

LHA 6 Flight 0 Amphibious Assault Ship



Between March and April 2022, the Navy and Marine Corps demonstrated capability of the USS *Tripoli* (LHA 7) to operate in the F-35B-heavy configuration consisting of 20 F-35B Joint Strike Fighter aircraft, 3 SH-60S Seahawk helicopters, a Marine Aviation Combat Element, and a Marine Command Element. No preliminary assessment of performance attributes can be made from this FOT&E event as analysis remains in progress. DOT&E expects to deliver an FOT&E report in 2QFY23.

SYSTEM DESCRIPTION

The USS *America* (LHA 6) class are large-deck amphibious assault ships intended to provide transportation and operational support for deployed Marine Corps forces, aircraft squadrons

(including the F-35B Joint Strike Fighter, the AV-8B, the MV-22, the CH-53, the AH-1, the UH-1, and the H-60), and the Marine Air Ground Task Force. The LHA 6 Flight 0, commencing with USS *America* (LHA 6), maximizes aviation capability (i.e., flight deck and hangar deck) and includes no well deck. The LHA 6 Flight 1 variant,

commencing with USS *Bougainville* (LHA 8), reduces aviation capability to support a well deck capable of deploying two Landing Craft Air Cushion hovercraft. LHA 6 class ships are equipped with the Ship Self-Defense System, the primary control and decision system that integrates air search radars, trackers, an electronic warfare

system, and hard-kill and soft-kill weapons to provide self-defense against anti-ship cruise missiles.

MISSION

Joint Force Commanders will employ the USS *America* (LHA 6) class amphibious assault ships as the primary command ship and aviation platform for an Amphibious Ready Group or Expeditionary Strike Group and associated Marine Expeditionary Unit/Marine Air-Ground Task Force.

PROGRAM

The LHA 6 program (formerly the LHA (R) program) is an Acquisition Category IC program. The Navy completed the LHA 6 Flight 0 IOT&E in 2017 and an operational assessment of the LHA 6 Flight 1 design in 2020. The Navy is revising the Test and Evaluation Master Plan to include the test strategy and resources for OT&E and LFT&E of LHA 6 Flight 1 and expects to deliver it for DOT&E approval in FY23. The Navy expects to deliver the USS *Bougainville* (LHA 8) in FY25 and subsequently conduct FOT&E.

» MAJOR CONTRACTORS

- LHA 8: Huntington Ingalls Industries, Ingalls Shipbuilding Division – Pascagoula, Mississippi
- Ship Self-Defense System: Lockheed Martin – Moorestown, New Jersey

- Enterprise Air Surveillance Radar (EASR): Raytheon Missiles and Defense – Marlborough, Massachusetts
- RAM Block 2A and ESSM Block 1 missiles: Raytheon Missiles and Defense – Tucson, Arizona
- Cooperative Engagement Capability (CEC): Raytheon – St. Petersburg, Florida
- Surface Electronic Warfare Improvement Program Block 2 (SEWIP Block 2): Lockheed Martin – Syracuse, New York

TEST ADEQUACY

Between March and April 2022, the Navy and Marine Corps tested the USS *Tripoli* (LHA 7) in the F-35B-heavy configuration consisting of 20 F-35B Joint Strike Fighter aircraft, 3 SH-60S Seahawk helicopters, a Marine Aviation Combat Element, and a Marine Command Element. Testing evaluated the ability to embark, operate, support and maintain the fixed and rotary wing aircraft in this configuration. The Navy conducted this FOT&E period of the LHA 6 Flight 0 in accordance with a DOT&E-approved test plan, and tests were observed by DOT&E. Testing was adequate for demonstration of capability. Additionally, the test will inform future F-35B-heavy operational concepts and tactics, techniques, and procedures.

In FY22, the Navy conducted no LFT&E of LHA 6 Flight 0 or operational test of LHA 6 Flight 1.

DOT&E and the Navy have yet to agree on a LFT&E strategy to evaluate the survivability of the LHA 6 Flight 1 to air delivered or underwater kinetic threats.

PERFORMANCE

» EFFECTIVENESS

Under the operational conditions imposed during FOT&E, the LHA 6 Flight 0 demonstrated capability to operate in the F-35B-heavy configuration consisting of 20 F-35B Joint Strike Fighter aircraft, 3 SH-60S Seahawk helicopters, a Marine Aviation Combat Element, and a Marine Command Element. However, no preliminary assessment of mission performance attributes can be made from this FOT&E event as analysis remains in progress. DOT&E expects to deliver an LHA 6 Flight 0 FOT&E report in 2QFY23.

» SUITABILITY

Insufficient data are available to determine operational suitability from the FOT&E, however LHA 6 Flight 0 suitability was evaluated as satisfactory during IOT&E. FOT&E suitability evaluation is limited to reliability, maintainability, logistics supportability, and availability of ship's systems that directly supported F-35B operations. DOT&E observed no significant issues related to suitability, but analysis remains in progress. DOT&E expects to deliver an LHA 6 Flight 0 FOT&E report in 2QFY23.

» SURVIVABILITY

No data are available to change the lethality assessment of LHA 6 Flight 0 from IOT&E or assess survivability of LHA 6 Flight 1.

RECOMMENDATION

The Navy should:

1. Collaborate with DOT&E to deliver an LFT&E strategy that adequately evaluates the survivability of the LHA 6 Flight 1 with the update to the TEMP in FY23.

