LSD-41 to Hospital/Naval Construction Ship (Conversion)

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The MERCY class hospital ships of the United States Navy (USN) are nearing decommissioning, and a number of replacement concepts are being considered. A proposed replacement plan is to convert currently serving amphibious ships that are also nearing decommissioning, but which have significant serviceable life remaining. This would result in a low replacement cost while providing the amphibious capability that is considered highly beneficial when transporting casualties. Further to this, the concept of operations for hospital ships is being considerably revised. Whereas the purpose of the existing ships is to act as a floating hospital providing relatively long-term care for a large number of patients, it is recognized that these ships are seldom, if ever, employed in this capacity. During future combat operations, it is anticipated that hospital ships will serve as short-term facilities for the stabilization of casualties before transport by air to more extensive facilities removed from the operational theatre. The result is a reduction in the capacity and capability required of future hospital ships relative to the MERCY class ships. Also, it is recognized that these hospital ships are likely to be deployed on humanitarian missions in order to assist in the response to foreign and domestic crises while enhancing the image of the United States and of the USN. As such, it has been proposed that future hospital ships carry a Naval Construction Force detachment in order to give the ability to rebuild infrastructure in situations of humanitarian crisis.

This conversion builds on a prior design in which the LSD-41 class ship was converted to a hospital ship. The current design incorporates a smaller ship-borne medical facility, a small mobile medical facility, and a significant Naval Construction Force detachment, as well as accommodations for a large contingent of command, civilian, and host-nation personnel. The design was considered broadly feasible, with at least the minimum values of all requirements achieved. However, in order to prove the design, more detailed analysis of a number of issues would be required, particularly concerning both weight and structural strength. The table below summarizes the characteristics and capabilities of the converted ship.

SHIP CHARACTERISTICS	
Displacement, Full Load	15929 lt
Length Between Perpendiculars (LBP)	580 ft
Length Overall (LOA)	610 ft
Beam	84 ft
Draft, Full Load	19.95 ft
MISSION CAPABILITIES	
Hospital Beds	133
Operating Rooms	4
Isolation Ward Beds	19
Mobile Medical Facility Beds	25
Naval Construction Force	19 items
ORGANIC VEHICLES	
CH-53E Helicopter	1
LCM-8 Amphibious Boat	2
Medical Tender	2
COST	
Total Conversion Cost, FY08 $	128.7M