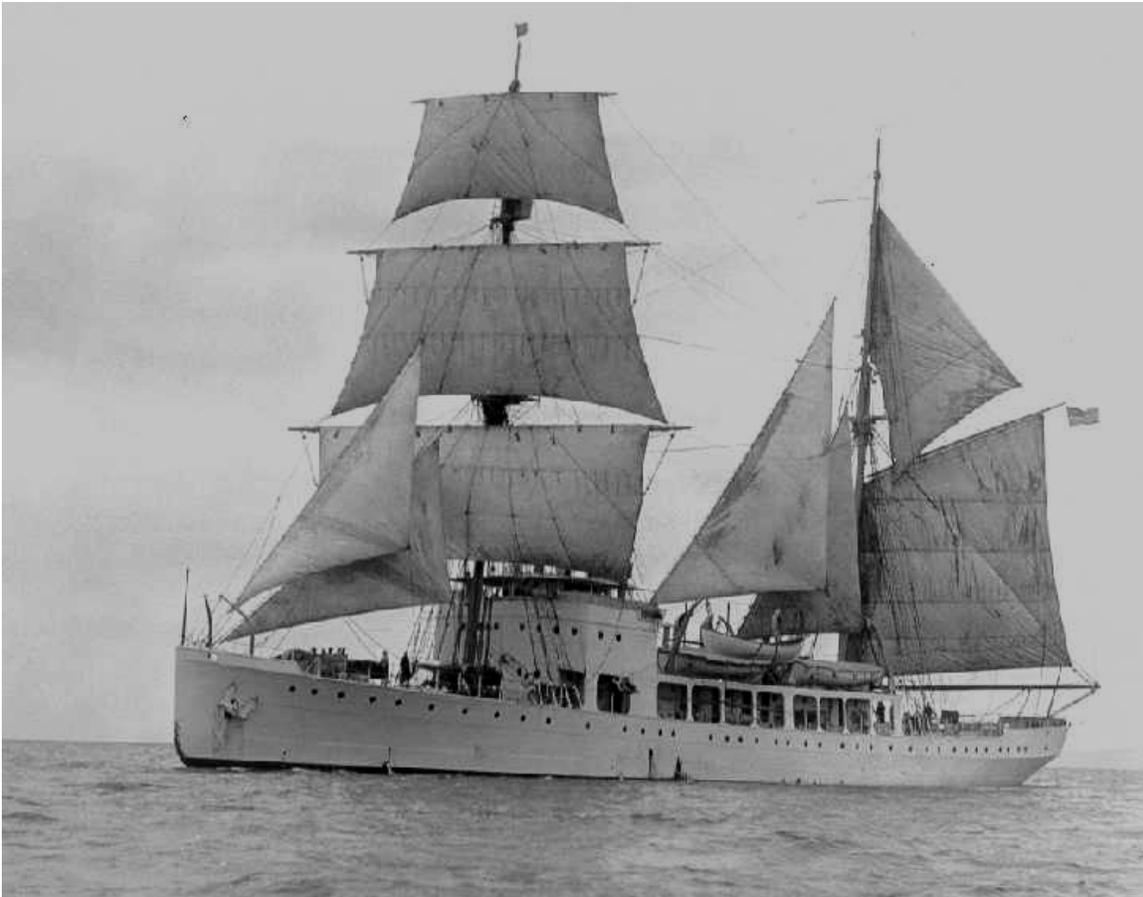


# ***SAILS, SEA-ICE & SCIENCE***

***When Ancient Propulsion was Teamed with  
20<sup>th</sup> Century Technology to Conquer the Arctic***



***NORTHLAND***

***US Coast Guard Cutter WPG-49***

***Newport News Shipbuilding Hull #318***

***Delivered 1927***

## ***~ Introduction ~***

In the 127-year history of Newport News Shipbuilding, the Coast Guard Cutter NORTHLAND (WPG-49) was the only vessel ever built there that was fitted with a full sailing rig. Paradoxically, she was the first NNS-built ship in which an extensive amount of welding was incorporated into her construction.

Designed for service in the frigid and ice-choked waters of the Bearing Sea, she also saw unique service during World War II and accomplished a historic first, even before America officially entered the war. Modified and also renamed a few times during her multi-faceted career, NORTHLAND was sold for scrap in 1946, but instead was put to intriguing use over the next fifteen years before finally being scrapped in 1962.

Her life story, especially after leaving the Coast Guard service in 1947, reads like an adventure novel. But in her case, the truth was, indeed, stranger than fiction.

## ***~ Design & Construction ~***



Before the NORTHLAND was designed, wooden and even riveted steel hulls of Coast Guard cutters that served in Arctic waters were often compromised by the unremitting pressures of sea ice. Under adverse conditions, hull seams were opened up at times, causing flooding. Occasionally, relatively fragile hulls were even crushed. To overcome that problem, in 1926, the Coast Guard specified the extensive use of welding in the construction of NORTHLAND.

While welding was not entirely new to the craftsmen of Newport News, prior to 1926 it had only been used to a very limited extent in ship construction. Its principal use at NNS, originally, was to repair defective castings and fill incorrectly located holes in structural steel.

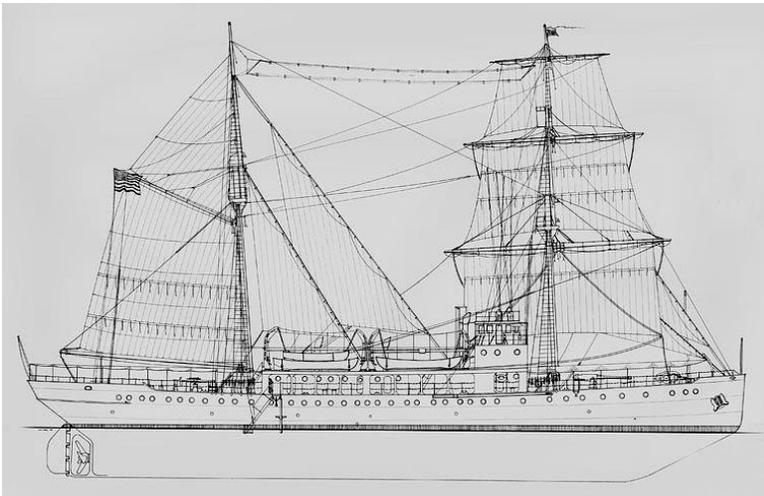
In addition, welding had been utilized in the shipyard's industrial product work during the early 1920's. When the contract was signed for NNS Hull #318, the firm's Welding Department was experienced in gas, arc and thermite welding techniques. All of which came to play in the construction of NORTHLAND.

She was not large, by sea-going ship standards. Her length was 216.58 feet, with a beam of 39 feet and a displacement of 2,023 tons. Her contract price was \$865,730. Her crew consisted of 117 members of the Coast Guard.

NORTHLAND's top speed was eleven knots. Her propulsion was provided by twin diesels, which drove two electric generators that were coupled to a single motor. Developing 1,000 shaft horsepower, the motor was connected to the vessel's single propeller shaft, which was fitted with a magnetic clutch.

The clutch automatically disconnected the motor of the propeller's blades when solid ice was encountered. To provide an alternate means of movement under such conditions, she was brigantine rigged. Her top sailing speed is not known.

Another unusual feature was her forefoot, cut away to the extreme, as shown by this outboard profile to help facilitate icebreaking. To resist the crushing forces of pack ice, she was fitted with a fully-welded waterline lap strake of steel that was an inch and a quarter thick.



Her other scantlings were equally impressive. Both welding and riveting were used in the construction of her hull and internal backing structures. Approximately twenty percent of her total structure was welded; a first for NNS.

NORTHLAND was launched on February 5, 1927. Her sponsor was the wife of the Coast Guard Commandant. The vessel was so heavily built that one of the Shipfitters who had helped install her massive sixteen-inch deep webs at every frame reportedly expressed mock disappointment that 'the darn thing didn't sink'.

## **~ Bearing Sea Patrol ~**

Upon completion and delivery in May of 1927, NORTHLAND was sent to the west coast where she alternatively was homeported in San Francisco, Oakland and Seattle. Her primary duty was to participate in the Bearing Sea Patrol; a service she performed without incident for over a decade.

Cutters on Bering Sea Patrol duty were given a wide variety of assignments. They enforced the law, gathered intelligence for the US Navy and carried mail to remote outposts in Alaska. They often ferried teachers and medical personnel to isolated Eskimo villages. They also surveyed hundreds of miles of isolated and uncharted coastline, requiring them to enter shallow and rock-infested waters.

In 1936, her sailing gear was removed and the height of her masts reduced. She made her last Arctic cruise in 1938. The next year, she was repositioned to Boston, with the intent to outfit her for Admiral Byrd's second Antarctic Expedition. But World War II intervened, and she was withdrawn from the expedition.

## **~ Wartime Service ~**

Entering the New York Navy Yard in May of 1940, she was modified for special duty. Her foremast was removed, her modest armament increased and she was provided with a scout plane fitted with floats.



NORTHLAND was assigned to duty around Greenland. Originally, she was tasked with visiting remote harbors to find suitable places for military bases. Subsequently, she participated in the United States' system of cooperative defense of the Western Hemisphere (the so-called 'period of 'phony war', when America materially aided the allies before becoming immersed in World War II).

In early September of 1941, three months before the Pearl Harbor attack, the NORTHLAND's crew made the very first American naval captures of World War II. The BUSKOE, a German-controlled Norwegian sealer was suspected of supporting an Axis weather station in Greenland, plus issuing radio reports on Allied shipping movements. Armed with this intelligence, the NORTHLAND's skipper stopped the Norwegian vessel and sent a boarding party to investigate.

A number of armed Germans, sophisticated radio equipment and intelligence information were found onboard the sealer, including the location of the enemy weather station. The BUSKOE was taken to a Greenland port and interned.

Following a five hundred mile voyage in icy waters, the American Coast Guard Cutter approached the German weather station under cover of darkness. A raiding party was landed, and three unsuspecting Germans were aroused and captured. When asked why they had left their camp unguarded, one of the Germans reportedly said: "We thought we were the only crazy fools in the Arctic".

They were taken back to the ship, along with their radio equipment, code books and plans for additional radio stations. These were turned over to Allied authorities. The structures at the weather station were burned.

In 1942, after being made a part of the US Navy, NORTHLAND sighted and attacked a U-boat. The presence of oil and bubbles, following a depth charge run, causing the cutter's crew to believe they had made a kill. However, German records give no indication of a sub being sunk at the location of the attack. The release of air and oil may have been a successful ruse by the U-boat.



Later in the war, the NORTHLAND captured two more German vessels in the vicinity of Greenland. One of these captures took place after a 70 mile pursuit through thick ice floes.

At the war's conclusion, NORTHLAND stayed in the vicinity of Greenland for several months. There she provided weather reports and patrolled civilian shipping lanes.

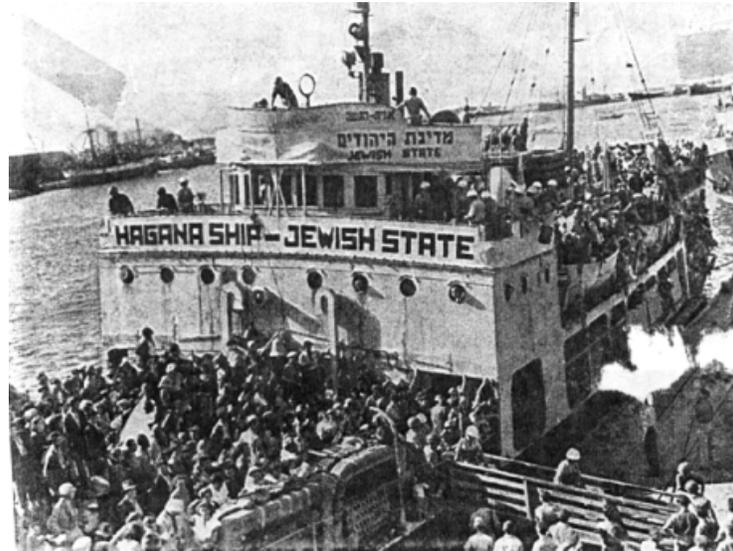
On March 27, 1946, she was decommissioned in Boston. After removal of her weaponry, she was put up for sale. The Weston Trading Company, an American firm, purchased her for \$50,000; purportedly for scrapping. However, the firm that procured her was actually an agent of Haganah; a Jewish paramilitary organization operating in what was then called the British Mandate of Palestine.

Haganah was secretly acquiring ships to transport thousands of Jewish refugees from war-torn Europe to help form a new Jewish state. Attempts to land illegal immigrants in Palestine were being resisted by a British blockade of the coastline that had been established on behalf of the United Nations. So the acquisition and use of the former Coast Guard Cutter by Haganah had to be accomplished in a clandestine manner.

## ~ Jewish State (Medinat Hayehudim) ~

The NORTHLAND was secretly renamed JEWISH STATE (MEDINAT HAYEHUDIM in Hebrew) and sailed to France by members of Haganah and young Jewish-American volunteers. There a large wooden structure was erected on her aft deck to maximize the number of passengers she could carry.

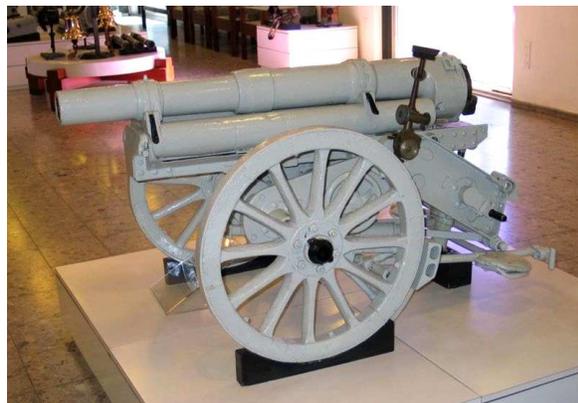
In late September, 1947, the renamed vessel set sail, bound for Palestine and overcrowded with 2,664 Holocaust survivors. On October 2<sup>nd</sup>, the Royal Navy intercepted the vessel and towed her to Haifa. Her passengers and crew were interned upon arrival. The ship itself was simply moored to the port's breakwater, along with several others that had suffered a similar fate.



Following United Nations' approval in late 1947, the British Mandate for Palestine ended and the State of Israel was established on May 15, 1948. In preparation for this event, and in anticipation of Arab resistance that soon followed, an Israeli military was created. The first ship in the Israeli Navy was the former WPG-49.

On May 21, 1948, she left Haifa, bound for Tel Aviv. Her commanding officer was the same volunteer who had been her captain the year before. Renamed EILAT and designated A-16, the former US Coast Guard Cutter's wooden refugee shelter was removed and she was fitted with a number of small caliber weapons.

Thus armed, she began patrolling the new country's coastline. Over the next eight years, she repeatedly engaged Egyptian military forces. Her armament was increased several times, including the addition of an ancient (c. 1906) 65mm artillery piece that was secured to her foredeck. This weapon is now on permanent display at the Israeli Navy and Clandestine Immigration Museum in Haifa.



In June of 1948 the EILAT was strafed by Egyptian aircraft. One of her crew was killed in that attack; the first loss of life in combat for the fledgling Israeli Navy.

During the early 1950's, the EILAT primarily served as a training vessel. In 1955 she became the mother ship for a fleet of motor torpedo boats. Although she was renamed MATZPEN (Hebrew for Compass), she retained her original A-16 designation.

In February of 1962, the former Coast Guard Cutter NORTHLAND was decommissioned for the last time. She was sold for scrap to an Italian firm for \$50,000; the same amount Haganah had paid for her fifteen years previously. Later that year, she was, indeed, scrapped.

In addition to the cannon on display in the Haifa museum, other artifacts on display include her original steering wheel, a lifeboat and spare propeller; all of which were manufactured at Newport News Shipbuilding in the mid-1920's.

### **~ Postscript ~**

The Coast Guard Cutter NORTHLAND was the only sailing ship ever built by Newport News Shipbuilding. In stark contrast, she was constructed utilizing welding; a fairly new and novel technique in the 1920's. She served well as a test bed for the practical development of what is now the universally accepted method for joining metals.

NORTHLAND served the Coast Guard, the US and the Israeli navies equally well. In addition to her 'firsts' this sturdy vessel never experienced any structural failures.

Old-time mariners would likely say she was 'built hell for stout'. Which she surely was.

Seasoned shipbuilders at Newport News might smile, and then add that she was another example of the motto '*Always Good Ships*'. Which she surely was.

*Bill Lee*

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