



THE ASSISTANT SECRETARY OF THE NAVY
(Research, Development and Acquisition)
WASHINGTON, D.C. 20350-1000
Office of The Chief of Naval Operations (20350-2000)
Headquarters, United States Marine Corps (20380-0001)

APR 30 2004

JOINT MEMORANDUM FOR DISTRIBUTION

Subj: LHA(R) FLIGHT ZERO REQUIRED CAPABILITIES

Encl: (1) Requirements for the LHA(R) Flight Zero

LHA(R) Flight Zero will function as a transition ship, spiraling to future expeditionary ships with transformational capabilities including interoperability with related seabasing programs. Combining lessons learned from combat operations in Afghanistan and Iraq with the Analysis of Alternatives (AoA) for the LHA(R) and MPF(F) programs, the Department of Defense has concluded that increasing the aviation capabilities of a class of amphibious assault ships is a key enabler for future joint warfighting capabilities. The inherent flexibility of tailoring an increased aircraft load-out to the specific mission coupled with robust aviation maintenance capability provides a significant advantage to the joint warfighting commander.

To support the Department of Defense goal of getting transformational equipment and systems to the forces faster, and at the most affordable cost, LHA(R) Flight Zero will be a LHA(R) variant utilizing the LHD 1 Class hull and latest propulsion/electric plant. Based on the recent AoAs and operations in Afghanistan and Iraq, LHA(R) Flight Zero shall be constructed with enhanced aviation capabilities and additional cargo fuel (JP-5) capacity in lieu of a well deck. Enclosure (1) provides the framework of overarching warfighting requirements. Further detailed requirements will be defined in a Capability Development Document (CDD) for Flight Zero. Preliminary design and contract design efforts shall commence immediately based on the requirements of this letter. This effort should include consulting with the incumbent contractor for the LHD program, Northrop Grumman Ship Systems, to provide input to the study team in order to gain from the experience of the only producer of large deck amphibious assault ships since the 1970's.

Program Executive Office (Ships) (PEO Ships) and Amphibious Warfare Program Manager (PMS377) have acquisition program responsibilities for the LHA(R) Program. The Flight Zero concept was developed using tentative requirements and both the ship characteristics and cost were estimated. Therefore, PEO (Ships) shall develop the Flight Zero concept into a balanced design based on the requirements discussed herein and present a feasibility design and refined cost estimate for LHA(R) Flight Zero to ASN (RDA) no later than 30 June 2004. The refined cost estimate will establish the POM 06 funding requirement for LHA(R) Flight Zero. Additionally, PEO (Ships) shall develop an acquisition strategy and overall program plan for procurement of the LHA(R) class.



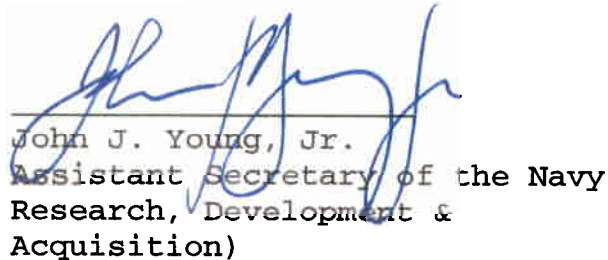
ADMIRAL Vern Clark

Chief of Naval Operations
United States Navy



GENERAL Michael Hagee

Commandant of the
United States Marine Corps



John J. Young, Jr.
Assistant Secretary of the Navy
(Research, Development & Acquisition)

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REQUIREMENTS FOR LHA(R) FLIGHT ZERO (AVIATION VARIANT)

1. The ship will have the capability to operationally deploy and provide maintenance support for the following mixes of aircraft: 12 V-22 and 12 JSF; or 23 JSF; or 28 V-22. Additionally, this ship will be capable of hosting the following rotary and fixed wing aircraft types: AV-8B, CH-53E, CH-46E, AH-1W/Z, and UH-1N/Y, if they are deployed as part of the Aviation Combat Element (ACE). All combinations will include at least two H-60 search and rescue helicopters.

2. Flight Operations

a. Capability to operate from as many as nine VTOL spots CH-53E/MV-22 compatible.

b. Capability to conduct flight FW/RW/TR operations for twenty-four hours per day for six consecutive days before stand down (objective). The threshold capability is to be determined.

c. Capability to embark, launch, recover, re-arm, refuel, load cargo; Level I, Class I certification (conduct day/night operations, Instrument Meteorological Conditions (IMC), aircraft landing and takeoff and hangaring of fixed wing, rotary wing, and tilt-rotor aircraft with flight/hangar deck servicing facilities and aircraft maintenance/weapons support).

3. Hangar area

(1) The hangar shall be capable of housing two MV-22s in the maintenance spread (wing spread, nacelles vertical and prop-rotors spread). The hangar will be sized to hold aircraft that do not fit on the flight deck while meeting the requirements of paragraph 1.

4. Cargo

a. The ship will have elevator access to explosive magazine storage. Total magazine size will have a net volume of 110K cubic feet (Threshold), net volume 125K cubic feet (Objective).

b. Elevator access to non-explosive LFORM storage net volume of 20,000 cubic feet threshold, 35,000 cubic feet objective.

5. Vehicle stowage:

Vehicle Stowage	Threshold	Objective
Number of HMMWVs (non-shelterized) or ITVs	80	90
Square Feet	10K	12K

a. Capability to stow quadcons in vehicle stowage area.

b. Capability for vehicle access to flight deck via internal ramps or internal ramps and aircraft elevators and to pier via side port cargo doors and ramp. Quadcon access to flight deck from main deck via aircraft elevators and cargo elevator.

6. Accommodations:

Accommodations ^{1,2}	Threshold	Objective
Officer	276	T = 0
CPO (E7-E9)	142	T = 0
Enlisted (E1-E6)	2473	T = 0

Notes: (1) Embarked troop spaces may migrate to blue spaces to support increased manning for enhanced air operations.

(2) LHD 1 Class accommodation standards (LHD 1 Class does not meet OPNAVINST 9640.1A standards).

7. No well deck.

8. Cargo fuel: 1.1M gal JP-5 (Threshold); 1.6M gal JP-5 (Objective) with a ready service tank commensurate with predicted operational tempo.

9. Self Defense Suite: Without assistance of embarked USMC assets, the ship will have the ability to defend itself in all warfare domains with a self-defense suite functionally equivalent to LHD 8.

10. Endurance range/speed: 9500 NM at 20 knots.

11. Sustained speed: 21 knots (Threshold)/22 knots (Objective).

12. Service life allowance: 1000LT and 0.5 ft KG (Threshold)/5% full load displacement and 1.0 ft KG (Objective).
13. Medical: Two OR's and 24 beds.
14. Survivability
 - a. Capability to protect ship's complement and embarked troops from chemical, biological or radiological attack with safe haven protective system.
 - b. Magazine fragmentation protection (structural steel).
 - c. Radar, acoustic, magnetic, and infrared signature equal to LHD 1 Class (LHD 1 Class does not meet OPNAVINST 9070.2 standards).
 - d. Hull girder strength equal to LHD 1 Class (Threshold); structural strength to mitigate damage from hull girder whipping (Objective).
 - e. Firefighting and recoverability functionality equal to LHD 1 Class (Threshold); enhanced firefighting and recoverability (Objective).
15. C4&I: functionality equivalent to LHD 1 Class, plus:
 - a. Reconfigurable command and control spaces.
 - b. Capability to conduct aviation TS/SCI mission planning and briefing for F-35B (JSF) operations.
16. Training Spaces: Provide a 200 man (company sized) reconfigurable training space with space and weight for an Indoor Simulated Marksmanship Trainer (ISMT) dedicated for embarked force use (Threshold). Provide a separate area (space and weight) for the ISMT (Objective).