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# EXPEDITIONARY SEA BASE (ESB)

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**December 2021 Selected Acquisition Report (SAR)**



**CLEARED AS AMENDED  
For Open Publication**

Apr 29, 2022

Department of Defense  
OFFICE OF PREPUBLICATION AND SECURITY REVIEW

DECEMBER 31, 2021  
DEPARTMENT OF THE NAVY

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**Common Acronyms and Abbreviations**

Acq O&M - Acquisition-Related Operations and Maintenance  
ACAT - Acquisition Category  
ADM - Acquisition Decision Memorandum  
APB - Acquisition Program Baseline  
APPN - Appropriation  
APUC - Average Procurement Unit Cost  
\$B - Billions of Dollars  
BA - Budget Authority/Budget Activity  
Blk - Block  
BY - Base Year  
CAPE - Cost Assessment and Program Evaluation  
CARD - Cost Analysis Requirements Description  
CDD - Capability Development Document  
CLIN - Contract Line Item Number  
CPD - Capability Production Document  
CY - Calendar Year  
DAB - Defense Acquisition Board  
DAE - Defense Acquisition Executive  
DAMIR - Defense Acquisition Management Information Retrieval  
DoD - Department of Defense  
DSN - Defense Switched Network  
EMD - Engineering and Manufacturing Development  
EVM - Earned Value Management  
FOC - Full Operational Capability  
FMS - Foreign Military Sales  
FRP - Full Rate Production  
FY - Fiscal Year  
FYDP - Future Years Defense Program  
ICE - Independent Cost Estimate  
IOC - Initial Operational Capability  
Inc - Increment  
JROC - Joint Requirements Oversight Council  
\$K - Thousands of Dollars  
KPP - Key Performance Parameter  
LRIP - Low Rate Initial Production  
\$M - Millions of Dollars  
MDA - Milestone Decision Authority  
MDAP - Major Defense Acquisition Program  
MILCON - Military Construction  
N/A - Not Applicable  
O&M - Operations and Maintenance  
ORD - Operational Requirements Document  
OSD - Office of the Secretary of Defense  
O&S - Operating and Support  
PAUC - Program Acquisition Unit Cost  
PB - President's Budget  
PE - Program Element  
PEO - Program Executive Officer  
PM - Program Manager  
POE - Program Office Estimate  
RDT&E - Research, Development, Test, and Evaluation  
SAR - Selected Acquisition Report  
SCP - Service Cost Position  
TBD - To Be Determined  
TY - Then Year  
UCR - Unit Cost Reporting  
U.S. - United States  
USD(A&S) - Under Secretary of Defense (Acquisition and Sustainment)  
USD(AT&L) - Under Secretary of Defense (Acquisition, Technology and Logistics)

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## Program Manager

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**Date Assigned:** February 17, 2020

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## Mission and Description

The Expeditionary Transfer Dock (ESD) program (formerly Mobile Landing Platform (MLP)) originally supported procurement of three ships for the three Maritime Prepositioning Squadrons (MPSRONS). Each ESD provides three Landing Craft Air Cushion (LCAC) lanes, Skin-to-Skin ramp and fenders, and 25K square feet of raised vehicle deck. The Sea Base Surface Interface Hub enables transfer of personnel and equipment from Maritime Prepositioning Force (MPF(F)) Large, Medium-Speed Roll-On/Roll-Off (LMSR) and Expeditionary Fast Transport (EPF) to shore via LCACs.

The Expeditionary Sea Base (ESB) program (formerly MLP Afloat Forward Staging Base (AFSB)) mission is to support Aviation-Mine Counter Measure (AMCM) and Special Operations Force (SOF) operations. The ESB class provides four core components. These include a flight deck with four Level 1/Class 2 Op Spots, berthing to accommodate for 250 military personnel, a mission deck with ~65K square feet of storage as well as the ability to support launch and recovery of boats and sleds, and command and control in the form of Command, Control, Communications, Computers and Intelligence (C4I) spaces for mission planning and execution. The ESB is hybrid Civilian Mariner/Military Detachment (CIVMAR/MILDET) crew operated as either a United States Naval Ship (USNS) for Non-International Armed Conflicts (NIAC) or converted to United States Ship (USS) for International Armed Conflicts (IAC).

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## Executive Summary

### *Program Highlights Since Last Report*

The ESB Program completed another successful year of achieving multiple significant milestones. The ESD/ESB class has successfully delivered five ships since ESD 1 delivery in May 2013. All five are currently operating as Fleet assets (ESD 1/2, ESB 3/4/5).

H.R. 1168 - The Consolidated Appropriations Act of 2021 provided an additional \$73M SCN for ESB 8 Advanced Procurement as well as \$7.5M RDT&EN for the ESB Pilot program.

ESB 5 completed Post Shakedown Availability (PSA) December 16, 2020. Final Contract Trials completed March 19, 2021. Commissioned May 8, 2021. Deployed September 7, 2021.

ESB 6 started construction on June 25, 2020, and its keel was laid on August 28, 2020.

ESB 7 started construction on December 1, 2021

H.R. 2471 – The Consolidated Appropriations Act of 2022 provided an additional \$577M SCN Full Funding for the procurement of ESB 8.

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

### *History of Significant Developments Since Program Initiation*

History of Significant Developments Since Program Initiation	
Date	Significant Development Description
June 1998	Mission Area Analysis of the sea-basing concept for the Maritime Prepositioning Force (MPF) of 2010 issued
February 2000	MPF for 21st Century (MPF Future (MPF(F)) Mission Need Statement approved
January 2003	MPF(F) Analysis of Alternatives Plan approved
April 2004	MPF(F) Analysis of Alternatives Final Summary Report approved
June 2005	Assistant Secretary of the Navy for Research, Development and Acquisition (ASN(RDA)) Congressional letter describing MPF(F) issued
March 2006	Acquisition Decision Memorandum (ADM) Approval of MPF(F) program to enter Technology Development phase
August 2006	Joint Staff J-2 memo Intelligence Certification of MPF(F) Capability Development Document (CDD)
September 2006	N09J legal opinion stating that Mobile Landing Platform (MLP) may be lawfully designated naval auxiliary
March 2008	JROC Approval of MPF(F) Increment 1 CDD
July 2008	Approved June 5, 2008 Defense Acquisition Board (DAB) for incremental acquisition of MPF(F) platforms, focusing on T-AKE and MLP. Milestone A
February 2009	MLP System Design Part I awarded to National Steel and Shipbuilding Company(NASSCO)
June 2010	Reviewed and approved MPF(F) KPP for Mission Payload

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History of Significant Developments Since Program Initiation	
Date	Significant Development Description
August 2010	MPF(F) Increment One CDD Addendum & Enclosure
May 2011	Designation of MLP as ACAT II.
May 2011	Approval to Award Detail Design and Construction (DD&C) for MLP 1 & 2, Long Lead Time Material (LLTM) MLP 3 Shipbuilding and Conversion, Navy (SCN) Letter
May 2011	Milestone B approval by Assistant Secretary of the Navy (Research, Development & Acquisition) (ASN(RDA)) that authorized engineering and manufacturing development and detail design of the MLP class ship
October 2012	MLP CDD Aviation Interface
December 2012	ASN(RDA) approved Contract Design of MLP Afloat Forward Staging Base (AFSB) and to incorporate design changes to base MLP 3 ship to enable future capabilities elements
December 2012	ASN(RDA) approved award of AFSB Contract Design
March 2013	MLP AFSB Variant Appendix to Increment One CDD Addendum
March 2013	Approved MLP CDD change 2 - AFSB
April 2013	ASN(RDA) approved award of AFSB Advanced Design to include Special Operations Forces (SOF) capabilities
May 2013	Delivery of MLP 1
May 2013	ASN(RDA) approved Abbreviated Acquisition Plan dated May 1, 2013
May 2013	ASN(RDA) approved DD&C of MLP 3 AFSB.
June 2013	MLP AFSB Aviation Requirements Document (ARD)
June 2013	ASN(RDA) approval to award two AFSB variants of MLP to NASSCO
November 2013	MLP AFSB ARD Rev 2.0
March 2014	Delivery of MLP 2
October 2014	ESD IOT&E
December 2014	Office of the Chief of Naval Operations (OPNAV) N95 clarification of roles and responsibilities between Military Detachment (MILDET) and Military Sealift Command (MSC), Force Protection responsibilities, Vertical Replenishment (VERTREP) support responsibilities.
February 2015	OPNAV N95 letter that implements modifications to meet SOF capabilities
May 2015	MLP with Core Capability Set (CCS) Operational Test Agency (OTA) Evaluation Report
June 2015	ESB 3 Delivered
April 2016	Award as sole source to NASSCO for DD&C of ESB 5
April 2016	ADM to approve acquisition of ESB 5 by ASN(RDA)
August 2016	Increase in ESB 5 LLTM Acquisition with PEO Ships endorsement dated August 26, 2016
September 2016	MLP AFSB ARD Rev 3.0
September 2016	MPF(F) ESB Circular of Requirements (COR) Rev 1.0
December 2016	Department of the Navy, Executive Summary, 2016 Force Structure Assessment (FSA) December 14, 2016.
December 2016	MLP AFSB (Variant) Net-Ready KPP
December 2016	ASN(RDA) approval to award and fund contract modification to N00024-16-C-2227

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History of Significant Developments Since Program Initiation	
Date	Significant Development Description
May 2017	ESB 3 OTA Initial Operating Test & Evaluation (IOT&E) Report Operational Test-C2 Final Report
June 2017	ESB Ready for Fleet Introduction
February 2018	ESB 4 Delivered
February 2018	ESD / ESB, as ACAT II programs, delegated to PEO Ships MDA authority
April 2018	APB updated for 3 additional ships
May 2018	ESB 6-8 Acquisition Strategy Approved
May 2018	ESB 6 LLTM ADM Approved
May 2018	ESB 6 LLTM Request for Proposal (RFP) Released
June 2018	ESB 6-8 Individual Streamlined Acquisition Plan (ISTRAP) Approved
June 2018	ESB 6-8 Justification and Approval (J&A) Approved
December 2018	ESB reclassified from ACAT II to ACAT IB
August 2019	ESB 6 and ESB 7 DD&C contract awarded to NASSCO in San Diego
November 2019	ESB 5 Delivered
December 2020	ESB 8 Advance Procurement Congressional Add (\$73M)
June 2021	ESB 8 contract option and pricing expired

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## Schedule

### Schedule Events

Schedule Events					
Events	Development APB Objective	Current APB Development Objective/Threshold		Current Estimate/Actual	Deviation
MS B DAB	MAY 2011	MAY 2011	MAY 2011	MAY 2011	
Detail Design and Construction Contract Award	MAY 2011	MAY 2011	MAY 2011	MAY 2011	
Start of Construction	JUN 2011	JUN 2011	JUN 2011	JUN 2011	
Lead Ship Delivery (ESD)	MAY 2013	MAY 2013	MAY 2013	MAY 2013	
Lead Ship Delivery (ESB)	JUN 2015	JUN 2015	JUN 2015	JUN 2015	
IOT&E Complete (ESD)	OCT 2014	OCT 2014	OCT 2014	OCT 2014	
IOC	APR 2015	APR 2015	APR 2015	APR 2015	
FOC	JAN 2028	JAN 2028	JAN 2029	JAN 2028	

### Acronyms and Abbreviations

IOT&E – Initial Operational Test & Evaluation

MS – Milestone

OWLD – Operation Work Limiting Date

### Schedule Notes:

ESB 6 – Delivery planned for September 2022. OWLD November 2023.

ESB 7 – Delivery planned for January 2024. OWLD March 2025.

ESB 8 – Delivery planned for December 2025. OWLD February 2027.

### Significant Schedule Risks

Significant Schedule Risks	
Current Estimate (December 2021)	
1.	If hiring challenges and green labor continues, then there will be yard wide risks to NASSCO's ability to meet schedule. Delays on T-AO will have a cascading impact to ESB schedules.



### Performance

Performance Characteristics				
Development APB Objective	Current APB Development Objective/Threshold	Demonstrated Performance (include Date of Demonstration)	Current Estimate/Actual	Deviation
<b>Net Ready – KPP Attribute - ESB</b>				
Support to Military Operations (99%) Primary Mission Area - Mine Counter Measures Measure - Ability to disseminate Tactical & Operational Information Enter and be managed on the Network Network - LOS Coms Measure - 1s (time to connect) Data Links Measure - 5s (time to connect) SATCOM Voice Measure - 1s (time to connect) SATCOM Data Measure - 2s (time to connect) Exchange Information: Information Element - Identify Target, Engage Target, Destroy Target Measure - 10s (Time to send and receive information	Support to Military Operations (99%) Primary Mission Area - Mine Counter Measures Measure - Ability to disseminate Tactical & Operational Information Enter and be managed on the Network Network - LOS Coms Measure - 1s (time to connect) Data Links Measure - 5s (time to connect) SATCOM Voice Measure - 1s (time to connect) SATCOM Data Measure - 2s (time to connect) Exchange Information: Information Element - Identify Target, Engage Target, Destroy Target Measure - 10s (Time to send and receive information	Support to Military Operations (90%) Primary Mission Area - Mine Counter Measures Measure - Ability to disseminate Tactical & Operational Information Enter and be managed on the Network Network - LOS Coms Measure - 5s (time to connect) Data Links Measure - 12s (time to connect) SATCOM Voice Measure - 5s (time to connect) SATCOM Data Measure - 10s (time to connect) Exchange Information: Information Element - Identify Target, Engage Target, Destroy Target Measure - 1 min (Time to send and receive information	08/12/2016 - Support to Military Operations (90%) Primary Mission Area - Mine Counter Measures Measure - Ability to disseminate Tactical & Operational Information Enter and be managed on the Network Network - LOS Coms Measure - 5s (time to connect) Data Links Measure - 12s (time to connect) SATCOM Voice Measure - 5s (time to connect) SATCOM Data Measure - 10s (time to connect) Exchange Information: Information Element - Identify Target, Engage Target, Destroy Target Measure - 1 min (Time to send and	Support to Military Operations (90%) Primary Mission Area - Mine Counter Measures Measure - Ability to disseminate Tactical & Operational Information Enter and be managed on the Network Network - LOS Coms Measure - 5s (time to connect) Data Links Measure - 12s (time to connect) SATCOM Voice Measure - 5s (time to connect) SATCOM Data Measure - 10s (time to connect) Exchange Information: Information Element - Identify Target, Engage Target, Destroy Target Measure - 1 min (Time to send and receive information

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Performance Characteristics					
Development APB Objective	Current APB Development Objective/Threshold		Demonstrated Performance (include Date of Demonstration)	Current Estimate/Actual	Deviation
to/from external operational performer)	to/from external operational performer)	to/from external operational performer)	receive information to/from external operational performer)	to/from external operational performer)	
<p><b>Net-Ready: The system must support Net-Centric military operations. The system must be able to enter and be managed in the network, and exchange data in a secure manner to enhance mission effectiveness. The system must continuously provide survivable, interoperable, secure, and operationally effective information exchanges to enable a Net-Centric military capability.</b></p>					
Systems must fully support execution of all operational activities and information exchanges identified in the DoD Enterprise Architecture and solution architectures based on integrated DODAF content, and must satisfy the technical requirements for Net -Centric military operations to include: 1) Solution architecture products compliant with DoD Enterprise Architecture based on integrated	Systems must fully support execution of all operational activities and information exchanges identified in the DoD Enterprise Architecture and solution architectures based on integrated DODAF content, and must satisfy the technical requirements for Net -Centric military operations to include: 1) Solution architecture products compliant with DoD Enterprise Architecture based on integrated	Systems must fully support execution of Joint critical operational activities and information exchanges identified in the DoD Enterprise Architecture and solution architectures based on integrated DODAF content, and must satisfy the technical requirements for transition to Net-Centric military operations to include: 1) Solution architecture products compliant with DoD Enterprise Architecture based	09/09/2013 - Systems must fully support execution of all operational activities and information exchanges identified in the DoD Enterprise Architecture and solution architectures based on integrated DODAF content, and must satisfy the technical requirements for Net -Centric military operations to include: 1) Solution architecture products compliant with DoD Enterprise Architecture based	Systems must fully support execution of all operational activities and information exchanges identified in the DoD Enterprise Architecture and solution architectures based on integrated DODAF content, and must satisfy the technical requirements for Net -Centric military operations to include: 1) Solution architecture products compliant with DoD Enterprise Architecture based on integrated	

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Performance Characteristics					
Development APB Objective	Current APB Development Objective/Threshold		Demonstrated Performance (include Date of Demonstration)	Current Estimate/Actual	Deviation
DODAF content, including specified operationally effective information exchanges 2) Compliant with Net-Centric Data Strategy and Net-Centric Services Strategy, and the principles and rules identified in the DoD IEA, excepting tactical and non-IP communications 3) Compliant with GIG Technical Guidance to include IT Standards identified in the TV-1 and implementation guidance of the GESPs necessary to meet all operational requirements specified in the DoD Enterprise Architecture and solution architecture views 4) IA requirements including availability,	DODAF content, including specified operationally effective information exchanges 2) Compliant with Net-Centric Data Strategy and Net-Centric Services Strategy, and the principles and rules identified in the DoD IEA, excepting tactical and non-IP communications 3) Compliant with GIG Technical Guidance to include IT Standards identified in the TV-1 and implementation guidance of the GESPs necessary to meet all operational requirements specified in the DoD Enterprise Architecture and solution architecture views 4) IA requirements including availability,	on integrated DODAF content, including specified operationally effective information exchanges 2) Compliant with Net-Centric Data Strategy and Net-Centric Services Strategy, and the principles and rules identified in the DoD IEA, excepting tactical and non-IP communications 3) Compliant with GIG Technical Guidance to include IT Standards identified in the TV-1 and implementation guidance of the GESPs necessary to meet all operational requirements specified in the DoD Enterprise Architecture and solution architecture views 4) IA requirements including	on integrated DODAF content, including specified operationally effective information exchanges 2) Compliant with Net-Centric Data Strategy and Net-Centric Services Strategy, and the principles and rules identified in the DoD IEA, excepting tactical and non-IP communications 3) Compliant with GIG Technical Guidance to include IT Standards identified in the TV-1 and implementation guidance of the GESPs necessary to meet all operational requirements specified in the DoD Enterprise Architecture and solution architecture views 4) IA requirements including	DODAF content, including specified operationally effective information exchanges 2) Compliant with Net-Centric Data Strategy and Net-Centric Services Strategy, and the principles and rules identified in the DoD IEA, excepting tactical and non-IP communications 3) Compliant with GIG Technical Guidance to include IT Standards identified in the TV-1 and implementation guidance of the GESPs necessary to meet all operational requirements specified in the DoD Enterprise Architecture and solution architecture views 4) IA requirements including availability,	

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Performance Characteristics					
Development APB Objective	Current APB Development Objective/Threshold		Demonstrated Performance (include Date of Demonstration)	Current Estimate/Actual	Deviation
integrity, authentication, confidentiality, and non-repudiation, and issuance of an ATO by the DAA, and 5) Supportability requirements to include SAASM, Spectrum and JTRS requirements.	integrity, authentication, confidentiality, and non-repudiation, and issuance of an ATO by the DAA, and 5) Supportability requirements to include SAASM, Spectrum and JTRS requirements.	availability, integrity, authentication, confidentiality, and non-repudiation, and issuance of an IATO or ATO by the DAA, and 5) Supportability requirements to include SAASM, Spectrum and JTRS requirements.	availability, integrity, authentication, confidentiality, and non-repudiation, and issuance of an ATO by the DAA, and 5) Supportability requirements to include SAASM, Spectrum and JTRS requirements.	integrity, authentication, confidentiality, and non-repudiation, and issuance of an ATO by the DAA, and 5) Supportability requirements to include SAASM, Spectrum and JTRS requirements.	
<b>Capacity to support ESD operations</b>					
Mission deck/cargo capacity: 50,000 sq. ft., elevated if necessary, for vehicle parking and maneuvering with tiedowns for all current and programmed USMC and NSE ground vehicles and equipment (to include Army equivalents) and an additional allocation of space above the 50,000 sq. ft. for stowage and employment of the	Mission deck/cargo capacity: 50,000 sq. ft., elevated if necessary, for vehicle parking and maneuvering with tiedowns for all current and programmed USMC and NSE ground vehicles and equipment (to include Army equivalents) and an additional allocation of space above the 50,000 sq. ft. for stowage and employment of the	Mission deck/cargo capacity: 25,000 sq. ft. elevated if necessary, for vehicle parking and maneuvering with tiedowns for all current and programmed USMC and NSE ground vehicles and equipment (to include Army equivalents) and an additional allocation of space above the 25,000 sq. ft. for stowage and employment of the	09/09/2013 - Mission deck/cargo capacity: 25,000 sq. ft. elevated if necessary, for vehicle parking and maneuvering with tiedowns for all current and programmed USMC and NSE ground vehicles and equipment (to include Army equivalents) and an additional allocation of space above the 25,000 sq. ft. for stowage and employment of the	Mission deck/cargo capacity: 25,000 sq. ft. elevated if necessary, for vehicle parking and maneuvering with tiedowns for all current and programmed USMC and NSE ground vehicles and equipment (to include Army equivalents) and an additional allocation of space above the 25,000 sq. ft. for stowage and employment of the	

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Performance Characteristics					
Development APB Objective	Current APB Development Objective/Threshold		Demonstrated Performance (include Date of Demonstration)	Current Estimate/Actual	Deviation
sideport ramp and fendering LCAC: 3 LCAC equivalent mission deck spots with services (fueling, wash down, lane barriers, lighting) JP 5 cargo fuel stowage capacity: 450,000 gal. to support LCAC refueling and support of operations ashore (i.e refueling tanker trucks and other vehicles) potable water stowage and production capacity: Stowage capacity of 100,000 gal. and production capacity of 25,000 gal. per day to support both shipboard and mission related fresh water requirements	sideport ramp and fendering LCAC: 3 LCAC equivalent mission deck spots with services (fueling, wash down, lane barriers, lighting) JP 5 cargo fuel stowage capacity: 450,000 gal. to support LCAC refueling and support of operations ashore (i.e refueling tanker trucks and other vehicles) potable water stowage and production capacity: Stowage capacity of 100,000 gal. and production capacity of 25,000 gal. per day to support both shipboard and mission related fresh water requirements	sideport ramp and fendering LCAC: 3 LCAC equivalent mission deck spots with services (fueling, wash down, lane barriers, lighting) JP 5 cargo fuel stowage capacity: 380,000 gal. to support LCAC refueling and support of operations ashore (i.e. refueling tanker trucks and other vehicles) potable water stowage and production capacity: Stowage capacity of 100,000 gal. and production capacity of 25,000 gal. per day to support both shipboard and mission related fresh water requirements	the sideport ramp and fendering LCAC: 3 LCAC equivalent mission deck spots with services (fueling, wash down, lane barriers, lighting) JP 5 cargo fuel stowage capacity: 380,000 gal. to support LCAC refueling and support of operations ashore (i.e. refueling tanker trucks and other vehicles) potable water stowage and production capacity: Stowage capacity of 100,000 gal. and production capacity of 25,000 gal. per day to support both shipboard and mission related fresh water requirements	sideport ramp and fendering LCAC: 3 LCAC equivalent mission deck spots with services (fueling, wash down, lane barriers, lighting) JP 5 cargo fuel stowage capacity: 380,000 gal. to support LCAC refueling and support of operations ashore (i.e. refueling tanker trucks and other vehicles) potable water stowage and production capacity: Stowage capacity of 100,000 gal. and production capacity of 25,000 gal. per day to support both shipboard and mission related fresh water requirements	
<b>Capacity to support ESB operations</b>					
Flight Deck: Four Level I/Class 2	Flight Deck: Four Level I/Class 2	Flight Deck: Two Level I/Class 2	08/12/2016 - Flight	Flight Deck: Two Level I/Class 2	

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Performance Characteristics				
Development APB Objective	Current APB Development Objective/Threshold	Demonstrated Performance (include Date of Demonstration)	Current Estimate/Actual	Deviation
operating spots - Air capable ship with weapon support and defueling. MH53E or MH60 or CV22 or CH47 or AH6 equivalent with additional parking for 4 MH53E or CV22 equivalent aircraft, a hangar sized to fit one MH53E equivalent spread or two MH53E equivalent folded Accommodations: Berthing for a total of 351 personnel comprised of 94 MSC standard and 257 Military standard. Also, stores for 94 MSC at 30/45/90. Stores for 257 Military at 30/45/90 (chill/frozen/dry) Mission deck/cargo capacity to accommodate: - 6 MK-105 mine sleds and 4 7-M RHIBs and 4 9-M RHIBs, and 20 TEUs Or - 4	operating spots – Air capable ship with weapon support and defueling. MH53E or MH60 or CV22 or CH47 or AH6 equivalent with additional parking for 4 MH53E or CV22 equivalent aircraft, a hangar sized to fit one MH53E equivalent spread or two MH53E equivalent folded Accommodations: Berthing for a total of 351 personnel comprised of 94 MSC standard and 257 Military standard. Also, stores for 94 MSC at 30/45/90. Stores for 257 Military at 30/45/90 (chill/frozen/dry) Mission deck/cargo capacity to accommodate: - 6 MK-105 mine sleds and 4 7-M RHIBs and 4 9-M RHIBs, and 20 TEUs Or - 4	operating spots – Air capable ship with weapon support and defueling. MH53E equivalent with additional parking for 2 MH53E equivalent aircraft, a hangar sized to fit one MH53E equivalent spread or two MH53E equivalent folded. Space, weight, and services (S/W/S) to accommodate MH60, CH47, AH6 equivalent aircraft. Accommodations: Berthing for a total of 284 personnel comprised of 34 MSC standard and 250 Military standard. Also, stores for 34 MSC at 30/45/90 (chill/frozen/ dry). Stores for 250 Military at 10/10/10 (chill/frozen/dry) Mission deck/cargo capacity to accommodate: - 4	Deck: Two Level I/Class 2 operating spots - Air capable ship with weapon support and defueling. MH53E equivalent with additional parking for 2 MH53E equivalent aircraft, a hangar sized to fit one MH53E equivalent spread or two MH53E equivalent folded. Space, weight, and services (S/W/S) to accommodate MH60, CH47, AH6 equivalent aircraft. Accommodations: Berthing for a total of 284 personnel comprised of 34 MSC standard and 250 Military standard. Also, stores for 34 MSC at 30/45/90 (chill/frozen/ dry). Stores for 250 Military at 10/10/10 (chill/frozen/dry) Mission deck/cargo	operating spots - Air capable ship with weapon support and defueling. MH53E equivalent with additional parking for 2 MH53E equivalent aircraft, a hangar sized to fit one MH53E equivalent spread or two MH53E equivalent folded. Space, weight, and services (S/W/S) to accommodate MH60, CH47, AH6 equivalent aircraft. Accommodations: Berthing for a total of 284 personnel comprised of 34 MSC standard and 250 Military standard. Also, stores for 34 MSC at 30/45/90 (chill/frozen/ dry). Stores for 250 Military at 10/10/10 (chill/frozen/dry) Mission deck/cargo capacity to accommodate: -

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Performance Characteristics					
Development APB Objective	Current APB Development Objective/Threshold		Demonstrated Performance (include Date of Demonstration)	Current Estimate/Actual	Deviation
12-M boats, and 16 TEUs and 10 ISU 90 (9'X7') with power service hook-up and tiedowns Or - 2 65-ft boats and 2 DCS-M and 16 TEUs and 10 ISU 90 (9'X7') with power service hookup and tiedowns JP 5 and MOGAS cargo fuel stowage capacity: 350,000 gal. JP5 and 4,000 gal. MOGAS. Potable water stowage and production capacity: Same as threshold	16 TEUs and 10 ISU 90 (9'X7') with power service hook-up and tiedowns Or - 2 65-ft boats and 2 DCS-M and 16 TEUs and 10 ISU 90 (9'X7') with power service hookup and tiedowns JP 5 and MOGAS cargo fuel stowage capacity: 350,000 gal. JP5 and 4,000 gal. MOGAS. Potable water stowage and production capacity: Same as threshold	MK-105 mine sleds equivalents and 4 7- M RHIBs and 12 TEUs Or - 4 41ft craft and 12 TEUs S/W for objective value cargo JP 5 and MOGAS cargo fuel stowage capacity: 350,000 gal. JP5 and 110 gal. MOGAS to support aviation and boat operations. S/W for a MOGAS 4,000 gal. jettison able bladder rack system; Services for AFFF only Potable water stowage and production capacity: Stowage capacity of 100,000 gal. and production capacity of 25,000 gal. per day to support both shipboard and mission related fresh water requirements	capacity to accommodate: - 4 MK-105 mine sleds equivalents and 4 7- M RHIBs and 12 TEUs Or - 4 41ft craft and 12 TEUs S/W for objective value cargo JP 5 and MOGAS cargo fuel stowage capacity: 350,000 gal. JP5 and 110 gal. MOGAS to support aviation and boat operations. S/W for a MOGAS 4,000 gal. jettison able bladder rack system; Services for AFFF only Potable water stowage and production capacity: Stowage capacity of 100,000 gal. and production capacity of 25,000 gal. per day to support both shipboard and mission related fresh water requirements	4 MK-105 mine sleds equivalents and 4 7- M RHIBs and 12 TEUs Or - 4 41ft craft and 12 TEUs S/W for objective value cargo JP 5 and MOGAS cargo fuel stowage capacity: 350,000 gal. JP5 and 110 gal. MOGAS to support aviation and boat operations. S/W for a MOGAS 4,000 gal. jettison able bladder rack system; Services for AFFF only Potable water stowage and production capacity: Stowage capacity of 100,000 gal. and production capacity of 25,000 gal. per day to support both shipboard and mission related fresh water requirements	

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Performance Characteristics				
Development APB Objective	Current APB Development Objective/Threshold	Demonstrated Performance (include Date of Demonstration)	Current Estimate/Actual	Deviation
<b>Force Protection</b>				
Crew served weapons mounts and stowage space (volume, accessibility and safety) for these weapons, small arms, ammunition, non-lethal weapons/devices, and personnel protective equipment as routinely provided to MSC ships plus space and weight for point defense weapons system(s)	Crew served weapons mounts and stowage space (volume, accessibility and safety) for these weapons, small arms, ammunition, non-lethal weapons/devices, and personnel protective equipment as routinely provided to MSC ships plus space and weight for point defense weapons system(s)	Crew served weapons mounts and stowage space (volume, accessibility and safety) for these weapons, small arms, ammunition, non-lethal weapons/devices, and personnel protective equipment as routinely provided to MSC ships	09/09/2013 - Crew served weapons mounts and stowage space (volume, accessibility and safety) for these weapons, small arms, ammunition, non-lethal weapons/devices, and personnel protective equipment as routinely provided to MSC ships	Crew served weapons mounts and stowage space (volume, accessibility and safety) for these weapons, small arms, ammunition, non-lethal weapons/devices, and personnel protective equipment as routinely provided to MSC ships
<b>Survivability - ESD</b>				
Chemical and radiological detection system, washdown capability for the ship, personnel decontamination stations, and CBR PPE for the crew. Survival of the ship and crew through sea state 8 while maintaining best heading under power. Damage control repair	Chemical and radiological detection system, washdown capability for the ship, personnel decontamination stations, and CBR PPE for the crew. Survival of the ship and crew through sea state 8 while maintaining best heading under power. Damage control repair	S/W for chemical and radiological detection system, wash down capability for the ship, personnel decontamination stations, and CBR PPE for the crew Survival of the ship, crew, embarked force through sea state 8 (Note 1), while maintaining best heading under power Damage	09/09/2013 - S/W for chemical and radiological detection system, wash down capability for the ship, personnel decontamination stations, and CBR PPE for the crew Survival of the ship, crew, embarked force through sea state 8 (Note 1), while maintaining	S/W for chemical and radiological detection system, wash down capability for the ship, personnel decontamination stations, and CBR PPE for the crew Survival of the ship, crew, embarked force through sea state 8 (Note 1), while maintaining best heading under power Damage

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Performance Characteristics					
Development APB Objective	Current APB Development Objective/Threshold		Demonstrated Performance (include Date of Demonstration)	Current Estimate/Actual	Deviation
lockers: Two damage control repair lockers shall be provided. One locker shall be located forward, and the other locker is to be located aft. The lockers shall be located between the forward and aft collision bulkheads. The DC lockers shall be capable of stowing the required MSC damage control AELs.	lockers: Two damage control repair lockers shall be provided. One locker shall be located forward, and the other locker is to be located aft. The lockers shall be located between the forward and aft collision bulkheads. The DC lockers shall be capable of stowing the required MSC damage control AELs.	control repair lockers: Two damage control repair lockers shall be provided. One locker shall be located forward, and the other locker is to be located aft. The lockers shall be located between the forward and aft collision bulkheads. The DC lockers shall be capable of stowing the required MSC damage control AELs.	best heading under power Damage control repair lockers: Two damage control repair lockers shall be provided. One locker shall be located forward, and the other locker is to be located aft. The lockers shall be located between the forward and aft collision bulkheads. The DC lockers shall be capable of stowing the required MSC damage control AELs.	control repair lockers: Two damage control repair lockers shall be provided. One locker shall be located forward, and the other locker is to be located aft. The lockers shall be located between the forward and aft collision bulkheads. The DC lockers shall be capable of stowing the required MSC damage control AELs.	
<b>Survivability - ESB</b>					
Threshold plus chemical and radiological detection system, wash down capability for the ship, personnel decontamination stations, CBR PPE for the crew Same as threshold Damage control repair lockers:	Threshold plus chemical and radiological detection system, wash down capability for the ship, personnel decontamination stations, CBR PPE for the crew Same as threshold Damage control repair lockers:	S/W for chemical and radiological detection system, wash down capability for the ship, personnel decontamination stations, and CBR PPE for the crew Survival of the ship, crew, embarked force through sea state 8 (Note 1), while maintaining	08/12/2016 - S/W for chemical and radiological detection system, wash down capability for the ship, personnel decontamination stations, and CBR PPE for the crew Survival of the ship, crew, embarked	S/W for chemical and radiological detection system, wash down capability for the ship, personnel decontamination stations, and CBR PPE for the crew Survival of the ship, crew, embarked force through sea state 8 (Note 1), while maintaining	

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Performance Characteristics					
Development APB Objective	Current APB Development Objective/Threshold		Demonstrated Performance (include Date of Demonstration)	Current Estimate/Actual	Deviation
Three damage control repair lockers shall be provided. The two identified in threshold plus a third locker located in the new AFSB house. The DC lockers shall be capable of stowing the required MSC damage control Allowance Equipage Lists	Three damage control repair lockers shall be provided. The two identified in threshold plus a third locker located in the new AFSB house. The DC lockers shall be capable of stowing the required MSC damage control Allowance Equipage Lists	best heading under power Damage control repair lockers: Two damage control repair lockers shall be provided. One locker shall be located forward, and the other locker is to be located aft. The lockers shall be located between the forward and aft collision bulkheads. The DC lockers shall be capable of stowing the required MSC damage control AELs.	force through sea state 8 (Note 1), while maintaining best heading under power Damage control repair lockers: Two damage control repair lockers shall be provided. One locker shall be located forward, and the other locker is to be located aft. The lockers shall be located between the forward and aft collision bulkheads. The DC lockers shall be capable of stowing the required MSC damage control AELs.	best heading under power Damage control repair lockers: Two damage control repair lockers shall be provided. One locker shall be located forward, and the other locker is to be located aft. The lockers shall be located between the forward and aft collision bulkheads. The DC lockers shall be capable of stowing the required MSC damage control AELs.	
<b>Material Availability. Percentage of time ships not in a maintenance availability and the ship can undertake the bulk of its wartime mission (equivalent to Ao). "Bulk of its wartime mission" for MLP is defined as ability to transit at 10 knots, and ability to ballast and control head in support of LCAC operations.</b>					
84%	84%	80%	09/09/2013 - 80%	80%	

**Acronyms and Abbreviations**

- AEL - Allowance Equipage Lists
- AFFF - Aqueous Film Forming Foam
- AFSB - Afloat Forward Sea Base
- AH6 - Attack Helicopter Model 6
- Ao - Operational Availability
- ATO - Authority to Operate
- CBR - Chemical, Biological, and Radiological

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CH47 - Cargo Helicopter Model 47  
CV22 - Cargo Fixed Wing Helicopter Model 22  
DAA - Designated Accrediting Authority  
DC - Damage Control  
DCS-M - Dry Combat Submersible Medium  
DoD – Department of Defense  
DoDAF - Department of Defense Architecture Framework  
ESD - Expeditionary Transfer Dock  
gal - Gallon(s)  
GESP - GIG Enterprise Service Profile  
GIG - Global Information Grid  
IA - Information Assurance  
IATO - Interim Authority to Operate  
IEA - Information Enterprise Architecture  
IP - Internet Protocol  
ISU - International Standard Unit  
IT - Information Technology  
JP - Jet Propellant  
JTRS - Joint Tactical Radio System  
LCAC - Landing Craft Air Cushion  
LOS - Line Of Sight  
M - Meter  
MH53E - Multi-mission Helicopter Model 53E  
MH60 - Multi-mission Helicopter Model 60  
min - Minute(s)  
MK - Mark  
MLP - Mobile Landing Platform  
MOGAS - Mobility Gasoline  
MSC - Military Sealift Command  
NSE - Naval Support Elements  
PPE - Personal Protective Equipment  
RHIB - Rigid Hull Inflatable Boat  
s - Second(s)  
S/W - Space and Weight  
SAASM - Selective Availability Anti-Spoofing Module  
SATCOM - Satellite Communications  
sq. ft. - Square Feet  
TEU - Twenty Foot Equivalent Unit  
TV-1 - Technical Standards Profile  
USMC - United States Marine Corp

**Requirements Source:** CDD approved on March 11, 2013

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### Acquisition Budget Estimate

#### Total Acquisition Cost

Category	Base Year	Development APB	ESB APB Feb 2019		Budget Estimate PB 2023		Deviation
		Objective (BY\$)	Objective (BY\$M)	Threshold (BY\$M)	BY\$	TY\$	
RDT&E	2011	112.0	112.0	123.3	112.0	114.2	
Procurement	2011	4416.9	4416.9	4940.7	4291.3	5005.9	
MILCON	2011						
Acq. O&M	2011						
<b>Total</b>		<b>4528.9</b>	<b>4528.9</b>	<b>5064.0</b>	<b>4403.3</b>	<b>5120.1</b>	
PAUC	2011	566.112			550.413		
APUC	2011	552.112			536.413		

#### Total End Item Quantity

Quantity Category	Current APB Quantity	Current Estimate Quantity
Development	0	0
Procurement	8	8

### Risk and Sensitivity Analysis

Risks and Sensitivity Analysis	
<b>Current Procurement Cost (December 2021)</b>	
1.	None
<b>Original Baseline Estimate (September 2018)</b>	
1.	None
<b>Revised Original Estimate (N/A)</b>	
None	
<b>Current Baseline Estimate (Month YYYY)</b>	
1.	None

**Unit Cost**

*Current Baseline Compared with Current Estimate*

Category (\$M)	Current APB	Current Estimate	% Change	NMC Breach
<b>PAUC</b>				
Cost	4528.9	4403.34	-	-
Quantity	8	8	-	-
Unit Cost	566.112	550.413	-2.8	
<b>APUC</b>				
Cost	4416.9	4291.3	-	-
Quantity	8	8	-	-
Unit Cost	552.112	536.413	-2.8	

*Original Baseline Compared with Current Estimate*

Category (\$M)	Original APB	Current Estimate	% Change	NMC Breach
<b>PAUC</b>				
Cost	1601.6	4403.34	-	-
Quantity	3	8	-	-
Unit Cost	533.867	550.413	+3.00	
<b>APUC</b>				
Cost	1508.0	4291.3	-	-
Quantity	3	8	-	-
Unit Cost	502.667	536.413	+6.29	

## Contracts

Contract Data (\$TYM)		
Contract Number	N00024-19-C-2235	
Effort Number		
Modification Number		
Award Date		
Definitization Date		
Order Number		
CAGE Code/CAGE Legal Name		
Contract Title	Expeditionary Sea Base - ESB 6	
Contract Address	2798 Harbor Drive San Diego, CA 92113	
Contracts/Effort Price, Quantity, and Performance (\$M)		
Initial Target Price \$539.5	Current Target Price \$559.1	
Initial Ceiling Price \$568.4	Current Ceiling Price \$589.1	
Contract's EAC	PM's EAC	
Initial Quantity 1	Current Quantity 1	Delivered Quantity 0
BAC	BCWP	ACWP
BCWS	Cost Variance	Schedule Variance

### Contract Notes:

In accordance with Section 830(a)(2) of the FY 2020 National Defense Authorization Act, which requires a SAR to be submitted "in unclassified form without any designation relating to dissemination control" this SAR section has omitted information that is For Official Use Only (CUI).

### Cost Variance:

Cost Variance reporting is not required on this Fixed Price Incentive Fee (FPIF) contract.

### Schedule Variance:

Schedule Variance reporting is not required on this (FPIF) contract.

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Contract Data (\$TYM)		
Contract Number	N00024-19-C-2235	
Effort Number		
Modification Number		
Award Date		
Definitization Date		
Order Number		
CAGE Code/CAGE Legal Name		
Contract Title	Expeditionary Sea Base - ESB 7	
Contract Address	2798 Harbor Drive San Diego, CA 92113	
Contracts/Effort Price, Quantity, and Performance (\$M)		
Initial Target Price \$550.6	Current Target Price \$552.6	
Initial Ceiling Price \$580.6	Current Ceiling Price \$582.3	
Contract's EAC	PM's EAC	
Initial Quantity 1	Current Quantity 1	Delivered Quantity 0
BAC	BCWP	ACWP
BCWS	Cost Variance	Schedule Variance

**Contract Notes:**

In accordance with Section 830(a)(2) of the FY 2020 National Defense Authorization Act, which requires a SAR to be submitted "in unclassified form without any designation relating to dissemination control" this SAR section has omitted information that is For Official Use Only (CUI).

**Cost Variance:**

Cost Variance reporting is not required on this (FPIF) contract.

**Schedule Variance:**

Schedule Variance reporting is not required on this (FPIF) contract.

## Technologies and Systems Engineering

### *Significant Technical Risks*

Significant Technical Risks	
Current Estimate (December 2021)	
1.	None



### Deliveries and Expenditures

Deliveries				
Delivered to Date	Planned to Date	Actual to Date	Total Quantity	Percent Delivered
Development	0	0	0	0.00%
Production	8	5	8	62.50%
Total Program Quantity Delivered	8	5	8	62.50%

### Expended and Appropriated (TY \$M)

Total Acquisition Cost: 5044.24  
 Expended to Date: 3658.67  
 Percent Expended: 72.53%  
 Total Funding Years: 18  
 Years Appropriated: 14  
 Percent Years Appropriated: 78%  
 Appropriated to Date: 5000.92  
 Percent Appropriated: 99.14%

The above data is current as of April 18, 2022.

### Low Rate Initial Production

Item	Initial LRIP Decision	Current Total LRIP
------	-----------------------	--------------------

Approval Date

Approved Quantity

Reference

Start Year

End Year

**LRIP Note:**

There is no LRIP for this program

## Operating and Support Costs

### Total Program O&S Cost Compared with Baseline

	Current APB Objective (BY\$)	Current APB Threshold (BY\$)	Current Estimate (BY\$)	Current Estimate (TY\$)	Deviation
Total O&S (\$Millions)	9649.9	10614.9	12094.3	20,001.1	

### O&S Cost Breakdown

Category (BY\$ Million)	[Replace w System Name]
Unit-Level Manpower	14.345
Unit Operations	9.932
Maintenance	8.101
Sustaining Support	1.598
Continued System Improvements	.576
Indirect Support	3.243
Total O&S	37.795

**Cost Estimate Source:** January 01, 2020 Program Office Estimate (POE)

#### O&S Cost Notes:

- a. Disposal cost is included in the Operating and Support Cost of the current APB objective and threshold for this program
- b. Sustainment Strategy:  
The Military Sealift Command (MSC) maintains the ESDs utilizing established sustainment practices and maintenance philosophy which reflect the ship's commercial design and construction, utilization of commercial equipment and MSC's two-level maintenance philosophy consisting of shipboard and depot level maintenance. Sustainment efforts follow commercial merchant service practices that emphasize maximizing cost effectiveness and ship availability. Operating Tempo (OPTEMPO) was assumed 10% of In Fleet Time (IFT) steaming underway and 90% of IFT steaming not underway.  
  
MSC and US Navy act as a joint Navy Type Command (TYCOM) and the hybrid crew, based off agreed upon Roles and Responsibilities, maintains the ESBs utilizing established sustainment practices and maintenance philosophy which reflect the ship's commercial design and construction, utilization of commercial equipment and MSC's two-level maintenance philosophy for Hull, Mechanical & Engineering (HM&E) equipment and the Navy's maintenance philosophy for associated Mission Support Equipment. Logistics support includes the use of the Navy and DoD supply systems as well as commercial distribution networks to reduce life.
- c. For Each Acquired System or System Variant:
  - i. Quantity to Sustain: 8
  - ii. First Operational Fiscal Year: 2013
  - iii. Final Operational Fiscal Year: 2065
  - iv. Unit Expected Service Life: 40 years
- d. Antecedent System(s) O&S Costs:
  - i. The ESD and ESB ships represent new capabilities from their original intent and therefore they are without a true antecedent system

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