

Surface Warfare

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DIGITAL FEATURE

THE WAR ON RUST: HOW THE FLEET COMBATS A SILENT SHIP-KILLER

Story By
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Photo by Mass Communication Specialist
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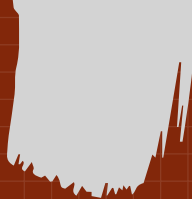


Navy ships are designed to withstand extreme elements, but consistent preservation from Sailors is key.

Topside of USS Makin Island (LHD 8), the deck department is busy cleaning, sanding, and painting the exterior of their distinctive haze grey vessel. The ship sits pier-side at Naval Base San Diego and its Sailors don personal protective equipment (PPE) as they work hard to keep the vessel looking pristine.

Navy ships are designed to withstand extreme elements, but consistent preservation from Sailors is key. When rust threatens a ship's structural integrity, deck department gets to work fighting their elemental enemy.





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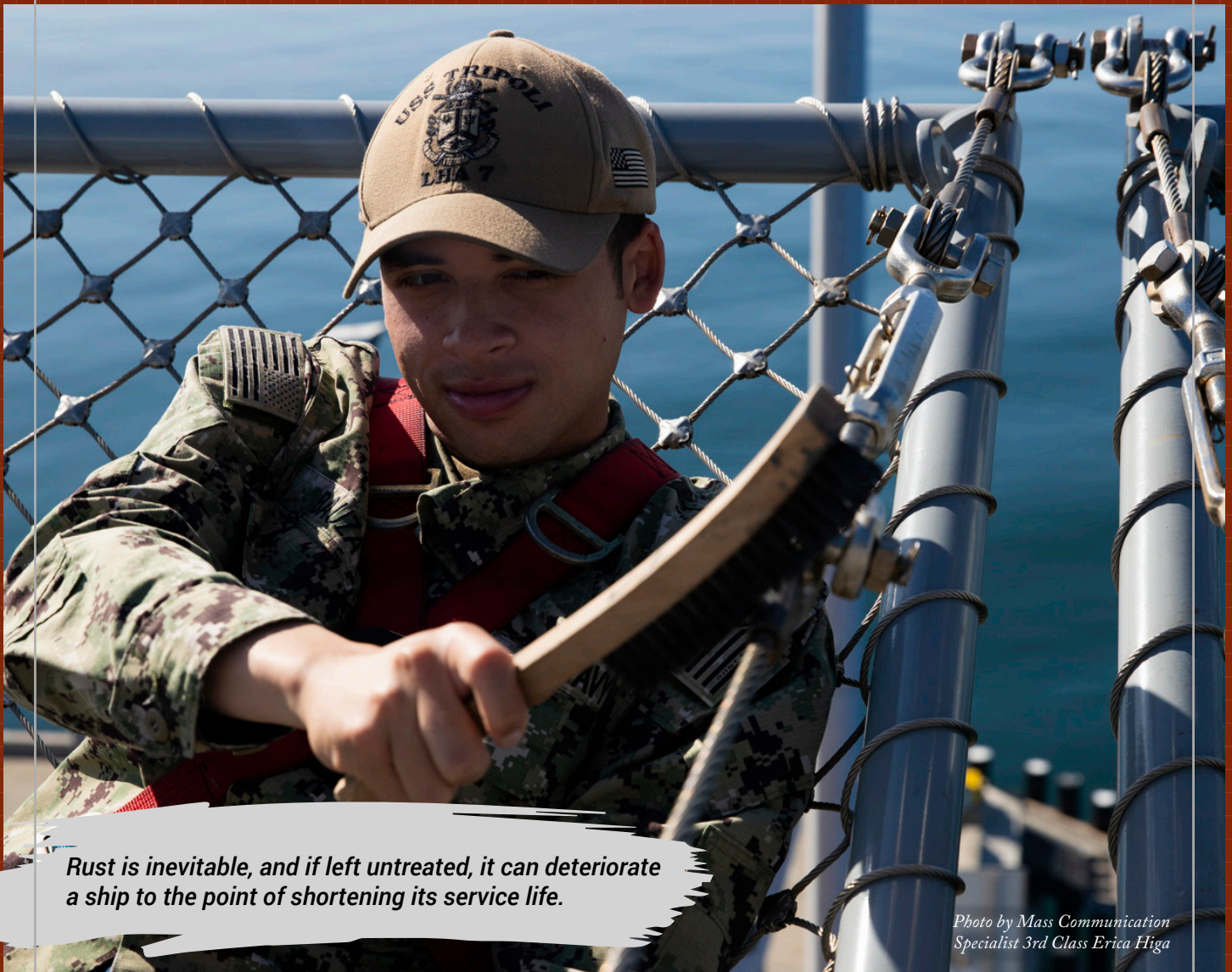
*– Maurice Wiley, Chief Warrant Officer,
USS Makin Island*

Chief Boatswain's Mate Jordan Magdelenski, aboard Makin Island, said that when a warship constantly goes to sea, saltwater takes a heavy toll on its exterior. "When rust occurs, it is the responsibility of the deck department to make the ship look good," said Magdelenski.

The deck department workforce is made up of hard-working professionals who train, direct, operate, and conduct maintenance operations, among other topside shipboard duties. The boatswains mates, alongside a cadre of undesignated seamen are the backbone of a shipboard crew.

The primary responsibility of a boatswain's mate is taking care of the ship. Chief Warrant Officer Maurice Wiley, the Boatswain aboard Makin Island, is confident that he can accomplish this with his team. "They're in charge of painting the hull from forward to aft, a length of approximately 847 feet," said Wiley. "It takes time to get our ship to look the way it looks now, but we always get it done."

It is evident that USS Makin Island's deck department has put in an extensive amount of effort to preserve its ship. It has been cleaned and painted to perfection, without a single streak of rust. The crew takes an immense amount of pride in its appearance.



Rust is inevitable, and if left untreated, it can deteriorate a ship to the point of shortening its service life.

*Photo by Mass Communication
Specialist 3rd Class Erica Higa*

Makin Island completed a seven-month deployment in October 2021 with limited port visits and minimal opportunities for proper ship preservation. "COVID-19 played a big part in us not being able to preserve the ship like we normally would," said Wiley. The global pandemic prevented the Navy from pulling into port due to the concern of deployed Sailors becoming infected and bringing coronavirus back to their close quarters, risking the rest of the crew's health and safety. Any time we'd pull into port, we wanted to paint the side of the ship because we're representing the United States Navy, and we want to represent it well."



*Photos by Mass Communication Specialist
2nd Class Marianne Guemo*

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*– Elijah Jenkins, Boatswain's Mate Seaman,
USS Makin Island (LHD 8)*

Boatswain's Mate Seaman Elijah Jenkins from USS Makin Island, said a ship in need of preservation is not every Sailor's cup of tea. "A lot of people don't like the sides of a ship," he said. "It's dirty and messy, but it's the face of a ship, and the representation of what the Navy really is. It's not the work that everyone wants to do, but it has to get done."

Rust is inevitable, and if left untreated, it can deteriorate a ship to the point of shortening its service life. However, a ship with rust does not imply the crew lacks readiness or lacks pride

in its appearance. Rather, it may show that they are due for a port visit.

The deck department aboard USS Hopper (DDG 70) also added its take on ship preservation.

"If preservation doesn't happen at all or the proper way, the ship will weaken, you'll get holey decks, holey bulkheads, and just more work in the end when people realize that we should get preservation efforts going," said Boatswain's Mate 2nd Class Jonathan Valles.



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*– Elijah Jenkins, Boatswain's Mate Seaman,
USS Makin Island (LHD 8)*

Due to the constant exposure to salt water, even when a ship is in port, ship preservation is always a priority. Shipboard crews devote considerable time and effort to maintaining the interior and exterior areas of a ship while also balancing operational requirements and adhering to Navy shipboard procedures along with federal and state environmental regulations.

Chief Quartermaster Adam Congello, acting BMC, aboard USS Hopper said the majority of exterior preservation must take place while a ship is pierside. "Underway it is almost impossible to preserve topside," said Congello. "You can work on an area, sand and prime it, but when one wave comes over the bow, it

will take all that hard work away. Moreover, the salt doesn't help."

Salt water causes metals to rust quickly, and it does not need full exposure to the water – something as light as salt spray can create damage. U.S. Navy deck departments take specific actions in a precise order to restore their ships, and the Sailors of USS Makin Island and USS Hopper explained the steps in detail.

Boatswain's Mate 1st Class Gary McCoy from USS Hopper gave a rundown of what preservation looks like on their ship once it has pulled into port.



Photo by Mass Communication Specialist 1st Class Eric Coffey



Photo by Mass Communication Specialist Seaman Isaac A. Rodriguez

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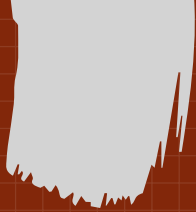


Photo by Mass Communication Specialist 2nd Class Jessica Kibena

"To do preservation the correct way is a timely evolution," said McCoy. "You need to pick the area you're going to preserve, make sure you have the proper tools and always wipe down your area. Start preparation by using water and rags. When you're done, you take your needle gun and hit rust spots until its busted away. Grab that fresh bucket of water and wipe it down again. Get your sander and

feather out the rough edges. You have to wipe down the area next, and then apply two coats of primer, and rough sand the primer with sand paper. Finally, you can paint it. You need to make sure your area is very clean when you do preservation."

He added that Hopper is an older ship and deck department is committed and proud to keep it looking good.



Most ships serve for more than 20 years, which is a testimony to how well the Navy cares for its ships. It would not be possible without personnel having the proper equipment and materials, being adequately trained in the correct application of these materials, and taking pride in doing a good job.

Boatswain's Mate 2nd Class Jacob Mansur said that while preservation of a ship is important, a necessary component to the process on a ship is the strength of the deck division.

"Deck has to preserve everything topside; they start preservation from forward to aft, and by the time they reach to aft, forward will need to be preserved again," Mansur said. "Since our junior Sailors have to manage the work, they deal with the responsibility to uphold the cosmetics of the ship, which can

weigh on their morale, so I believe your division is your pride."

"The comradery in the deck department is like a family," said Jenkins-Hall. It's all about having your energy, and coming in and giving 110 percent."

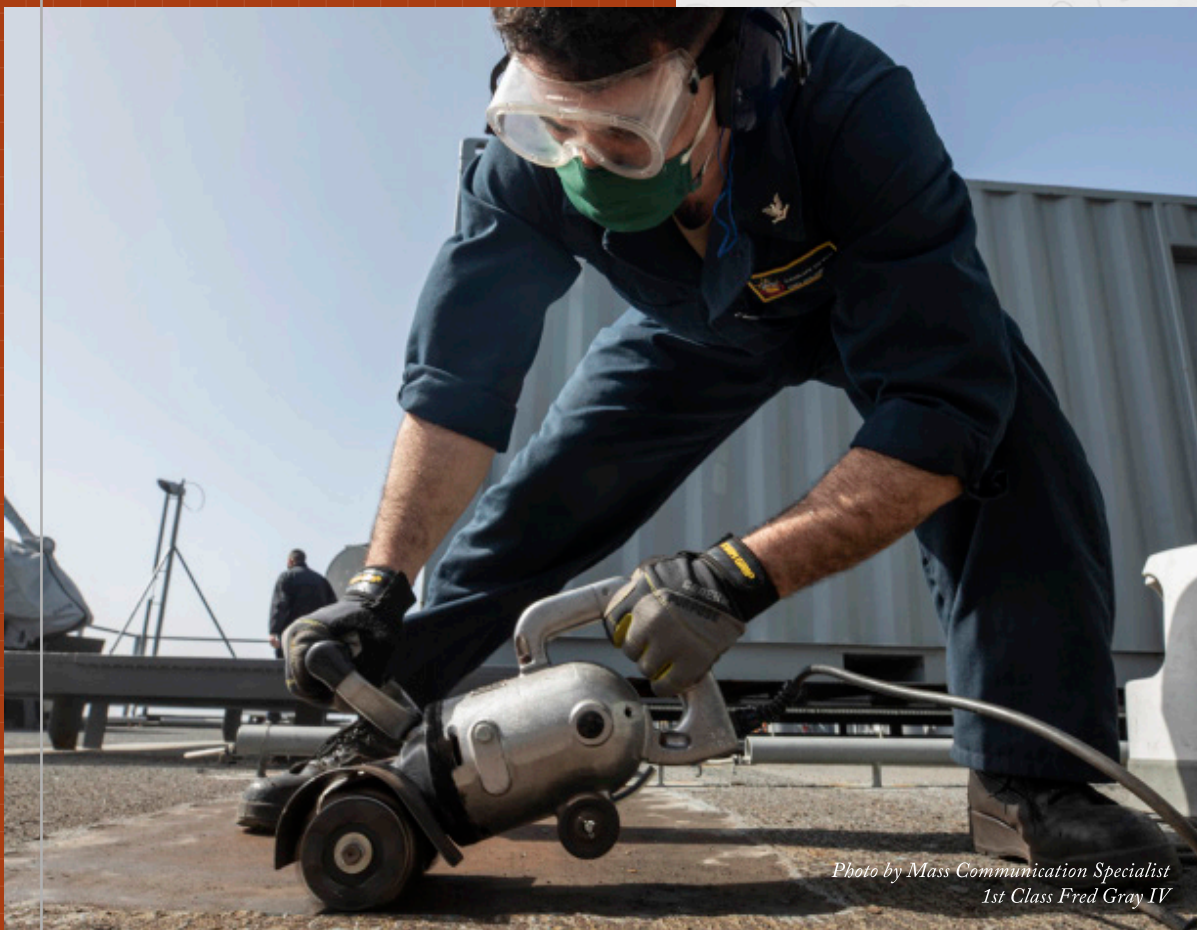
Valles said he enjoys the final product of his newly preserved ship. "Preservation is one of those things you want to get done and over with, but once you get that needle gun going, it's oddly satisfying. When you finish the job and think about the before and after, you think 'wow, I made that happen. I took that rusted bulkhead and turned it into a haze gray masterpiece – now what's next?'"

Luckily for Valles and other deck department Sailors that want to know what's next, preservation teams must start the process over again before returning to sea.



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*– Elijah Jenkins, Boatswain's Mate Seaman,
USS Makin Island (LHD 8)*



*Photo by Mass Communication Specialist
1st Class Fred Gray IV*



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*Photo by Mass Communication Specialist
2nd Class Daniel Serianni*