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Department of Defense
OFFICE OF PREPUBLICATION AND SECURITY REVIEW

Modernized Selected Acquisition Report (MSAR)

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

FY 2025 President's Budget

Effective: December 31, 2023

Defense Acquisition Visibility Environment

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(U) Common DoD 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
APA	Additional Performance Attribute
APB	Acquisition Program Baseline
APPN	Appropriation
APUC	Average Procurement Unit Cost
BA	Budget Authority or Budget Activity
Blk	Block
BY	Base Year
CAE	Component Acquisition Executive
CAPE	Cost Assessment and Program Evaluation
CARD	Cost Analysis Requirements Description
CCE	Component Cost Estimate
CCP	Component Cost Position
CDD	Capability Development Document
CLIN	Contract Line Item Number
CPD	Capability Production Document
CY	Calendar Year or Constant Year
DAB	Defense Acquisition Board
DAE	Defense Acquisition Executive
DAES	Defense Acquisition Executive Summary
DAVE	Defense Acquisition Visibility Environment
DoD	Department of Defense
DSN	Defense Switched Network
EMD	Engineering and Manufacturing Development
EVM	Earned Value Management
FD	Full Deployment
FDD	Full-Deployment Decision
FMS	Foreign Military Sales
FOC	Full Operational Capability
FRP	Full-Rate Production
FY	Fiscal Year
FYDP	Future Years Defense Program
ICD	Initial Capabilities Document
ICE	Independent Cost Estimate
Inc	Increment
IOC	Initial Operational Capability
IT	Information Technology
JROC	Joint Requirements Oversight Council
KPP	Key Performance Parameter
KSA	Key System Attribute

LRIP	Low-Rate Initial Production
MDA	Milestone Decision Authority
MDAP	Major Defense Acquisition Program
MILCON	Military Construction
N/A	Not Applicable
O	Objective
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
R&MF	Revolving and Management Funds
RDT&E	Research, Development, Test, and Evaluation
SAR	Selected Acquisition Report
SCP	Service Cost Position
T	Threshold
TBD	To Be Determined
TY	Then Year
U.S.	United States
U.S.C	United States Code
UCR	Unit Cost Reporting
USD(A&S)	Under Secretary of Defense (Acquisition and Sustainment)

(U) Program Description**Full Name**

LPD 17 San Antonio Class Amphibious
Transport Dock

PNO

542

Lead Component

Department of the Navy

Joint Program

No

Adaptive Acquisition Pathway

Major Capability Acquisition

Acquisition Category

IC

Acquisition Status

Active Acquisition

Short Name

LPD 17

Decision Authority

Component Acquisition Executive

Program Executive Office

PEO Ships

Acquisition Type

Major Defense Acquisition Program

Acquired Systems

LPD 17

Mission

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.

(U) Responsible Office**Program Executive Officer**

PEO Ships

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Dock PMO

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(U) Executive Summary

Program Highlights Since Last Report

The LPD 17 Class program of record (POR) consists of 26 ships; 13 Flight I (LPD 17-29) and 13 Flight II (30-42) ships.

The LPD 17 Class has delivered 12 Ships to the Navy. Collectively they have successfully completed 32 deployments since the program inception in 1994. The final two LPD Flight I ships are LPD 28 which is in the Post Delivery phase and has commenced Post Shakedown Availability and LPD 29 which is completing the final stages of construction and test at Huntington Ingalls Industries (Ingalls Shipbuilding division) in Pascagoula, Mississippi. LPD 28 and LPD 29 are transition ships to LPD Flight II through early incorporation of mature LPD Flight II design changes. LPD 29 incorporates the Enterprise Air Surveillance Radar instead of the SPS-48G radar. LPD Flight II ships will have upgraded aviation and well deck facilities to better accommodate the Navy's latest generation of helicopters and surface connectors.

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

HARRISBURG (LPD 30) is 60.1% complete as of February 2024. LPD 30 is the Lead LPD Flight II ship with a projected delivery in Q3 FY 2026.

PITTSBURGH (LPD 31) is 17.0% complete as of February 2024 and is projected to deliver in Q2 FY 2028.

PHILADELPHIA (LPD 32) Detailed Design & Construction Contract awarded on March 31, 2023; LPD 32 Start of Construction is projected later this calendar year.

FY 2024 Enacted legislation appropriated a total of \$500M of Advance Procurement (AP) for LPD 33.

PB 2025 reflects planned cost and quantities for LPD 33-35.

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

(U) History of Significant Developments Since Program Inception

Date	Description
September 2023	APB revised to update Flight II lead ship (LPD 30) delivery, IOC schedule, and RDT&E and O&S objective and threshold values.
August 2023	Conducted Gate 7 Sustainment Review.
March 2019	LPD Flight II lead ship (LPD 30) Detail Design and Construction contract award.
January 2019	Acquisition Program Baseline revised to add LPD 17 Flight II ships.
November 2018	Flight II Acquisition Strategy signed.
August 2018	Long Lead Time Material contract for first LPD Flight II ship (LPD 30) awarded.
April 2018	LPD Flight II Acquisition Decision Memorandum Signed. LX(R) subsumed into the SAN ANTONIO Class Program.
February 2016	LX(R) Capability Development Document Signed.
April 2014	LX(R) Analysis of Alternatives completed.
August 2008	First deployment of lead ship (LPD 17).
January 2006	Lead ship commissioned (LPD 17).
August 2005	Hurricane Katrina causes significant damage to the Gulf Coast with the shipyards at

Date	Description
	Avondale, LA and Pascagoula, MS.
July 2005	Lead ship (LPD 17) delivered.
December 1996	Lead ship (LPD 17) contract award.
June 1996	Defense Acquisition Board Milestone II Approval.
May 1996	Operational Requirements Document (Rev. 03) Approval.
October 1994	PMS 317 Program Office established.
January 1993	Defense Acquisition Board Milestone I Approval.
September 1990	Joint Requirements Oversight Council Validates LX Mission Needs Statement.

(U) Schedule**(U) Schedule Events**

Events		APB Change 12 (Current) 9/28/2023 Objective / Threshold		Current Estimate 12/31/2023	Actual
Milestone I	MS I	Jan 1993	Jan 1993	-	1 Jan 1993
DT&E (DT-I)					
Start (1)	DT&E	Mar 1993	Mar 1993	-	1 Mar 1993
Complete (2)	IOT&E	Feb 1996	Feb 1996	-	1 Feb 1996
OT&E (OT-IA)					
Start (2)	IOT&E	Jan 1995	Jan 1995	-	1 Jan 1995
Complete (1)	IOT&E	Mar 1995	Mar 1995	-	1 Mar 1995
OT&E (OT-IB)					
Start (3)	IOT&E	Feb 1996	Feb 1996	-	1 Feb 1996
Complete (3)	IOT&E	Apr 1996	Apr 1996	-	1 Apr 1996
Milestone II	MS II	Jun 1996	Jun 1996	-	1 Jun 1996
Lead Ship Award (2)	FFO	Dec 1996	Dec 1996	-	1 Dec 1996
DT&E (DT-IIA)					
Start (4)	DT&E	Apr 1997	Apr 1997	-	1 Apr 1997
Complete (6)	DT&E	Mar 2003	Mar 2003	-	1 Mar 2003
OT&E (IIA)					
Start (5)	IOT&E	May 1999	May 1999	-	1 May 1999
Complete (5)	IOT&E	May 2000	May 2000	-	1 May 2000
DIT (OT-IIB)					
Start (6)	IOT&E	Jan 2002	Jan 2002	-	1 Jan 2002
Complete (9)	IOT&E	May 2003	May 2003	-	1 May 2003
DT&E (DT-IIB)					
Start (7)	DT&E	Sept 2002	Sept 2002	-	1 Sept 2002
Complete (10)	DT&E	Jul 2005	Jul 2005	-	1 Jul 2005
Lead Ship Delivery (2)	First Asset Delivery	Jul 2005	Jul 2005	-	1 Jul 2005
DT&E (DT-IIC)					
Start (9)	DT&E	Jul 2005	Jul 2005	-	1 Jul 2005
Complete (11)	DT&E	May 2007	May 2007	-	1 May 2007
IOT&E (OT-IIC)					
Start (10)	IOT&E	Jan 2006	Jan 2006	-	1 Jan 2006
Complete (12)	IOT&E	Dec 2008	Dec 2008	-	1 Dec 2008
LEAD SHIP IOC (2)	IOC	Apr 2008	Apr 2008	-	1 Apr 2008

FOT&E (OT-III)					
Start (12)	IOT&E	Jul 2010	Jul 2010	-	1 Jul 2010
LPD Flight II Lead Ship Contract Award	Other	Jan 2019	Jul 2019	-	1 Mar 2019
LPD Flight II Lead Ship Start Fabrication	Other	May 2020	Nov 2020	-	1 Mar 2020
LPD Flight II Lead Ship Delivery	Other	May 2026	Nov 2026	Nov 2026	-
LPD Flight II IOC	Other	May 2028	May 2029	May 2029	-

Notes

SHIP Delivery OWLD
 LPD 28 March 2022 May 2024
 LPD 29 April 2024 June 2026
 LPD 30 May 2026 December 2027
 LPD 31 March 2028 October 2029
 LPD 32 September 2029 April 2031
 LPD 33 September 2031 April 2033
 LPD 34 September 2033 April 2035
 LPD 35 September 2035 April 2037

Acronyms and Abbreviations

DIT - Design Integration Testing
 DT - Developmental Test
 DT&E - Developmental Test and Evaluation
 EASR- Enterprise Air Surveillance Radar
 FFO- Funds First Obligated
 FOT&E - Follow-on Operational Test and Evaluation
 HTS - High Temperature Superconductor
 IOT&E - Initial Operational Test and Evaluation
 NGSSR- Next Generation Surface Search Radar
 OEM - Original Equipment Manufacturer
 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

Schedule Baseline 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 2025.

(U) Current Significant Schedule Risks and Risks Identified at Milestones/Decisions

Event	Date	Description
Current	12/31/2023	<p>HTS Degaussing Install (Cost, Schedule, and Technical): If the HTS Degaussing System install and test doesn't complete prior to OWLD, then the LPD 28 may transition to the fleet without the ability for magnetic signature reduction. MITIGATION: Engaged key stakeholders for plan of execution, engage with OEM and vendors for any challenges encountered, have onsite expertise in place during ongoing installation.</p>
Current	12/31/2023	<p>LPD 29 Radar Integration (Cost, Schedule, and Technical): 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: The EASR System will support continued, planned activities, extending the development test environment to the underway period for Acceptance Trials planned for completion Q2 FY 2024.</p>
Current	12/31/2023	<p>LPD 30-31 Schedule Adherence (Cost, Schedule): If shipyard resource loading (manning) is challenged with shortages below plan, then LPD 30 (LPD Flight II lead ship) will experience cost and schedule impacts. Mitigation: Monitor vessel labor manning and schedule variance; LPD 30 manning risk already being reduced due to efforts by the shipyard. *PMEAC to be updated annually</p>

(U) Performance

(U) Performance Attributes

Mobility		
Sustained Speed (Kts) (2)		KPP
Current Estimate 12/31/2023		24
Demonstrated Performance 5/3/2005		24
APB Change 12 (Current)	Objective	23
9/28/2023	Threshold	21.5
Endurance ((NM)(K) @ Kts)		KPP
Current Estimate 12/31/2023		10.6/20
Demonstrated Performance 12/14/2007		10.6/20
APB Change 12 (Current)	Objective	10/22
9/28/2023	Threshold	9.5/20
Amphibious Warfare Embarkation (Net)		
Troops (2)		KPP
Current Estimate 12/31/2023		720
Demonstrated Performance 12/3/2005		720
APB Change 12 (Current)	Objective	750
9/28/2023	Threshold	650
Vehicles (Sq Ft)(k)		KPP
Current Estimate 12/31/2023		22
Demonstrated Performance 5/3/2005		22
APB Change 12 (Current)	Objective	25
9/28/2023	Threshold	22
Cargo (Cubic Feet)(k)		KPP
Current Estimate 12/31/2023		34
Demonstrated Performance 12/3/2005		34
APB Change 12 (Current)	Objective	25

9/28/2023	Threshold	22	
Bulk Fuel (Gals)(k)			KPP
Current Estimate 12/31/2023		307	
Demonstrated Performance 12/14/2007		307	
APB Change 12 (Current)	Objective	325	
9/28/2023	Threshold	250	
LCAC (2)			KPP
Current Estimate 12/31/2023		2	
Demonstrated Performance 12/3/2005		2	
APB Change 12 (Current)	Objective	2	
9/28/2023	Threshold	1(+1)	
VTOL Land/Launch Spots (CH-46 or CH-53E or MV-22)			KPP
Current Estimate 12/31/2023		4/2/2	
Demonstrated Performance 12/3/2005		4/2/2	
APB Change 12 (Current)	Objective	4/3/2	
9/28/2023	Threshold	4/2/2	
VTOL Maint/Storage (CH-46 or CH-53E or MV-22)			KPP
Current Estimate 12/31/2023		2/1/1	
Demonstrated Performance 12/14/2007		2/1/1	
APB Change 12 (Current)	Objective	3/1/1	
9/28/2023	Threshold	2/1/1	
Ship To Shore Capability (LCAC)			
Sustained Operations (reload 6 LCACs)(mins)			KPP
Current Estimate 12/31/2023		274	
Demonstrated Performance 12/7/2007		274	
APB Change 12 (Current)	Objective	220	
9/28/2023	Threshold	285	
Operational Availability (Ao) (3)			APA
Current Estimate 12/31/2023		.92	
Demonstrated Performance		.92	

1/29/2010		
APB Change 12 (Current)	Objective	.90
9/28/2023	Threshold	.80
LPD Flight II Operational Availability (Ao)		KPP
Current Estimate 12/31/2023		.80
Demonstrated Performance -		TBD
APB Change 12 (Current)	Objective	.80
9/28/2023	Threshold	(T=O) .80
LPD Flight II Bulk Fuel (Gallons) (K)		KPP
Current Estimate 12/31/2023		310
Demonstrated Performance -		TBD
APB Change 12 (Current)	Objective	310
9/28/2023	Threshold	(T=O) 310
LPD Flight II Troops		KPP
Current Estimate 12/31/2023		552
Demonstrated Performance -		TBD
APB Change 12 (Current)	Objective	552
9/28/2023	Threshold	(T=O) 552
LPD Flight II Vehicles (Square Feet) (K)		KPP
Current Estimate 12/31/2023		20.88
Demonstrated Performance -		TBD
APB Change 12 (Current)	Objective	20.88
9/28/2023	Threshold	(T=O) 20.88
LPD Flight II Cargo (Cubic Feet) (K)		KPP
Current Estimate 12/31/2023		28 (after 0.75 broken stow factor is applied)
Demonstrated Performance -		TBD
APB Change 12 (Current)	Objective	28 (after 0.75 broken stow factor is applied)
9/28/2023	Threshold	(T=O) 28 (after 0.75 broken stow factor is applied)
LPD Flight II LCAC/SSC / LCU Spots		KPP

Current Estimate 12/31/2023		2/1
Demonstrated Performance 12/6/2023		2/1
APB Change 12 (Current) 9/28/2023	Objective	2 / 1
	Threshold	(T=0) 2 / 1
LPD Flight II Aircraft Refueling and Arming		KPP
Current Estimate 12/31/2023		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
Demonstrated Performance 9/30/2023		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
APB Change 12 (Current) 9/28/2023	Objective	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
	Threshold	(T=0) 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
LPD Flight II VTOL Land and Launch Spots		KPP
Current Estimate 12/31/2023		Two (2) primary and four (4) expanded launch spots
Demonstrated Performance 10/5/2023		Two (2) primary and four (4) expanded launch spots
APB Change 12 (Current) 9/28/2023	Objective	Two (2) primary and four (4) expanded launch spots
	Threshold	(T=0) Two (2) primary and four (4) expanded launch spots

(U) Requirement Source:

Sponsor(s): United States Navy

1. Capability Development Document, *Capability Development Document for the Amphibious Ship Replacement Program (LX(R))*

Validated By: Joint Requirements Oversight Council, October 17, 2016

Notes

Performance Note:

Performance of the following attributes:

LPD Flight II Operational Availability (Ao) will be demonstrated with the completion of OT-D3 (9/30/2029)

LPD Flight II Bulk Fuel (Gallons) (K) will be demonstrated the end of Q3 FY 2024

LPD Flight II Troops, LPD Flight II Vehicles and LPD Flight II Cargo will be demonstrated prior to the delivery of Flight II Lead ship (4/30/2026).

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

Performance Deviation Explanation

None

(U) Acquisition Budget Estimate

(U) Total Acquisition Estimates and Quantities

Category (\$M) Base Year: 1996	APB Change 12 (Current) 9/28/2023		Current Estimate PB 2025	
	CY\$ obs Objective / Threshold		CY\$ obs / TY\$ obs	
RDT&E	390.2	429.2	334.8	467.5
Procurement	29,073.5	31,980.8	27,258.6	50,228.3
MILCON	0.0	0.0	0.0	0.0
O&M	0.0	0.0	0.0	0.0
R&MF	0.0	0.0	0.0	0.0
Total Acquisition	29,463.7	-	27,593.4	50,695.8
Program Acquisition Unit Cost	1,133.218	1,246.540	1,061.283	1,949.839
Average Procurement Unit Cost	1,118.211	1,230.032	1,048.407	1,931.858
Program End-Item Quantity				
Development	0		-	
Procurement	26		26	
O&M-Acquired	-		0	

Budget Notes

Quantity Notes

The program requirement in the current APB is for 26 ships (13-LPD Flight I and 13 - LPD Flight II) with a 40 year service life.

Cost Baseline Deviation Explanation

None

(U) Risk and Sensitivity Analysis

Current Procurement Estimate Risks (12/31/2023)	
1	<p>Hight Temperature Superconductor (HTS) Degaussing Install (Cost, Schedule, and Technical risk): If the HTS Degaussing System install and test doesn't complete prior to OWLD, then the LPD 28 may transition to the fleet without the ability for magnetic signature reduction. MITIGATION: Engaged key stakeholders for plan of execution, engage with OEM and vendors for any challenges encountered, have onsite expertise in place during ongoing installation.</p>

2	<p>LPD 30-31 Schedule Adherence (Cost, Schedule): If shipyard resource loading (manning) is challenged with shortages below plan, then LPD 30 (LPD Flight II lead ship) will experience cost and schedule impacts. Mitigation: Monitor vessel labor manning and schedule variance; LPD 30 manning risk already being reduced due to efforts by the shipyard. *PMEAC to be updated annually</p>
3	<p>LPD 29 Radar Integration (Cost, Schedule, and Technical risk): If the Enterprise Air Surveillance Radar (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: The EASR System will support continued, planned activities, extending the development test environment to the underway period for Acceptance Trials planned for completion Q2 FY 2024.</p>
<p>Current Baseline Risks (9/28/2023)</p>	
<p>None</p>	
<p>Revised Original Baseline Risks (10/31/2005)</p>	
<p>The revised original baseline estimate for the program is from the restructure APB decision of October 31, 2005.</p>	

(U) Unit Costs

(U) Current Estimate Compared with Current Baseline

Category (CY\$M) Base Year: 1996	Current Baseline 09/28/2023	Current Estimate PB 2025	% Change
Program Acquisition Unit Cost			
Acquisition Cost	29,463.7	27,593.4	
Program Quantity	26	26	
PAUC	1,133.218	1,061.283	-6.35%
Average Procurement Unit Cost			
Procurement Cost	29,073.5	27,258.6	
Procurement Quantity	26	26	
APUC	1,118.211	1,048.407	-6.24%

(U) Current Estimate Compared with Original Baseline

Category (CY\$M) Base Year: 1996	Original Baseline 10/31/2005	Current Estimate PB 2025	% Change
Program Acquisition Unit Cost			
Acquisition Cost	12,955.2	27,593.4	
Program Quantity	12	26	
PAUC	1,079.600	1,061.283	-1.70%
Average Procurement Unit Cost			
Procurement Cost	12,842.4	27,258.6	
Procurement Quantity	12	26	
APUC	1,070.200	1,048.407	-2.04%

Notes

None

(U) Life-Cycle Costs

(U) Operating and Support and Disposal Cost Estimates Compared with Baseline

Category (\$M) Base Year: 1996	APB Change 12 (Current) 9/28/2023 CY\$ obs Objective / Threshold		Current Estimate CY\$ obs / TY\$ obs	
	Total O&S	65,446.0	71,990.6	65,446.0
Total Disposal	-	-	65.4	281.4

(U) Current Cost Estimate Sources

Operating and Support Cost

Type: Independent Cost Estimate

Approved by: OSD, Cost Assessment & Program Evaluation, August 29, 2023

Note: Date of estimate is August 2023; source is the ICE provided by NAVSEA 05C. ICE was developed in support of the LPD Sustainment Review and Gate 7 dated August 26, 2023. The O&S estimate covers costs from FY 2023 - 2089. The O&S estimate follows the 2020 OSD CAPE Guidance, removing the CAPE Element 6.0 In-directs and the latest update to the OPNAV 4700 which increased man-day requirements for Depot Maintenance. The revised OSD escalation/inflation meets the latest CAPE guidance and is based on the FY 2006-2022 VAMOSOC data for hardware cost impacts. APB 12 Changes for O&S costs have been approved for (Then Year Objective \$197,340M) and (Base Year Objective \$65,446M and Threshold \$71,990M). The program requirement in the current APB is for 26 ships (13 LPD Flight I and 13 LPD Flight II) with a 40 year service life.

Per Assistant Secretary of the Navy (Research, Development and Acquisition) ADM, LX(R) was subsumed into the LPD program as a LPD Flight II.

Disposal/Demilitarization Cost

Type: Independent Cost Estimate

Approved by: OSD Cost Assessment & Program Evaluation, August 29, 2023

Note: ICE was developed in support of the LPD Sustainment Review and Gate 7 dated August 26, 2023. The O&S estimate includes inactivation and disposal costs from FY 2023 - 2089 using historical data by which Disposal cost estimates include inactivation and disposal costs. 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.

Operating and Support Baseline Deviation Explanation

None

Cost Notes

None

(U) Operating and Support Variance with Prior Estimate

(CY\$M) Base Year: 1996		Estimate	
Prior Estimate (date not provided)		54,700.0	
Current Estimate		65,446.0	
Category			
	Variance		Explanation
Unit-Level Manpower	5,000.0		Element 1.0 mission personnel is based on Military Composite Standard Pay and Reimbursement Rates (FY23) and using the ship crew size included in the latest Ship Manpower Documents for Flight I and Flight II (SMD and PSMD respectively).
Unit Operations	5,000.0		Element 2.0 unit operations is based on DLA fuel price and LPD 17 Class VAMOSC actuals across FY 2007 to 2022.
Maintenance	700.0		Element 3.0 maintenance is based on contribution for O&I and depot level maintenance using LPD 17 Class VAMOSC actuals from 2007 to 2022; scheduled and continuous maintenance based on OPNAVLTTR 4700 man-days 6 June 2022 (POM 24) and private sector man day rates from CNRMC (POM 24).
Sustaining Support	40.0		Element 4.0 sustaining support is based on LPD 17 Class VAMOSC actuals from 2007 to 2022.
Continuing System Improvements	-		Element 5.0 continuous system improvements is based on LPD 17 Class VAMOSC actuals: Hardware from 2013 to 2022 and Software from 2007 to 2022; and OPNAVLTTR 4700 6 June 2022 (POM 24).
Other	6.0		The latest CAPE guidance no longer includes 6.0 (indirect support) in the O&S cost element structure.
Not Categorized			
	0.0		

(U) Operating and Support Cost Element Structure Estimates by Acquired System

(CY\$M) Base Year: 1996							
System	Unit-Level Manpower	Unit Operations	Maintenance	Sustaining Support	Continuing System Improvements	Other	Total
LPD 17	26,441.5	4,662.2	25,061.0	1,387.9	7,893.4	-	65,446.0
Program	26,441.5	4,662.2	25,061.0	1,387.9	7,893.4	0.0	65,446.0

(U) Annual Operating and Support Costs per Unit Compared with Antecedent System

(CY\$M) Base Year: 1996							
System	Unit-Level Manpower	Unit Operations	Maintenance	Sustaining Support	Continuing System Improvements	Other	Total
LPD 17	16.2	4.5	11.2	1.1	4.1	14.0	51.1

(U) Operating and Support Cost Estimate Assumptions

System	Quantity to Sustain	Unit Expected Service Life (Years)	Unit of Measure	Fiscal Years Operational
LPD 17	1	40.0	ship	2005 - 2083

Additional O&S Estimate Assumptions

None

Antecedent Estimate Assumptions

None

O&S Annual Cost Calculation Memo

Total Average Annual Cost per Hull by the total number of ships by the total years of service.
 LPD 17: \$62.9288M per ship x 26 ships x 40 years = \$65,446M

(U) Technologies and Systems Engineering

(U) Current Significant Technical Risks and Risks Identified at Milestones/Decisions

Event	Date	Description
Current	12/31/2023	<p>LPD 29 Radar Integration (Cost, Schedule, and Technical risk): If the Enterprise Air Surveillance Radar (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: The EASR System will support continued, planned activities, extending the development test environment to the underway period for Acceptance Trials planned for completion Q2 FY 2024.</p>
Current	12/31/2023	<p>High Temperature Superconductor (HTS) Degaussing Install (Cost, Schedule, and Technical): If the HTS Degaussing System install and test doesn't complete prior to Obligation Work Limiting date, then the LPD 28 may transition to the fleet without the ability for magnetic signature reduction. MITIGATION: Engaged key stakeholders for plan of execution, engage with Original Equipment Manufacturer and vendors for any challenges encountered, have onsite expertise in place during ongoing installation.</p>

(U) Performing Activities and Contracts

(U) External Government Activities

None

(U) Contracts and Efforts

Contract Title	Contract Number / Effort	Contractor	Phase
LPD 29	N00024-16-C-2431 / 29	Huntington Ingalls Incorporated	Production
LPD 30	N00024-18-C-2406 / 30	Huntington Ingalls Incorporated	Production
LPD 31	N00024-18-C-2406 / 31	Huntington Ingalls Incorporated	Production
LPD 32	N00024-18-C-2406 / 32	Huntington Ingalls Incorporated	Production

(U) Contract and Effort Identification, Price, Quantity and Performance

Contract Number:	N00024-16-C-2431	Order Number:	-
Contract Title:	LPD 29	Strategy:	-
CAGE:	34293 - Huntington Ingalls Incorporated	Contracting Office:	-
City, State/Province:	Pascagoula, MS		
Effort Number:	29	Supported Phase:	Production
Type:	Other	Award Date:	February 17, 2018
Latest Modification Date:	March 6, 2024	Definitization Date:	February 17, 2018
Latest Modification No.:	A00328	Work Start Date:	-
Technical Data Rights:	-		

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

Initial Price (TY\$M) Target / Ceiling	Current Price (TY\$M) Target / Ceiling	Est. Price at Completion (TY\$M) Contractor / PM	Initial Quantity	Current Quantity	Delivered Quantity
1,399.0 1,534.0	1,415.5 1,552.3	- -	-	-	-

(U) Contract and Effort Identification, Price, Quantity and Performance

Contract Number:	N00024-18-C-2406	Order Number:	-
Contract Title:	LPD 30	Strategy:	-
CAGE:	34293 - Huntington Ingalls	Contracting Office:	-

Incorporated
 City, State/Province: Pascagoula, MS

Effort Number: 30 Supported Phase: Production
 Type: Other Award Date: March 25, 2019
 Latest Modification Date: March 6, 2024 Definitization Date: March 25, 2019
 Latest Modification No.: A00236 Work Start Date: -
 Technical Data Rights: -

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.

Initial Price (TY\$M) Target / Ceiling	Current Price (TY\$M) Target / Ceiling	Est. Price at Completion (TY\$M) Contractor / PM	Initial Quantity	Current Quantity	Delivered Quantity
1,435.0 1,577.0	1,463.6 1,605.1	- -	-	-	-

(U) Contract and Effort Identification, Price, Quantity and Performance

Contract Number: N00024-18-C-2406 Order Number: -
 Contract Title: LPD 31 Strategy: -
 CAGE: 34293 - Huntington Ingalls Incorporated Contracting Office: -
 City, State/Province: Pascagoula, MS

Effort Number: 31 Supported Phase: Production
 Type: Other Award Date: April 3, 2020
 Latest Modification Date: March 6, 2024 Definitization Date: April 3, 2020
 Latest Modification No.: A00236 Work Start Date: -
 Technical Data Rights: -

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.

Initial Price (TY\$M) Target / Ceiling	Current Price (TY\$M) Target / Ceiling	Est. Price at Completion (TY\$M) Contractor / PM	Initial Quantity	Current Quantity	Delivered Quantity
1,488.7 1,608.7	1,493.3 1,624.4	- -	1	1	-

(U) Contract and Effort Identification, Price, Quantity and Performance

Contract Number: N00024-18-C-2406 Order Number: -
 Contract Title: LPD 32 Strategy: -
 CAGE: 34293 - Huntington Ingalls Contracting Office: -

(U) Production**(U) Low-Rate Initial Production**

	Original LRIP Determination	Current LRIP Determination
Total LRIP Quantity	12	16
Date	6/7/1996	4/10/2018
Reference	Milestone II ADM	LPD Flight II ADM
LRIP Period	FY 1996 - 2016	FY 1996 - 2022
Total Procurement Quantity	12	16
LRIP Percentage of Total	100.0%	100.0%

Rationale if LRIP Quantity Exceeds 10% of Total Procurement Quantity (Current Determination)

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

LRIP Notes

None

(U) Deliveries and Expenditures

(U) Acquisition Funding

	Total Estimate	Actual to Date	Actual, Percent Complete
Years Appropriated	54	35	64.8%
Appropriations (TY, \$M)	50,695.8	30,563.9	60.3%
Expenditures (TY, \$M)	50,695.8	24,524.0	48.4%

(U) End Items Delivered

	Total Required	Planned to Date	Actual to Date	Actual, Percent Complete
Procurement	26			
LPD 17		12	12	
Total	26	12	12	46.2%

Notes

Data is current as of March 11, 2024.

(U) International Program Aspects**General Memo**

None

Exportability and Business Issues

N/A

Is design for international exportability planned?	No	Industry/Partner Exportability Cost-Sharing?	No
If not, has the MDA approved an exportability waiver for a U.S.-only design?	Not Applicable		

Program Protection: Technology Security and Foreign Disclosure Issues

N/A

(U) Agreements

No International Agreements have been defined for LPD 17



UNCLASSIFIED

**Modernized
Selected Acquisition Report
Supplement**

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

FY 2025 President's Budget
As of: December 31, 2023

UNCLASSIFIED

MSAR Supplement Sections

Program Description

Program Use of the Adaptive Acquisition Framework

Technologies and Systems Engineering

Funding Sources (Acquisition)

Funding Sources (Operating and Support)

Acquisition Estimate and Quantity Summary

Annual Acquisition Estimates by Appropriation Account

Acquired System Annual End-Item Quantities by Appropriation Account

Nuclear Costs

Operational Fielding Plan

O&S Independent Cost Estimate

Annual Operating and Support Estimates by Cost Element

Program Description

Full Name

LPD 17 San Antonio Class Amphibious Transport Dock

Short Name

LPD 17

PNO

542

Lead Component

Navy

AAF Pathway

MCA

Acquisition Type

MDAP

Acquired Systems

LPD 17

Related Programs

Full Name	PNO	Pathway	Type	ACAT/ BCAT	Acquisition Status	Costs in SAR?	
						Acq	O&S

Program Use of the Adaptive Acquisition Framework

This acquisition is accomplished by a single program in the Major Capability Acquisition Pathway.

Technologies and Systems Engineering

Note: This section is not applicable to this program.

LPD 17 San Antonio Class Amphibious Transport Dock

Major Software Efforts

Title	Status	Fielding Date	Description

Major Engineering Changes

Title	Original Need Date	Fielding Date	Description, Rationale and Program Impacts

Funding Sources (Acquisition)**Acquisition Funding Notes****LPD 17 San Antonio Class Amphibious Transport Dock**

Category	Account	BA	Line Item	Program Element	RDT&E Project	Shared	Sunk
RDT&E	1319N	05	0604311N - LPD-17 Class Systems Integration	0604311N	2283 - LPD-17 Class System Integration		x
RDT&E	1319N	04	0604454N - LX (R)	0604454N	2474 - LPD Flight II Design & Total Integration		
RDT&E	1319N	04	0603564N - Ship Preliminary Design & Feasibility Studies	0603564N	2474 - LPD Flight II Design & Total Integration	x	
RDT&E	1319N	04	0604454N - LX (R)	0604454N	9999 - Congressional Add	x	
Procurement	1611N	03	3036 - LPD-17	0204411N	-		
Procurement	1611N	05	5110 - Outfitting	0204411N	-	x	
Procurement	1611N	05	5300 - Completion of PY Shipbuilding Programs	0204411N	-	x	
Procurement	1611N	03	3010 - LPD Flight II	0204411N	-		

Funding Sources (Operating and Support)

Operating and Support Funding Notes

This section is not applicable to this program.

LPD 17 San Antonio Class Amphibious Transport Dock

Category	Account	BA	Line Item	Program Element	RDT&E Project	Shared	Sunk
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Acquisition Estimate and Quantity Summary**LPD 17 San Antonio Class Amphibious Transport Dock****Acquisition Estimates**

Category	PB 2025	TY (\$M)	Current Base Year	Original Base Year	Report Fiscal Year
			CY1996 (\$M)	CY1996 (\$M)	CY2024 (\$M)
RDT&E		467.5	334.8	334.8	587.9
Procurement		50,228.3	27,258.6	27,258.6	47,872.4
MILCON		-	-	-	-
O&M		-	-	-	-
Total Acquisition		50,695.8	27,593.3	27,593.3	48,460.4
PAUC		1,949.838	1,061.282	1,061.282	1,863.861
APUC		1,931.857	1,048.407	1,048.407	1,841.248

Acquisition End-Item Quantities

System	PB 2025	Development	Procurement
LPD 17		-	26
Total		-	26

Unit Description

Ship

Current and Future Years Defense Program Summary, TY(\$M)

Appropriation	Prior	2024	2025	2026	2027	2028	2029	To Complete	Total
RDT&E	349.3	21.3	12.8	36.0	16.5	15.7	16.0	-	467.5
Procurement	28,234.0	556.3	1,640.2	346.3	1,861.7	376.1	1,925.9	15,287.7	50,228.3
MILCON	-	-	-	-	-	-	-	-	-
O&M	-	-	-	-	-	-	-	-	-
PB 2025 Total	28,583.3	577.6	1,653.0	382.3	1,878.2	391.7	1,941.9	15,287.7	50,695.8

Annual Acquisition Estimates by Appropriation Account
(Aligned to Budget Position: PB 2025)

LPD 17 San Antonio Class Amphibious Transport Dock

Source for TY\$-CY\$ Conversion: ASN FMB-6 Inflation Rates and Outlay Factors for DA, DoN and DW accounts: 17 Jan 2024

1319N - Research, Development, Test & Eval, Navy					
fiscal year		Other/ Unallocated	Total TY(\$M)	Weighted Rate	Total CY1996 (\$M)
Total		467.5	467.5	-	334.8
1993		11.200	11.2	0.956562	11.7
1994		19.400	19.4	0.974488	19.9
1995		12.525	12.5	0.993268	12.6
1996		8.903	8.9	1.010045	8.8
1997		3.822	3.8	1.022431	3.7
1998		12.684	12.7	1.030806	12.3
1999		1.185	1.2	1.042943	1.1
2000		2.255	2.3	1.058208	2.1
2001		1.981	2.0	1.072727	1.8
2002		2.255	2.3	1.083570	2.1
2003		9.424	9.4	1.099454	8.6
2004		7.586	7.6	1.130145	6.7
2005		7.791	7.8	1.159890	6.7
2006		8.811	8.8	1.196032	7.4
2007		7.787	7.8	1.225326	6.4
2008		4.087	4.1	1.247678	3.3
2009		0.928	0.9	1.263698	0.7
2010		5.006	5.0	1.282653	3.9
2011		0.678	0.7	1.313279	0.5
2012		7.257	7.3	1.335060	5.4
2013		2.175	2.2	1.349079	1.6
2014		16.528	16.5	1.368141	12.1
2015		32.725	32.7	1.385355	23.6
2016		74.003	74.0	1.411068	52.4
2017		25.279	25.3	1.437469	17.6
2018		10.092	10.1	1.472679	6.9
2019		6.363	6.4	1.501043	4.2
2020		12.626	12.6	1.556242	8.1
2021		10.909	10.9	1.626186	6.7
2022		4.169	4.2	1.711142	2.4
2023		18.830	18.8	1.762084	10.7
2024		21.319	21.3	1.802308	11.8
2025		12.785	12.8	1.840540	6.9
2026		36.010	36.0	1.879191	19.2
2027		16.488	16.5	1.918654	8.6
2028		15.666	15.7	1.958946	8.0
2029		15.985	16.0	2.000084	8.0

Annual Acquisition Estimates by Appropriation Account
(Aligned to Budget Position: PB 2025)

LPD 17 San Antonio Class Amphibious Transport Dock

Source for TY\$-CY\$ Conversion: ASN FMB-6 Inflation Rates and Outlay Factors for DA, DoN and DW accounts: 17 Jan 2024

1611N (BLS Hist) - Shipbuilding and Conversion, Navy									
fiscal year	End Item Recurring Flyaway	Non-End Item Recurring Flyaway	Non-Recurring Flyaway	Initial Spares	Depot Activation	Other/ Unallocated	Total TY(\$M)	Weighted Rate	Total CY1996 (\$M)
Total	50,228.3	-	-	-	-	-	50,228.3	-	27,258.6
1993							-	0.980526	-
1994							-	1.004128	-
1995							-	1.015407	-
1996	1,052						1,051.7	1.026321	1,024.8
1997	-						-	1.042000	-
1998	96						96.0	1.065450	90.1
1999	653						653.2	1.082397	603.5
2000	1,558						1,557.6	1.109899	1,403.4
2001	579						579.0	1.148077	504.3
2002	418						418.2	1.154613	362.2
2003	1,228						1,227.9	1.221413	1,005.3
2004	1,653						1,653.0	1.265721	1,306.0
2005	1,313						1,313.0	1.321824	993.3
2006	3,300						3,300.1	1.368441	2,411.5
2007	470						469.7	1.431321	328.2
2008	1,600						1,599.7	1.480072	1,080.8
2009	1,052						1,051.8	1.525350	689.5
2010	1,229						1,228.9	1.578345	778.6
2011	63						63.0	1.630123	38.6
2012	1,945						1,945.1	1.667518	1,166.5
2013	391						390.8	1.702395	229.6
2014	56						56.2	1.736867	32.3
2015	1,076						1,075.9	1.776898	605.5
2016	683						682.8	1.822337	374.7
2017	1,895						1,895.0	1.874612	1,010.9
2018	1,823						1,822.5	1.935676	941.5
2019	249						248.9	2.007700	124.0
2020	543						542.8	2.090430	259.6
2021	1,149						1,149.2	2.174949	528.4
2022	423						422.6	2.250893	187.7
2023	1,739						1,739.4	2.303860	755.0
2024	556						556.3	2.353284	236.4
2025	1,640						1,640.2	2.402790	682.6
2026	346						346.3	2.453249	141.2
2027	1,862						1,861.7	2.504767	743.3
2028	376						376.1	2.557367	147.1
2029	1,926						1,925.9	2.611072	737.6
2030	15,288					-	15,287.7	2.665905	5,734.5

Acquired System Annual End-Item Quantities by Appropriation Account
(Aligned to Budget Position: PB 2025)

LPD 17 San Antonio Class Amphibious Transport Dock

1611N (BLS Hist) - Shipbuilding and Conversion, Navy				
fiscal year	LPD 17			Total
Total	26			26
Undistributed				-
1996	1			1
1997				-
1998				-
1999	1			1
2000	2			2
2001				-
2002				-
2003	1			1
2004	1			1
2005	1			1
2006	1			1
2007				-
2008	1			1
2009	1			1
2010				-
2011				-
2012	1			1
2013				-
2014				-
2015				-
2016	1			1
2017	1			1
2018	1			1
2019				-
2020				-
2021	1			1
2022				-
2023	1			1
2024				-
2025	1			1
2026				-
2027	1			1
2028				-
2029	1			1
2030	7			7

Nuclear Costs

LPD 17 San Antonio Class Amphibious Transport Dock

Program's Use of Department of Energy Resources

Note: This section is not applicable to this program.

Operational Fielding Plan

LPD 17 San Antonio Class Amphibious Transport Dock

System: LPD 17

Fielding and Inventory Notes

LPD 17 Fielding Plan and Inventory includes 29, 30, 31 & 32. In addition to these, LPD 33, 34, & 35 will be included in PB25, P-27. Excel workbook has some protections limiting input. If necessary, additional quantities in FY31, 33, & 35.

LPD 17 Fielding Plan and Inventory

fiscal year	Store	Field	Expend/Loss	Decommission	Inventory
2023					12
2024		1			13
2025					13
2026		1			14
2027					14
2028		1			15
2029		1			16

O&S Independent Cost Estimate

LPD 17 San Antonio Class Amphibious Transport Dock

Independent and Current Cost Estimate Comparison

Category	CY1996 (\$M)	Independent Cost Estimate 8/29/2023	Current Estimate 8/29/2023	Variance with ICE (%)
Unit-Level Manpower		26,441.5	26,441.5	0%
Unit Operations		4,662.2	4,662.2	0%
Maintenance		25,061.0	25,061.0	0%
Sustaining Support		1,387.9	1,387.9	0%
Continued System Improvements		7,893.4	7,893.4	0%
Other		-	-	-
Total O&S		65,446.0	65,446.0	0%

Independent Cost Estimate Source

Event: Sustainment Review (Gate 7)
 Type: Independent Cost Estimate
 Approved by: OSD Cost Assessment & Program Evaluation, August 29, 2023

Current Cost Estimate Source

Type: Independent Cost Estimate
 Approved by: OSD Cost Assessment & Program Evaluation, August 29, 2023

Cost Estimate Variance Explanation

No explanation needed.

Annual Operating and Support Estimates by Cost Element

LPD 17 San Antonio Class Amphibious Transport Dock

System: LPD 17

Source for TY-CY Conversion: SEA05C for the SC, Gate 7 review.

Operating and Support Cost Elements							
fiscal year	1.0 Unit-Level Manpower	2.0 Unit Operations	3.0 Maintenance	4.0 Sustaining Support	5.0 Continuing System Improvements	Other	Total CY1996 (\$M)
Total	26,441.5	4,662.2	25,061.0	1,387.9	7,893.4	-	65,446.1
2006	20.827	4.438	1.870	2.110	1.330		30.6
2007	40.182	3.758	6.154	2.943	5.371		58.4
2008	62.164	14.779	15.314	4.103	8.908		105.3
2009	82.171	13.187	25.448	5.294	6.025		132.1
2010	106.451	15.616	55.074	6.576	17.031		200.7
2011	107.381	20.592	97.123	8.038	8.365		241.5
2012	127.448	37.718	80.745	9.431	14.356		269.7
2013	174.681	49.569	107.579	10.240	23.813		365.9
2014	203.900	49.939	136.062	9.396	20.864		420.2
2015	212.173	52.538	148.563	11.728	45.910		470.9
2016	211.312	38.518	180.497	12.367	57.297		500.0
2017	232.601	38.275	160.396	13.933	98.570		543.8
2018	247.393	42.197	165.729	15.833	98.348		569.5
2019	251.662	45.886	129.150	13.827	101.793		542.3
2020	254.053	30.474	225.395	11.823	61.989		583.7
2021	257.051	39.954	227.321	12.939	112.248		649.5
2022	253.868	36.098	148.704	15.238	119.446		573.4
2023	274.632	61.444	280.444	15.944	83.634		716.1
2024	287.815	54.025	349.309	16.479	109.638		817.3
2025	305.942	58.711	321.383	17.398	89.665		793.1
2026	316.964	59.842	347.330	17.956	98.406		840.5
2027	332.025	59.822	367.951	18.737	118.703		897.2
2028	347.194	66.726	287.959	19.519	81.434		802.8
2029	360.477	66.332	356.781	20.189	107.466		911.2
2030	383.870	66.086	468.222	21.417	147.996		1,087.6
2031	387.332	71.789	380.815	21.529	107.721		969.2
2032	410.993	73.938	410.519	22.757	130.981		1,049.2
2033	414.572	73.299	452.949	22.869	139.637		1,103.3
2034	438.504	79.183	447.254	24.097	134.115		1,123.2
2035	442.203	79.446	463.118	24.209	137.014		1,146.0
2036	466.409	81.840	490.830	25.437	157.396		1,221.9
2037	470.228	88.031	389.027	25.549	114.243		1,087.1
2038	494.711	87.724	503.095	26.777	157.651		1,270.0

System: LPD 17

Source for TY-CY Conversion: SEA05C for the SC, Gate 7 review.

Operating and Support Cost Elements							
fiscal year	1.0 Unit-Level Manpower	2.0 Unit Operations	3.0 Maintenance	4.0 Sustaining Support	5.0 Continuing System Improvements	Other	Total CY1996 (\$M)
2039	498.653	86.673	545.142	26.889	169.185		1,326.5
2040	523.415	93.457	528.834	28.117	157.906		1,331.7
2041	527.481	94.887	496.454	28.229	152.171		1,299.2
2042	552.525	95.102	603.430	29.457	189.822		1,470.3
2043	556.717	100.402	531.238	29.569	155.304		1,373.2
2044	582.047	101.551	616.252	30.797	187.199		1,517.8
2045	580.022	101.848	563.854	30.574	178.522		1,454.8
2046	586.509	104.956	530.185	30.799	164.173		1,416.6
2047	567.422	101.388	527.679	29.684	158.204		1,384.4
2048	561.060	93.760	632.973	29.239	201.293		1,518.3
2049	539.568	95.867	514.735	28.012	149.250		1,327.4
2050	543.813	95.405	498.903	28.126	157.906		1,324.2
2051	545.868	94.705	526.788	28.126	163.663		1,359.1
2052	524.045	89.263	524.291	26.899	169.185		1,333.7
2053	475.893	82.499	474.126	24.334	139.914		1,196.8
2054	447.060	78.298	410.822	22.772	122.346		1,081.3
2055	448.750	76.690	430.898	22.772	136.738		1,115.8
2056	439.424	74.217	442.789	22.215	139.510		1,118.2
2057	423.382	73.104	403.063	21.323	119.192		1,040.1
2058	400.549	67.082	418.107	20.096	127.593		1,033.4
2059	402.063	68.449	387.659	20.096	118.958		997.2
2060	403.583	69.650	375.370	20.096	110.323		979.0
2061	405.109	67.700	403.538	20.096	127.593		1,024.0
2062	390.855	66.881	368.354	19.315	110.174		955.6
2063	381.015	64.478	361.764	18.758	110.068		936.1
2064	373.367	63.253	351.034	18.312	107.105		913.1
2065	356.533	57.943	374.677	17.419	118.448		925.0
2066	346.410	60.833	279.881	16.861	80.924		784.9
2067	331.600	53.390	355.659	16.079	112.436		869.2
2068	316.673	52.978	288.088	15.298	92.139		765.2
2069	303.949	53.044	251.510	14.628	71.864		695.0
2070	279.479	45.165	274.743	13.400	91.778		704.6
2071	278.197	47.611	242.090	13.288	71.609		652.8
2072	253.436	42.457	227.665	12.060	71.375		607.0
2073	252.038	42.105	232.670	11.948	71.353		610.1
2074	226.983	36.900	218.245	10.720	71.120		564.0
2075	225.467	39.359	185.592	10.608	50.950		512.0

System: LPD 17

Source for TY-CY Conversion: SEA05C for the SC, Gate 7 review.

Operating and Support Cost Elements							
fiscal year	1.0 Unit-Level Manpower	2.0 Unit Operations	3.0 Maintenance	4.0 Sustaining Support	5.0 Continuing System Improvements	Other	Total CY1996 (\$M)
2076	200.114	31.268	208.825	9.380	70.865		520.5
2077	198.479	33.728	176.172	9.268	50.695		468.3
2078	172.826	29.655	128.443	8.040	41.827		380.8
2079	171.069	28.022	166.752	7.928	50.440		424.2
2080	145.112	23.905	119.023	6.700	41.571		336.3
2081	143.233	25.140	120.550	6.588	30.037		325.5
2082	116.969	18.079	109.603	5.360	41.316		291.3
2083	114.965	19.305	111.130	5.248	29.782		280.4
2084	88.391	15.109	63.401	4.020	20.913		191.8
2085	86.261	13.392	101.710	3.908	29.527		234.8
2086	59.374	9.151	53.981	2.680	20.658		145.8
2087	57.115	11.641	19.602	2.568	0.489		91.4
2088	29.912	3.114	44.561	1.340	20.403		99.3
2089	27.523	5.604	10.054	1.228	0.234		44.6