Ship to Shore Connector (SSC)



In FY24, the Navy's Operational Test and Evaluation Force (OPTEVFOR) conducted no OT&E or LFT&E events on the Ship to Shore Connector (SSC) due to continued program effort to improve vessel reliability and availability. The Navy deferred the IOT&E and remaining work on the SSC survivability assessment from FY24 to FY25.

SYSTEM DESCRIPTION

The SSC is a fully amphibious air cushion vehicle similar to the currently in-service Landing Craft, Air Cushion (LCAC). Compared to the LCAC, the SSC is intended to have increased payload, availability, and the ability to operate in a greater range of environmental conditions.

MISSION

Navy commanders will use the SSC to provide ship-to-shore transport of forces conducting a Ship-To-Objective Maneuver. The SSC system is expected to bridge the gap of brigade-sized maneuver and operations capability after the retirement of the LCAC at the end of its service life.

PROGRAM

The SSC is an Acquisition Category IC major capability acquisition program. The Navy approved Milestone C in July 2015. The SSC Program Office took delivery of the first test and training craft in February 2020. DOT&E approved the SSC program TEMP in November 2021 and the IOT&E test plan in November 2022.

In FY24, the program office continued efforts to correct the vessel reliability and availability issues that had prevented commencing IOT&E in December 2022, and that are detailed in the FY23 Annual Report. Although the Navy had expected to commence IOT&E in FY24, these efforts have further delayed IOT&E start to FY25. Moreover, the Navy now expects to complete analysis of SSC survivability in the presence of threat mines using mine susceptibility modeling and simulation in FY25.

» MAJOR CONTRACTOR

 Textron Systems – New Orleans, Louisiana

TEST ADEQUACY

In FY24, OPTEVFOR conducted no OT&E or LFT&E events on the SSC due to continued program effort to improve vessel reliability and availability. Cyber survivability testing and LFT&E previously conducted between 2018 – 2023 will be reviewed against vessel modifications to determine if any test data are invalidated by the modifications and require additional test.

In FY24, the program office prioritized their efforts on the correction of vessel reliability and availability issues and thus delayed verification, validation, and accreditation of SSC vulnerability assessment models, as well as the final survivability assessment report, to FY25. The final survivability assessment report will detail SSC mine susceptibility and final predictions for the probability of kill given hit to the SSC by threat weapons.

PERFORMANCE

» EFFECTIVENESS

No data are available to determine operational effectiveness of the SSC. DOT&E will report operational effectiveness after completion of IOT&E that the Navy expects to occur in FY25.

» SUITABILITY

SSC reliability did not support conducting the planned operational test in FY23 or FY24. Insufficient test data are available to determine operational suitability of SSC or confirm reliability improvement from SSC vessel modifications made since FY23. DOT&E will report operational suitability after completion of IOT&E that the Navy expects to occur in FY25.

» SURVIVABILITY

DOT&E will report the cyber survivability of SSC, and SSC platform survivability to threat weapons, after completion of IOT&E that the Navy expects to occur in FY25.

RECOMMENDATIONS

The Navy should:

 Verify SSC reliability supports operational test prior to commencing IOT&E. Correction of reliability issues should be confirmed with representative SSC operations as recommended in the FY23 Annual Report. 2. Complete verification, validation, and accreditation of SSC vulnerability assessment models in early FY25 to support timely completion of the final survivability assessment report as recommended in the FY23 Annual Report.