

MINESWEEPING BOAT MSB 5
(*Admiral A. B. Vosseller*)
Pate Museum of Transportation, 18501 Highway 377 S
Cresson
Hood County
Texas

HAER TX-120
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PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

HISTORIC AMERICAN ENGINEERING RECORD
National Park Service
U.S. Department of the Interior
1849 C Street NW
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HISTORIC AMERICAN ENGINEERING RECORD

MINESWEEPING BOAT MSB 5 (Admiral A. B. Vosseller)

HAER No. TX-120

- Location:** Pate Museum of Transportation, 18501 Highway 377 S,
Cresson, Hood County, Texas
- Date of Construction:** 1952
- Principle Measurements:**
- | | |
|-------------------------|----------------|
| Length overall: | 57'-3" |
| Beam: | 15'-10" |
| Draft: | 4'-4" |
| Full-load displacement: | 42 long tons |
| Hoisting weight: | 29.9 long tons |
| Speed: | 12 knots |
| Crew: | 6-7 |
- Propulsion:** Two 300hp Packard 2D-850 diesel engines driving twin screws
- Builder:** John Trumpy & Sons, Annapolis, Maryland
- Original Owner and Use:** United States Navy; coastal minesweeper
- Present Owner and Use:** no longer extant
- Significance:** The MSB 5 was the lead vessel of a class of forty-nine small, wood-hulled coastal minesweeping boats built for the U.S. Navy between 1952-56 as part of a strategic program to expand the navy's mine countermeasures capabilities during and immediately after the Korean War. The MSB 5, the first U.S. Navy craft to employ gas turbines in a non-experimental capacity, served with the Atlantic Fleet Mine Force based at Charleston, South Carolina. The navy donated the boat in 1973 to the Pate Museum of Transportation in Cresson, Texas. After almost four decades on public display, it was dismantled in 2011, two years after the museum closed to the public.
- Historian:** Michael R. Harrison, 2012
- Related documentation:** For the histories of two other vehicles formerly displayed at the Pate Museum of Transportation, see
Fairchild C-119G Airplane, HAER No. TX-121
Piasecki H-21B Workhorse Helicopter, HAER No. TX-122

Description: A writer for *All Hands* magazine described the U.S. Navy's new coastal minesweeping boats, the MSBs, in March 1953:

At first glance, the MSB looks like a baby minesweeper built on a motor launch hull. A sizable protective bulwark runs along most of the 57-foot length. About 'midships on the wooden-hull boat stands a large coil of thick electric cable to be strung out aft during magnetic sweeps. At the stern, grouped around two handy minesweeping davits, is her lightweight sweep gear.

The MSB 5, like its many identical sisters, was a shoal-draft, round-bottomed boat with a raking stem, curving forefoot, and flat, straight transom. A deep skeg and double-tunnel construction at the stern protected the twin propellers when operating in shallow waters. The boat was propelled by two six-cylinder 300-hp Packard model 2D-850 diesel engines driving the twin screws. Electricity for the minesweeping gear was supplied by four 160-hp Boeing model 502-D gas-turbine engines powering two 200-kW generators, two gas turbines being coupled through a reduction gear to each generator. The exhaust stacks for the gas turbines, located to port and starboard at the rear corners of the pilot house, were distinguishing features of the boat's silhouette and were fitted with inverted conical tops containing special mufflers to reduce noise from the exhaust system. A pilot house located forward on the single deck housed ship-control, sweep-control, and voice-radio equipment. A single-pole mast with a crosstree for the signal halyards was stepped to the pilot house top.

A small galley was fitted in the bow, with a sink, two-burner hot plate, electric coffee pot, portable ice box, and 20-gallon fresh water tank. The boat also carried two permanent bunks, a wash basin, and a small head (toilet).

Along with the towing cable and floats for electronic mine countermeasures, the boat was equipped with two masker air-emitter belts, one amidships and one near the bow. These flat, perforated pipes, fitted to the outside of the hull and running from points above the waterline to the keel, were designed to protect the boat from acoustic mines by generating a screen of bubbles under the hull to mask the sound of the boat's machinery.

History: The U.S. Navy developed a variety of minesweeping craft during World War II but did not invest heavily in updating its mine countermeasures craft after the war. In October 1950, the North Korean military was able to delay a United Nations amphibious assault near Wonsan through the deployment of 3,000 mines which the U.S. Navy had difficulty clearing in the restricted coastal waters. As a stopgap, the navy equipped mechanized landing craft (LCMs), motor launches, and Higgins boats (LCVPs) with lightweight sweeping gear for use in the shallowest coastal areas. At the same time, the navy began a rapid development program for new wood minesweeping vessels in three sizes, the 165', 750-ton *Agile* (AM-421/MSO-421) class; the 144', 375-ton AMS-60/MSO-60 class; and the 57' minesweeping boats, the MSBs.

The MSBs, developed in 1951, were designed with shoal-draft hulls to work in shallow inshore waters. Like the LCVPs before them, they had to be transported to theaters of

operation aboard amphibious mother ships. To keep their overall weight within the lifting capacity of existing shipboard cranes, the MSBs were given single-layer hull planking instead of more resilient double planking. Compact gas-turbine engines were selected to power the electrical generators for the minesweeping equipment as another weight-saving measure, making the MSBs the first U.S. Navy boats fitted with gas-turbine engines on a non-experimental basis. Their pilothouses were built of plywood joined with waterproof adhesives. To the extent possible, only nonmagnetic metals such as brass, bronze, Monel, and aluminum were used aboard, and the limited amounts of ferrous metals that remained in the machinery were demagnetized using standard degaussing gear. The boats themselves carried no armament, although their crews were issued small arms in combat situations.

Forty-nine MSBs, designated MSB 5 to MSB 54, were built between 1952 and 1956 by boat-building yards across the country.¹ All were identical except MSB 29, which was built to an enlarged, 82' design as an experiment to improve seakeeping. The John Trumpy & Sons yard at Annapolis, Maryland, built ten of the boats, including MSB 5, which was the first of the class to enter service on November 17, 1952. MSB 5 was initially assigned to the Atlantic Fleet Mine Force, and its first skipper was Chief Boatswain's Mate George B. Murphy. All MSBs were commanded and crewed by enlisted men only, with the standard complement comprising a chief or first-class boatswain's mate or chief quartermaster acting as officer-in-charge, a boatswain's mate, an engineman, an electrician's mate, and two or three seamen.

All MSBs assigned to the Atlantic Fleet Mine Force were homeported at Charleston, South Carolina, although many were deployed to the Naval Mine Warfare School at Yorktown, Virginia; the Mine Defense Laboratory in Panama City, Florida; and the Operational Development Forces at Key West, Florida. The Pacific Fleet Mine Force was homeported at Los Angeles, California. Although the MSBs saw some overseas use during the 1950s, they proved difficult to lift aboard or to dock inside the navy's ocean-going dock landing ships (LSDs) and were largely used for training and equipment testing at bases in the U.S. Some were deployed to South Vietnam for river operations between 1966 and 1970 and were fitted with bow and midships machine guns and removable fiberglass armor.

A complete service history for MSB 5 has not been located. The navy declared the boat surplus at the end of its useful life and donated it to the Pate Museum of Transportation on April 20, 1973. The boat was shipped by truck from the Naval Inactive Ship Storage Facility at Orange, Texas, to the museum at Cresson, Texas, that July. After installation in the museum's grounds, the boat was renamed the *Admiral A. B. Vosseller* in honor of Vice-Admiral Aurelius B. Vosseller, a leader in the development of anti-submarine warfare techniques during World War II. The private museum, founded in 1969 by Texas Refinery Company owner A. M. Pate Jr. and his brother Sebert, was primarily a vehicle for the display of Pate's automobile collection, but it also exhibited borrowed aircraft, the minesweeper, and other transportation and military objects. The museum displayed the MSB 5 out of water on four concrete cradles. The boat's interior was never opened to the public.

¹ MSBs 1 to 4 were small minesweeping boats built for the army in 1946 and used briefly by the navy in the early 1950s. MSB 24 was not built.

Pate's family continued to run the museum after his death in 1988, but they finally closed it in December 2009. In 2010, the automobile collection was sold at auction, and the aircraft were re-lent by the National Museum of the U.S. Air Force to other museums. The MSB 5, however, was in a deteriorated condition from years of outdoor display without maintenance, and the museum, unable to find an alternative home for it, determined to dismantle it. The museum asked for the navy's concurrence in this decision, as required by the donation contract signed in 1973, and the Naval Sea Systems Command provided this concurrence on August 17, 2011, after the Texas State Historic Preservation Officer determined that the boat's "deteriorated condition represented a loss of integrity such that it was no longer eligible for listing in the National Register of Historic Places." The boat was scrapped by the middle of December 2011. The MSB 5 was the first U.S. naval vessel to be scrapped after its donation for use as a museum since the navy established its ship donation program in 1948, although there are examples that predate the donation program of decommissioned vessels being scrapped after use as museums, such as USS *Wolverine* (IX-31) and the battleship *Oregon* (BB 3).

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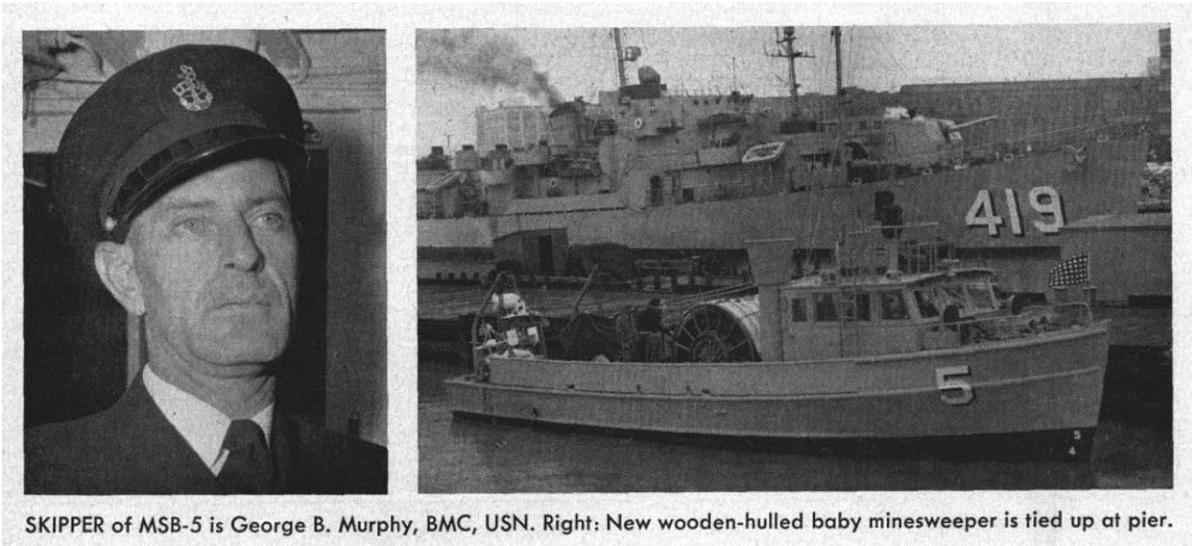
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Project Information: This project is part of the Historic American Engineering Record (HAER), a long-range program to document historically significant engineering and industrial works in the United States. The Heritage Documentation Programs of the National Park Service, U.S. Department of the Interior, administers the HAER program. Documentation of the MSB 5 was cosponsored by the Texas Historical Commission in coordination with the Pate Museum of Transportation. Todd Croteau, HAER Project Leader, coordinated the project and prepared the large-format photographs. Historian Michael R. Harrison wrote the historical report.

FIGURE PAGES



SKIPPER of MSB-5 is George B. Murphy, BMC, USN. Right: New wooden-hulled baby minesweeper is tied up at pier.

Fig. 1. The MSB 5 and its first skipper. From *All Hands*, the U.S. Navy's personnel magazine, March 1953, p. 5.

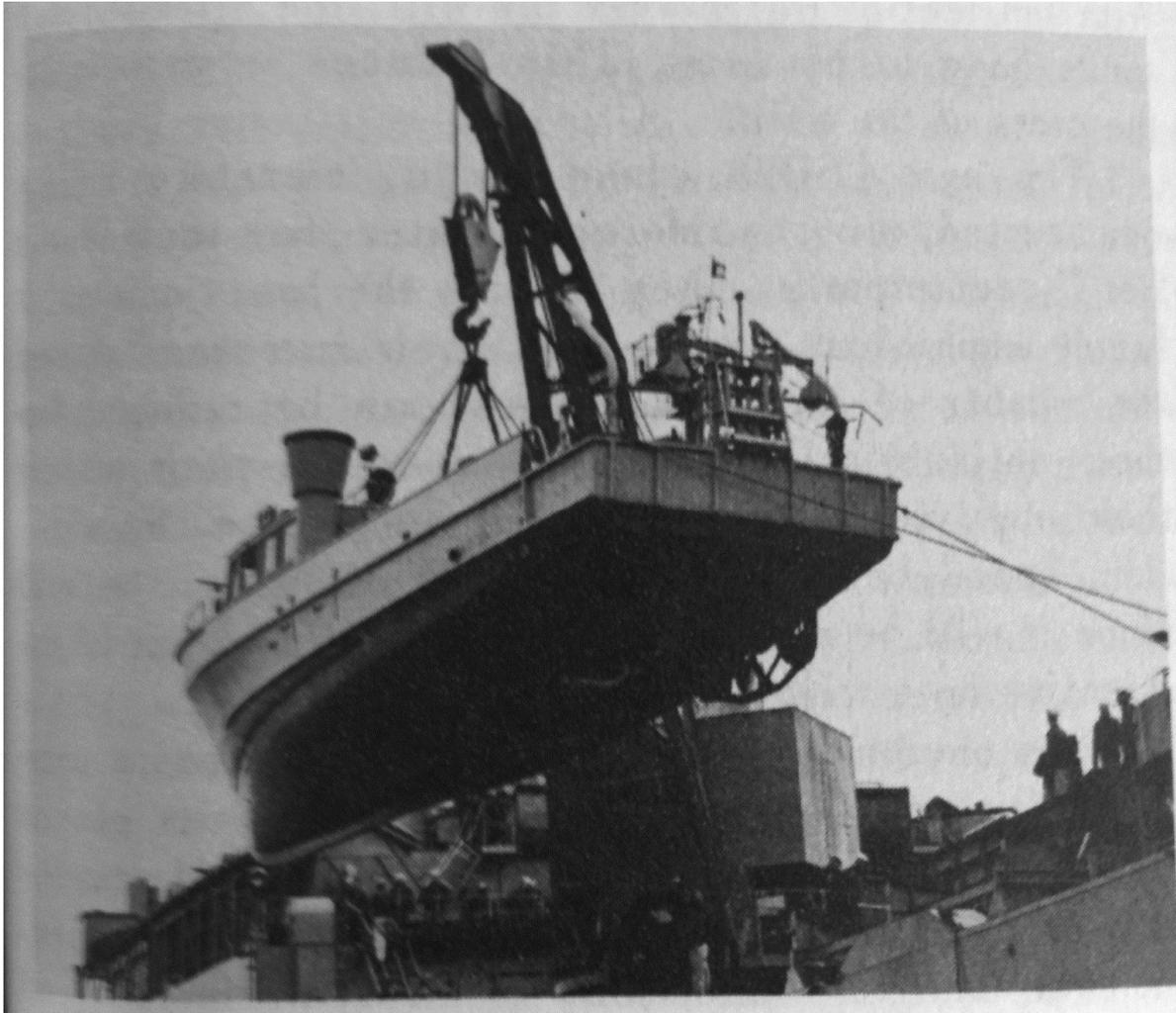


Fig. 2. The MSB 5 being lifted aboard a dock landing ship. From *Bureau of Ships Journal*, September 1953, p. 7.