landing Craft Air Cushion
 mins - minutes
 NM - Nautical Miles
 OPEVAL - Operational Evaluation
 Sq Ft - square feet
 VTOL - Vertical Take-Off and Landing

Acquisition Budget Estimate

LPD 17

Total Acquisition Cost

		Milestone APB	Current Baseline		Budget Estimate PB 2024		
Category	Base Year	Objective (BY\$M)	Objective (BY\$M)	Threshold (BY\$M)	BY\$M	TY\$M	Deviation
RDT&E	1996	112.8	276.1	303.7	328.1	453.4	Yes
Procurement	1996	12,842.4	29,073.7	31,981.1	27,354.2	50,230.3	
MILCON	1996	0	0	0	0	0	
Acq. O&M	1996	0	0	0	0	0	
Total		12,955.2	29,349.8		27,682.3	50,683.7	
PAUC	1996	1,079.600	1,128.838	1,241.722	1,064.703	1,949.373	
APUC	1996	1,070.200	1,118.219	1230.041	1,052.083	1,931.935	

Appropriation Category Deviation Explanations

RDT&E (Dev-1) Cost Breach of RDT&E is being reported for the first time in the December 2022 SAR. RDT&E cost increases are due to lead ship LPD 17 FLT II, DT/OT/LFT&E and continuing efforts for Software Support Activity/ Development & Integration of new/unique HM&E systems, networks, and control systems.

PAUC Deviation Explanation

APUC Deviation Explanation

Budget Notes

Total End Item Quantity

Quantity Category	Current APB Quantity	Current Estimate Quantity
Development	0	
Procurement	26	26

Quantity Notes

Program of Record quantity of 26 ships to remain as-is pending final results of the congressionally mandated Battle Force Ship Assessment and Requirement (BFSAR) report and the Cost Reduction and Alternatives study previously directed by OSD CAPE.

Unit Cost**LPD 17****Current UCR Baseline and Current Estimate (Base-Year Dollars)**

Category (\$M) Base Year:1996	Current UCR Baseline	Current Estimate	% Change
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Program Acquisition Unit Cost

Cost	29,349.8	27,682.3	
Quantity	26	26	
Unit Cost	1128.838	1064.703	-5.68%

Average Procurement Unit Cost

Cost	29,073.7	27,354.2	
Quantity	26	26	
Unit Cost	1118.219	1052.083	-5.91%

Original UCR Baseline and Current Estimate (Base-Year Dollars)

Category (\$M) Base Year:1996	Original UCR Baseline	Current Estimate	% Change
-------------------------------	-----------------------	------------------	----------

Program Acquisition Unit Cost

Cost	12,955.2	27,682.3	
Quantity	12	26	
Unit Cost	1079.600	1064.703	-1.38%

Average Procurement Unit Cost

Cost	12,842.4	27,354.2	
Quantity	12	26	
Unit Cost	1070.200	1052.083	-1.69%

Cost Growth Details**Current Baseline PAUC Breach Explanation****Current Baseline APUC Breach Explanation****Original Baseline PAUC Breach Explanation****Original Baseline APUC Breach Explanation****Impacts of Schedule Changes on Unit Cost****Impacts of Performance Changes on Unit Cost****Actions Taken or Proposed to Control Future Cost Growth**

Risk and Sensitivity Analysis**LPD 17****Risk and Sensitivity Analysis****Current Procurement Cost (December 2022)**

An Assistant Secretary of the Navy for Research, Development & Acquisition (ASN (RD&A)) Acquisition

Decision Memorandum dated April 10, 2018, directed that LX(R) shall be subsumed into the SAN ANTONIO Class Acquisition Category IC Program and managed as LPD Flight II. An Acquisition Program Baseline (APB) update reflecting an increase in the number of ships in the class from 13 to 26 was signed on January 8, 2019. Program quantities reflected in the FYDP are the subject of annual budget cycle updates to support the 31 Amphibious Ship requirement.

Revised Original Estimate (October 2005)

The revised original baseline estimate for the program is from the restructure APB decision of October 31, 2005.

Current Baseline Estimate (January 2019)

The current baseline estimate reflects the POE for the APB, approved by the Assistant Secretary of the Navy (Research, Development and Acquisition) (ASN (RD&A)) on January 8, 2019.

Schedule Risk

Current	2022-12-31	HTS Degaussing Install (Cost, Schedule, and Technical risk): If the HTS Degaussing System install does not complete prior to OWLD, then a post-OWLD availability will be required to complete installation. MITIGATION: Engaged key stakeholders for plan of execution, performed risk reduction pulls at OEM site; have onsite expertise in place during ongoing installation, ensure additional material available if needed.
Current	2022-12-31	LPD 29 Radar Integration (Cost, Schedule, and Technical risk): If the EASR system is not fully integrated into the combat system, then LPD 29's test and delivery timelines may be impacted, resulting in cost and schedule impacts. MITIGATION: Navy to ensure resources and prioritization for EASR/CEC/SSDS integration timeline; routine drumbeat established with stakeholders; equipment installation in progress.

Current	2022-12-31	Post-COVID Impacts to manning (hiring and retention) affecting LPD Production (Cost and Schedule Risk): If shipyard resource loading (manning) continues below planned levels, then LPD 30-31 will experience additional cost and schedule impacts. MITIGATION: Monitor vessel labor manning and schedule variance; support and monitor HII's aggressive hiring and retention efforts; LPD 30 and 31 manning risk already reduced due to efforts by the shipyard.*PMEAC to be updated annually
Technical Risks		
Current	December 11, 2022	HTS Degaussing Install (Cost, Schedule, and Technical risk): If the HTS Degaussing System install does not complete prior to OWLD, then a post-OWLD availability will be required to complete installation. MITIGATION: Engaged key stakeholders for plan of execution, performed risk reduction pulls at OEM site; have onsite expertise in place during ongoing installation, ensure additional material available if needed.
Current	December 11, 2022	LPD 29 Radar Integration (Cost, Schedule, and Technical risk): If the EASR system is not fully integrated into the combat system, then LPD 29's test and delivery timelines may be impacted, resulting in cost and schedule impacts. MITIGATION: Navy to ensure resources and prioritization for EASR/CEC/SSDS integration timeline; routine drumbeat established with stakeholders; equipment installation in progress.

Low Rate Initial Production

LPD 17

Item	Initial LRIP Decision	Current Total LRIP
Approval Date	06/07/1996	04/10/2018
Approved Quantity	12	16
Reference	Milestone II ADM	LPD Flight II ADM
Start Year	1996	1996
End Year	2016	2022

Rationale if quantity exceeds 10% of the total number of articles to be procured:

The Current Total LRIP Quantity is more than 10% of the total production quantity, which is standard for shipbuilding programs.

Notes

Contracts & Efforts

Contract Data	
Contract Number	N00024-16-C-2431
Effort Number	28
Modification Number	A00246
Award Date	12/19/2016
Definitization Date	12/19/2016
Order Number	
CAGE Code/CAGE Legal Name	34293/
Contract Title	LPD 28
Contract Address	Pascagoula, MS
Contracting Office	
Supported Phase	Production
Contract Strategy	
Contract Type	Other
Modification Date	
Work Start Date	
Technical Data Rights	
Work Completed	

Contracts/Effort Price, Quantity, and Performance (TY\$M)		
Initial Target Price	Current Target Price	
\$1,434	\$1,485.8	
Initial Ceiling Price	Current Ceiling Price	
\$1,573	\$1,629.8	
Contractor EAC	PM EAC	
Initial Quantity	Current Quantity	Delivered Quantity
1	1	1
BAC	BCWP	ACWP

BCWS	Cost Variance	Schedule Variance

Contract Notes:

In accordance with Section 830(a)(2) of the FY 2020 National Defense Authorization Act, which requires a SAR to be submitted in unclassified form without any designation relating to dissemination control this SAR section has omitted information that is Controlled Unclassified Information (CUI). The Basic Construction Costs category in the budget exhibit includes additional costs required to validate and deliver a fully capable ship to the Navy that are not part of nor included in the shipbuilder contract target price.

Factors Contributing to Cost Variance and Projected Effects on Program Costs:

N/A

Factors Contributing to Schedule Variance and Projected Effects on Program Schedule:

N/A

Contract Data	
Contract Number	N00024-16-C-2431
Effort Number	29
Modification Number	P00048
Award Date	02/16/2018
Definitization Date	02/16/2018
Order Number	
CAGE Code/CAGE Legal Name	34293/
Contract Title	LPD 29
Contract Address	Pascagoula, MS
Contracting Office	
Supported Phase	Production
Contract Strategy	
Contract Type	Other
Modification Date	
Work Start Date	
Technical Data Rights	
Work Completed	

Contracts/Effort Price, Quantity, and Performance (TY\$M)		
Initial Target Price	Current Target Price	
\$1,399	\$1,414.3	
Initial Ceiling Price	Current Ceiling Price	
\$1,534	\$1,550.9	
Contractor EAC	PM EAC	
Initial Quantity	Current Quantity	Delivered Quantity
BAC	BCWP	ACWP
BCWS	Cost Variance	Schedule Variance

Contract Notes:

In accordance with Section 830(a)(2) of the FY 2020 National Defense Authorization Act, which requires a SAR to be submitted in unclassified form without any designation relating to dissemination control this SAR section has omitted information that is CUI. The Basic Construction Costs category in the budget exhibit includes additional costs required to validate and deliver a fully capable ship to the Navy that are not part of nor included in the shipbuilder contract target price.

Factors Contributing to Cost Variance and Projected Effects on Program Costs:

N/A

Factors Contributing to Schedule Variance and Projected Effects on Program Schedule:

N/A

Contract Data	
Contract Number	N00024-18-C-2406
Effort Number	30
Modification Number	A00206
Award Date	03/25/2019
Definitization Date	03/25/2019
Order Number	
CAGE Code/CAGE Legal Name	34293/
Contract Title	LPD 30
Contract Address	Pascagoula, MS
Contracting Office	
Supported Phase	Production
Contract Strategy	
Contract Type	Other
Modification Date	
Work Start Date	
Technical Data Rights	
Work Completed	

Contracts/Effort Price, Quantity, and Performance (TY\$M)		
Initial Target Price	Current Target Price	
\$1,435	\$1,463	
Initial Ceiling Price	Current Ceiling Price	
\$1,577	\$1,604.4	
Contractor EAC	PM EAC	
Initial Quantity	Current Quantity	Delivered Quantity
BAC	BCWP	ACWP
BCWS	Cost Variance	Schedule Variance

Contract Notes:

In accordance with Section 830(a)(2) of the FY 2020 National Defense Authorization Act, which requires a SAR to be submitted in unclassified form without any designation relating to dissemination control this SAR section has omitted information that is CUI. The Basic Construction Costs category in the budget exhibit includes additional costs required to validate and deliver a fully capable ship to the Navy that are not part of nor included in the shipbuilder contract target price.

Factors Contributing to Cost Variance and Projected Effects on Program Costs:

N/A

Factors Contributing to Schedule Variance and Projected Effects on Program Schedule:

N/A

Contract Data	
Contract Number	N00024-18-C-2406
Effort Number	31
Modification Number	A00206
Award Date	04/03/2020
Definitization Date	04/03/2020
Order Number	
CAGE Code/CAGE Legal Name	34293/
Contract Title	LPD 31
Contract Address	Pascagoula, MS
Contracting Office	
Supported Phase	Production
Contract Strategy	
Contract Type	Other
Modification Date	
Work Start Date	
Technical Data Rights	
Work Completed	

Contracts/Effort Price, Quantity, and Performance (TY\$M)		
Initial Target Price	Current Target Price	
\$1,488.7	\$1,492	
Initial Ceiling Price	Current Ceiling Price	
\$1,608.7	\$1,623.1	
Contractor EAC	PM EAC	
Initial Quantity	Current Quantity	Delivered Quantity
1	1	0
BAC	BCWP	ACWP
BCWS	Cost Variance	Schedule Variance

Contract Notes:

In accordance with Section 830(a)(2) of the FY 2020 National Defense Authorization Act, which requires a SAR to be submitted in unclassified form without any designation relating to dissemination control this SAR section has omitted information that is CUI. The Basic Construction Costs category in the budget exhibit includes additional costs required to validate and deliver a fully capable ship to the Navy that are not part of nor included in the shipbuilder contract target price.

Factors Contributing to Cost Variance and Projected Effects on Program Costs:

N/A

Factors Contributing to Schedule Variance and Projected Effects on Program Schedule:

N/A

External Government Activities

Activity Title		Government Entity	Supported Phase
CAGE		Work Start Date	
City		State/Province:	
Notes			

Deliveries and Expenditures

LPD 17

Deliveries				
Delivered to Date	Planned to Date	Actual to Date	Total Quantity	Percent Delivered
Development				
Production	12	12	26	46.15%
<hr/>				
Total Program Quantity Delivered	12	12	26	46.15%

Expended and Appropriated (TY \$M)

Years Appropriated to date: 35

Total Years Appropriated Funding (Current Baseline): 54

Percent Years Appropriated: 64.81%

Then-Year Funding Appropriated as Percentage of Total Acquisition Estimate: 57.04%

Then-Year Funding Expended as Percentage of Total Acquisition Estimate: 46.50%

Total Acquisition Cost: 50,683.7

Deliveries & Expenditures Notes:

Data is current as of March 13, 2023.

Operating and Support Costs

LPD 17

O&S Cost Breakdown:

Category (BY\$ Million)	LPD 17
Unit-Level Manpower	
Unit Operations	
Maintenance	
Sustaining Support	
Continued System Improvements	
Other	
Total	

Cost Estimate Source:

O&S Cost Notes:

Total Program O&S Cost Compared with Baseline					
	Current Baseline				
	Objective (BY\$M)	Threshold (BY\$M)	Current Estimate (BY\$M)	Current Estimate (TY\$M)	Deviation
Total O&S					

O&S Cost Deviation Explanation

Operating and Support Costs - Disposal and Unitized Costs

LPD 17

Annual Unitized O&S Cost Definition and Calculation Relative to Total O&S Cost:

The Total O&S cost estimate for the LPD 17 class is based on 26 ships over a 40-year life cycle timeframe. The estimates were calculated using the following formula. Total Average Annual Cost per Hull by the total number of ships by the total years of service. \$53,134 BY 1996 \$M = \$51.09 BY 1996 \$M x 26 x 40 \$97,434.80 TY \$M

Sustainment Factors	System Name: LPD 17	Antecedent System Name: LPD 4
Quantity to Sustain	26	
Unit of Measure	Ship	
Unit Expected Service Life	40	

Base Year: 1996

Annual Unitized O&S Cost by Category Base Year \$ Unit:(\$M)	System Name: LPD 17	Antecedent System Name: LPD 4
Unit-Level Manpower	16.2	12.3
Unit Operations	4.5	3.9
Maintenance	11.2	8.6
Sustaining Support	1.1	0.9
Continued System Improvements	4.1	2.4
Other	14.0	8.3
Total O&S	51.1	36.4

Disposal/Demilitarization Cost Estimate

(Base Year \$Millions)	System Name: LPD 17	Antecedent System Name: LPD 4
Total Disposal	132.6	

Cost Estimate Source - Disposal	
Type:	Program Office Estimate
Approval Authority and Date:	POE 12/31/2019
Note:	
<p>The cost element data for the LPD 17 class was pulled from the Naval Visibility and Management of Operating & Support Costs (VAMOSC) database for 2009 through 2018. The average crew size for an LPD 17 class ship over this time frame was 388. Per Assistant Secretary of the Navy (Research, Development and Acquisition) ADM, LX(R) was subsumed into the LPD program as a Flight II; and the O&S estimate has been revised to reflect 26 vice 13 ships.</p>	
Disposal Cost Notes:	

Total Cost above is BY\$M (Base Year = 1996) Disposal cost estimates include inactivation and disposal costs. The inactivation data is based on the average inactivation cost for conventional surface ships used in estimating the Environmental and Disposal liability for vessels inactivated between FY 2012 and FY 2021. This includes information captured from contracts and contract modifications executed by the various Regional Maintenance Centers (RMCs) for inactivation availabilities, NAVSEA funding documents providing funding to RMCs and NAVSEA field activities, and contract modifications executed by the Inactive Ship Management Office to support ship inactivations. The disposal data for each cost estimate was based on actual costs incurred by Navy activities in executing the dismantling and disposal of conventional surface ships.

Additional O&S Estimate Assumptions:

Per ASN (RDA) Acquisition Decision Memorandum, LX(R) was subsumed into the LPD program as a Flight II; and the O&S estimate has been revised to reflect 26 vice 13 ships. The total estimate has been revised to account for the increase in the number of ships for the LPD class from 13 ships to 26 ships. With the sustainment strategy remaining unchanged for the LPD class, there were no other cost elements or factors that would impact the total O&S cost increase. Total quantity used for the LPD class is consistent with the program APB quantity of Flight I & II ships.

Sustainment Strategy:

Life cycle engineering and support contracts with the shipbuilder and the Integrated Shipboard Electronics contractor, along with In Service Engineering Agent support contracts, are in place to support sustainment efforts. Responsibilities have been divided to leverage strengths; the shipbuilder maintains the planning yard while the in-service program office manages life-cycle maintenance, modernization, and logistics. Phased maintenance and dry dock availabilities are planned on a standard cycle; and continuous maintenance availabilities are conducted in between. This strategy has proven to be effective for the first thirteen ships of the class and will be adopted for the Flight II ships.

Antecedent Estimate Assumptions:

The LPD 17 San Antonio Class Amphibious Transport Dock Ship (LPD 17) is the functional replacement for the LPD 4, LSD 36, LKA 113, and LST 1179 classes of amphibious ships. Of these four ship classes, the LPD 4 class is most analogous to the LPD 17 class in terms of profile, configuration, and crew size; and thus, the LPD 4 class was selected as the antecedent for purposes of O&S cost comparisons. The cost element data for the LPD 4 class was pulled from the Naval VAMOSC database for all available years of data. The LPD 4 average annual cost per ship was extended using a quantity of 26 ships and expected service life of 40 years to mirror the LPD 17 Class profile and expected service life. The estimate also incorporated actual LPD 4 commissioning and decommissioning profiles. The average annual costs per LPD 4 class ship were calculated in BY 1996 dollars for each cost element. The cost element estimates for the LPD 4 class were not revised since last year's SAR submission; with the decommissioning of USS PONCE in 2017, all LPD 4 class ships have been decommissioned. Average crew size for an LPD 4 class ship was 364.