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Oct 08, 2024

Department of Defense
OFFICE OF PREPUBLICATION AND SECURITY REVIEW

Modernized Selected Acquisition Report (MSAR) Ship to Shore Connector Amphibious Craft (SSC)

FY 2025 President's Budget

Effective: December 31, 2023

Defense Acquisition Visibility Environment

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Table of Contents

| | |
|--------------------------------------|----|
| Common DoD Abbreviations | 3 |
| Program Description | 5 |
| Responsible Office | 6 |
| Executive Summary | 7 |
| Schedule | 9 |
| Performance | 12 |
| Acquisition Budget Estimate | 18 |
| Unit Costs | 20 |
| Life-Cycle Costs | 21 |
| Technologies and Systems Engineering | 24 |
| Performing Activities and Contracts | 25 |
| Production | 27 |
| Deliveries and Expenditures | 28 |
| International Program Aspects | 29 |

(U) Common DoD Abbreviations

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

| | |
|----------|--|
| LRIP | Low-Rate Initial Production |
| MDA | Milestone Decision Authority |
| MDAP | Major Defense Acquisition Program |
| MILCON | Military Construction |
| N/A | Not Applicable |
| O | Objective |
| O&M | Operations and Maintenance |
| O&S | Operating and Support |
| ORD | Operational Requirements Document |
| OSD | Office of the Secretary of Defense |
| PAUC | Program Acquisition Unit Cost |
| PB | President's Budget |
| PE | Program Element |
| PEO | Program Executive Officer |
| PM | Program Manager |
| POE | Program Office Estimate |
| R&MF | Revolving and Management Funds |
| RDT&E | Research, Development, Test, and Evaluation |
| SAR | Selected Acquisition Report |
| SCP | Service Cost Position |
| T | Threshold |
| TBD | To Be Determined |
| TY | Then Year |
| U.S. | United States |
| U.S.C | United States Code |
| UCR | Unit Cost Reporting |
| USD(A&S) | Under Secretary of Defense (Acquisition and Sustainment) |

(U) Program Description

| | |
|---|--|
| Full Name Ship to Shore Connector Amphibious Craft | Short Name SSC |
| PNO 303 | Decision Authority Component Acquisition Executive |
| Lead Component Department of the Navy | Program Executive Office PEO Ships |
| Joint Program No | Acquisition Type Major Defense Acquisition Program |
| Adaptive Acquisition Pathway Major Capability Acquisition | Acquired Systems SSC |
| Acquisition Category IC | |
| Acquisition Status Active Acquisition | |

Mission

Ship to Shore Connector (SSC) is the Landing Craft, Air Cushion (LCAC) replacement. It is an Air Cushion Vehicle with the same footprint as the LCAC Service Life Extension Program. The SSC mission is to land surface assault elements in support of Operational Maneuver from the Sea at Over-The-Horizon distances, while operating from amphibious ships and mobile landing platforms. The primary role of SSC is to transport weapon systems, equipment, cargo, and personnel of the assault elements of the Marine Expeditionary Brigades and the Army Brigade Combat Teams during Ship-to-Objective Maneuver and Prepare for Movement operations.

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

PEO Ships

RADM Thomas J. Anderson

Thomas.J.Anderson3.mil@us.navy.mil (primary)

(202) 781-2941 (commercial)

Program Manager

Ship to Shore Connector Amphibious Craft PMO

CAPT Jason Grabelle

jason.grabelle.mil@us.navy.mil (primary)

(202) 781-1735 (commercial)

(U) Executive Summary

Program Highlights Since Last Report

The Ship to Shore Connector (SSC) program achieved significant milestones and program advancements in calendar year 2023.

Craft 100 (also referred to as the Test and Training Craft) through 104 were delivered to the Navy between February 2020 and August 2022. LCAC 106, 105, and 107 were delivered to the Navy between November 2022, and Jul 2023 and were transported to Assault Craft Unit (ACU) 4 in July 2023 via a Lift of Opportunity on LSD 44 USS Gunston Hall. With the delivery of LCAC 107, the SSC program has demonstrated an increased craft delivery pace of four craft per year. LCAC 108 was successfully delivered in November 2023, completing delivery of all craft in the Detail Design & Construction contract.

The Navy entered into a follow-on construction contract with Textron in April 2020. This contract is for a total of 15 Craft (LCAC 109-123) appropriated in FY 2017 through FY 2020. LCACs 109-112 are currently in testing, LCACs 113-121 are currently in production, and LCACs 122-123 are currently in pre-production. A follow-on contract for FY 2022-2024 Craft (LCAC 124AF) is planned for calendar year 2024 award.

Post Delivery Test and Trials (PDT&T), using Craft 100 and LCAC 101, commenced in October 2020. Current issues with the Power Inverter Unit (PIU) reliability and Other Equipment Manufacturer production are impacting PDT&T. The Navy and contractor are working together to resolve the issue prior to resuming Initial Operational Test & Evaluation (IOT&E). These PIU concerns drove changes to IOT&E and IOC dates. Official APB Change 4 will be approved in calendar year 2024. IOC was partially achieved in July of 2023 once six craft were delivered to ACU 4, but the program is awaiting IOT&E completion to declare IOC.

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

Defense Cost and Resource Center Cost and Software Data Reporting Compliance Rating: Green.

(U) History of Significant Developments Since Program Inception

| Date | Description |
|---------------|--|
| November 2023 | LCAC 108 was delivered to the Navy. |
| July 2023 | LCACs 105, 106, and 107 delivered to Fleet at ACU 4. |
| July 2023 | LCAC 107 was delivered to the Navy. |
| March 2023 | LCAC 105 was delivered to the Navy. |
| November 2022 | LCAC 106 was delivered to the Navy. |
| August 2022 | LCAC 103 and 104 delivered to Fleet at ACU 4. |
| June 2022 | LCAC 104 was delivered to the Navy. |
| February 2022 | LCAC 101 and 102 delivered to Fleet at ACU 4. |
| December 2021 | LCAC 103 was delivered to the Navy. |
| November 2021 | Test and Evaluation Master Plan Rev A, Ch-1 was signed by the director, Operational Test & Evaluation. |
| June 2021 | LCAC 102 was delivered to the Navy. |

| Date | Description |
|----------------|---|
| May 2021 | Approval of APB Change 3 and increase in LRIP quantities. |
| March 2021 | Congress notified of Nunn-McCurdy breach prior to APB Change |
| October 2020 | SSC program officially begins the PDT&T phase. |
| August 2020 | LCAC 101, the first fleet asset, was delivered to the Navy. |
| April 2020 | On April 16, 2020, the Navy awarded a combination \$569M fixed price incentive fee and \$51M firm-fixed price contract to Textron, Inc. for the FY 2017 - 2020 follow-on construction contract of the next 15 craft (LCAC 109-123). |
| February 2020 | The SSC T&T Craft (Craft 100) was delivered to the Navy. |
| February 2019 | Approval of APB Change 2. |
| September 2017 | Approval of APB Change 1 and increase in LRIP quantities. |
| March 2016 | Pursuant to section 2308 of title 10, U.S. Code "Buy-to-Budget Acquisition - End Items" approval, the contract option for LCACs 104-108 construction was exercised in March 2016. |
| July 2015 | On July 1, 2015, a revalidated CDD was signed by the Chief of Naval Operations and the Logistics Functional Capabilities Board completed its assessment with minor changes. On October 8, 2015, the CDD was signed by the Vice Chairman of the Joint Chiefs, Joint Requirements and Oversight Council. |
| May 2015 | On May 26, 2015, a Milestone C review of the program was successfully held with the Service Acquisition Executive (SAE). The review included an evaluation of key factors that ensured adequate design maturity, production readiness, efficient manufacturing capability and low technical risk. Subsequent to this review, Milestone C approval was authorized by the SAE on July 21, 2015, and the program was granted approval to enter into the Production and Deployment Phase. |
| February 2015 | On February 5, 2015, a fire occurred at General Electric Dowty's propeller production facility in Gloucestershire, United Kingdom, while the contractor was in process of developing the SSC First Article Test units. In the interim, General Electric Dowty identified a temporary manufacturing facility and reconstituted the SSC production line in September 2015. |
| September 2014 | A Production Readiness Review (PRR) was held in September 2014 to evaluate the SSC craft design maturity and readiness, the availability of materials and components, and industry's ability to successfully start and sustain fabrication. All action items from the PRR were successfully addressed, adjudicated and closed out in October 2014. T&T Craft and Landing Craft Air Cushion (LCAC) 101 began production in November 2014 and January 2015, respectively. |
| July 2012 | On July 5, 2012, a Milestone B review of the program was successfully held with the Service Acquisition Executive (SAE). The review included an evaluation of the SSC Milestone B Acquisition Strategy and the Acquisition Program Baseline (APB). Milestone B approval was authorized by the SAE and the program was granted approval to enter into the Engineering and Manufacturing Development phase and was authorized a Low-Rate Initial Production (LRIP) quantity not to exceed 13 craft. |
| July 2012 | On July 6, 2012, the Navy awarded a \$212.7M fixed price incentive fee contract to Textron, Inc. for the detail design and construction of the SSC Test and Training (T&T) Craft (Craft 100) with options for eight production craft and technical manuals. The award was based on full and open competition. |
| June 2010 | On June 10, 2010, an Initial SSC Capability Development Document (CDD) was approved. |

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

| Events | | APB Change 3 (Current) 5/6/2021 Objective / Threshold | | Current Estimate 12/31/2023 | Actual |
|---|-----------------|--|-----------|-----------------------------------|-------------|
| Milestone B | MS B | Jul 2012 | Jul 2012 | - | 1 Jul 2012 |
| Test and Training Craft Detail Design and Construction Award* | Other | Jul 2012 | Jul 2012 | - | 1 Jul 2012 |
| Craft 101 Operational Effectiveness | CDR | Dec 2012 | Dec 2012 | - | 1 Dec 2012 |
| Operational Assessment | IOT&E | Jul 2014 | Jul 2014 | - | 1 Jul 2014 |
| Craft 101 Production Readiness Review | CDR | Sept 2014 | Sept 2014 | - | 1 Sept 2014 |
| Craft 101 Start Fabrication (2) | Other | Jan 2015 | Jan 2015 | - | 1 Jan 2015 |
| Milestone C | MS C | Jul 2015 | Jul 2015 | - | 1 Jul 2015 |
| T&T Craft Delivery | FUE | Feb 2020 | Feb 2020 | - | 1 Feb 2020 |
| Operational Evaluation/Initial Operational Test and Evaluation | IOT&E | Jul 2022 | Jan 2023 | Jun 2024* | - |
| IOC | IOC | Dec 2022 | Jun 2023 | Sept 2024* | - |
| Full-Rate Production Decision | FRP Decision | Jan 2028 | Jul 2028 | Jan 2028 | - |

* Baseline Deviation

Notes

A Program Deviation Report has been submitted and the APB is expected to be approved in FY 2024.

| SHIP HULL # | DELIVERY | Obligation | Work Limiting Date |
|-------------|----------|------------|--------------------|
| LCAC 105 | 2023-03 | 2024-06 | |
| LCAC 106 | 2022-11 | 2024-06 | |
| LCAC 107 | 2023-06 | 2024-09 | |
| LCAC 108 | 2023-11 | 2024-10 | |
| LCAC 109 | 2024-03 | 2025-06 | |
| LCAC 110 | 2024-07 | 2025-10 | |
| LCAC 111 | 2024-09 | 2025-10 | |
| LCAC 112 | 2024-12 | 2026-05 | |
| LCAC 113 | 2025-04 | 2026-05 | |
| LCAC 114 | 2025-07 | 2026-10 | |
| LCAC 115 | 2025-09 | 2026-10 | |
| LCAC 116 | 2025-12 | 2027-03 | |
| LCAC 117 | 2026-02 | 2027-03 | |
| LCAC 118 | 2026-05 | 2027-09 | |
| LCAC 119 | 2026-08 | 2027-09 | |
| LCAC 120 | 2026-12 | 2028-04 | |

| | | | |
|------|-----|---------|---------|
| LCAC | 121 | 2027-03 | 2028-04 |
| LCAC | 122 | 2027-06 | 2028-10 |
| LCAC | 123 | 2027-09 | 2028-10 |
| LCAC | 124 | 2027-12 | 2029-04 |
| LCAC | 125 | 2028-03 | 2029-04 |
| LCAC | 126 | 2028-06 | 2029-10 |
| LCAC | 127 | 2028-09 | 2029-10 |
| LCAC | 128 | 2028-12 | 2030-04 |
| LCAC | 129 | 2029-03 | 2030-04 |
| LCAC | 130 | 2029-06 | 2030-10 |
| LCAC | 131 | 2029-09 | 2030-10 |
| LCAC | 132 | 2029-12 | 2031-03 |
| LCAC | 133 | 2030-03 | 2031-03 |
| LCAC | 134 | 2030-06 | 2031-10 |
| LCAC | 135 | 2030-09 | 2031-10 |
| LCAC | 136 | 2030-12 | 2032-04 |
| LCAC | 137 | 2031-03 | 2032-04 |
| LCAC | 138 | 2031-06 | 2032-10 |
| LCAC | 139 | 2031-09 | 2032-10 |
| LCAC | 140 | 2031-12 | 2033-04 |
| LCAC | 141 | 2032-03 | 2033-04 |
| LCAC | 142 | 2032-06 | 2033-09 |
| LCAC | 143 | 2032-09 | 2033-09 |
| LCAC | 144 | 2032-12 | 2034-03 |
| LCAC | 145 | 2033-03 | 2034-03 |
| LCAC | 146 | 2033-06 | 2034-09 |
| LCAC | 147 | 2033-08 | 2034-09 |
| LCAC | 148 | 2033-11 | 2035-03 |
| LCAC | 149 | 2034-02 | 2035-03 |
| LCAC | 150 | 2034-05 | 2035-09 |
| LCAC | 151 | 2034-08 | 2035-09 |
| LCAC | 152 | 2034-11 | 2036-03 |
| LCAC | 153 | 2035-02 | 2036-03 |
| LCAC | 154 | 2035-05 | 2036-09 |
| LCAC | 155 | 2035-08 | 2036-09 |
| LCAC | 156 | 2035-11 | 2037-03 |
| LCAC | 157 | 2036-02 | 2037-03 |
| LCAC | 158 | 2036-05 | 2037-09 |
| LCAC | 159 | 2036-08 | 2037-09 |
| LCAC | 160 | 2036-11 | 2038-03 |
| LCAC | 161 | 2037-02 | 2038-03 |
| LCAC | 162 | 2037-05 | 2038-09 |
| LCAC | 163 | 2037-08 | 2038-09 |
| LCAC | 164 | 2037-11 | 2039-03 |
| LCAC | 165 | 2038-02 | 2039-03 |
| LCAC | 166 | 2038-05 | 2039-09 |
| LCAC | 167 | 2038-08 | 2039-09 |
| LCAC | 168 | 2038-11 | 2040-03 |
| LCAC | 169 | 2039-02 | 2040-03 |

LCAC 170 2039-05 2040-09

LCAC 171 2039-08 2040-09

LCAC 172 2039-11 2040-11

Acronyms and Abbreviations (Schedule Section)

DD&C – Detail Design and Construction

IOT&E – Initial Operational Test and Evaluation

OA – Operational Assessment

OE – Option Exercise

OPEVAL – Operational Evaluation

T&T – Test and Training

Schedule Baseline Deviation Explanation

(DEV 1&2) Current issues with the Power Inverter Unit (PIU) reliability and OEM production have led to schedule deviations in IOT&E to Jun 2024 and IOC to Sep 2024.

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

None

(U) Performance

(U) Performance Attributes

| Payload Capacity | | KPP |
|---|-----------|--|
| Current Estimate 12/31/2023 | | The Ship to Shore Connector (SSC) will be capable of transporting 62.5 short tons over the threshold range in the threshold temperature operating range and threshold sea state. |
| Demonstrated Performance - | | TBD |
| APB Change 3 (Current) 5/6/2021 | Objective | The SSC should be capable of transporting 79 short tons over the threshold range in the threshold temperature operating range and threshold sea state. |
| | Threshold | The SSC should be capable of transporting 62.5 short tons over the threshold range in the threshold temperature operating range and threshold sea state. |
| Interoperability | | KPP |
| Current Estimate 12/31/2023 | | The SSC will be able to: enter, exit, and embark in well decks of current and programmed United States Navy (USN) amphibious ships, to include LHD-1, LPD-17, LSD-41, LSD-49 classes, without ship alterations, while transporting an embarked load 168" high; the off cushion length of the SSC will permit embarkation of (4) SSCs in LSD-41 class *1, (2) SSCs in LSD-49 and LPD-17 classes, and (3) SSCs in LHD-1 class; and, enter /exit well decks of amphibious ships while on cushion or in displacement mode (wet well only). SSC will embark on board the planned Mobile Landing Platform (MLP), without ship alterations, as designed and built for the LCAC. SSC will be able to operate with existing ships services, including the planned MLP, in place for the LCAC including ship's power, fueling/defueling stations, compressed air, potable and washdown water, lighting, navigational aids, footprint for spare /consumable pack-up kits and night vision systems. The SSC will be able to enter and exit allied amphibious ships Mistral (French) and Osumi (Japan). |
| Demonstrated Performance - | | TBD |
| APB Change 3 (Current) 5/6/2021 | Objective | In addition to the threshold Interoperability, the SSC should be able to operate with allied amphibious ships classes with suitable well decks, to include French Mistral, Japanese Osumi, Korean Dokdo, Spanish Juan Carlos, and Australian Canberra if this interoperability does not alter other interfaces. |
| | Threshold | The SSC shall be able to: enter, exit, and embark in well decks of current and programmed USN amphibious ships, to include LHD-1, LPD-17, LSD-41, LSD-49 classes, without ship alterations, while transporting an embarked load 168" high; the off cushion length of the SSC shall permit embarkation of (4) SSCs in LSD-41 class, (2) SSCs in LSD-49 and LPD-17 classes, and (3) SSCs in LHD-1 class; |

| | | |
|---|-------------------------|--|
| | | <p>and, enter/exit well decks of amphibious ships while on cushion or in displacement mode (wet well only). SSC shall embark on board the planned MLP, without ship alterations, as designed and built for the LCAC. SSC shall be able to operate with existing ships services, including the planned MLP, in place for the LCAC including ship's power, fueling/ defueling stations, compressed air, potable and washdown water, lighting, navigational aids, footprint for spare / consumable pack-up kits, and night vision systems.</p> |
| Net-Ready | | KPP |
| <p>Current Estimate 12/31/2023</p> | | <p>The SSC must fully support execution of joint critical operational activities and information exchanges identified in the DoD Enterprise Architecture and solution architectures based on integrated Department of Defense Architecture Framework (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 Department of Defense Information Enterprise Architecture (DoD IEA), excepting tactical and non-IP communications. 3) Compliant with Global Information Grid (GIG) Technical Guidance to include IT Standards identified in the TV-1 and implementation guidance of Global Enterprise System Profiles (GESPs) necessary to meet all operational requirements specified in the DoD Enterprise Architecture and solution architecture views. 4) Information assurance requirements including availability, integrity, authentication, confidentiality, and non-repudiation, and issuance of an Interim Authorization to Operate (IATO) or Authorization to Operate (ATO) by the Designated Approval Authority (DAA). 5) Supportability requirements to include Selective Availability Anti-Spoofing Module (SAASM), Spectrum and Joint Tactical Radio System (JTRS) requirements. See appendix A of the CDD for additional details on the Net-Ready Key Performance Parameter (NR-KPP).</p> |
| <p>Demonstrated Performance -</p> | | <p>TBD</p> |
| <p>APB Change 3 (Current)</p> | <p>Objective</p> | <p>The SSC should fully support execution of all operational activities and information exchanges identified in 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 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 communica-</p> |

| | | |
|---|------------------|--|
| 5/6/2021 | | <p>tions. 3) Compliant with GIG Technical Guidance to include IT Standards identified in the TV-1 and implementation guidance of GESPs, necessary to meet all operational requirements specified in the DoD Enterprise Architecture and solution architecture views. 4) Information assurance requirements including availability, integrity, authentication, confidentiality, and non-repudiation, and issuance of an ATO by the DAA. 5) Supportability requirements to include SAASM, Spectrum and JTRS requirements. See appendix A of the CDD for additional details on the NR-KPP.</p> |
| | Threshold | <p>The SSC 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 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 GESPs necessary to meet all operational requirements specified in the DoD Enterprise Architecture and solution architecture views. 4) Information assurance requirements including availability, integrity, authentication, confidentiality, and non-repudiation, and issuance of an IATO or ATO by the DAA. 5) Supportability requirements to include SAASM, Spectrum and JTRS requirements. See appendix A of the CDD for additional details on the NR-KPP.</p> |
| Force Protection | | KPP |
| Current Estimate 12/31/2023 | | <p>The SSC shall provide protection to the crew and internally carried embarked forces from small arms, crew served weapons and fragmentation. Appendix F of the CDD describes the specific ballistic protection requirement. The SSC shall be equipped with mounts capable of accepting current US crew-served weapons to include the M2 .50 Caliber (12.7mm) Machine Gun, MK19 40mm Grenade Machine Gun and M60/M240 Series 7.62mm Light Machine Gun.</p> |
| Demonstrated Performance 10/17/2022 | | <p>Threshold requirement of protecting the crew from small arms and crew served weapons and fragmentation was demonstrated 2 November 2018 through Evaluation of the Ship-to-Shore Connector Ballistic Armor Systems (U),” NSWCCD-66-TR-2019/018, January 2020. The threshold capability of providing mounts capable of accepting current crew served weapons in 17 October 2022, Craft 101-104 received National Occupational Safety Association (NOSA) certification in November 2022.</p> |
| APB Change 3 (Current) | Objective | <p>The SSC should be equipped with a remotely operated crew-served weapon system and provide ballistic and fragmentation protection for crew, internally carried</p> |

| | | |
|--|------------------|--|
| 5/6/2021 | | embarked forces and critical machinery spaces. Appendix F of the CDD describes the specific ballistic protection requirement. |
| | Threshold | The SSC shall provide protection to the crew and internally carried embarked forces from small arms, crew served weapons and fragmentation. Appendix F of the CDD describes the specific ballistic protection requirement. The SSC shall be equipped with mounts capable of accepting current US crew-served weapons to include the M2 .50 Caliber (12.7mm) Machine Gun, MK19 40mm Grenade Machine Gun and M60/M240 Series 7.62mm Light Machine Gun. |
| Survivability (Sea-Worthiness) | | KPP |
| Current Estimate 12/31/2023 | | T=0 The SSC will be capable of surviving (remaining afloat) in displacement mode without power or steerage through seas up to ten foot Significant Wave Height (SWH) without incurring structural damage which would impair mission capability until recovered or towed to a boat haven. |
| Demonstrated Performance 8/1/2014 | | Objective demonstrated through 1/10- Scale Model Testing. |
| APB Change 3 (Current) 5/6/2021 | Objective | T=0 The SSC shall be capable of surviving (remaining afloat) in displacement mode without power or steerage through seas up to ten foot SWH without incurring structural damage which would impair mission capability until recovered or towed to a boat haven. |
| | Threshold | T=0 The SSC shall be capable of surviving (remaining afloat) in displacement mode without power or steerage through seas up to ten foot SWH without incurring structural damage which would impair mission capability until recovered or towed to a boat haven. |
| Manpower | | KPP |
| Current Estimate 12/31/2023 | | The SSC will be fully operable, to include conducting on load/offload operations, with a crew of no more than five (5). |
| Demonstrated Performance 12/8/2022 | | The threshold manpower requirement for the craft to be fully operable, to include conducting on load/offload operations, with a crew of no more than five was successfully demonstrated 1-8 December 2022 during Ship Interface Testing. |
| APB Change 3 (Current) 5/6/2021 | Objective | The SSC should be fully operable with a crew of no more than three (3). |
| | Threshold | The SSC shall be fully operable, to include conducting on load/offload operations, with a crew of no more than five (5). |
| Materiel Availability (Am) | | KPP |
| Current Estimate 12/31/2023 | | The SSC will have a Materiel Availability of 59.9 percent. |
| Demonstrated Performance - | | TBD |
| APB Change 3 | Objective | The SSC should have a Materiel Availability of 63 percent. |

| | | |
|---|------------------|--|
| (Current) 5/6/2021 | | |
| | Threshold | The SSC shall have a Materiel Availability of 59.5 percent. |
| Inland Accessibility | | KPP |
| Current Estimate 12/31/2023 | | The SSC will be capable of operating over the high water mark. This includes movement over ice, mud, rivers, swamps, and marshes. While moving inland, the SSC will be able to negotiate obstacles found in the complex operational environment (natural and man-made). The SSC will be able to operate over a beach high water mark, rocks, rubble, obstacles and walls up to 4 feet high, grass, reeds and dunes. |
| Demonstrated Performance - | | TBD |
| APB Change 3 (Current) 5/6/2021 | Objective | T=0 The SSC shall be capable of operating over the high water mark. This includes movement over ice, mud, rivers, swamps, and marshes. While moving inland, the SSC shall be able to negotiate obstacles found in the complex operational environment (natural and man-made). The SSC shall be able to operate over a beach high water mark, rocks, rubble, obstacles and walls up to 4 feet high, grass, reeds and dunes. |
| | Threshold | T=0 The SSC shall be capable of operating over the high water mark. This includes movement over ice, mud, rivers, swamps, and marshes. While moving inland, the SSC shall be able to negotiate obstacles found in the complex operational environment (natural and man-made). The SSC shall be able to operate over a beach high water mark, rocks, rubble, obstacles and walls up to 4 feet high, grass, reeds and dunes. |

(U) Requirement Source:

Sponsor(s): None

1. Document Type Not Provided

Notes: CDD dated June 10, 2010

Notes

Performance:

Performance on the following attributes, Payload Capacity, Interoperability. Net-Ready, Materiel Availability (Am), Inland Accessibility will be demonstrated once IOT&E is completed.

Acronyms and Abbreviations (Performance Section)

ATO - Authority to Operate

DAA - Designated Approval Authority

DoD IEA - Department of Defense Information Enterprise Architecture

DoDAF - Department of Defense Architecture Framework

GESP - GIG Enterprise Service Profile

GIG - Global Information Grid

IATO - Interim Authority to Operate

IOT&E - Initial Operational Test and Evaluation

IP - Internet Protocol

JTRS - Joint Tactical Radio System
LCAC - Landing Craft Air Cushion
LHD - Amphibious Assault Ship (Multi-Purpose)
LPD - Landing Platform Dock
LSD - Landing Ship Dock
MK - Mark
MLP - Mobile Landing Platform
mm - Millimeter
NR-KPP - Net Ready Key Performance Parameter
O - Objective
SAASM - Selective Availability Anti-Spoofing Module
SSC - Ship-to-Shore Connector
SWH - Significant Wave Height
TV - Technical View
USN - United States Navy

Performance Deviation Explanation

None

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

| Category (\$M) Base Year: 2011 | APB Change 3 (Current) 5/6/2021 CY\$ obs Objective / Threshold | | Current Estimate PB 2025 CY\$ obs / TY\$ obs | |
|--------------------------------|--|---------|--|---------|
| | RDT&E | 576.4 | 634.0 | 573.2 |
| Procurement | 4,062.5 | 4,468.8 | 4,393.1 | 6,734.9 |
| MILCON | 14.3 | 15.7 | 13.7 | 17.3 |
| O&M | 0.0 | 0.0 | 0.0 | 0.0 |
| R&MF | - | - | - | - |
| Total Acquisition | 4,653.2 | - | 4,980.0 | 7,358.1 |
| Program Acquisition Unit Cost | 63.742 | 70.116 | 68.219 | 100.796 |
| Average Procurement Unit Cost | 56.424 | 62.066 | 61.015 | 93.540 |
| Program End-Item Quantity | | | | |
| Development | 1 | | 1 | |
| Procurement | 72 | | 72 | |
| O&M-Acquired | - | | - | |

Budget Notes

None

Quantity Notes

None

Cost Baseline Deviation Explanation

None

(U) Risk and Sensitivity Analysis

| Current Procurement Estimate Risks (12/31/2023) | |
|---|---|
| 1 | If a minimum of six craft are not procured on the FY 2022 - 2024 contract award, and if quantities do not increase by two craft per year in FY 2025 - 2028, SSC unit cost would increase due to a production line break with the shipbuilder and its vendors. MITIGATION: 1) Revert to Fixed Price Incentive Type Contract 2) Include EPA clauses to limit material cost risk. |
| Current Baseline Risks (5/6/2021) | |
| None | |

Original Baseline Risks (7/5/2012)

The SAE endorsed the Navy's SCP and certified that the FYDP fully funded the Navy's SCP. Risk: In preparing the SCP, three cost drivers were identified: labor hours, Manufacturing Overhead and Command, Control, Communications, Computers, and Navigation. The Navy baseline remained unchanged at Milestone C.

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

| Category (CY\$M) Base Year: 2011 | Current Baseline 05/06/2021 | Current Estimate PB 2025 | % Change |
|----------------------------------|--------------------------------|-----------------------------|----------|
| Program Acquisition Unit Cost | | | |
| Acquisition Cost | 4,653.2 | 4,980.0 | |
| Program Quantity | 73 | 73 | |
| PAUC | 63.742 | 68.219 | 7.02% |
| Average Procurement Unit Cost | | | |
| Procurement Cost | 4,062.5 | 4,393.1 | |
| Procurement Quantity | 72 | 72 | |
| APUC | 56.424 | 61.015 | 8.14% |

(U) Current Estimate Compared with Original Baseline

| Category (CY\$M) Base Year: 2011 | Original Baseline 07/05/2012 | Current Estimate PB 2025 | % Change |
|----------------------------------|---------------------------------|-----------------------------|----------|
| Program Acquisition Unit Cost | | | |
| Acquisition Cost | 3,925.6 | 4,980.0 | |
| Program Quantity | 73 | 73 | |
| PAUC | 53.775 | 68.219 | 26.86% |
| Average Procurement Unit Cost | | | |
| Procurement Cost | 3,354.4 | 4,393.1 | |
| Procurement Quantity | 71 | 72 | |
| APUC | 47.245 | 61.015 | 29.15% |

Notes

(U) Life-Cycle Costs**(U) Operating and Support and Disposal Cost Estimates Compared with Baseline**

| Category (\$M) Base Year: 2011 | APB Change 3 (Current) 5/6/2021 CY\$ obs Objective / Threshold | | Current Estimate CY\$ obs / TY\$ obs | |
|--------------------------------|--|----------|---|----------|
| | Total O&S | 10,171.3 | 11,188.4 | 10,106.3 |
| Total Disposal | - | - | 14.2 | 29.6 |

(U) Current Cost Estimate Sources**Operating and Support Cost**

Type: Component Cost Position

Approved by: NCCA, May 21, 2015

Disposal/Demilitarization Cost

Type: Component Cost Position

Approved by: NCCA, May 21, 2021

Operating and Support Baseline Deviation Explanation

None

Cost Notes

None

(U) Operating and Support Variance with Prior Estimate

| (CY\$M) Base Year: 2011 | Estimate | |
|----------------------------|-----------------|--|
| Prior Estimate (4/18/2012) | 10,153.0 | |
| Current Estimate | 10,106.3 | |
| Category | | |
| | Variance | Explanation |
| Unit-Level Manpower | -843.2 | Current estimate assumed a ramping up of personnel until all 73 craft are operational and ramping down once disposal begins compared to a steady state in prior estimate resulting in a cost decrease. |
| Unit Operations | -4.4 | Prior estimate incorrectly bucketed depot-level repairables here. This moved to cost element "Maintenance" in current estimate with a zero-sum change in the estimate. |

| (CY\$M) Base Year: 2011 | Estimate | |
|--------------------------------|----------|---|
| Maintenance | 1,476.1 | Prior estimate incorrectly bucketed several items from "Maintenance" to "Continuing System Improvements Variance Explanation" including depot maintenance, non-scheduled ship repair, equipment rework, naval aviation depot, and other depot (\$2,899M TY). In addition, current estimate adjusted mid-life modernization to not include across the board engine replacements (\$664M decrease). |
| Sustaining Support | 484.0 | Current estimate includes scope corrections of In-House Government Contractor support and associate sub-contractors and Systems Engineering and Program Management support at warfare centers. |
| Continuing System Improvements | -1,438.8 | Prior estimate incorrectly bucketed several items from "Maintenance" to "Continuing System Improvements Variance Explanation" including depot maintenance, non-scheduled ship repair, equipment rework, naval aviation depot, and other depot (\$2,899M TY). |
| Other | 247.5 | Current estimate included a policy change to include previously non-DoD cost elements, health benefits for retirees under 65 as well as health care for active duty and active duty families. In addition, "Not categorized" variance due to rounding errors. |
| Not Categorized | 32.2 | |

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

| (CY\$M) Base Year: 2011 | | | | | | | |
|-------------------------|---------------------|-----------------|-------------|--------------------|--------------------------------|---------|----------|
| System | Unit-Level Manpower | Unit Operations | Maintenance | Sustaining Support | Continuing System Improvements | Other | Total |
| SSC | 3,339.7 | 995.0 | 2,387.0 | 1,013.2 | 578.4 | 1,793.0 | 10,106.3 |
| Program | 3,339.7 | 995.0 | 2,387.0 | 1,013.2 | 578.4 | 1,793.0 | 10,106.3 |

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

| (CY\$M) Base Year: 2011 | | | | | | | |
|-------------------------|---------------------|-----------------|-------------|--------------------|--------------------------------|-------|-------|
| System | Unit-Level Manpower | Unit Operations | Maintenance | Sustaining Support | Continuing System Improvements | Other | Total |
| SSC | 1.5 | 0.5 | 1.1 | 0.5 | 0.3 | 0.8 | 4.6 |
| LCAC (Antecedent) | 1.3 | 0.5 | 1.4 | 0.5 | 0.3 | 0.4 | 4.3 |

(U) Operating and Support Cost Estimate Assumptions

| System | Quantity to Sustain | Unit Expected Service Life (Years) | Unit of Measure | Fiscal Years Operational |
|-------------------|---------------------|------------------------------------|-----------------|--------------------------|
| SSC | 73 | 30.0 | Craft | 2018 - 2057 |
| LCAC (Antecedent) | 73 | 30.0 | Craft | 2018 - 2057 |

Additional O&S Estimate Assumptions

The SSC Operating & Support (O&S) cost estimate is based primarily on Landing Craft Air Cushion (LCAC) actual operating and support cost data. The cost data is obtained from the Assault Craft Units (ACU) and the program office and managed using the LCAC-M cost model. The LCAC-M model is a Chief of Naval Operations (CNO) accredited cost model currently used as a financial model and management information tool by the LCAC Program. LCAC-M is the LCAC program equivalent of the Visibility and Management of Operating and Support Cost (VAMOSOC) database and Operating and Support Cost Analysis Model (OSCAM). The LCAC-M model was used to generate an LCAC Baseline O&S cost model to account for the differences in operating hours between the SSC and LCAC and to reflect the various design changes made to improve reliability, maintainability and performance. Since the SSC is basically an updated version of the LCAC design with an identical support structure at the ACU's, LCAC O&S cost data provides a reasonable basis of estimate for SSC. The Component Cost Position for SSC was updated in May 2015.

Antecedent Estimate Assumptions

LCAC-M is currently used as a financial model and management information tool by the LCAC Program. LCAC-M uses data from the most recent ten years of Operating Target data which funds LCAC Operations, Support, Readiness, Hours of Operation, Sustaining Support, and Continuing System Improvements to predict the O&S cost of a specified level of readiness. The LCAC-M model parameters were adjusted to reflect the specified 150 operating hours per year and manning specified in the Cost Analysis Requirements Description for the SSC.

O&S Annual Cost Calculation Memo

Total O&S cost is calculated by multiplying the Average Annual Cost per craft by the total number of craft by total years of service. $\$4.615 \text{ BY } 2011 \text{ \$M} \times 73 \times 30 = \$10,106.0 \text{ BY } 2011 \text{ \$M}$. $\$15,657 \text{ TY}$

(U) Technologies and Systems Engineering

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

| Event | Date | Description |
|---------|------------|---|
| Current | 12/31/2023 | SSC Power Inverter Unit (PIU) Sustainability: If PIU sustainability (reliability plus spares) doesn't improve, then the Craft would not successfully complete Initial Operational Test & Evaluation (IOT&E). MITIGATION: 1) Implement Field Service Bulletins 2) Original Equipment Manufacturer (OEM) improve repairs 3) OEM produce improved units; 4) Develop interim sparing solution 5) Explore alternative power generation solutions 6) Monitor fleet PIU reliability 7)Completion of IOT&E. |

(U) Performing Activities and Contracts

(U) External Government Activities

None

(U) Contracts and Efforts

| Contract Title | Contract Number / Effort | Contractor | Phase |
|--|--------------------------|----------------------|------------|
| Ship to Shore Connector (SSC) Detail Design & Construction | N00024-12-C-2401 / 1 | Textron Systems Corp | Production |
| SSC Follow On Production | N00024-17-C-2480 / 1 | Textron Systems Corp | Production |

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

Contract Number: N00024-12-C-2401 **Order Number:** -
Contract Title: Ship to Shore Connector (SSC) Detail Design & Construction **Strategy:** -
CAGE: 50079 - Textron Systems Corp **Contracting Office:** -
City, State/Province: New Orleans, LA

Effort Number: 1 **Supported Phase:** Production
Type: Other **Award Date:** July 6, 2012
Latest Modification Date: March 12, 2024 **Definitization Date:** July 6, 2012
Latest Modification No.: A00211 **Work Start Date:** -
Technical Data Rights: -
Notes: In accordance with Section 830(a)(2) of the FY 2020 National Defense Authorization Act, which requires a Selected Acquisition Report (SAR) to be submitted in unclassified form without any designation relating to dissemination control this SAR section has omitted information that is Controlled Unclassified Information (CUI).

| Initial Price (TY\$M) Target / Ceiling | | Current Price (TY\$M) Target / Ceiling | | Est. Price at Completion (TY\$M) Contractor / PM | | Initial Quantity | Current Quantity | Delivered Quantity |
|---|-------|---|-------|---|---|---------------------|---------------------|-----------------------|
| 199.9 | 226.4 | 571.1 | 571.1 | - | - | 1 | 9 | 9 |

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

Contract Number: N00024-17-C-2480 **Order Number:** -
Contract Title: SSC Follow On Production **Strategy:** -
CAGE: 50079 - Textron Systems Corp **Contracting Office:** -
City, State/Province: New Orleans, LA

Effort Number: 1 **Supported Phase:** Production
Type: Other **Award Date:** September 1, 2017

Latest Modification Date: March 8, 2024 **Definitization Date:** April 16, 2020
Latest Modification No.: A00037 **Work Start Date:** -
Technical Data Rights: -

Notes: In accordance with Section 830(a)(2) of the FY 2020 National Defense Authorization Act, which requires a Selected Acquisition Report (SAR) to be submitted in unclassified form without any designation relating to dissemination control this SAR section has omitted information that is Controlled Unclassified Information (CUI).

| Initial Price (TY\$M) | | Current Price (TY\$M) | | Est. Price at Completion (TY\$M) | | Initial | Current | Delivered |
|-----------------------|-------|-----------------------|-------|----------------------------------|---|----------|----------|-----------|
| Target / Ceiling | | Target / Ceiling | | Contractor / PM | | Quantity | Quantity | Quantity |
| 769.0 | 891.3 | 769.0 | 891.3 | - | - | 14 | 14 | - |

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

| | Original LRIP Determination | Current LRIP Determination |
|----------------------------|-----------------------------|----------------------------|
| Total LRIP Quantity | 13 | 50 |
| Date | 7/5/2012 | 5/6/2021 |
| Reference | Milestone B ADM | APB Change 3 |
| LRIP Period | FY 2013 - 2021 | FY 2013 - 2028 |
| Total Procurement Quantity | 12 | 49 |
| LRIP Percentage of Total | 108.3% | 102.0% |

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

The Current Total LRIP Quantity is more than 10% of the total production quantity per the Milestone B approved Acquisition Strategy which establishes an initial production base for the system, provides for an orderly increase in the production rate prior to approval for FRP, and meets fleet operational requirements by FY 2031.

LRIP Notes

The Service Acquisition Executive authorized an increase in LRIP quantities to 50 in order to cover fluctuating procurement quantities.

(U) Deliveries and Expenditures**(U) Acquisition Funding**

| | Total Estimate | Actual to Date | Actual, Percent Complete |
|--------------------------|----------------|----------------|--------------------------|
| Years Appropriated | - | - | - |
| Appropriations (TY, \$M) | 7,358.1 | - | - |
| Expenditures (TY, \$M) | 7,358.1 | 1,870.0 | 25.4% |

(U) End Items Delivered

| | Total Required | Planned to Date | Actual to Date | Actual, Percent Complete |
|--------------|----------------|-----------------|----------------|--------------------------|
| Development | 1 | | | |
| SSC | | 1 | 1 | |
| Procurement | 72 | | | |
| SSC | | 8 | 8 | |
| Total | 73 | 9 | 9 | 12.3% |

Notes

Data is current as of March 11, 2024.

(U) International Program Aspects

General Memo

None

Exportability and Business Issues

The enhanced operational capability of the SSC and the reduced Total Ownership Cost relative to the LCAC increases the potential for FMS. It is expected that the SSC will be compatible with the French Mistral, Japanese Osumi, Korean Dokdo, Spanish Juan Carlos 1, Singapore Navy Endurance, and Australian Canberra class ships. Future inquiries from Turkey, Qatar or other countries will be evaluated on a case-by-case basis. In the event of foreign interest, a determination would be made for either a FMS case or commercial procurement. Should an FMS case for SSC sales develop, the acquisition approach for those LCACs will follow the ASN (RD&A) policy and procedures regarding review, development, and approval of any necessary armaments cooperation and DOD technology transfer requirements. An endorsement letter from PEO SHIPS along with supporting documentation has been submitted through the Navy International Program Office to the Technology Transfer and Security Assistance Review Board for establishment of an exportable variant of SSC for FMS.

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

Program Protection: Technology Security and Foreign Disclosure Issues

No Technology Security and Foreign Disclosure (TSFD) to report.

(U) Agreements

No International Agreements have been defined for SSC



UNCLASSIFIED

**Modernized
Selected Acquisition Report
Supplement**

**Ship to Shore Connector Amphibious Craft
(SSC)**

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

UNCLASSIFIED

MSAR Supplement Sections

Program Description

Program Use of the Adaptive Acquisition Framework

Technologies and Systems Engineering

Funding Sources (Acquisition)

Funding Sources (Operating and Support)

Acquisition Estimate and Quantity Summary

Annual Acquisition Estimates by Appropriation Account

Acquired System Annual End-Item Quantities by Appropriation Account

Nuclear Costs

Operational Fielding Plan

O&S Independent Cost Estimate

Annual Operating and Support Estimates by Cost Element

Program Description

Full Name

Ship to Shore Connector Amphibious Craft

Short Name

SSC

PNO

303

Lead Component

Navy

AAF Pathway

MCA

Acquisition Type

MDAP

Acquired Systems

SSC

Related Programs

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

Program Use of the Adaptive Acquisition Framework

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

Technologies and Systems Engineering

Ship to Shore Connector Amphibious Craft

Major Software Efforts

| Title | Status | Fielding Date | Description |
|-------|--------|---------------|-------------|
| | | | |

Major Engineering Changes

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

Funding Sources (Acquisition)**Acquisition Funding Notes****Ship to Shore Connector Amphibious Craft**

| Category | Account | BA | Line Item | Program Element | RDT&E Project | Shared | Sunk |
|-------------|---------|----|--|-----------------|--|--------|------|
| RDT&E | 1319N | 05 | 0604567N - Ship Contract Design/ Live Fire T&E | 0604567N | 3133 - Ship to Shore Connectors Contract Design | | x |
| RDT&E | 1319N | 05 | 0604567N - Ship Contract Design/ Live Fire T&E | 0604567N | 3137 - SSC Construction | | x |
| RDT&E | 1319N | 04 | 0603564N - Ship Preliminary Design & Feasibility Studies | 0603564N | 3127 - Sea Base to Shore Connectors (Cncpt Stud) | | x |
| RDT&E | 1319N | 05 | 0605220N - Ship to Shore Connector (SSC) | 0605220N | 3133 - Ship to Shore Connectors Contract Design | | |
| RDT&E | 1319N | 05 | 0605220N - Ship to Shore Connector (SSC) | 0605220N | 3137 - SSC Construction | | |
| RDT&E | 1319N | 05 | 0605220N - Ship to Shore Connector (SSC) | 0605220N | 9999 - Congressional Add | | x |
| RDT&E | 1319N | 05 | 0605220N - Ship to Shore Connector (SSC) | 0605220N | 9999 - Congressional Add | | x |
| RDT&E | 1319N | 05 | 0605220N - Ship to Shore Connector (SSC) | 0605220N | 9999 - Congressional Add | | |
| RDT&E | 1319N | 05 | 0605220N - Ship to Shore Connector (SSC) | 0605220N | 9999 - Congressional Add | | |
| Procurement | 1810N | 04 | 5664 - Surface Training Equipment | 0204228N | - | x | |
| Procurement | 1611N | 05 | 5110 - Outfitting | 0204112N | - | x | |
| Procurement | 1611N | 05 | 5112 - Ship to Shore Connector | 0204228N | - | | |

Ship to Shore Connector Amphibious Craft

| Category | Account | BA | Line Item | Program Element | RDT&E Project | Shared | Sunk |
|-------------|---------|-------|---|-----------------|---------------|--------|------|
| Procurement | 1611N | 05 | 5300 - Completion of PY Shipbuilding Programs | 0204228N | - | x | |
| MILCON | 1205N | XX | OTHER - Other or New 1205N Line Item | XXX | XXX - -- | x | |
| | Note: | BA 01 | Line Item 0712776N Facilities New Footprint - Utilities | PE 0712776N | | | |
| MILCON | 1205N | 01 | 50092176 - ACU-4 Electrical Upgrades | 0712776N | - | x | |
| MILCON | 1205N | XX | OTHER - Other or New 1205N Line Item | XXX | XXX - -- | x | |
| | Note: | BA 01 | Line Item 0815976N Facilities New Footprint - Training | PE 0815976N | | | |

Funding Sources (Operating and Support)

Operating and Support Funding Notes

Note: This section is not applicable to this program.

Ship to Shore Connector Amphibious Craft

| Category | Account | BA | Line Item | Program Element | RDT&E Project | Shared | Sunk |
|----------|---------|----|-----------|-----------------|---------------|--------|------|
|----------|---------|----|-----------|-----------------|---------------|--------|------|

Acquisition Estimate and Quantity Summary

Ship to Shore Connector Amphibious Craft

Acquisition Estimates

| Category | PB 2025 | TY (\$M) | Current Base Year | Original Base Year | Report Fiscal Year |
|--------------------------|---------|----------------|-------------------|--------------------|--------------------|
| | | | CY2011 (\$M) | CY2011 (\$M) | CY2024 (\$M) |
| RDT&E | | 605.9 | 573.1 | 573.1 | 780.3 |
| Procurement | | 6,734.9 | 4,393.1 | 4,393.1 | 5,981.9 |
| MILCON | | 17.3 | 13.8 | 13.8 | 18.7 |
| O&M | | - | - | - | - |
| Total Acquisition | | 7,358.1 | 4,979.9 | 4,979.9 | 6,781.0 |
| PAUC | | 100.796 | 68.218 | 68.218 | 92.890 |
| APUC | | 93.541 | 61.015 | 61.015 | 83.082 |

Acquisition End-Item Quantities

| System | PB 2025 | Development | Procurement |
|--------------|---------|-------------|-------------|
| SSC | | 1 | 72 |
| Total | | 1 | 72 |

Unit Description

Ship to Shore Connector (SSC) is the Landing Craft, Air Cushion (LCAC) replacement. It is an Air Cushion Vehicle with the same footprint as the LCAC Service Life Extension Program. The SSC mission is to land surface assault elements in support of Operational Maneuver from the Sea at Over-The-Horizon distances, while operating from amphibious ships and mobile landing platforms. The primary role of SSC is to transport weapon systems, equipment, cargo, and personnel of the assault elements of the Marine Expeditionary

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

| Appropriation | Prior | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | To Complete | Total |
|----------------------|----------------|--------------|-------------|--------------|--------------|--------------|--------------|----------------|----------------|
| RDT&E | 598.9 | 1.3 | 5.7 | - | - | - | - | - | 605.9 |
| Procurement | 2,542.4 | 666.7 | 64.4 | 298.9 | 290.0 | 423.4 | 573.5 | 1,875.8 | 6,734.9 |
| MILCON | 17.3 | - | - | - | - | - | - | - | 17.3 |
| O&M | - | - | - | - | - | - | - | - | - |
| PB 2025 Total | 3,158.5 | 668.0 | 70.1 | 298.9 | 290.0 | 423.4 | 573.5 | 1,875.8 | 7,358.1 |

Annual Acquisition Estimates by Appropriation Account

(Aligned to Budget Position: PB 2025)

Ship to Shore Connector Amphibious Craft

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

| 1319N - Research, Development, Test & Eval, Navy | | | | | |
|--|--|-----------------------|------------------|------------------|-----------------------|
| fiscal year | | Other/ Unallocated | Total TY(\$M) | Weighted Rate | Total CY2011 (\$M) |
| Total | | 605.9 | 605.9 | - | 573.1 |
| 2006 | | 14.026 | 14.0 | 0.928300 | 15.1 |
| 2007 | | 12.988 | 13.0 | 0.951036 | 13.7 |
| 2008 | | 26.991 | 27.0 | 0.968385 | 27.9 |
| 2009 | | 25.017 | 25.0 | 0.980819 | 25.5 |
| 2010 | | 33.853 | 33.9 | 0.995531 | 34.0 |
| 2011 | | 97.785 | 97.8 | 1.019301 | 95.9 |
| 2012 | | 57.062 | 57.1 | 1.036206 | 55.1 |
| 2013 | | 112.697 | 112.7 | 1.047087 | 107.6 |
| 2014 | | 68.351 | 68.4 | 1.061882 | 64.4 |
| 2015 | | 41.616 | 41.6 | 1.075243 | 38.7 |
| 2016 | | 7.734 | 7.7 | 1.095200 | 7.1 |
| 2017 | | 12.588 | 12.6 | 1.115691 | 11.3 |
| 2018 | | 31.583 | 31.6 | 1.143020 | 27.6 |
| 2019 | | 1.425 | 1.4 | 1.165034 | 1.2 |
| 2020 | | 19.188 | 19.2 | 1.207877 | 15.9 |
| 2021 | | 12.336 | 12.3 | 1.262164 | 9.8 |
| 2022 | | 6.295 | 6.3 | 1.328102 | 4.7 |
| 2023 | | 17.344 | 17.3 | 1.367641 | 12.7 |
| 2024 | | 1.343 | 1.3 | 1.398861 | 1.0 |
| 2025 | | 5.697 | 5.7 | 1.428535 | 4.0 |

Annual Acquisition Estimates by Appropriation Account

(Aligned to Budget Position: PB 2025)

Ship to Shore Connector Amphibious Craft

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

| 1205N - Military Construction, Navy | | | | | |
|-------------------------------------|--|-----------------------|------------------|------------------|-----------------------|
| fiscal year | | Other/ Unallocated | Total TY(\$M) | Weighted Rate | Total CY2011 (\$M) |
| Total | | 17.3 | 17.3 | - | 13.8 |
| 2006 | | | - | 0.944771 | - |
| 2007 | | | - | 0.963984 | - |
| 2008 | | | - | 0.980413 | - |
| 2009 | | | - | 0.993846 | - |
| 2010 | | | - | 1.018719 | - |
| 2011 | | | - | 1.041602 | - |
| 2012 | | | - | 1.056992 | - |
| 2013 | | | - | 1.072049 | - |
| 2014 | | | - | 1.088129 | - |
| 2015 | | | - | 1.118798 | - |
| 2016 | | | - | 1.144873 | - |
| 2017 | | | - | 1.174362 | - |
| 2018 | | 2.600 | 2.6 | 1.217944 | 2.1 |
| 2019 | | 14.700 | 14.7 | 1.264797 | 11.6 |

Annual Acquisition Estimates by Appropriation Account

(Aligned to Budget Position: PB 2025)

Ship to Shore Connector Amphibious Craft

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

| 1611N (BLS Hist) - Shipbuilding and Conversion, Navy | | | | | | | | | |
|--|----------------------------|--------------------------------|-----------------------|----------------|------------------|--------------------|----------------|---------------|--------------------|
| fiscal year | End Item Recurring Flyaway | Non-End Item Recurring Flyaway | Non-Recurring Flyaway | Initial Spares | Depot Activation | Other/ Unallocated | Total TY(\$M) | Weighted Rate | Total CY2011 (\$M) |
| Total | 6,709.2 | - | - | - | - | - | 6,709.2 | - | 4,374.6 |
| 2006 | | | | | | | - | 0.898279 | - |
| 2007 | | | | | | | - | 0.939556 | - |
| 2008 | | | | | | | - | 0.971557 | - |
| 2009 | | | | | | | - | 1.001279 | - |
| 2010 | | | | | | | - | 1.036066 | - |
| 2011 | | | | | | | - | 1.070054 | - |
| 2012 | | | | | | | - | 1.094602 | - |
| 2013 | | | | | | | - | 1.117495 | - |
| 2014 | | | | | | | - | 1.140124 | - |
| 2015 | 159.600 | | | | | | 159.6 | 1.166401 | 136.8 |
| 2016 | 210.630 | | | | | | 210.6 | 1.196229 | 176.1 |
| 2017 | 128.067 | | | | | | 128.1 | 1.230543 | 104.1 |
| 2018 | 530.521 | | | | | | 530.5 | 1.270627 | 417.5 |
| 2019 | 523.652 | | | | | | 523.7 | 1.317906 | 397.3 |
| 2020 | 76.093 | | | | | | 76.1 | 1.372212 | 55.5 |
| 2021 | 8.582 | | | | | | 8.6 | 1.427692 | 6.0 |
| 2022 | 415.314 | | | | | | 415.3 | 1.477544 | 281.1 |
| 2023 | 479.974 | | | | | | 480.0 | 1.512313 | 317.4 |
| 2024 | 651.345 | | | | | | 651.3 | 1.544756 | 421.6 |
| 2025 | 64.271 | | | | | | 64.3 | 1.577253 | 40.7 |
| 2026 | 298.805 | | | | | | 298.8 | 1.610375 | 185.5 |
| 2027 | 289.859 | | | | | | 289.9 | 1.644193 | 176.3 |
| 2028 | 423.291 | | | | | | 423.3 | 1.678721 | 252.2 |
| 2029 | 573.354 | | | | | | 573.4 | 1.713975 | 334.5 |
| 2030 | 1,875.801 | | | | | | 1,875.8 | 1.749968 | 1,071.9 |

Annual Acquisition Estimates by Appropriation Account

(Aligned to Budget Position: PB 2025)

Ship to Shore Connector Amphibious Craft

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

| 1810N - Other Procurement, Navy | | | | | | | | | |
|---------------------------------|----------------------------|--------------------------------|-----------------------|----------------|------------------|--------------------|---------------|---------------|--------------------|
| fiscal year | End Item Recurring Flyaway | Non-End Item Recurring Flyaway | Non-Recurring Flyaway | Initial Spares | Depot Activation | Other/ Unallocated | Total TY(\$M) | Weighted Rate | Total CY2011 (\$M) |
| Total | 25.8 | - | - | - | - | - | 25.8 | - | 18.5 |
| 2006 | | | | | | | - | 0.941484 | - |
| 2007 | | | | | | | - | 0.961978 | - |
| 2008 | | | | | | | - | 0.977611 | - |
| 2009 | | | | | | | - | 0.990499 | - |
| 2010 | | | | | | | - | 1.009643 | - |
| 2011 | | | | | | | - | 1.024406 | - |
| 2012 | | | | | | | - | 1.040705 | - |
| 2013 | | | | | | | - | 1.054955 | - |
| 2014 | | | | | | | - | 1.068995 | - |
| 2015 | | | | | | | - | 1.084411 | - |
| 2016 | | | | | | | - | 1.104041 | - |
| 2017 | | | | | | | - | 1.127492 | - |
| 2018 | | | | | | | - | 1.153186 | - |
| 2019 | 0.652 | | | | | | 0.7 | 1.181170 | 0.6 |
| 2020 | - | | | | | | - | 1.222761 | - |
| 2021 | - | | | | | | - | 1.282580 | - |
| 2022 | - | | | | | | - | 1.336975 | - |
| 2023 | 9.265 | | | | | | 9.3 | 1.375680 | 6.7 |
| 2024 | 15.327 | | | | | | 15.3 | 1.406863 | 10.9 |
| 2025 | 0.091 | | | | | | 0.1 | 1.436697 | 0.1 |
| 2026 | 0.104 | | | | | | 0.1 | 1.466868 | 0.1 |
| 2027 | 0.104 | | | | | | 0.1 | 1.497672 | 0.1 |
| 2028 | 0.106 | | | | | | 0.1 | 1.529123 | 0.1 |
| 2029 | 0.108 | | | | | | 0.1 | 1.561235 | 0.1 |

Acquired System Annual End-Item Quantities by Appropriation Account

(Aligned to Budget Position: PB 2025)

Ship to Shore Connector Amphibious Craft

| 1319N - Research, Development, Test & Eval, Navy | | | | |
|--|----------|--|--|----------|
| fiscal year | SSC | | | Total |
| Total | 1 | | | 1 |
| Undistributed | | | | - |
| 2011 | 1 | | | 1 |

Acquired System Annual End-Item Quantities by Appropriation Acco

(Aligned to Budget Position: PB 2025)

Ship to Shore Connector Amphibious Craft

| 1611N (BLS Hist) - Shipbuilding and Conversion, Navy | | | | |
|--|-----------|--|--|-----------|
| fiscal year | SSC | | | Total |
| Total | 72 | | | 72 |
| Undistributed | | | | - |
| 2011 | | | | - |
| 2012 | | | | - |
| 2013 | | | | - |
| 2014 | | | | - |
| 2015 | 3 | | | 3 |
| 2016 | 5 | | | 5 |
| 2017 | 1 | | | 1 |
| 2018 | 7 | | | 7 |
| 2019 | 6 | | | 6 |
| 2020 | 1 | | | 1 |
| 2021 | - | | | - |
| 2022 | 5 | | | 5 |
| 2023 | 5 | | | 5 |
| 2024 | 4 | | | 4 |
| 2025 | - | | | - |
| 2026 | 2 | | | 2 |
| 2027 | 2 | | | 2 |
| 2028 | 3 | | | 3 |
| 2029 | 4 | | | 4 |
| 2030 | 24 | | | 24 |

Nuclear Costs

Ship to Shore Connector Amphibious Craft

Program's Use of Department of Energy Resources

Note: This section is not applicable to this program.

Operational Fielding Plan

Ship to Shore Connector Amphibious Craft

System: SSC

Fielding and Inventory Notes

Note: This section is not applicable to this program.

SSC Fielding Plan and Inventory

| fiscal year | Store | Field | Expend/Loss | Decommission | Inventory |
|-------------|-------|-------|-------------|--------------|-----------|
| 2023 | | | | | |
| 2024 | | | | | - |
| 2025 | | | | | - |
| 2026 | | | | | - |
| 2027 | | | | | - |
| 2028 | | | | | - |
| 2029 | | | | | - |

O&S Independent Cost Estimate

Ship to Shore Connector Amphibious Craft

Independent and Current Cost Estimate Comparison

| Category | CY2011 (\$M) | Independent Cost Estimate 5/21/2015 | Current Estimate 5/21/2015 | Variance with ICE (%) |
|-------------------------------|--------------|-------------------------------------|----------------------------|-----------------------|
| Unit-Level Manpower | | 3,339.7 | 3,339.7 | 0% |
| Unit Operations | | 995.0 | 995.0 | 0% |
| Maintenance | | 2,387.0 | 2,387.0 | 0% |
| Sustaining Support | | 1,013.2 | 1,013.2 | 0% |
| Continued System Improvements | | 578.4 | 578.4 | 0% |
| Other | | 1,793.0 | 1,793.0 | 0% |
| Total O&S | | 10,106.3 | 10,106.3 | 0% |

Independent Cost Estimate Source

Event: Milestone C
Type: Component Cost Position
Approved by: NCCA, May 21, 2015

Current Cost Estimate Source

Type: Component Cost Position
Approved by: NCCA, May 21, 2015

Cost Estimate Variance Explanation

Component cost estimate is equivalent to the current estimate, therefore, no variance.

Annual Operating and Support Estimates by Cost Element

Ship to Shore Connector Amphibious Craft

System: SSC

Source for TY-CY Conversion:

| Operating and Support Cost Elements | | | | | | | |
|-------------------------------------|-------------------------|---------------------|-----------------|------------------------|------------------------------------|------------------------|--------------------|
| fiscal year | 1.0 Unit-Level Manpower | 2.0 Unit Operations | 3.0 Maintenance | 4.0 Sustaining Support | 5.0 Continuing System Improvements | Other (Indirect Costs) | Total CY2011 (\$M) |
| Total | 3,339.7 | 995.0 | 2,387.0 | 1,013.2 | 578.4 | 1,793.0 | 10,106.3 |
| 2017 | - | 0.353 | - | 0.731 | - | - | 1.1 |
| 2018 | 2.798 | 0.364 | - | 1.761 | - | 1.499 | 6.4 |
| 2019 | 16.528 | 1.396 | 5.338 | 3.063 | - | 8.895 | 35.2 |
| 2020 | 33.057 | 5.500 | 15.493 | 4.917 | - | 17.790 | 76.8 |
| 2021 | 44.705 | 10.471 | 25.648 | 7.420 | - | 24.046 | 112.3 |
| 2022 | 57.264 | 14.110 | 35.013 | 10.618 | - | 30.822 | 147.8 |
| 2023 | 76.818 | 17.775 | 44.605 | 12.501 | - | 41.346 | 193.0 |
| 2024 | 93.347 | 23.680 | 60.516 | 14.996 | 2.396 | 50.241 | 245.2 |
| 2025 | 107.733 | 28.676 | 72.701 | 17.578 | 2.396 | 57.839 | 286.9 |
| 2026 | 107.733 | 33.135 | 78.794 | 19.455 | 2.396 | 57.839 | 299.4 |
| 2027 | 107.733 | 33.135 | 78.794 | 30.757 | 2.396 | 57.839 | 310.7 |
| 2028 | 107.733 | 33.135 | 78.794 | 30.757 | 2.396 | 57.839 | 310.7 |
| 2029 | 107.733 | 33.135 | 78.794 | 30.757 | 2.396 | 57.839 | 310.7 |
| 2030 | 107.733 | 33.135 | 78.794 | 30.757 | 2.396 | 57.839 | 310.7 |
| 2031 | 107.733 | 33.135 | 78.794 | 30.757 | 2.396 | 57.839 | 310.7 |
| 2032 | 107.733 | 33.135 | 78.794 | 30.757 | 2.396 | 57.839 | 310.7 |
| 2033 | 107.733 | 33.135 | 78.794 | 30.757 | 29.805 | 57.839 | 338.1 |
| 2034 | 107.733 | 33.135 | 78.794 | 30.757 | 70.918 | 57.839 | 379.2 |
| 2035 | 107.733 | 33.135 | 78.794 | 30.757 | 70.918 | 57.839 | 379.2 |
| 2036 | 107.733 | 33.135 | 78.794 | 30.757 | 70.918 | 57.839 | 379.2 |
| 2037 | 107.733 | 33.135 | 78.794 | 30.757 | 70.918 | 57.839 | 379.2 |
| 2038 | 107.733 | 33.135 | 78.794 | 30.757 | 70.918 | 57.839 | 379.2 |
| 2039 | 107.733 | 33.135 | 78.794 | 30.757 | 70.918 | 57.839 | 379.2 |
| 2040 | 107.733 | 33.135 | 78.794 | 30.757 | 64.066 | 57.839 | 372.3 |
| 2041 | 107.733 | 33.135 | 78.794 | 30.757 | 2.396 | 57.839 | 310.7 |
| 2042 | 107.733 | 33.135 | 78.794 | 30.757 | 2.396 | 57.839 | 310.7 |
| 2043 | 107.733 | 33.135 | 78.794 | 30.757 | 2.396 | 57.839 | 310.7 |
| 2044 | 107.733 | 33.135 | 78.794 | 30.757 | 2.396 | 57.839 | 310.7 |
| 2045 | 107.733 | 33.135 | 78.794 | 30.757 | 2.396 | 57.839 | 310.7 |
| 2046 | 107.733 | 33.135 | 78.794 | 30.757 | 2.396 | 57.839 | 310.7 |
| 2047 | 107.733 | 32.781 | 78.794 | 30.757 | 2.396 | 57.839 | 310.3 |
| 2048 | 107.733 | 32.781 | 78.794 | 30.757 | 2.396 | 57.839 | 310.3 |
| 2049 | 104.935 | 31.873 | 76.763 | 30.638 | 2.396 | 56.339 | 302.9 |

System: SSC

Source for TY-CY Conversion:

| Operating and Support Cost Elements | | | | | | | |
|--|--------------------------------|----------------------------|------------------------|-------------------------------|---|-------------------------------|---------------------------|
| fiscal year | 1.0 Unit-Level Manpower | 2.0 Unit Operations | 3.0 Maintenance | 4.0 Sustaining Support | 5.0 Continuing System Improvements | Other (Indirect Costs) | Total CY2011 (\$M) |
| 2050 | 91.204 | 27.780 | 66.609 | 30.058 | 2.396 | 48.944 | 267.0 |
| 2051 | 74.676 | 22.794 | 56.454 | 29.411 | 2.396 | 40.049 | 225.8 |
| 2052 | 63.028 | 19.155 | 47.088 | 28.902 | 2.396 | 33.792 | 194.4 |
| 2053 | 50.469 | 15.516 | 37.497 | 28.377 | 2.396 | 27.016 | 161.3 |
| 2054 | 30.915 | 9.600 | 21.586 | 27.529 | 2.396 | 16.492 | 108.5 |
| 2055 | 14.386 | 4.599 | 9.400 | 26.830 | 2.396 | 7.597 | 65.2 |
| 2056 | - | - | - | 20.864 | 0.771 | - | 21.6 |
| 2057 | - | - | - | 20.864 | 0.771 | - | 21.6 |