## **UNCLASSIFIED**



# Selected Acquisition Report (SAR)

RCS: DD-A&T(Q&A)823-335



# Expeditionary Sea Base (ESB\_)

As of FY 2020 President's Budget

Defense Acquisition Management Information Retrieval (DAMIR)

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# **Sensitivity Originator**

No originator information is available at this time.

### Common Acronyms and Abbreviations for MDAP Programs

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(AT&L) - Under Secretary of Defense (Acquisition, Technology and Logistics)

USD(A&S) - Under Secretary of Defense (Acquisition and Sustainment)

ESB\_ December 2018 SAR

## **Program Information**

### **Program Name**

Expeditionary Sea Base (ESB\_)

### **DoD Component**

Navy

## Responsible Office

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Date Assigned: July 6, 2017

### References

### SAR Baseline (Production Estimate)

Assistant Secretary of the Navy (Research, Development & Acquisition) (ASN(RDA)) Approved Acquisition Program Baseline (APB) dated February 05, 2019

### Approved APB

Assistant Secretary of the Navy (Research, Development & Acquisition) (ASN(RDA)) Approved Acquisition Program Baseline (APB) dated February 5, 2019

## 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 C4I spaces for mission planning and execution. The ESB is hybrid CIVMAR/MILDET crew operated as either a USNS for Non International Armed Conflicts (NIAC) or converted to USS for International Armed Conflicts (IAC).

### **Executive Summary**

### **Program Highlights Since Last Report**

This is the initial SAR submission for the ESB Program

The Expeditionary Transfer Dock (ESD) (formerly Mobile Landing Platform (MLP)) / Expeditionary Sea Base (ESB) (formerly MLP Afloat Forward Staging Base (AFSB)) program has procured 5 ships to date (2 ESDs, 3 ESBs), of which four have been delivered. All of the ships are designed and constructed by General Dynamics, National Steel and Shipbuilding Company (GD NASSCO). With the increase in ship quantity, the ESB program's procurement value exceeded the threshold for ACAT II and was therefore reclassified as an ACAT IB program on December 21, 2018.

ESD 1 and 2 as well as ESB 3 are in service. ESB 4 is currently in a Post-Delivery Availability (PDA) following recent delivery in February 2018. ESB 5 is under construction. On July 11, 2018, ESB 5 experienced damage as a result of failure of the NASSCO graving dock structure. Repairs and the last remnants of planned construction are underway, shifting the original delivery date of March 2019 to the current expected delivery date of September 2019.

The Navy's 2016 Force Structure Assessment (FSA) identified the need for three additional ESBs. The FSA is supported by the Consolidated Appropriations Act, 2018 (P.L. 115-141) signed March 23, 2018 which includes one additional ESB (ESB 6), the Department of Defense Appropriations Act, 2019 (P.L. 115-245) signed September 28, 2019, which includes ESB 7 to be procured in FY 2019, and the Navy's FY 2020 PB submission, which includes Advanced Procurement in FY 2022 and Full Funding in FY 2023 for ESB 8; and provides \$38M FY 2020 cost to complete funds for ESB 5. A Request for Proposal (RFP) was released for Long Lead Time Materials for ESB 6, and an Undefinitized Contract Action (UCA) to procure these items was awarded October 16, 2018. An RFP for ESBs 6-8 Detail Design and Construction (DD&C) was released on June 15, 2018. Proposals have been received for the ESB 6-8 base ship plus several capability option packages and are being evaluated. The ESB 6-8 base ship includes threshold requirements for Airborne Mine Countermeasure (AMCM) and Special Operations Force (SOF) capabilities as identified in the original MLP AFSB CDD.

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

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## History of Significant Developments Since Program Initiation

| 15.40          | 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 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      | ASN RDA Congressional Itr describing MPF(F) issued   |
| March 2006     | ADM Approval of MPF(F) program to enter Technology Development phase   |
| August 2006    | Joint Staff J-2 memo Intelligence Certification of MPF(F) CDD  |
| September 2006 | N09J legal opinion stating that MLP may be lawfully designated naval auxiliary   |
| March 2008     | JROC Approval of MPF(F) Increment 1 CDD  |
| July 2008      | Approved 5 June 2008 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 NASSCO   |
| June 2010      | Reviewed and approved MPF(F) KPP for Mission Payload   |
| August 2010    | MPF(F) Increment One CDD Addendum & Enclosure  |
| May 2011       | Designation of MLP as ACAT II.   |
| May 2011       | Approval to Award DD&C for MLP 1 & 2, LLTM MLP 3 SCN Letter  |
| May 2011       | Milestone B approval by 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 AFSB and to incorporate design changes to base MLP 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 SOF capabilities  |
| May 2013       | Delivery of MLP 1  |
| May 2013       | ASN(RDA) approved Abbreviated Acquisition Plan dtd 1 May 2013  |
| May 2013       | ASN(RDA) approved Detail Design & Construction of MLP 3 AFSB.  |
| June 2013      | MLP AFSB 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  |
| December 2014  | OPNAV N95 clarification of roles and responsibilities between MILDET and MSC, Force Protection responsibilities, VERTREP support responsibilities. |
| February 2015  | OPNAV N95 Itr that implements modifications to meet SOF capabilities   |

| May 2015       | MLP w/ CCS OTA Eval 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 dtd 8/26/2016                         |
| September 2016 | MLP AFSB Aviation Requirements Document (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 Key Performance Parameter  |
| December 2016  | ASN(RDA) approval to award and fund contract modification to N00024-16-C-2227                       |
| May 2017       | OTA IOT&E Report OT-C2 Final Report ESB   |
| 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     | Acquisition Program Baseline 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 RFP Released   |
| June 2018      | ESB 6-8 ISTRAP Approved   |
| June 2018      | ESB 6-8 J&A Approved  |

## **Threshold Breaches**

| ies         |   |
|-------------|---|
|             |   |
| е           |   |
| RDT&E       |   |
| Procurement |   |
| MILCON      |   |
| Acq O&M     |   |
|             |   |
| PAUC        |   |
| APUC        |   |
|             | e RDT&E Procurement MILCON Acq O&M PAUC |

## Nunn-McCurdy Breaches

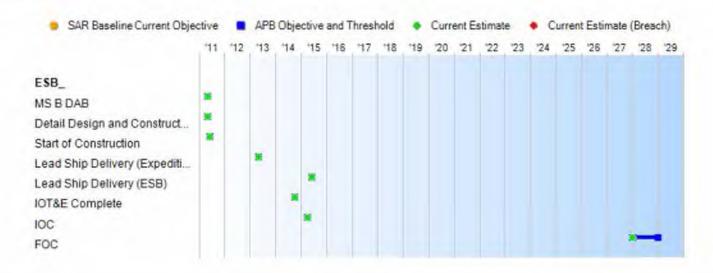
### **Current UCR Baseline**

PAUC None APUC None

## Original UCR Baseline

PAUC None APUC None

### Schedule



| Schedule Events                                  |  |          |  |          |  |  |  |  |
|--|--|----------|--|----------|--|--|--|--|
| Events   | vents SAR Baseline Production Estimate |          | Current APB<br>Production<br>Objective/Threshold |          |  |  |  |  |
| 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 (Expeditionary Transfer Dock) | May 2013                               | May 2013 | May 2013   | May 2013 |  |  |  |  |
| Lead Ship Delivery (ESB)                         | Jun 2015                               | Jun 2015 | Jun 2015   | Jun 2015 |  |  |  |  |
| IOT&E Complete                                   | 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 |  |  |  |  |

## **Change Explanations**

None

#### Notes

ESB 5 - Delivery September 2019, OWLD November 2020

### Performance

| 0488   |   |   |   |   |
|--|---|---|---|---|
| SAR Baseline<br>Production<br>Estimate   | Current APB Production Objective/Threshold  |   | Demonstrated<br>Performance   | Current<br>Estimate   |
| Net Ready-KPP Attri  | bute - ESB  |   |   |   |
| 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 - 1s (time to connect) SATCOM Voice Measure - 1s (time to connect) SATCOM Data Measure - 2s (time to connect) Exchange Information: Information: Information Element - Identify Target, Engage Target, Destroy Target Measure - 10s (Time to send and receive information to/from external operational performer) | 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 to/from external operational performer) | 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 to/from external operational performer) | & 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 | 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 to/from external operational performe |

information exchanges to enable a Net-Centric military capability.

Systems must fully support execution of all operational activities and information exchanges identified in the DoD Enterprise Architecture and

Systems must fully support execution of all operational activities and information exchanges identified in the DoD Enterprise Architecture and

Systems must fully support execution of Joint critical operational activities and information exchanges identified in the DoD Enterprise Architecture and

09/09/2013 - Systems Systems must fully must fully support execution of all operational activities and information exchanges identified in the DoD Enterprise Architecture and

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 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, integrity, authentication, confidentiality, and non-repudiation, and issuance of an ATO by the DAA, and 5) Supportability requirements to include SAASM, Spectrum and JTRS

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 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, integrity. authentication, confidentiality, and non-repudiation, and issuance of an ATO by the DAA, and 5) Supportability requirements to include SAASM, Spectrum and JTRS

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 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 availability, integrity. authentication, confidentiality, and non-repudiation, and issuance of an IATO or ATO by the DAA, and 5) Supportability requirements to include SAASM,

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 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, integrity, authentication. confidentiality, and non-repudiation, and issuance of an ATO by the DAA, and 5) Supportability requirements to include SAASM. Spectrum and JTRS

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| requirements.  | requirements.  | Spectrum and JTRS requirements.  | requirements.   | requirements.   |
|--|--|--|---|---|
| Capacity to support I  | ESD operations   |  |   |   |
| 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 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 15,000 gal. per day to support both shipboard and mission related fresh water requirements | 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 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 | 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 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 | 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 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 | 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 sideport ramp and fendering LCAC: 3 LCAC equivalent mission deck spots with services (fueling wash down, lane barriers, lighting) JP scargo 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 |
| Capacity to support I  | ESB operations   |  |   |   |
| Flight Deck: Four<br>Level I/Class 2<br>operating spots - Air<br>capable ship with<br>weapon support and   | Flight Deck: Four<br>Level I/Class 2<br>operating spots - Air<br>capable ship with<br>weapon support and   | Flight Deck: Two<br>Level I/Class 2<br>operating spots - Air<br>capable ship with<br>weapon support and  | 08/12/2016 -Flight<br>Deck: Two Level<br>I/Class 2 operating<br>spots - Air capable<br>ship with weapon   | Flight Deck: Two<br>Level I/Class 2<br>operating spots - Air<br>capable ship with<br>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 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 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 hook-up 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

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 hangar sized to fit one spread or two MH53E 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 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 hook-up 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

defueling, MH53E equivalent with additional parking for 2 MH53E equivalent aircraft, a hangar sized to fit one MH53E equivalent 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 -105 mine sleds equivalents and 47-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

support and defueling. defueling. MH53E MH53E equivalent with additional parking for 2 MH53E equivalent aircraft, a hangar sized to fit one 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 -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

equivalent with additional parking for 2 MH53E equivalent aircraft, a hangar 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 MK accommodate: - 4 MK 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<br>mission related fresh<br>water requirements   | shipboard and<br>mission related fresh<br>water requirements  | shipboard and<br>mission related fresh<br>water requirements   |
|--|--|--|---|--|
| Force Protection   |  |  |   |  |
| 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   |
| Survivability - ESD  |  |  |   |  |
| 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 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. | 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 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. | 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 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. | 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 | 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 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. |

### Survivability - ESB

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: 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

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: Three damage control Three damage control (Note 1), while 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

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 Survival of the ship, through sea state 8 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 aft. The lockers shall be located between the forward and aft collision bulkheads. The DC lockers shall be capable of stowing the required MSC

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 crew, embarked force through sea state 8 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 locker is to be located forward, and the other locker is to be located 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 damage control AELs. the required MSC damage control AELs.

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 (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 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.

Materiel 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.

84%

84%

80%

09/09/2013 - 80%

80%

#### Requirements Reference

CDD approved on March 11, 2013

### Change Explanations

None

### **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

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

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 - Interum 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

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 - Unites States Marine Corp

# **Track to Budget**

| &E       |      |      |                                       |          |
|----------|------|------|---------------------------------------|----------|
| Appr     | 1    | BA   | PE                                    |          |
| Navy     | 1319 | 05   | 0604567N                              |          |
|          | Proj | ect  | Name                                  |          |
|          | 1803 |      | Ship Contract Design/Live Fire T&E    | (Sunk)   |
|          | 3374 |      | MPF (F)                               | (Sunk)   |
| Navy     | 4557 | 04   | 0408042N                              |          |
|          | Proj | ect  | Name                                  |          |
|          | 0900 |      | MLP R&D                               | (Sunk)   |
|          |      |      |                                       |          |
| curement |      |      |                                       |          |
| Appr     | 1    | BA   | PE                                    |          |
| Navy     | 1611 | 03   | 0204411N                              |          |
|          | Line | ltem | Name                                  |          |
|          | 3039 |      | Expeditionary Sea Base (ESB)          |          |
| Navy     | 1611 | 05   | 0204411N                              |          |
|          | Line | ltem | Name                                  |          |
|          | 5110 |      | Outfitting                            | (Shared) |
| Navy     | 1611 | 03   | 0204411N                              |          |
|          | Line | Item | Name                                  |          |
|          | 5300 |      | SCN ESB Completion of PY Shipbuilding | (Shared) |
| Navy     | 4557 | 01   | 0408042N                              |          |
| 7.705    | Line | Item | Name                                  |          |
|          | 0401 |      | MLP Procurement                       | (Sunk)   |
|          | 5000 |      | Outfitting and Post Delivery          | (Sunk)   |

## **Cost and Funding**

## **Cost Summary**

|                |  | To                                | otal Acquis | ition Cost          |  |  |                     |  |  |
|----------------|--|-----------------------------------|-------------|---------------------|--|--|---------------------|--|--|
| Appropriation  | B\                                     | Y 2011 SM                         |             | BY 2011 \$M         | TY \$M                                 |  |                     |  |  |
|                | SAR Baseline<br>Production<br>Estimate | Current<br>Produc<br>Objective/Ti | tion        | Current<br>Estimate | SAR Baseline<br>Production<br>Estimate | Current APB<br>Production<br>Objective | Current<br>Estimate |  |  |
| RDT&E          | 112.0                                  | 112.0                             | 123.3       | 111.9               | 114.3                                  | 114.3                                  | 114.3               |  |  |
| Procurement    | 4416.9                                 | 4416.9                            | 4940.7      | 4368.6              | 5081.9                                 | 5081.9                                 | 5073.8              |  |  |
| Flyaway        |  |                                   |             | 4131.1              |  |  | 4786.3              |  |  |
| Recurring      |  |                                   | 24          | 4032.6              |  |  | 4686.2              |  |  |
| Non Recurring  |  | +-                                |             | 98.5                | 177                                    |  | 100.1               |  |  |
| Support        |  |                                   |             | 237.5               | 44                                     |  | 287.5               |  |  |
| Other Support  |  |                                   |             | 237.5               |  |  | 287.5               |  |  |
| Initial Spares | - 70                                   | 122                               | - 44        | 0.0                 |  |  | 0.0                 |  |  |
| MILCON         | 0.0                                    | 0.0                               | 0.0         | 0.0                 | 0.0                                    | 0.0                                    | 0.0                 |  |  |
| Acq O&M        | 0.0                                    | 0.0                               | 0.0         | 0.0                 | 0.0                                    | 0.0                                    | 0.0                 |  |  |
| Total          | 4528.9                                 | 4528.9                            | N/A         | 4480.5              | 5196.2                                 | 5196.2                                 | 5188.1              |  |  |

## **Current APB Cost Estimate Reference**

Business Case Analysis (BCA) for the procurement of Expeditionary Sea Base (ESB 6,7, & 8) dated March 28, 2018

## **Cost Notes**

The BCA was conducted to support the sole source acquisition of ESB 6, ESB 7 and ESB 8.

|             | Tot                                    | al Quantity               |                  |
|-------------|--|---------------------------|------------------|
| Quantity    | SAR Baseline<br>Production<br>Estimate | Current APB<br>Production | Current Estimate |
| RDT&E       | 0                                      | 0                         | 0                |
| Procurement | 8                                      | 8                         | 8                |
| Total       | 8                                      | 8                         | 8                |

# **Cost and Funding**

# **Funding Summary**

|               | Appropriation Summary FY 2020 President's Budget / December 2018 SAR (TY\$ M) |         |         |         |         |         |         |                |        |
|---------------|---|---------|---------|---------|---------|---------|---------|----------------|--------|
| Appropriation | Prior   | FY 2019 | FY 2020 | FY 2021 | FY 2022 | FY 2023 | FY 2024 | To<br>Complete | Total  |
| RDT&E         | 114.3   | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0            | 114.3  |
| Procurement   | 3563.6  | 674.1   | 54.1    | 21.0    | 161.2   | 559.4   | 11.5    | 28.9           | 5073.8 |
| MILCON        | 0.0   | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0            | 0.0    |
| Acq O&M       | 0.0   | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0            | 0.0    |
| PB 2020 Total | 3677.9  | 674.1   | 54.1    | 21.0    | 161.2   | 559.4   | 11.5    | 28.9           | 5188.1 |
|               |   |         | 44      |         |         |         | 44      |                | 44     |

|               | Quantity Summary  FY 2020 President's Budget / December 2018 SAR (TY\$ M) |       |            |            |            |            |            |            |                |       |  |
|---------------|---|-------|------------|------------|------------|------------|------------|------------|----------------|-------|--|
| Quantity      | Undistributed   | Prior | FY<br>2019 | FY<br>2020 | FY<br>2021 | FY<br>2022 | FY<br>2023 | FY<br>2024 | To<br>Complete | Total |  |
| Development   | 0   | 0     | 0          | 0          | 0          | 0          | 0          | 0          | 0              | 0     |  |
| Production    | 0   | 6     | 1          | 0          | 0          | 0          | 1          | 0          | 0              | 8     |  |
| PB 2020 Total | 0   | 6     | 1          | 0          | 0          | 0          | 1          | 0          | 0              | 8     |  |
|               |   |       | 44         |            |            |            |            | 125        | - 4            |       |  |

# **Cost and Funding**

# **Annual Funding By Appropriation**

| Annual Funding 1319   RDT&E   Research, Development, Test, and Evaluation, Navy |          |                                  |   |                             |                  |                  |                  |  |  |  |
|---|----------|----------------------------------|---|-----------------------------|------------------|------------------|------------------|--|--|--|
|   |          | TY \$M                           |   |                             |                  |                  |                  |  |  |  |
| Fiscal<br>Year  | Quantity | End Item<br>Recurring<br>Flyaway | Non End<br>Item<br>Recurring<br>Flyaway | Non<br>Recurring<br>Flyaway | Total<br>Flyaway | Total<br>Support | Total<br>Program |  |  |  |
| 2012  | (4)      | 4                                |   |                             |                  |                  | 8.0              |  |  |  |
| 2013  |          |                                  |   |                             |                  |                  |                  |  |  |  |
| 2014  | 7        |                                  |   |                             |                  |                  |                  |  |  |  |
| 2015  | 144      |                                  |   |                             |                  |                  |                  |  |  |  |
| 2016  |          |                                  | 4-                                      |                             |                  |                  |                  |  |  |  |
| 2017  |          |                                  | 5-2                                     |                             | 124              |                  | 0.7              |  |  |  |
| 2018  | -        | **                               |   |                             |                  |                  | 0.5              |  |  |  |
| Subtotal  |          | (44)                             | 124                                     | 142                         | 1,441            |                  | 9.2              |  |  |  |

|                |          | BY 2011 \$M                      |   |                             |                  |                  |                  |  |  |
|----------------|----------|----------------------------------|---|-----------------------------|------------------|------------------|------------------|--|--|
| Fiscal<br>Year | Quantity | End Item<br>Recurring<br>Flyaway | Non End<br>Item<br>Recurring<br>Flyaway | Non<br>Recurring<br>Flyaway | Total<br>Flyaway | Total<br>Support | Total<br>Program |  |  |
| 2012           | . 77     | **                               |   |                             |                  | FF.              | 7.3              |  |  |
| 2013           |          |                                  |   | **                          |                  | **               | ,                |  |  |
| 2014           |          |                                  | 177                                     | 1                           | 95               |                  | -                |  |  |
| 2015           | **       |                                  | ( <del>11</del> )                       |                             | 99               |                  |                  |  |  |
| 2016           |          |                                  |   |                             |                  |                  | -                |  |  |
| 2017           |          |                                  |   | ++                          |                  | **               | 0.6              |  |  |
| 2018           |          |                                  |   |                             |                  |                  | 0.4              |  |  |
| Subtotal       | 1,44     | +4                               | 144                                     |                             |                  |                  | 8.7              |  |  |

|                | Annual Funding<br>4557   RDT&E   National Defense Sealift Fund, Navy |                                  |   |                             |                   |                  |                  |  |  |  |  |
|----------------|--|----------------------------------|---|-----------------------------|-------------------|------------------|------------------|--|--|--|--|
|                |  | TY \$M                           |   |                             |                   |                  |                  |  |  |  |  |
| Fiscal<br>Year | Quantity   | End Item<br>Recurring<br>Flyaway | Non End<br>Item<br>Recurring<br>Flyaway | Non<br>Recurring<br>Flyaway | Total<br>Flyaway  | Total<br>Support | Total<br>Program |  |  |  |  |
| 2008           | 177  |                                  |   |                             | -                 |                  | 18.1             |  |  |  |  |
| 2009           |  | -                                |   | **                          |                   |                  | 12.9             |  |  |  |  |
| 2010           | -  |                                  | 199                                     | 144                         | 199               |                  | 32.7             |  |  |  |  |
| 2011           |  |                                  |   |                             | ( <del>40</del> ) | **               | 3.5              |  |  |  |  |
| 2012           |  |                                  | -                                       |                             |                   |                  | 4.9              |  |  |  |  |
| 2013           |  |                                  |   | -                           |                   | **               | 4.0              |  |  |  |  |
| 2014           |  |                                  |   |                             |                   |                  | 18.7             |  |  |  |  |
| 2015           |  | 244                              | · ·                                     |                             |                   |                  | 8.5              |  |  |  |  |
| 2016           | 44   |                                  |   | -44                         | - 44              |                  | 1.8              |  |  |  |  |
| Subtotal       | 1,64   | 44)                              |   |                             | (44)              |                  | 105.1            |  |  |  |  |

| Annual Funding<br>4557   RDT&E   National Defense Sealift Fund, Navy |          |                                  |   |                             |                  |                  |                  |  |  |  |
|--|----------|----------------------------------|---|-----------------------------|------------------|------------------|------------------|--|--|--|
|  |          | BY 2011 \$M                      |   |                             |                  |                  |                  |  |  |  |
| Fiscal<br>Year   | Quantity | End Item<br>Recurring<br>Flyaway | Non End<br>Item<br>Recurring<br>Flyaway | Non<br>Recurring<br>Flyaway | Total<br>Flyaway | Total<br>Support | Total<br>Program |  |  |  |
| 2008   | 175      |                                  |   |                             |                  |                  | 18.6             |  |  |  |
| 2009   |          |                                  |   | **                          |                  |                  | 13.1             |  |  |  |
| 2010   | -        |                                  | 199                                     | 1                           |                  |                  | 32.7             |  |  |  |
| 2011   |          |                                  |   |                             |                  | **               | 3.4              |  |  |  |
| 2012   |          |                                  |   |                             |                  |                  | 4.7              |  |  |  |
| 2013   |          | -                                | -                                       | -                           | -                | **               | 3.8              |  |  |  |
| 2014   |          |                                  |   |                             |                  |                  | 17.5             |  |  |  |
| 2015   |          | 244                              | -                                       |                             |                  |                  | 7.8              |  |  |  |
| 2016   |          |                                  |   |                             | - 24             |                  | 1.6              |  |  |  |
| Subtotal   | 1,000    | 44                               |   |                             | (24)             |                  | 103.2            |  |  |  |

|                | Annual Funding 1611   Procurement   Shipbuilding and Conversion, Navy |                                  |   |                             |                  |                  |                  |  |  |  |  |
|----------------|---|----------------------------------|---|-----------------------------|------------------|------------------|------------------|--|--|--|--|
|                |   | TY \$M                           |   |                             |                  |                  |                  |  |  |  |  |
| Fiscal<br>Year | Quantity  | End Item<br>Recurring<br>Flyaway | Non End<br>Item<br>Recurring<br>Flyaway | Non<br>Recurring<br>Flyaway | Total<br>Flyaway | Total<br>Support | Total<br>Program |  |  |  |  |
| 2014           | 1   | 603.3                            |   | 144                         | 603.3            | ře.              | 603.3            |  |  |  |  |
| 2015           |   |                                  |   | **                          |                  |                  | -                |  |  |  |  |
| 2016           | 1   | 635.0                            | 175                                     |                             | 635.0            | 4.0              | 639.             |  |  |  |  |
| 2017           |   |                                  |   |                             |                  | 18.0             | 18.0             |  |  |  |  |
| 2018           | 1   | 635.0                            |   |                             | 635.0            | 12.3             | 647.             |  |  |  |  |
| 2019           | 1   | 647.0                            |   |                             | 647.0            | 27.1             | 674.             |  |  |  |  |
| 2020           |   | 38.0                             |   |                             | 38.0             | 16.1             | 54.              |  |  |  |  |
| 2021           |   |                                  |   | -                           |                  | 21.0             | 21.              |  |  |  |  |
| 2022           |   | 127.3                            |   |                             | 127.3            | 33.9             | 161.             |  |  |  |  |
| 2023           | 1   | 549.0                            |   |                             | 549.0            | 10.4             | 559.4            |  |  |  |  |
| 2024           |   |                                  |   |                             |                  | 11.5             | 11.9             |  |  |  |  |
| 2025           |   |                                  |   |                             |                  | 20.1             | 20.              |  |  |  |  |
| 2026           |   | -                                |   |                             |                  | 8.8              | 8.8              |  |  |  |  |
| Subtotal       | 5   | 3234.6                           |   |                             | 3234.6           | 183.2            | 3417.8           |  |  |  |  |

| Annual Funding 1611   Procurement   Shipbuilding and Conversion, Navy |          |                                  |   |                             |                  |                  |                  |  |  |  |
|---|----------|----------------------------------|---|-----------------------------|------------------|------------------|------------------|--|--|--|
|   |          | BY 2011 \$M                      |   |                             |                  |                  |                  |  |  |  |
| Fiscal<br>Year  | Quantity | End Item<br>Recurring<br>Flyaway | Non End<br>Item<br>Recurring<br>Flyaway | Non<br>Recurring<br>Flyaway | Total<br>Flyaway | Total<br>Support | Total<br>Program |  |  |  |
| 2014  | 1        | 530.1                            |   | 1                           | 530.1            | **               | 530.1            |  |  |  |
| 2015  |          |                                  |   | **                          |                  |                  | -                |  |  |  |
| 2016  | 1        | 535.5                            | 177                                     |                             | 535.5            | 3.4              | 538.9            |  |  |  |
| 2017  |          |                                  |   |                             |                  | 14.9             | 14.9             |  |  |  |
| 2018  | 1        | 514.3                            |   |                             | 514.3            | 10.0             | 524.3            |  |  |  |
| 2019  | 1        | 513.7                            |   |                             | 513.7            | 21.6             | 535.3            |  |  |  |
| 2020  |          | 29.6                             |   |                             | 29.6             | 12.5             | 42.1             |  |  |  |
| 2021  |          |                                  |   |                             |                  | 16.0             | 16.0             |  |  |  |
| 2022  |          | 95.3                             | 122                                     | 3-4                         | 95.3             | 25.3             | 120.6            |  |  |  |
| 2023  | 1        | 402.7                            | 122                                     |                             | 402.7            | 7.7              | 410.4            |  |  |  |
| 2024  |          | P4                               |   | ,02                         |                  | 8.3              | 8.3              |  |  |  |
| 2025  |          |                                  | 122                                     |                             |                  | 14.2             | 14.2             |  |  |  |
| 2026  |          | -                                |   |                             |                  | 6.1              | 6.1              |  |  |  |
| Subtotal  | 5        | 2621.2                           |   | 144                         | 2621.2           | 140.0            | 2761.2           |  |  |  |

| Cost Quantity Information 1611   Procurement   Shipbuilding and Conversion, Navy |          |  |  |  |  |  |  |
|--|----------|--|--|--|--|--|--|
| Fiscal<br>Year   | Quantity | End Item Recurring Flyaway (Aligned With Quantity) BY 2011 \$M |  |  |  |  |  |
| 2014   | 1        | 530.1  |  |  |  |  |  |
| 2015   |          |  |  |  |  |  |  |
| 2016   | 1        | 565.1  |  |  |  |  |  |
| 2017   | -        |  |  |  |  |  |  |
| 2018   | 1        | 514.3  |  |  |  |  |  |
| 2019   | 1        | 513.7  |  |  |  |  |  |
| 2020   | 1,221    |  |  |  |  |  |  |
| 2021   |          |  |  |  |  |  |  |
| 2022   |          | 122  |  |  |  |  |  |
| 2023   | 1        | 498.0  |  |  |  |  |  |
| 2024   |          |  |  |  |  |  |  |
| 2025   | 120      |  |  |  |  |  |  |
| 2026   | 145      |  |  |  |  |  |  |
| Subtotal   | 5        | 2621.2   |  |  |  |  |  |

|                | Annual Funding<br>4557   Procurement   National Defense Sealift Fund, Navy |                                  |   |                             |                  |                  |                  |  |  |  |  |
|----------------|--|----------------------------------|---|-----------------------------|------------------|------------------|------------------|--|--|--|--|
|                |  |                                  | TY \$M                                  |                             |                  |                  |                  |  |  |  |  |
| Fiscal<br>Year | Quantity   | End Item<br>Recurring<br>Flyaway | Non End<br>Item<br>Recurring<br>Flyaway | Non<br>Recurring<br>Flyaway | Total<br>Flyaway | Total<br>Support | Total<br>Program |  |  |  |  |
| 2010           |  | 82.6                             |   | 37.1                        | 119.7            |                  | 119.7            |  |  |  |  |
| 2011           | 2  | 825.9                            |   | 49.0                        | 874.9            |                  | 874.9            |  |  |  |  |
| 2012           | 1  | 372.0                            | 177                                     | 14.0                        | 386.0            | 6.2              | 392.             |  |  |  |  |
| 2013           |  | 148.5                            | ( <del>11</del> )                       |                             | 148.5            | 32.0             | 180.             |  |  |  |  |
| 2014           |  | 22.6                             |   |                             | 22.6             | 33.3             | 55.9             |  |  |  |  |
| 2015           |  |                                  |   |                             |                  | 17.3             | 17.3             |  |  |  |  |
| 2016           |  | -                                | -                                       |                             |                  | 15.5             | 15.5             |  |  |  |  |
| Subtotal       | 3  | 1451.6                           | 1                                       | 100.1                       | 1551.7           | 104.3            | 1656.0           |  |  |  |  |

| Annual Funding<br>4557   Procurement   National Defense Sealift Fund, Navy |          |                                  |   |                             |                  |                  |                  |  |  |  |  |
|--|----------|----------------------------------|---|-----------------------------|------------------|------------------|------------------|--|--|--|--|
|  |          |                                  |   | BY 2011 \$N                 | ı                |                  |                  |  |  |  |  |
| Fiscal<br>Year   | Quantity | End Item<br>Recurring<br>Flyaway | Non End<br>Item<br>Recurring<br>Flyaway | Non<br>Recurring<br>Flyaway | Total<br>Flyaway | Total<br>Support | Total<br>Program |  |  |  |  |
| 2010   |          | 82.7                             |   | 37.1                        | 119.8            |                  | 119.8            |  |  |  |  |
| 2011   | 2        | 808.3                            |   | 47.9                        | 856.2            |                  | 856.2            |  |  |  |  |
| 2012   | 1        | 358.3                            | 177                                     | 13.5                        | 371.8            | 6.0              | 377.             |  |  |  |  |
| 2013   |          | 141.0                            |   |                             | 141.0            | 30.3             | 171.3            |  |  |  |  |
| 2014   |          | 21.1                             |   |                             | 21.1             | 31.2             | 52.3             |  |  |  |  |
| 2015   |          |                                  |   |                             |                  | 16.0             | 16.0             |  |  |  |  |
| 2016   |          | -                                | -                                       |                             | -                | 14.0             | 14.0             |  |  |  |  |
| Subtotal   | 3        | 1411.4                           | (+-)                                    | 98.5                        | 1509.9           | 97.5             | 1607.4           |  |  |  |  |

| Cos<br>4557   Procurement<br>Fiscal<br>Year | t Quantity Information   National Defense S |        |
|---|---|--------|
| 2010  |   |        |
| 2011  | 2   | 891.0  |
| 2012  | 1   | 520.4  |
| 2013  |   | -      |
| 2014  |   | -      |
| 2015  | -   | 1-4    |
| 2016  |   |        |
| Subtotal                                    | 3   | 1411.4 |
|   |   |        |

## **Low Rate Initial Production**

There is no LRIP for this program.

# **Foreign Military Sales**

None

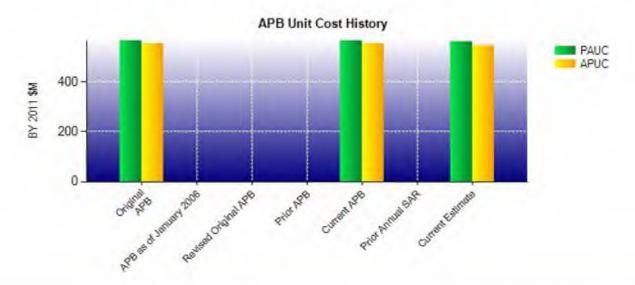
## **Nuclear Costs**

None

## **Unit Cost**

| Current UCR Baseline and Current Estimate (Base-Year Dollars) |  |             |          |  |  |  |  |  |  |
|---|--|-------------|----------|--|--|--|--|--|--|
|   | BY 2011 \$M  | BY 2011 \$M |          |  |  |  |  |  |  |
| Item  | Current UCR Baseline (Feb 2019 APB)  Current Estimate (Dec 2018 SAR) |             | % Change |  |  |  |  |  |  |
| Program Acquisition Unit Cost                                 |  |             |          |  |  |  |  |  |  |
| Cost  | 4528.9   | 4480.5      |          |  |  |  |  |  |  |
| Quantity  | 8  | 8           |          |  |  |  |  |  |  |
| Unit Cost   | 566.112  | 560.062     | -1.07    |  |  |  |  |  |  |
| Average Procurement Unit Cost                                 |  |             |          |  |  |  |  |  |  |
| Cost  | 4416.9   | 4368.6      |          |  |  |  |  |  |  |
| Quantity  | 8  | 8           |          |  |  |  |  |  |  |
| Unit Cost   | 552.112  | 546.075     | -1.09    |  |  |  |  |  |  |

| Original UCR Base                       | eline and Current Estimate                 | (Base-Year Dollars)                |          |  |
|---|--|------------------------------------|----------|--|
| 100000000000000000000000000000000000000 | BY 2011 \$M                                | BY 2011 \$M                        | % Change |  |
| Item                                    | Original UCR<br>Baseline<br>(Feb 2019 APB) | Current Estimate<br>(Dec 2018 SAR) |          |  |
| Program Acquisition Unit Cost           |  |                                    |          |  |
| Cost                                    | 4528.9                                     | 4480.5                             |          |  |
| Quantity                                | 8  | 8                                  |          |  |
| Unit Cost                               | 566.112                                    | 560.062                            | -1.07    |  |
| Average Procurement Unit Cost           |  |                                    |          |  |
| Cost                                    | 4416.9                                     | 4368.6                             |          |  |
| Quantity                                | 8  | 8                                  |          |  |
| Unit Cost                               | 552.112                                    | 546.075                            | -1.09    |  |



| APB Unit Cost History  |          |         |         |         |         |  |  |  |
|------------------------|----------|---------|---------|---------|---------|--|--|--|
| No.                    | 800      | BY 2011 | \$M     | TY \$M  |         |  |  |  |
| Item                   | Date     | PAUC    | APUC    | PAUC    | APUC    |  |  |  |
| Original APB           | Feb 2019 | 566.112 | 552.112 | 649.525 | 635.238 |  |  |  |
| APB as of January 2006 | N/A      | N/A     | N/A     | N/A     | N/A     |  |  |  |
| Revised Original APB   | N/A      | N/A     | N/A     | N/A     | N/A     |  |  |  |
| Prior APB              | N/A      | N/A     | N/A     | N/A     | N/A     |  |  |  |
| Current APB            | Feb 2019 | 566.112 | 552.112 | 649.525 | 635.238 |  |  |  |
| Prior Annual SAR       | N/A      | N/A     | N/A     | N/A     | N/A     |  |  |  |
| Current Estimate       | Dec 2018 | 560.062 | 546.075 | 648.512 | 634.225 |  |  |  |

## **SAR Unit Cost History**

| PAUC                   |      |     |     | Cha | nges |     |     |       | PAUC                |
|------------------------|------|-----|-----|-----|------|-----|-----|-------|---------------------|
| Production<br>Estimate | Econ | Qty | Sch | Eng | Est  | Oth | Spt | Total | Current<br>Estimate |

| Initial APUC<br>Production<br>Estimate | Changes |     |     |     |     |     |     | APUC  |
|--|---------|-----|-----|-----|-----|-----|-----|-------|
|  | Econ    | Qty | Sch | Eng | Est | Oth | Spt | Total |

| SAR Baseline History |                             |                                |                               |                     |  |  |  |  |
|----------------------|-----------------------------|--------------------------------|-------------------------------|---------------------|--|--|--|--|
| Item                 | SAR<br>Planning<br>Estimate | SAR<br>Development<br>Estimate | SAR<br>Production<br>Estimate | Current<br>Estimate |  |  |  |  |
| Milestone A          | N/A                         | N/A                            | N/A                           | N/A                 |  |  |  |  |
| Milestone B          | N/A                         | N/A                            | May 2011                      | May 2011            |  |  |  |  |
| Milestone C          | N/A                         | N/A                            | N/A                           | N/A                 |  |  |  |  |
| IOC                  | N/A                         | N/A                            | Apr 2015                      | Apr 2015            |  |  |  |  |
| Total Cost (TY \$M)  | N/A                         | N/A                            | 5196.2                        | 5188.1              |  |  |  |  |
| Total Quantity       | N/A                         | N/A                            | 8                             | 8                   |  |  |  |  |
| PAUC                 | N/A                         | N/A                            | 649.525                       | 648.512             |  |  |  |  |
|                      |                             |                                |                               |                     |  |  |  |  |

## **Cost Variance**

|                                    | Summary TY \$M |             |               |        |  |  |  |  |  |  |
|------------------------------------|----------------|-------------|---------------|--------|--|--|--|--|--|--|
| Item                               | RDT&E          | Procurement | MILCON        | Total  |  |  |  |  |  |  |
| SAR Baseline (Production Estimate) | 114.3          | 5081.9      | -             | 5196.2 |  |  |  |  |  |  |
| Previous Changes                   |                |             |               |        |  |  |  |  |  |  |
| Economic                           |                |             |               | -      |  |  |  |  |  |  |
| Quantity                           | **             |             | **            | -      |  |  |  |  |  |  |
| Schedule                           | **             |             | <del>19</del> | -      |  |  |  |  |  |  |
| Engineering                        |                |             |               |        |  |  |  |  |  |  |
| Estimating                         |                |             |               |        |  |  |  |  |  |  |
| Other                              |                |             |               |        |  |  |  |  |  |  |
| Support                            |                |             | **            |        |  |  |  |  |  |  |
| Subtotal                           | -24            |             | 22            |        |  |  |  |  |  |  |
| Current Changes                    |                |             |               |        |  |  |  |  |  |  |
| Economic                           | +0.1           | +44.7       |               | +44.8  |  |  |  |  |  |  |
| Quantity                           |                |             | 2             |        |  |  |  |  |  |  |
| Schedule                           |                | +14.4       |               | +14.4  |  |  |  |  |  |  |
| Engineering                        |                |             |               |        |  |  |  |  |  |  |
| Estimating                         | -0.1           | -20.6       |               | -20.7  |  |  |  |  |  |  |
| Other                              |                |             | 44            |        |  |  |  |  |  |  |
| Support                            |                | -46.6       |               | -46.6  |  |  |  |  |  |  |
| Subtotal                           |                | -8.1        | **            | -8.1   |  |  |  |  |  |  |
| Total Changes                      | *              | -8.1        | 77.           | -8.1   |  |  |  |  |  |  |
| CE - Cost Variance                 | 114.3          | 5073.8      | #             | 5188.1 |  |  |  |  |  |  |
| CE - Cost & Funding                | 114.3          | 5073.8      | **            | 5188.1 |  |  |  |  |  |  |

| Summary BY 2011 \$M                |       |                |              |        |  |  |  |  |
|------------------------------------|-------|----------------|--------------|--------|--|--|--|--|
| Item                               | RDT&E | Procurement    | MILCON       | Total  |  |  |  |  |
| SAR Baseline (Production Estimate) | 112.0 | 4416.9         | -            | 4528.9 |  |  |  |  |
| Previous Changes                   |       |                |              |        |  |  |  |  |
| Economic                           | 94    |                |              | -      |  |  |  |  |
| Quantity                           | 44    | <del></del>    | 22           | - C-   |  |  |  |  |
| Schedule                           | **    |                |              | -      |  |  |  |  |
| Engineering                        |       | (45)           | 4            | /4-    |  |  |  |  |
| Estimating                         | ++    | **             | ***          |        |  |  |  |  |
| Other                              | ++    | <del>47</del>  | **           | -      |  |  |  |  |
| Support                            |       |                | **           | -      |  |  |  |  |
| Subtotal                           |       |                |              | -      |  |  |  |  |
| Current Changes                    |       |                |              |        |  |  |  |  |
| Economic                           |       | <del>100</del> |              | -      |  |  |  |  |
| Quantity                           | -     | <del></del>    | +            |        |  |  |  |  |
| Schedule                           | 44    |                |              | -      |  |  |  |  |
| Engineering                        |       |                | <del>}</del> | =      |  |  |  |  |
| Estimating                         | -0.1  | -13.6          | 44           | -13.7  |  |  |  |  |
| Other                              |       |                | 22           |        |  |  |  |  |
| Support                            | 49    | -34.7          | **           | -34.7  |  |  |  |  |
| Subtotal                           | -0.1  | -48.3          | *            | -48.4  |  |  |  |  |
| Total Changes                      | -0.1  | -48.3          | **           | -48.4  |  |  |  |  |
| CE - Cost Variance                 | 111.9 | 4368.6         | -            | 4480.5 |  |  |  |  |
| CE - Cost & Funding                | 111.9 | 4368.6         |              | 4480.5 |  |  |  |  |

Initial SAR - Above variances (if any) reflect changes since the SAR Baseline/APB.

SAR Baseline Reference: Assistant Secretary of the Navy (Research, Development & Acquisition) (ASN(RDA)) Approved Acquisition Program Baseline (APB) dated February 05, 2019

| RDT&E   | \$M          |              |  |
|---|--------------|--------------|--|
| Current Change Explanations                               | Base<br>Year | Then<br>Year |  |
| Revised escalation indices. (Economic)                    | N/A          | +0.1         |  |
| Adjustment for current and prior escalation. (Estimating) | -0.1         | -0.1         |  |
| RDT&E Subtotal  | -0.1         | 0.0          |  |

| Procurement  | \$M          |              |  |
|--|--------------|--------------|--|
| Current Change Explanations  | Base<br>Year | Then<br>Year |  |
| Revised escalation indices. (Economic)   | N/A          | +44.7        |  |
| Stretch-out of procurement buy profile for ESB 8 from FY 2022 to FY 2023. (Schedule)   | 0.0          | +14.4        |  |
| Adjustment for current and prior escalation. (Estimating)  | -24.9        | -30.4        |  |
| Revised estimate to reflect the updated ESB 5 cost-to-complete. (Estimating)   | +29.6        | +38.0        |  |
| Revised estimate due to Congressional reduction in FY 2019. (Estimating)   | -2.3         | -3.0         |  |
| Revised estimate to reflect updated Outfitting and Post Delivery requirements for ESB 4, ESB 5, ESB 6, ESB 7 and ESB 8. (Estimating) | -16.0        | -25.1        |  |
| Refined estimate to reflect minor miscellaneous adjustments. (Estimating)  | 0.0          | -0.1         |  |
| Adjustment for current and prior escalation. (Support)   | -1.0         | -1.1         |  |
| Revised estimate to reflect updated Outfitting and Post Delivery requirements for ESB 4, ESB 5, ESB 6, ESB 7 and ESB 8. (Support)    | -33.7        | -45.5        |  |
| Procurement Subtotal   | -48.3        | -8.1         |  |

December 2018 SAR

### Contracts

#### Contract Identification

Appropriation: Procurement

Contract Name: Expeditionary Sea Base - ESB 5

Contractor: NASSCO

Contractor Location: 2798 Harbor Drive

San Diego, CA 92113

Contract Number: N00024-16-C-2227/5

Contract Type: Fixed Price Incentive(Firm Target) (FPIF)

Award Date: December 29, 2016

Definitization Date: December 29, 2016

|             |                |       |   | Contract Pri | ce  |                       |                 |
|-------------|----------------|-------|---|--------------|-----|-----------------------|-----------------|
| Initial Cor | ntract Price ( | (\$M) | Current Contract Price (\$M) Estimated Price At Com |              |     | e At Completion (\$M) |                 |
| Target      | Ceiling        | Qty   | Target  | Ceiling      | Qty | Contractor            | Program Manager |
| 481.6       | 507.2          | 1     | 486.7   | 512.6        | 1   | 480.4                 | 484             |

### **Target Price Change Explanation**

The difference between the Initial Contract Price Target and the Current Contract Price Target is due to adjudicated changes (ECP's).

| Contract Variance                        |               |                   |  |  |  |  |  |
|--|---------------|-------------------|--|--|--|--|--|
| Item                                     | Cost Variance | Schedule Variance |  |  |  |  |  |
| Cumulative Variances To Date (1/27/2019) | +5.4          | -11.7             |  |  |  |  |  |
| Previous Cumulative Variances            |               |                   |  |  |  |  |  |
| Net Change                               | +5.4          | -11.7             |  |  |  |  |  |

#### Cost and Schedule Variance Explanations

The favorable cumulative cost variance is due to actual material costs being awarded at less then originally planned.

The unfavorable cumulative schedule variance is due to the ESB 5 graving dock incident resulting in a slow down of work production progress.

### Notes

This is the first time this contract is being reported.

This contract is more than 90% complete; therefore, this is the final report for this contract.

# **Deliveries and Expenditures**

| Deliveries                       |                 |                |                |                      |  |  |  |  |
|----------------------------------|-----------------|----------------|----------------|----------------------|--|--|--|--|
| Delivered to Date                | Planned to Date | Actual to Date | Total Quantity | Percent<br>Delivered |  |  |  |  |
| Development                      | 0               | 0              | 0              |                      |  |  |  |  |
| Production                       | 8               | 4              | 8              | 50.00%               |  |  |  |  |
| Total Program Quantity Delivered | 8               | 4              | 8              | 50.00%               |  |  |  |  |

| Expended and Appropriated (TY \$M) |        |                            |        |  |  |
|------------------------------------|--------|----------------------------|--------|--|--|
| Total Acquisition Cost             | 5188.1 | Years Appropriated         | 12     |  |  |
| Expended to Date                   | 2780.2 | Percent Years Appropriated | 63.16% |  |  |
| Percent Expended                   | 53.59% | Appropriated to Date       | 4352.0 |  |  |
| Total Funding Years                | 19     | Percent Appropriated       | 83.88% |  |  |

The above data is current as of March 11, 2019.

## Operating and Support Cost

#### **Cost Estimate Details**

Date of Estimate: November 19, 2010

Source of Estimate: Mobile Landing Platform (MLP) Program Life Cycle Cost Estimate (PLCCE)

Quantity to Sustain: 8
Unit of Measure: Ship

Service Life per Unit: 40.00 Years

Fiscal Years in Service: FY 2013 - FY 2065

The MLP PLCCE was utilized to obtain estimated life cycle costs for the current program. The program is refining and updating the O&S estimate in FY 2019 based upon differences associated with ESD and ESB missions and accruals from actual deployments.

### 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.

The Military Sealift Command (MSC) and US Navy act as a joint 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 cycle cost. Operating Tempo (OPTEMPO) was assumed 60% of In Fleet Time (IFT) steaming underway and 40% of IFT steaming not underway.

#### **Antecedent Information**

The ESD and ESB ships represent new capabilities from their original intent and therefore they are without a true antecedent system.

| Annual O&S Costs BY2011 \$M    |                                      |               |  |  |  |
|--------------------------------|--------------------------------------|---------------|--|--|--|
| Cost Element                   | ESB_<br>Average Annual Cost Per Ship | No Antecedent |  |  |  |
| Unit-Level Manpower            | 6.825                                | -             |  |  |  |
| Unit Operations                | 11.875                               |               |  |  |  |
| Maintenance                    | 5.775                                |               |  |  |  |
| Sustaining Support             | 0.850                                | -             |  |  |  |
| Continuing System Improvements | 0.250                                |               |  |  |  |
| Indirect Support               | 4.450                                | 4             |  |  |  |
| Other                          |                                      | -             |  |  |  |
| Total                          | 30.025                               |               |  |  |  |

| Item      | Total O&S Cost \$M                         |                 |                  |               |  |
|-----------|--|-----------------|------------------|---------------|--|
|           |  | And bearing the |                  |               |  |
|           | Current Production A<br>Objective/Threshol | 10/2            | Current Estimate | No Antecedent |  |
| Base Year | 9649.9                                     | 10614.9         | 9608.0           | 0.0           |  |
| Then Year | 15958.7                                    | N/A             | 15889,4          | N/A           |  |

Disposal Cost is included in the Operating and Support Cost of the current APB objective and threshold for this program.

### **Equation to Translate Annual Cost to Total Cost**

Total O&S Cost = 8 ships X \$30.025M Average Annual Cost per ship x 40 year service life

#### **Disposal Estimate Details**

Date of Estimate: November 19, 2010

Source of Estimate: MLP PLCCE

Disposal/Demilitarization Total Cost (BY 2011 \$M): 6.0

Disposal costs account for the inactivation cost and the net disposal (scrap) cost. It is assumed that the ESDs and ESBs will not become a remobilization asset, therefore no costs are set aside for that effort once the ship is decommissioned and taken out of service.