

USS TURNER JOY RESTORED TO NAVAL STANDARD



For the first time in more than fifteen years, the USS Turner Joy was out of water. This Vietnam-era destroyer ship was commissioned in 1959, retired in 1982, and has spent its entire existence riding tides on the Pacific Ocean.

Most famously recognized for its inclusion in the Gulf of Tonkin incident, which heightened U.S. involvement in the Vietnam War, the Turner Joy now operates as a naval museum and is privately owned by the Bremerton Historic Ships Association. A key to the economic prosperity in the Bremerton, WA area, the Turner Joy educates and entertains over 40 thousand guests annually.

It also serves as a free STEM education center for local third through eighth-grade kids, hosts war reenactments monthly, and is a venue for weddings, memorials, military promotions, and more. The Turner Joy even provides protective services by breaking waves and wakes from the boats docked in Bremerton Marina.

AN OVERDUE MISSION

Every fifteen years, the U.S. Navy requires inactive steel-hulled ships to have the hull inspected and preserved. The Turner Joy was slightly overdue for maintenance – last serviced fifteen years and some months ago.



“WE SELECTED BLACK DIAMOND IRON SILICATE BECAUSE IT'S THE **MOST AGGRESSIVE AND EFFICIENT COATING REMOVAL** PRODUCT THAT COULD MEET OUR SCHEDULE.”

The journey alone consisted of fifty round-trip-miles towed by tugboat, traveling from salt water to fresh water through the Ballard Lock, and into the Lake Union Drydock in Seattle, WA.

There were two initiatives in this maintenance mission. First, meet the regulations required by the U.S. Navy. The Drydock crew was to remove sea growth and old paint from the hull, measure and repair the thickness of the steel below the boot top, and repaint the exterior for preservation. Second, refurbish the starboard side of the ship, which was significantly weathered by fifteen years of direct sun and wind.



TURNER JOY HULL OVERHAUL

The Turner Joy needed an abrasive product that could hit harder and clean faster so it could return to its waterfront home as soon as possible. The Bremerton community was eager for the Turner Joy to continue providing economic opportunities and to reoccupy its position as a wave breaker, which, in the meantime, required a stand-in, rental barge. Additionally, the community needed to consider the amassing daily costs of housing the ship at the Drydock.

To cut through fifteen years of marine buildup fast, the crew ordered Black Diamond Iron Silicate abrasive product. Bremerton Historic Ships Association President John Hanson stated, "We selected Black Diamond Iron Silicate because it's the most aggressive and efficient coating removal product that could meet our schedule. We've used this abrasive product in the past and knew it was incredibly tough."

Blasting Black Diamond Iron Silicate, the team was able to remove 25 tons of sea growth, as well as the 15-year epoxy paint covering the bottom half of the ship, in only ten days. Once the hull surface was blasted to a clean raw steel, the crew measured and repaired thinning walls, cracks, and holes.

To complete the project, the crew blasted the 418-foot starboard side clean of the faded and chipped paint and rust. Once they reached the desired profile, the Drydock team restored the Turner Joy to its former glory with a fresh application of paint.

The Vietnam-era destroyer is now safely returned to its home in Bremerton Harbor, where it will remain for another fifteen years.



BY THE NUMBERS

Abrasive Product



Turnaround Time

10
DAYS

Surface Area

30,000
FT²

Sea Growth Removed

25
TONS



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PLANT LOCATIONS

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Harvey, LA | La Cygne, KS | Roberts, WI