

# LHA 6 Flight 1 Amphibious Assault Ship



In FY24, the Navy conducted no testing on LHA 6 Flight 1 Amphibious Assault Ships. The Navy expects to commence an FOT&E of LHA 6 Flight 1 in FY26. The LHA 6 Flight 1 TEMP, previously expected for delivery to DOT&E for approval in FY24, continues to be revised by the Navy and is now expected for approval in FY25.

## SYSTEM DESCRIPTION

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The LHA 6 class are large-deck amphibious assault ships intended to provide transportation and operational support for deployed Marine Corps forces, aircraft squadrons (including F-35B, AV-8B, MV-22, CH-53, AH-1, UH-1, and H-60 squadrons), and the Marine Air Ground Task Force. The class has two variants, referred to as Flights. 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, commencing with USS *Bougainville* (LHA 8), reduces aviation capability to support a well deck capable of deploying two Landing Craft Air Cushion (LCAC) hovercraft. LHA 6 Flight 1 is outfitted with Ship Self-Defense System (SSDS) Mk 2 Mod 4E, 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. LHA 6 Flight 1 will be outfitted with AN/SPY-6(V)2 as the air and missile defense radar.

## MISSION

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Joint force commanders will employ LHA 6-class 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. LHA 6 Flight 1 enables a mix of ground and aviation assets in support of Marine Corps warfighting concepts.

## PROGRAM

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The LHA 6 program is an Acquisition Category IC program. The Navy completed the LHA 6 Flight 0 IOT&E and LFT&E in FY17 and FOT&E in FY22. DOT&E published reports in April 2019 and February 2023 respectively. DOT&E removed LHA 6 Flight 0 from oversight in FY23. The Navy completed an operational assessment of the LHA 6 Flight 1 design in 2020. The LHA 6 Flight 1 TEMP, previously expected for delivery to DOT&E for approval in FY24, continues to be revised by the Navy and is now expected for approval in FY25. The LHA 6 Program Office expects to deliver USS *Bougainville* (LHA 8) in FY26 and subsequently conduct LHA 6 Flight 1 FOT&E and LFT&E.

In FY24, the Navy convened working groups to address recommendations in the FY23 Annual Report to investigate aviation space utilization options and supplemental crewing options that could support sustained operations with an F-35B-heavy Aviation Combat Element (ACE) embarked. These recommendations were based on observations from the LHA 6 Flight 0 FOT&E that was detailed in the FY22 Annual Report. The Navy and Marine Corps are currently working to define the formal requirements

to inform discussions of Navy/Marine Corps aviation space allocation options. The working groups further concluded that additional information is necessary to determine specific manning stressors and directed the use of after-action reports from ship's operations regarding personnel and ongoing manpower studies to inform guidance on manpower requirements.

The Navy remains in the development of enterprise test strategies for SSDS Mk 2 Mod 4E and AN/SPY-6(V)2, which will coordinate ship self-defense evaluation of multiple ship classes, including LHA 6 Flight 1. The details of the enterprise approach are in the SSDS and Air and Missile Defense Radar (AMDR) / AN/SPY-6 articles in this Annual Report.

### » MAJOR CONTRACTOR

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- Ingalls Shipbuilding, a division of HII – Pascagoula, Mississippi

## TEST ADEQUACY

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As first reported in the FY21 Annual Report, DOT&E and the LHA 6 Program Office have yet to agree on an LHA Flight 1 LFT&E Strategy to evaluate the survivability of the LHA 6 Flight 1 against air-delivered or underwater kinetic threats. Specific DOT&E concerns are the lack of fire testing for embarked vehicle spaces and the lack of a Full Ship Shock Trial. DOT&E approval of the pending LHA Flight 1 TEMP is dependent of



its inclusion of these test events and associated resources.

No testing was conducted in FY24. The Navy expects to begin FOT&E of LHA 6 Flight 1 in FY26.

updated TEMP for embarked vehicle fire testing and a Full Ship Shock Trial.

## PERFORMANCE

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### » EFFECTIVENESS, SUITABILITY, AND SURVIVABILITY

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No data are available to assess LHA 6 Flight 1 operational effectiveness, suitability, and survivability. DOT&E expects to report on LHA 6 Flight 1 operational effectiveness, suitability, and survivability after completion of FOT&E that the Navy expects to commence in FY26.

## RECOMMENDATIONS

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The Navy should:

1. As recommended in the FY23 Annual Report, continue to investigate aviation space allocation options that support sustained operations with an F-35B-heavy ACE embarked.
2. As recommended in the FY23 Annual Report, continue to investigate supplemental crewing options for sustained LHA 6 Flight 0 operations with an F-35B-heavy ACE embarked.
3. As recommended in the last three DOT&E Annual Reports, deliver the LHA 6 Flight 1 LFT&E Strategy to DOT&E for approval in FY25. Identify resources in the