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**For Open Publication**

Oct 08, 2024

Department of Defense  
OFFICE OF PREPUBLICATION AND SECURITY REVIEW

# **Modernized Selected Acquisition Report (MSAR)**

## **LHA 6 America Class Amphibious Assault Ship (LHA 6)**

FY 2025 President's Budget

Effective: December 31, 2023

Defense Acquisition Visibility Environment

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## Table of Contents

Common DoD Abbreviations	3
Program Description	5
Responsible Office	6
Executive Summary	7
Schedule	9
Performance	11
Acquisition Budget Estimate	16
Unit Costs	18
Life-Cycle Costs	19
Technologies and Systems Engineering	22
Performing Activities and Contracts	23
Production	25
Deliveries and Expenditures	26
International Program Aspects	27

**(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**

LHA 6 America Class Amphibious Assault Ship

**Short Name**

LHA 6

**PNO**

333

**Decision Authority**

Component Acquisition Executive

**Lead Component**

Department of the Navy

**Program Executive Office**

PEO Ships

**Joint Program**

No

**Acquisition Type**

Major Defense Acquisition Program

**Adaptive Acquisition Pathway**

Major Capability Acquisition

**Acquired Systems**

LHA 6

**Acquisition Category**

IC

**Acquisition Status**

Active Acquisition

**Mission**

The LHA Replacement program is planned to replace existing LHA 1 class Amphibious Assault Ships which reach the end of their extended service lives between 2011 and 2015.

The LHA Replacement/LHA 6 will be the key platform in the Amphibious Ready Group (ARG) of the future and will provide the Joint Force Commander options to project power. It will embark and support all of the Short Take-off Vertical Landing (STOVL) and Vertical Take-off Landing (VTOL) Marine aviation assets in the ARG, including the MV-22 and the F-35B, the STOVL model of the Joint Strike Fighter (JSF). The ship will embark over 1,600 Marines and transport them and their equipment ashore by rotary-wing aircraft.

The LHA Replacement class is an LHD variant with enhanced aviation capability.

**(U) Responsible Office**

**Program Executive Officer**

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## (U) Executive Summary

### Program Highlights Since Last Report

Funding reflected in this report is based on PB 2025 Controls and a quantity of five ships LHA(R) Class Ships (LHAs 6-10).

LHA(R) Flt 0 is comprised of two ships: LHA 6 (USS AMERICA) and LHA 7 (USS TRIPOLI).

LHA 6 transitioned to the fleet and is currently forward deployed.

LHA 7 transitioned to the fleet and completed its maiden deployment in 2022.

LHA(R) Flt 1 is currently comprised of three ships LHA 8 (BOUGAINVILLE), LHA 9 (FALLUJAH) and LHA 10.

LHA 9 was formally added to the SAR when APB Change 3 was approved on May 31, 2023.

LHA 10 is also added to the SAR. LHA 10 was appropriated advance procurement funds in 2023, and full funding programmed in the FYDP. An APB change will be prepared once the LHA 10 Detail Design and Construction (DD&C) contract is awarded.

LHA 8 production continues at Huntington Ingalls Incorporated (HII). The Ship was launched on September 30, 2023, and was subsequently Christened on December 2, 2023. Overall physical progress is 72.68 % as of January 24, 2024. The projected delivery date for LHA 8 is October 31, 2025.

LHA 9 successfully completed a DD&C Integrated Baseline Review at the HII shipyard facility on May 18, 2023.

LHA 9 production continues at HII, fabrication started on 86 units. The ship's keel was laid on September 20, 2023. Overall physical progress is 3.67% as of January 24, 2024. The projected delivery date for LHA 9 is September 22, 2029.

LHA 10 Long Lead Time Material (LLTM) procurement contract was awarded on November 17, 2023.

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

### (U) History of Significant Developments Since Program Inception

Date	Description
December 2023	LHA 8 Christened at HII shipyard on December 2, 2023.
November 2023	LHA 10 LLTM procurement contract was awarded to HII on November 17, 2023.
September 2023	LHA 9 Keel fairly laid at the HII shipyard facility on September 20, 2023.
September 2023	LHA 8 had a successful Launch on September 30, 2023.
May 2023	LHA(R) APB Change 3 approved on May 21, 2023.
December 2022	LHA 9 Start of Fabrication began on December 19, 2022.
October 2022	On October 27, 2022, Hunting Ingalls Industries (HII) was awarded the DD&C contract for LHA 9.
May 2022	Joint Strike Fighter (JSF) operational event conducted on LHA 7 to validate JSF capability for LHA(R).
February 2022	LHA 7 was formally transferred to Life Cycle Manager and placed in active fleet service on February 28, 2022.
December 2021	LHA 7 completed Post Shakedown Availability (PSA) December 18, 2021.
August 2021	LHA 7 completed Combat System Ship Qualification Trials and Final Contract Trials,

Date	Description
	August 27, 2021.
April 2021	LHA 7 Fitting Out Availability (FOA) completed on April 7, 2021.
July 2020	Upon completion of LHA 7 (USS TRIPOLI)'s Post-Delivery Availability (PDA), the ship was administratively commissioned on July 15, 2020. LHA 7 commenced sail away to her homeport of San Diego on July 24, 2020.
April 2020	On April 30, 2020, HII was awarded the contract for Planning, LLTM for LHA 9.
February 2020	LHA 7 completed production and testing at HII and the ship was delivered on February 28, 2020.
July 2017	LHA 6 (USS AMERICA) is the first new construction ship with full F-35B capability, Cornerstone and Environmental Effect alterations. She completed her Initial Operational Test and Evaluation in Q4 FY 2017 and deployed as the centerpiece of the AMERICA Amphibious Ready Group/Marine Expeditionary Unit.
June 2016	On June 30, 2016, HII was awarded the contract for Planning, Advanced Engineering and Procurement of LLTM with option for DD&C. The second increment of LLTM was added to the contract on October 3, 2016. The contract option for the execution of DD&C of LHA 8 was awarded on June 16, 2017.
May 2016	The LHA(R) program's delegation was changed from ACAT ID to ACAT IC.
April 2014	On April 10, 2014, HII successfully delivered the LHA 6 to the Navy, marking the completion of the first ship in the LHA(R) program. The ship completed its PDA efforts on July 10, 2014 and commenced transit to her homeport of San Diego on July 11, 2014. During the transit, the LHA 6 traveled 15,300 miles on their journey around South America. Port visits included Colombia, Guantanamo Bay, Cuba, Brazil, and Peru. Various exercises and operations with foreign navies helped to bolster cooperative maritime security and partnerships. Additional training evolutions throughout the transit strengthened the crew's readiness and understanding of the ship's systems and capabilities. LHA 6 arrived in San Diego on September 15, 2014, and was commissioned on October 11, 2014, in San Francisco, CA. After completing Fitting Out Availability (FOA), Final Contract Trials (FCT), and PSA the ship was transferred to the Fleet in March 2016 and achieved IOC.
February 2014	The LHA(R) CDD was updated to include LHA(R) Flight 1 capabilities. These include the reincorporation of the well deck, increased vehicle stowage square footage, provide for a surface connector lift capability, and to increase overall operational flexibility.
May 2012	The LHA 7, a repeat of the LHA 6 design configuration with fact of life updates for equipment obsolescence, DD&C contract was awarded to HII Ingalls Shipbuilding in May 2012. LHA 7 began sustained production on July 15, 2013, and the Keel Laying Ceremony was held on June 20, 2014. A contract modification was awarded in October 2014 to incorporate flight deck strengthening and other design changes necessary for the F-35B as part of the initial production rather than after delivery as discussed on LHA 6 above. This contract modification included a six-month schedule extension, with a revised delivery date of December 4, 2018.
January 2006	Milestone B was completed. The ADM was signed, and the LHA 6 contract was awarded on June 2007.
February 2005	CDD was validated by JROC. Subsequent validations/revalidations occurred which added Survivability and Force Protection KPP in December 19, 2005.
September 2002	Analysis of Alternatives was completed.
March 2001	Mission Need Statement for the LHA(R) program was approved by JROC.



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

Events		Development APB (Milestone) 1/12/2006 Objective	APB Change 3 (Current) 5/31/2023 Objective / Threshold		Current Estimate 12/31/2023	Actual
LHA (R) Milestone A	MS A	Jul 2001	Jul 2001	Jul 2001	-	1 Jul 2001
LHA 8 Ship Delivery	Other	-	Jul 2025	Jul 2026	Oct 2025	-
LHA 6 Start Contract Design	Other	May 2005	May 2005	May 2005	-	1 May 2005
Advance Procurement Contract	FFO	Jul 2005	Jul 2005	Jul 2005	-	1 Jul 2005
LHA 6 Milestone B	MS B	Jan 2006	Jan 2006	Jan 2006	-	1 Jan 2006
Contract Award	Other	Dec 2006	Jun 2007	Jun 2007	-	1 Jun 2007
Start Fabrication	Other	Nov 2007	Jan 2008	Jan 2008	-	1 Jan 2008
LHA 7 Advance Procurement Contract Award	Other	-	Jun 2010	Jun 2010	-	1 Jun 2010
LHA 7 DD&C Contract Award	Other	-	May 2012	May 2012	-	1 May 2012
Float Off	Other	Aug 2010	Jun 2012	Jun 2012	-	1 Jun 2012
LHA 7 Start Fabrication	Other	-	Jul 2013	Jul 2013	-	1 Jul 2013
Ship Delivery	First Asset Delivery	Dec 2011	Apr 2014	Apr 2014	-	1 Apr 2014
Flt 1 Contract Design Complete	Other	-	Sept 2014	Sept 2014	-	1 Sept 2014
Operational Evaluation (OPEVAL) Start	IOT&E	Aug 2012	Apr 2015	Apr 2015	-	1 Apr 2015
Initial Operational Capability (IOC)	IOC	Sept 2013	Mar 2016	Mar 2016	-	1 Mar 2016
LHA 7 Launch	Other	-	May 2017	May 2017	-	1 May 2017
OPEVAL Complete	IOT&E	Sept 2013	Dec 2017	Dec 2017	-	1 Dec 2017
LHA 7 Ship Delivery	Other	-	Feb 2020	Feb 2020	-	1 Feb 2020
LHA 9 Ship Delivery	Other	-	Sept 2029	Sept 2031	Sept 2029	-

**Notes**

SHIP OBLIGATION WORK LIMITING DATE

LHA 8 May 2027

LHA 9 April 2031

LHA 10 October 2035

Acronyms and Abbreviations

FFO -Funds First Obligated  
 IOT&E - Initial Operational Test and Evaluation

**Schedule Baseline Deviation Explanation**

None

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

Event	Date	Description
Current	12/31/2023	Enterprise Air Search Radar (EASR) (Schedule and Technical): If EASR and the Combat System (CS) integration is not complete at CS Light Off, then warfare systems' performance may impact the ship's readiness to conduct trials, and thus negatively impacting the ship's path to delivery. MITIGATION: Efforts are in progress to conduct EASR and CS integration using LPD 29 which carries similar capabilities and will be tested 2 years in advance of LHA 8's sea trials. Mitigation efforts continue with the Radar Systems Integration Working Group, and land based testing at the Surface Combat Systems Center, Wallops Island - lessons learned from Multi-Purpose Aircraft Carrier (Nuclear-Powered) and Amphibious Transport Docks and will be incorporated to support LHA 8's delivery.
Current	12/31/2023	LHA(R) Change (Schedule and Technical): If LHA (R) is subject to a higher degree of change as the shipboard test and activation plan ramps up in 2024 and 2025 as a result of technical risks due to LHA 8 new systems, then cost may exceed Program Change Order budget. MITIGATION: Early identification of technical changes; Identify most cost-efficient point of incorporation.
Current	12/31/2023	LHA(R) Shipyard Resources: If the proper labor resources are not available and sequenced properly for LHA (R) platforms IAW the approved PMB/IMS, then slips are likely to occur with negative impacts to Shipbuilder's contract cost and schedule. The driver is Shipyard workload, priorities, and resources. MITIGATION: Contract Incentives, Navy/Shipbuilder PMO weekly reviews, updated schedule.
Current	12/31/2023	LHA 8 and 9 Cost and Schedule Performance Shipbuilding Contract: If LHA 8 or 9 costs exceed target due to schedule, vessel labor performance, green labor or material cost increases, and new systems challenges due to Flt (1) design, the gov't will be responsible for an additional cost over Target Price. GFE: If GFE cost targets are exceeded, then additional funding may be required to address cost growth. MITIGATION: Contract Incentives, Monthly and Quarterly financial reviews.

**(U) Performance**

Additional information for this section is provided in the classified annex to this submission.

**(U) Performance Attributes**

Net Ready (2)		KPP
Current Estimate 12/31/2023		LHA 6 has partially met the Net Ready KPP per Joint Interoperability Test Command Certification letter of January 23, 2018.
Demonstrated Performance 1/23/2018		LHA 6 has partially met the Net Ready KPP per Joint Interoperability Test Command Certification letter of January 23, 2018.
APB Change 3 (Current)	Objective	100% of interfaces; services; policy-enforcement controls; and data correctness, availability and processing requirements in the joint integrated architecture
5/31/2023	Threshold	100% of interfaces; services; policy-enforcement controls; and data correctness, availability and processing requirements designated as enterprise level or critical in the joint integrated architecture
Development APB (Milestone)	Objective	100% of interfaces; services; policy-enforcement controls; and data correctness, availability and processing requirements in the joint integrated architecture
1/12/2006		
Vertical Take Off and Landing land/launch spots (2)		KPP
Current Estimate 12/31/2023		9 CH-53E/MV-22
Demonstrated Performance 4/14/2017		9 CH-53E/MV-22
APB Change 3 (Current)	Objective	9 CH-53E/MV-22
5/31/2023	Threshold	(T=0) 9 CH-53E/MV-22
Development APB (Milestone)	Objective	9 CH-53E/MV-22
1/12/2006		
F-35B capacity (2)		KPP
Current Estimate 12/31/2023		20 Aircraft
Demonstrated Performance 4/6/2022		20 Aircraft
APB Change 3 (Current)	Objective	23 Aircraft
5/31/2023	Threshold	20 Aircraft
Development APB (Milestone)	Objective	23 Aircraft
1/12/2006		
Aviation operations (2)		KPP

Current Estimate 12/31/2023		6 spots 10 hrs/day 12 hrs/day of flight quarters to support 10 hrs /day of flight operations
Demonstrated Performance 4/14/2017		6 spots 10 hrs/day 12 hrs/day of flight quarters to support 10 hrs/days of flight operations
APB Change 3 (Current) 5/31/2023	Objective	6 Spots 10 hrs/day 12 hrs/day of flight quarters to support 10 hrs/day of flight operations
	Threshold	(T=0) 6 Spots 10 hrs/day 12 hrs/day of flight quarters to support 10 hrs/day of flight operations
Development APB (Milestone) 1/12/2006	Objective	6 Spots 12 hrs/day(Sustained) 6 Spots 24 hrs/day for six consecutive days (Surge)
<b>Vehicles Flt 0 (sq. ft.)</b>		<b>KPP</b>
Current Estimate 12/31/2023		12,055 sq. ft
Demonstrated Performance 4/14/2017		12,055 sq. ft
APB Change 3 (Current) 5/31/2023	Objective	12,000 sq. ft.
	Threshold	10,000 sq. ft.
Development APB (Milestone) 1/12/2006	Objective	12,000 sq. ft.
<b>Vehicles Flt 1 (sq. ft.)</b>		<b>KPP</b>
Current Estimate 12/31/2023		16,000 sq. ft.
Demonstrated Performance -		TBD
APB Change 3 (Current) 5/31/2023	Objective	16,000 sq. ft.
	Threshold	(T=0) 16,000 sq. ft.
Development APB (Milestone) 1/12/2006	Objective	-
<b>Total Manpower Flt 0 (Includes Ship's Force and all embarked elements: troops, staffs, detachments, etc.)</b>		<b>KPP</b>
Current Estimate 12/31/2023		2,891 Persons
Demonstrated Performance 4/14/2017		2,891 Persons
APB Change 3 (Current) 5/31/2023	Objective	2,891 Persons
	Threshold	2,831 Persons
Development APB (Milestone) 1/12/2006	Objective	2,891 Persons

<b>Total Manpower Flt 1 (Includes Ship's Force and all embarked elements: troops, staffs, detachments, etc.)</b>		<b>KPP</b>
Current Estimate 12/31/2023		2,666 (1,204 Navy + 1,462 Troop)
Demonstrated Performance -		TBD
APB Change 3 (Current) 5/31/2023	Objective	2,666 (1,204 Navy + 1,462 Troop)
	Threshold	(T=0) 2,666 (1,204 Navy + 1,462 Troop)
Development APB (Milestone) 1/12/2006	Objective	-
<b>Cargo Space (2)</b>		<b>KPP</b>
Current Estimate 12/31/2023		155,153 cu. ft.
Demonstrated Performance 4/14/2017		155,153 cu. ft.
APB Change 3 (Current) 5/31/2023	Objective	160,000 cu. ft.
	Threshold	130,000 cu. ft.
Development APB (Milestone) 1/12/2006	Objective	160,000 cu. ft.
<b>Troop Accommodations Flt 0</b>		<b>KPP</b>
Current Estimate 12/31/2023		1,686 Persons
Demonstrated Performance 4/14/2017		1,686 Persons
APB Change 3 (Current) 5/31/2023	Objective	1,686 Persons
	Threshold	1,626 Persons
Development APB (Milestone) 1/12/2006	Objective	1,686 Persons
<b>Troop Accommodations Flt 1</b>		<b>KPP</b>
Current Estimate 12/31/2023		1,462 Persons
Demonstrated Performance -		TBD
APB Change 3 (Current) 5/31/2023	Objective	1,462 Persons
	Threshold	(T=0) 1,462 Persons
Development APB (Milestone)	Objective	-

1/12/2006		
<b>Survivability: Navy Survivability Policy for Surface Ships</b>		<b>KPP</b>
<b>Current Estimate</b> 12/31/2023		T-plus some Cole Survivability Review Group mods
<b>Demonstrated Performance</b> 4/5/2017		T-plus some Cole Survivability Review Group mods
<b>APB Change 3 (Current)</b>	<b>Objective</b>	In addition to threshold, implement recommendations of the NAVSEA COLE Survivability Review Group Phase II Analysis Report of Amphibious Ships, April 2003
5/31/2023	<b>Threshold</b>	Level II per OPNAV-INST 9070.1 of September 23, 1988 (LHA(R)) cargo magazine protection as stated in para. 6.b.17 of the CDD
<b>Development APB (Milestone)</b> 1/12/2006	<b>Objective</b>	Equals threshold, implement recommendations of the NAVSEA COLE Survivability Review Group Phase II Analysis Report of Amphibious Ships, April 2003
<b>Force Protection: CPS (2)</b>		<b>KPP</b>
<b>Current Estimate</b> 12/31/2023		CBR protection that provides a toxic free environment (where it is not necessary to wear protective clothing or masks) for 40% of crew in berthing, messing, sanitary, and battle dressing facilities
<b>Demonstrated Performance</b> 12/8/2017		CBR protection that provides a toxic free environment (where it is not necessary to wear protective clothing or masks) for 40% of crew in berthing, messing, sanitary, and battle dressing facilities
<b>APB Change 3 (Current)</b>	<b>Objective</b>	Expanded CBR protection that provides a toxic-free environment (where it is not necessary to wear protective clothing or masks) for 40% of crew in berthing, messing, sanitary, and battle dressing facilities as well as key operational spaces that can be affordably integrated into ship design
5/31/2023	<b>Threshold</b>	CBR protection that provides a toxic-free environment (where it is not necessary to wear protective clothing or masks) for 40% of crew in berthing, messing, sanitary, and battle dressing facilities
<b>Development APB (Milestone)</b> 1/12/2006	<b>Objective</b>	Expanded CBR protection that provides a toxic-free environment (where it is not necessary to wear protective clothing or masks) for 40% of crew in berthing, messing, sanitary, and battle dressing facilities as well as key operational spaces that can be affordably integrated into ship design
<b>Force Protection: Decontamination Stations (2)</b>		<b>KPP</b>
<b>Current Estimate</b> 12/31/2023		Four decontamination stations (two CPS, one casualty, and one conventional) providing a capability of decontamination an avg of ten people per hr. per station
<b>Demonstrated Performance</b> 2/3/2017		Four decontamination stations (two CPS, one casualty, and one conventional) providing a capability of decontamination an avg of ten people per hr. per station
<b>APB Change 3</b>	<b>Objective</b>	Four decontamination stations (two CPS, one casualty,

(Current)		and one conventional) providing a capability of decontamination an avg of ten people per hr per station
5/31/2023	<b>Threshold</b>	(T=0) Four decontamination stations (two CPS, one casualty, and one conventional) providing a capability of decontamination an avg of ten people per hr per station
<b>Development APB (Milestone)</b> 1/12/2006	<b>Objective</b>	Four decontaminat-ion stations (two CPS, one casualty, and one conventional) providing a capability of decontamination an avg of ten people per hr per station

**(U) Requirement Source:**

Sponsor(s): United States Navy

1. Capability Development Document, *Capability Development Document for LHA(R) Flight Zero and Flight One Amphibious Assault Ship Replacement*

Validated By: Joint Requirements Oversight Council, February 26, 2014

**Notes**

**Performance Note**

Performance of the following attributes: Vehicles Flt 1, Total Manpower Flt 1 and Troop Accommodations Flt 1 will be demonstrated upon delivery of the first Flt 1 ship (LHA 8).

avg - average

CBR - Chemical, Biological, and Radiological

CPS- Collective Protection System

cu - cubic

etc. - etcetera

Flt - Flight

ft. - feet

hr. - hour

hrs - hours

INST. - Instruction

JITC - Joint Interoperability Test Command

NAVSEA - Naval Sea Systems Command

NGSSR - Next Generation Surface Search Radar

OPNAV - Office of the Chief of Naval Operations

SPN-50 - Radar system

sq. - square

**Performance Deviation Explanation**

None

**(U) Acquisition Budget Estimate**

**(U) Total Acquisition Estimates and Quantities**

Category (\$M) Base Year: 2006	Development APB (Milestone) 1/12/2006 CY\$ obs Objective	APB Change 3 (Current) 5/31/2023 CY\$ obs Objective / Threshold		Current Estimate PB 2025 CY\$ obs / TY\$ obs	
RDT&E	199.9	435.6	479.2	434.2	491.3
Procurement	2,677.5	10,509.8	11,560.8	12,505.3*	19,219.1
MILCON	0.0	0.0	0.0	0.0	0.0
O&M	0.0	2.3	2.5	2.3	3.0
R&MF	-	0.0	0.0	-	-
Total Acquisition	2,877.4	10,947.7	-	12,941.8	19,713.4
Program Acquisition Unit Cost	2,877.400	2,736.913	3,010.604	2,588.360	3,942.680
Average Procurement Unit Cost	2,677.500	2,627.445	2,890.190	2,501.060	3,843.820
Program End-Item Quantity					
Development	0	0		-	
Procurement	1	4		5	
O&M-Acquired	-	-		-	

\* Baseline Deviation

**Budget Notes**

None

**Quantity Notes**

Current APB Quantity was increased to 4 with the addition of LHA 9. The Current Estimate Quantity was increased to 5 with the addition of LHA 10 in PB 2024.

**Cost Baseline Deviation Explanation**

Parameter	Explanation
Acquisition Cost (Procurement)	(Dev-1) Cost Breach of Procurement was reported via a Program Deviation Report (PDR) approved on January 11, 2024. The deviation is due to the current estimate adding funding for a fifth ship while the current APB Change 3 has cost and quantity for four ships.

**(U) Risk and Sensitivity Analysis**

Current Procurement Estimate Risks (12/31/2023)
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1	The Current Procurement Cost remains the Current Baseline Estimate (October 2016). Please see above for details.
Current Baseline Risks (5/31/2023)	
The Current Baseline Estimate was updated to include the LHA 9. Costs are inclusive of both Flight 0 (LHA 6 & 7) and Flight 1 (LHA 8 & 9) ships.	
Original Baseline Risks (1/12/2006)	
The Original Baseline Estimate reflects the single Flight 0 ship, LHA 6 only.	

**(U) Unit Costs**

**(U) Current Estimate Compared with Current Baseline**

Category (CY\$M) Base Year: 2006	Current Baseline 05/31/2023	Current Estimate PB 2025	% Change
<b>Program Acquisition Unit Cost</b>			
Acquisition Cost	10,947.7	12,941.8	
Program Quantity	4	5	
PAUC	2,736.913	2,588.360	-5.43%
<b>Average Procurement Unit Cost</b>			
Procurement Cost	10,509.8	12,505.3	
Procurement Quantity	4	5	
APUC	2,627.445	2,501.060	-4.81%

**(U) Current Estimate Compared with Original Baseline**

Category (CY\$M) Base Year: 2006	Original Baseline 01/12/2006	Current Estimate PB 2025	% Change
<b>Program Acquisition Unit Cost</b>			
Acquisition Cost	2,877.4	12,941.8	
Program Quantity	1	5	
PAUC	2,877.400	2,588.360	-10.05%
<b>Average Procurement Unit Cost</b>			
Procurement Cost	2,677.5	12,505.3	
Procurement Quantity	1	5	
APUC	2,677.500	2,501.060	-6.59%

**Notes**

None

**(U) Life-Cycle Costs**

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

Category (\$M) Base Year: 2006	Development APB (Milestone) 1/12/2006 CY\$ obs Objective	APB Change 3 (Current) 5/31/2023 CY\$ obs Objective / Threshold		Current Estimate CY\$ obs / TY\$ obs	
Total O&S	4,451.9	22,636.7	24,900.4	22,612.5	70,051.9
Total Disposal	-	-	-	24.0	73.8

**(U) Current Cost Estimate Sources**

**Operating and Support Cost**

Type: Independent Cost Estimate  
 Approved by: MDA , September 12, 2023

**Disposal/Demilitarization Cost**

Type: Program Office Estimate  
 Approved by: CNA, December 19, 2022

**Operating and Support Baseline Deviation Explanation**

None

**Cost Notes**

None

**(U) Operating and Support Variance with Prior Estimate**

(CY\$M) Base Year: 2006	Estimate	
Prior Estimate (12/19/2022)	22,612.5	
Current Estimate	22,612.5	
<b>Category</b>		
	<b>Variance</b>	<b>Explanation</b>
Unit-Level Manpower	0.0	no explanation required
Unit Operations	0.0	no explanation required
Maintenance	0.0	no explanation required
Sustaining Support	0.0	no explanation required
Continuing System Improvements	0.0	no explanation required
Other	0.0	no explanation required

(CY\$M) Base Year: 2006	Estimate
Not Categorized	0.0

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

(CY\$M) Base Year: 2006							
System	Unit-Level Manpower	Unit Operations	Maintenance	Sustaining Support	Continuing System Improvements	Other	Total
LHA 6	11,828.3	1,981.7	6,080.4	594.7	2,127.4	-	22,612.5
Program	11,828.3	1,981.7	6,080.4	594.7	2,127.4	-	22,612.5

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

(CY\$M) Base Year: 2006							
System	Unit-Level Manpower	Unit Operations	Maintenance	Sustaining Support	Continuing System Improvements	Other	Total
LHA 6	73.9	12.4	38.0	3.7	13.3	-	141.3
LHD 1 (Antecedent)	72.0	19.0	34.9	9.3	9.0	46.0	190.2

### (U) Operating and Support Cost Estimate Assumptions

System	Quantity to Sustain	Unit Expected Service Life (Years)	Unit of Measure	Fiscal Years Operational
LHA 6	1	40.0	ship	2015 - 2069
LHD 1 (Antecedent)	0	-	0	No First FY - No Final FY

### Additional O&S Estimate Assumptions

The average annual O&S cost was derived by SEA05C and used as the basis for the POE. The O&S cost estimate was broken down into CAPE categories and BY2006\$. The Program Office defined funding requirements at the time LHA 8 was authorized. Total LHA O&S Cost was developed using the average annual O&S cost provided by SEA05C and multiplying that cost by 4 ships and the 40 years of expected service life. TY\$ cost was developed using inflation indices approved at the time of estimate.

### Antecedent Estimate Assumptions

The antecedent system designated for the LHA (R) program is LHD 1. LHD 1 Unitized O&S Costs (BY 2006 \$M) reflect the Operating and Support Cost Analysis Model (OSCAM) historical average dataset for LHD 1. Visibility and Management of Operating and Support Costs (VAMOSC) data

reflects average O&S return data for active ships (LHD1-7) between FY 1992 and FY 2016. Open Architecture Retrieval System (OARS) 3-M data includes the years FY 2001 through FY 2016. Like the LHA (R) program Unitized O&S Costs, antecedent costs reflect a 40 year life cycle. Projected manning includes approximately 24 fewer officer and 55 fewer enlisted personnel than the average historical manning on LHD 1-7. However, FY 2006 Military Pay Rates utilized to estimate Personnel are approximately 12 percent higher than the average LHD 1-7 historical rates, which were inflated to FY 2006. Therefore, Unit Level Personnel costs do not reflect expected savings due to reduction in crew size. If personnel rates were normalized, it would show an approximate 10 percent savings when compared to the antecedent class. The discrepancy between historical rates and the FY 2006 set could be driven in part by actual crews being manned with lower ranking personnel than that assumed in the baseline estimate. For comparative purposes, the FY 2006 cost per barrel of Diesel Fuel, Marine (DFM) was substituted for the historical average cost of DFM observed in LHD 1 class data. This methodology better aligns LHD 1 historical requirements for Unit Operations with estimated requirements. In line with LHA (R) Maintenance requirements, antecedent Maintenance costs reflect requirements laid out in the Office of the Chief of Naval Operations (OPNAV) 4700.

### **O&S Annual Cost Calculation Memo**

Total O&S Cost = # Ships X # Service Life Years X Average Annual Cost Per Ship  
\$20,542.0 BY 2006 \$M = 3 (Ships) X 40 (Service Life Years) X \$171.184 BY 2006 \$M (Average Annual Cost Per Ship) \$38,382.50 TY \$M

**(U) Technologies and Systems Engineering**

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

Event	Date	Description
Current	12/31/2023	Enterprise Air Search Radar (EASR) (Schedule and Technical): If EASR and the Combat System (CS) integration is not complete at CS Light Off, then warfare systems' performance may impact the ship's readiness to conduct trials, and thus negatively impacting the ship's path to delivery. MITIGATION: Efforts are in progress to conduct EASR and CS integration using LPD 29 which carries similar capabilities and will be tested 2 years in advance of LHA 8's sea trials. Mitigation efforts continue with the Radar Systems Integration Working Group, and land based testing at the Surface Combat Systems Center, Wallops Island - lessons learned from Aircraft Carrier (Nuclear-Powered) and Landing Platform Docks and will be incorporated to support LHA 8's delivery.
Current	12/31/2023	LHA(R) Change (Schedule and Technical): If LHA(R) is subject to a higher degree of design change than anticipated and/or planned due to design changes from and within Flight 0/1, Flight 0 lessons learned, and Fact of Life obsolescence, then cost may exceed Program Change Order budget and resultant ship incorporation could impact ship capability at sail away. There are multiple drivers of this including Arrangement Revision, Obsolescence, Flight 0 Lessons, and Emerging Requirements such as F-35B integration, cyber security, and program protection. MITIGATION: Early identification of technical changes and identifying most cost-efficient point of incorporation are mitigating this risk.

**(U) Performing Activities and Contracts**

**(U) External Government Activities**

None

**(U) Contracts and Efforts**

Contract Title	Contract Number / Effort	Contractor	Phase
LHA 8 Contract EVM	N00024-16-C-2427 / 1	Huntington Ingalls Incorporated	Production
LHA 9 Contract EVM	N00024-20-C-2437 / 1	Huntington Ingalls Incorporated	Production

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

<b>Contract Number:</b>	N00024-16-C-2427	<b>Order Number:</b>	-
<b>Contract Title:</b>	LHA 8 Contract EVM	<b>Strategy:</b>	-
<b>CAGE:</b>	34293 - Huntington Ingalls Incorporated	<b>Contracting Office:</b>	-
<b>City, State/Province:</b>	Pascagoula, MS		
<b>Effort Number:</b>	1	<b>Supported Phase:</b>	Production
<b>Type:</b>	Other	<b>Award Date:</b>	June 30, 2016
<b>Latest Modification Date:</b>	March 5, 2024	<b>Definitization Date:</b>	June 30, 2016
<b>Latest Modification No.:</b>	A00499	<b>Work Start Date:</b>	-
<b>Technical Data Rights:</b>	-		
<b>Notes:</b>	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).		

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
3,000.7    3,306.6	3,016.6    3,422.8	-            -	-	-	-

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

<b>Contract Number:</b>	N00024-20-C-2437	<b>Order Number:</b>	-
<b>Contract Title:</b>	LHA 9 Contract EVM	<b>Strategy:</b>	-
<b>CAGE:</b>	34293 - Huntington Ingalls Incorporated	<b>Contracting Office:</b>	-
<b>City, State/Province:</b>	Pascagoula, MS		
<b>Effort Number:</b>	1	<b>Supported Phase:</b>	Production
<b>Type:</b>	Other	<b>Award Date:</b>	October 27, 2022

**Latest Modification Date:** March 13, 2024                      **Definitization Date:** October 27, 2022  
**Latest Modification No.:** A00036                                      **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 Controlled Unclassified Information (CUI).

Initial Price (TY\$M)		Current Price (TY\$M)		Est. Price at Completion (TY\$M)		Initial	Current	Delivered
Target / Ceiling		Target / Ceiling		Contractor / PM		Quantity	Quantity	Quantity
3,055.4	3,350.2	3,055.9	3,350.8	-	-	-	-	-



**(U) Production**

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

No Data

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

None

**LRIP Notes**

There is no Low Rate Initial Production data to display.

**(U) Deliveries and Expenditures**

**(U) Acquisition Funding**

	Total Estimate	Actual to Date	Actual, Percent Complete
Years Appropriated	30	24	80.0%
Appropriations (TY, \$M)	19,713.4	15,110.6	76.7%
Expenditures (TY, \$M)	19,713.4	10,800.5	54.8%

**(U) End Items Delivered**

	Total Required	Planned to Date	Actual to Date	Actual, Percent Complete
Procurement	5			
LHA 6		2	2	
<b>Total</b>	<b>5</b>	<b>2</b>	<b>2</b>	<b>40.0%</b>

**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 LHA 6



**UNCLASSIFIED**

**Modernized  
Selected Acquisition Report  
Supplement**

**LHA 6 America Class Amphibious Assault Ship  
(LHA 6)**

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**

LHA 6 America Class Amphibious Assault Ship

**Short Name**

LHA 6

**PNO**

333

**Lead Component**

Navy

**AAF Pathway**

MCA

**Acquisition Type**

MDAP

**Acquired Systems**

LHA

### 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

### LHA 6 America Class Amphibious Assault Ship

#### 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

#### LHA 6 America Class Amphibious Assault Ship

Category	Account	BA	Line Item	Program Element	RDT&E Project	Shared	Sunk
RDT&E	1319N	05	0604567N - Ship Contract Design/ Live Fire T&E	0604567N	2465 - LHA(R) FLT Design and Total Ship Integration		
RDT&E	1319N	04	0603564N - Ship Preliminary Design & Feasibility Studies	0603564N	0408 - Ship Development (ADV)		x
RDT&E	1319N	05	0604567N - Ship Contract Design/ Live Fire T&E	0604567N	9235 - LHA (R) Design		x
RDT&E	1319N	05	0604567N - Ship Contract Design/ Live Fire T&E	0604567N	9236 - LHA (R) transfer from LHD-1 AP		x
RDT&E	1319N	05	0604567N - Ship Contract Design/ Live Fire T&E	0604567N	9999 - Congressional Add		x
RDT&E	1319N	05	0604567N - Ship Contract Design/ Live Fire T&E	0604567N	9999 - Congressional Add		x
Procurement	1611N	05	5110 - Outfitting	0204411N	-	x	
Procurement	1611N	03	3041 - LHA Replacement	0204411N	-		
Procurement	1611N	05	5300 - Completion of PY Shipbuilding Programs	0204411N	-	x	
O&M	1804N	01	1C6C - Combat Support Forces	0204411N	-	x	

## Funding Sources (Operating and Support)

### Operating and Support Funding Notes

This section is not applicable to this program.

### LHA 6 America Class Amphibious Assault Ship

Category	Account	BA	Line Item	Program Element	RDT&E Project	Shared	Sunk
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**Acquisition Estimate and Quantity Summary****LHA 6 America Class Amphibious Assault Ship****Acquisition Estimates**

Category	PB 2025	TY (\$M)	Current Base Year	Original Base Year	Report Fiscal Year
			CY2006 (\$M)	CY2006 (\$M)	CY2024 (\$M)
RDT&E		491.3	434.2	434.2	648.8
Procurement		19,219.1	12,505.3	12,505.3	18,687.0
MILCON		-	-	-	-
O&M		3.0	2.3	2.3	3.4
Total Acquisition		19,713.4	12,941.8	12,941.8	19,339.2
PAUC		3,942.670	2,588.361	2,588.361	3,867.844
APUC		3,843.813	2,501.068	2,501.068	3,737.400

**Acquisition End-Item Quantities**

System	PB 2025	Development	Procurement
LHA		-	5
<b>Total</b>		-	<b>5</b>

**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	418.3	19.4	11.7	26.2	6.1	4.7	4.8	-	491.3
Procurement	12,815.8	1,854.9	222.7	535.3	3,733.1	25.0	20.0	12.4	19,219.1
MILCON	-	-	-	-	-	-	-	-	-
O&M	2.1	0.1	0.1	0.1	0.2	0.2	0.2	-	3.0
<b>PB 2025 Total</b>	<b>13,236.2</b>	<b>1,874.4</b>	<b>234.5</b>	<b>561.7</b>	<b>3,739.4</b>	<b>29.9</b>	<b>25.0</b>	<b>12.4</b>	<b>19,713.4</b>

## Annual Acquisition Estimates by Appropriation Account

(Aligned to Budget Position: PB 2025)

### LHA 6 America Class Amphibious Assault Ship

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 CY2006 (\$M)
<b>Total</b>		<b>491.3</b>	<b>491.3</b>	<b>-</b>	<b>434.2</b>
2001		15.200	15.2	0.913759	16.6
2002		4.900	4.9	0.922995	5.3
2003		38.100	38.1	0.936526	40.7
2004		52.900	52.9	0.962668	55.0
2005		43.000	43.0	0.988005	43.5
2006		21.600	21.6	1.018791	21.2
2007		12.900	12.9	1.043745	12.4
2008		10.900	10.9	1.062784	10.3
2009		7.580	7.6	1.076431	7.0
2010		8.712	8.7	1.092577	8.0
2011		10.006	10.0	1.118664	8.9
2012		20.428	20.4	1.137217	18.0
2013		24.269	24.3	1.149158	21.1
2014		76.517	76.5	1.165396	65.7
2015		7.118	7.1	1.180059	6.0
2016		8.317	8.3	1.201961	6.9
2017		9.463	9.5	1.224450	7.7
2018		8.130	8.1	1.254443	6.5
2019		12.591	12.6	1.278603	9.8
2020		2.218	2.2	1.325622	1.7
2021		3.970	4.0	1.385201	2.9
2022		7.306	7.3	1.457568	5.0
2023		12.188	12.2	1.500960	8.1
2024		19.350	19.4	1.535224	12.6
2025		11.675	11.7	1.567790	7.4
2026		26.247	26.2	1.600714	16.4
2027		6.145	6.1	1.634329	3.8
2028		4.735	4.7	1.668650	2.8
2029		4.832	4.8	1.703691	2.8

## Annual Acquisition Estimates by Appropriation Account

(Aligned to Budget Position: PB 2025)

### LHA 6 America Class Amphibious Assault Ship

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

1804N - Operation & Maintenance, Navy					
fiscal year		Other/ Unallocated	Total TY(\$M)	Weighted Rate	Total CY2006 (\$M)
<b>Total</b>		<b>3.0</b>	<b>3.0</b>	<b>-</b>	<b>2.3</b>
2001			-	0.912836	-
2002			-	0.923382	-
2003			-	0.934900	-
2004			-	0.959503	-
2005			-	0.986101	-
2006			-	1.013729	-
2007			-	1.039894	-
2008			-	1.060688	-
2009			-	1.074717	-
2010		0.179	0.2	1.088261	0.2
2011		0.176	0.2	1.113053	0.2
2012		0.189	0.2	1.127574	0.2
2013		0.137	0.1	1.145037	0.1
2014		0.148	0.1	1.159859	0.1
2015		0.182	0.2	1.173507	0.2
2016		0.153	0.2	1.191332	0.1
2017		0.153	0.2	1.213551	0.1
2018		0.156	0.2	1.239115	0.1
2019		0.158	0.2	1.262991	0.1
2020		0.080	0.1	1.293701	0.1
2021		0.127	0.1	1.348960	0.1
2022		0.134	0.1	1.436255	0.1
2023		0.121	0.1	1.485419	0.1
2024		0.130	0.1	1.520989	0.1
2025		0.146	0.1	1.553561	0.1
2026		0.148	0.1	1.586186	0.1
2027		0.154	0.2	1.619495	0.1
2028		0.159	0.2	1.653505	0.1
2029		0.160	0.2	1.688228	0.1

**Annual Acquisition Estimates by Appropriation Account**

(Aligned to Budget Position: PB 2025)

**LHA 6 America Class Amphibious Assault Ship**

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

<b>1611N (BLS Hist) - Shipbuilding and Conversion, Navy</b>									
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 CY2006 (\$M)
<b>Total</b>	<b>19,219.1</b>	-	-	-	-	-	<b>19,219.1</b>	-	<b>12,505.3</b>
2001							-	0.914993	-
2002							-	0.920202	-
2003							-	0.973440	-
2004							-	1.008753	-
2005	149.227						149.2	1.053465	141.7
2006	350.096						350.1	1.090618	321.0
2007	1,131.121						1,131.1	1.140733	991.6
2008	1,365.785						1,365.8	1.179586	1,157.9
2009	190.659						190.7	1.215671	156.8
2010	169.320						169.3	1.257907	134.6
2011	937.630						937.6	1.299173	721.7
2012	1,942.018						1,942.0	1.328977	1,461.3
2013	173.578						173.6	1.356772	127.9
2014	66.004						66.0	1.384246	47.7
2015	65.618						65.6	1.416150	46.3
2016	488.665						488.7	1.452364	336.5
2017	1,614.224						1,614.2	1.494026	1,080.5
2018	1,737.216						1,737.2	1.542692	1,126.1
2019	403.087						403.1	1.600094	251.9
2020	11.361						11.4	1.666028	6.8
2021	531.351						531.4	1.733388	306.5
2022	73.055						73.1	1.793914	40.7
2023	1,415.739						1,415.7	1.836127	771.0
2024	1,854.875						1,854.9	1.875517	989.0
2025	222.684						222.7	1.914973	116.3
2026	535.288						535.3	1.955187	273.8
2027	3,733.073						3,733.1	1.996246	1,870.0
2028	25.000						25.0	2.038167	12.3
2029	20.000						20.0	2.080969	9.6
2030	12.390						12.4	2.124669	5.8

## Acquired System Annual End-Item Quantities by Appropriation Account

(Aligned to Budget Position: PB 2025)

### LHA 6 America Class Amphibious Assault Ship

1611N (BLS Hist) - Shipbuilding and Conversion, Navy				
fiscal year	LHA			Total
<b>Total</b>	<b>5</b>			<b>5</b>
Undistributed				-
2007	1			1
2008				-
2009				-
2010				-
2011	1			1
2012				-
2013				-
2014				-
2015				-
2016				-
2017	1			1
2018				-
2019				-
2020				-
2021				-
2022				-
2023	1			1
2024				-
2025				-
2026				-
2027	1			1

## **Nuclear Costs**

### **LHA 6 America Class Amphibious Assault Ship**

#### **Program's Use of Department of Energy Resources**

Note: This section is not applicable to this program.



## Operational Fielding Plan

### LHA 6 America Class Amphibious Assault Ship

#### System: LHA

#### Fielding and Inventory Notes

For O&S estimates in this report, the LHA 6 America Class consists of 4 ships. LHA 6 (USS America) and LHA 7 (USS Tripoli) are currently in-service ships. LHA 8 (PCU Bougainville) is planned for in-service introduction in FY 2027 after her planned May 2027 Obligation Work Limiting Date (OWLD). LHA 9 (PCU Fallujah) is planned for in-service introduction beyond the fielding dates in the below LHA Fielding Plan and Inventory table. Her planned OWLD is April 2031 and she will be placed in-service thereafter.

#### LHA Fielding Plan and Inventory

fiscal year	Store	Field	Expend/Loss	Decommission	Inventory
2023					2
2024					2
2025					2
2026					2
2027		1			3
2028					3
2029					3

## O&S Independent Cost Estimate

### LHA 6 America Class Amphibious Assault Ship

#### Independent and Current Cost Estimate Comparison

Category	CY2006 (\$M)	Independent Cost Estimate 9/12/2023	Current Estimate 9/12/2023	Variance with ICE (%)
Unit-Level Manpower		11,828.3	11,828.3	0%
Unit Operations		1,981.7	1,981.7	0%
Maintenance		6,080.4	6,080.4	0%
Sustaining Support		594.7	594.7	0%
Continued System Improvements		2,127.4	2,127.4	0%
Other				-
<b>Total O&amp;S</b>		<b>22,612.5</b>	<b>22,612.5</b>	<b>0%</b>

#### Independent Cost Estimate Source

Event: APB Change 3 (Additional Ship)  
 Type: Independent Cost Estimate  
 Approved by: O5C, September 12, 2023

#### Current Cost Estimate Source

Type: Independent Cost Estimate  
 Approved by: O5C, September 12, 2023

#### Cost Estimate Variance Explanation

No Explanation required.

## Annual Operating and Support Estimates by Cost Element

### LHA 6 America Class Amphibious Assault Ship

#### System: LHA

Source for TY-CY Conversion: Cape Element

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 CY2006 (\$M)
<b>Total</b>	<b>11,828.3</b>	<b>1,981.7</b>	<b>6,080.4</b>	<b>594.7</b>	<b>2,127.4</b>	-	<b>22,612.5</b>
2014	43.124	8.436	8.161	2.168	0.985		62.9
2015	73.927	14.461	13.990	3.717	1.688		107.8
2016	73.927	12.043	32.212	3.717	15.212		137.1
2017	73.927	11.237	38.286	3.717	19.720		146.9
2018	73.927	14.461	13.990	3.717	1.688		107.8
2019	73.927	12.043	32.212	3.717	15.212		137.1
2020	123.212	20.878	47.613	6.195	20.846		218.7
2021	147.854	28.922	27.980	7.434	3.376		215.6
2022	147.854	20.862	121.821	7.434	48.456		346.4
2023	147.854	23.280	92.565	7.434	34.932		306.1
2024	147.854	28.922	27.980	7.434	3.376		215.6
2025	166.336	26.895	76.204	8.363	35.354		313.2
2026	221.781	37.741	87.432	11.151	36.620		394.7
2027	221.781	43.383	41.970	11.151	5.064		323.3
2028	221.781	29.681	186.054	11.151	81.700		530.4
2029	283.387	49.792	115.642	14.249	38.027		501.1
2030	295.708	57.844	55.960	14.868	6.752		431.1
2031	295.708	39.306	228.647	14.868	110.436		689.0
2032	295.708	51.396	126.788	14.868	42.816		531.6
2033	295.708	56.232	79.142	14.868	15.768		461.7
2034	295.708	40.918	235.724	14.868	101.420		688.6
2035	295.708	51.396	113.603	14.868	42.816		518.4
2036	295.708	57.844	55.960	14.868	6.752		431.1
2037	295.708	36.888	308.867	14.868	123.960		780.3
2038	295.708	51.396	131.933	14.868	42.816		536.7
2039	295.708	57.844	55.960	14.868	6.752		431.1
2040	295.708	39.306	260.891	14.868	110.436		721.2
2041	295.708	51.396	142.966	14.868	42.816		547.8
2042	295.708	56.232	78.122	14.868	15.768		460.7
2043	295.708	40.918	243.254	14.868	101.420		696.2
2044	295.708	51.396	121.655	14.868	42.816		526.4
2045	295.708	57.844	55.960	14.868	6.752		431.1
2046	295.708	36.888	336.300	14.868	123.960		807.7

**System: LHA**

Source for TY-CY Conversion: Cape Element

<b>Operating and Support Cost Elements</b>							
<b>fiscal year</b>	<b>1.0 Unit-Level Manpower</b>	<b>2.0 Unit Operations</b>	<b>3.0 Maintenance</b>	<b>4.0 Sustaining Support</b>	<b>5.0 Continuing System Improvements</b>	<b>Other</b>	<b>Total CY2006 (\$M)</b>
2047	295.708	51.396	145.203	14.868	42.816		550.0
2048	295.708	57.844	55.960	14.868	6.752		431.1
2049	295.708	39.306	256.326	14.868	110.436		716.6
2050	295.708	51.396	132.816	14.868	42.816		537.6
2051	295.708	56.232	84.381	14.868	15.768		467.0
2052	295.708	40.918	282.700	14.868	101.420		735.6
2053	295.708	51.396	131.484	14.868	42.816		536.3
2054	252.584	49.409	47.799	12.700	5.767		368.3
2055	221.781	24.845	306.281	11.151	108.748		672.8
2056	221.781	40.159	87.998	11.151	23.096		384.2
2057	221.781	43.383	41.970	11.151	5.064		323.3
2058	221.781	29.681	198.536	11.151	81.700		542.8
2059	221.781	40.159	81.671	11.151	23.096		377.9
2060	172.496	32.130	53.855	8.673	12.955		280.1
2061	147.854	17.638	166.121	7.434	66.488		405.5
2062	147.854	28.116	36.863	7.434	7.884		228.2
2063	147.854	28.922	27.980	7.434	3.376		215.6
2064	147.854	16.026	195.338	7.434	75.504		442.2
2065	129.372	24.501	35.089	6.505	7.462		202.9
2066	73.927	14.461	13.990	3.717	1.688		107.8
2067	73.927	9.625	75.626	3.717	28.736		191.6
2068	73.927	13.655	24.263	3.717	6.196		121.8
2069	12.321	2.410	2.332	0.620	0.281		18.0