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

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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
 (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&Eapproved 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-35Bheavy 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.

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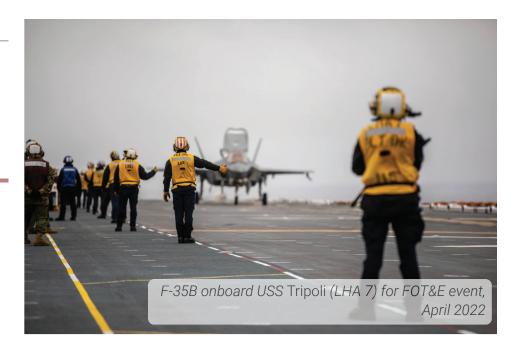
» SURVIVABILITY

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:

 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.



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