United States Coast Guard
U.S. Department of Homeland Security

U.S. Coast Guard History Program

41-Foot Utility Boat, Large (UTB)

Number:	41300 through 41448
Completed:	July 1973 through November 1978
Remarks:	Built at the CG Yard, Curtis Bay, MD

Cost:	$235,000
Hull	
Displacement (lbs):	28,500 lbs
Length:	40’8”
Beam:	13’6” (max)
Draft:	4’2” (max)
Machinery	
Main Engines:	2 Cummins diesels
BHP:	560
Propellers:	twin
Performance	
Max Speed:	26 knots
Logistics	
Fuel Oil (95%):	480 gallons
Complement:	3
Electronics	
Radar:	navigation type

Design
Due to their increased use responding to the Coast Guard’s heavier mission workload, the 40’ and 30’ utility boats were beginning to wear out by the 1970s. Their designs, moreover, had become obsolete given the types of missions that the Coast Guard was now engaged in by this point in time. In response, the Coast Guard embarked, starting in 1967, on what would become their last significant in-house design development effort for a replacement utility craft. The result of this became the 41’ Utility Boat-Large (UTB).

For this next utility craft, the Coast Guard established the following general requirements:

-The boat had to be suitable for general use in search and rescue, as well as for law enforcement, nearshore patrol, and logistics duties.

-The design should provide a seaworthy boat capable of operations in mild to moderate weather and sea conditions without excessive pounding and with the boat staying dry.
-Twin diesel engine and twin propeller propulsion plant
-Watertight subdivision below the main deck, and an enclosed wheelhouse located in the forward half of the boat.
-Maximum speed of 24kts. in calm seas, and 18kts. in a 5-foot chop, with an endurance of about 300nm.
-Boat hull was to be constructed of aluminum alloy
-The boat had to have an improved firefighting capability by means of an installed pump and fire monitor

Two designs were developed to meet these criteria; one from the Coast Guard, and the other from a commercial design firm. In 1969, authorization was given to procure four prototype boats, which were delivered in 1971. Two of these boats were off-the-shelf commercial design boats from private builders (*CG-42047* from Swiftships Inc. of Morgan City, LA, and *CG-42048* from Stewart Seacraft of Berwick, LA). The third boat was built to the Coast Guard's design by the Curtis Bay Yard (*CG-42046*). The fourth boat was built by a private yard to the design developed by the outside design firm. These four boats, all of which were aluminum-hulled, then underwent extensive testing along the Atlantic coast for a period of four months by a select team of 12 expert coxswains.

Based on test results, the Curtis Bay prototype was the one chosen by August of 1971 for series production, with a total of 156 boats (*CG-41300* through *CG-41456*) constructed between 1973 and 1978. This boat is 40'8" in overall length, with a beam of 13'6" and a draft of 4'. It is powered by either twin Cummins 280BHP diesel engines with a maximum speed of 22kts., or by twin Cummins 320BHP diesel engines with a maximum speed of 26kts.

One improvement in design over the predecessor 40' UTB was a modification to the size and freeboard of the aft cockpit. The size was reduced and the freeboard was increased slightly in order to reduce the risk of taking water over the stern when operating in following seas. In recognition of the expanded Coast Guard roles and responsibilities, the 41' UTB was also better equipped than its predecessor 40' UTB, with an improved electronics and communications suite, as well as an installed 250GPM fire pump with a bow-mounted fire monitor.

By the time the 41' UTB was fielded beginning in August of 1973, Coast Guard station missions had evolved to include much more work oriented towards law enforcement, including the need to chase down and intercept drug smuggler boats, which had significantly higher speed capabilities than the 40' UTB. What is seen in the 41' UTB design, therefore, is higher speed and improved seaworthiness by use of a hard chine, planing hull with increased freeboard forward and amidships. Freeboard aft, while higher than the 40' UTB, was still kept somewhat low to facilitate over-the-side work. More cabin space was provided, both for sheltering crew and survivors, as well as for accommodating the increased amount of electronic equipment and radios that the 41' UTB was equipped with.

Actual service use has demonstrated that the 41' UTB is a very rugged and seaworthy design. Although the boat is capable of surviving more extreme conditions, current Coast Guard policy limits its use to conditions of 30kts. maximum wind and 8ft. maximum seas, and no breaking waves or surf. These were established following a tragic incident on 15 November 1977, when one boat (*CG-41332*) capsized with loss of life, showing that the 41' UTB design was still vulnerable, like the 40' UTB, to seas taken over the stern due to its lower freeboard aft. Starting in the early 1990s, minor stress cracks began to develop in the aluminum hulls of some boats from wear and tear, although these have been repaired through a careful program of inspection and welding. The 41s, however, are now approaching the end of their useful service lives, and will be retired from service once a suitable replacement has been developed.

Images

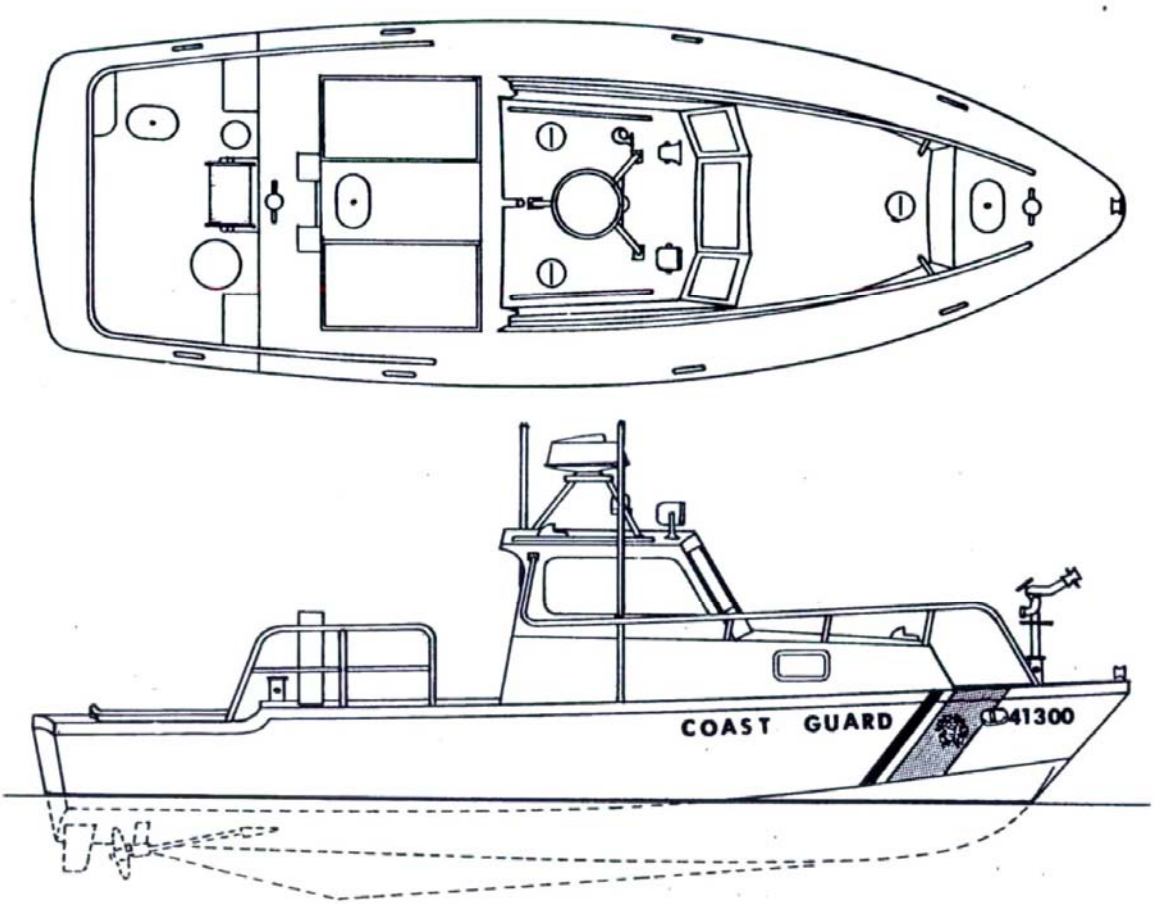
41-Foot UTB engaged in skimming operations

41-Foot UTB underway

41-footer cooperates with USCG air assets in a medevac

41-Footer conducting security operations

41-Footer after engaging in oil-slick response operations



Line drawing of 41-Foot UTB

Sources

Boat Files, U.S. Coast Guard Historian's Office.

Scheina, Robert L. *U.S. Coast Guard Cutters and Craft, 1946-1990*. Annapolis, MD: Naval Institute Press, 1990.

Wilkinson, William D., and Timothy R. Dring. *American Coastal Rescue Craft: A Design History of Coastal Rescue Craft Used by the United States Life-Saving Service and the United States Coast Guard*. Gainesville: University Press of Florida, 2009.