

## SUPSALV and SRF Sasebo / Yokosuka Divers Support Propeller Hub Repairs for Forward Deployed Ships

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The US Navy's underwater repair specialists from Ship Repair Facility (SRF)-Japan Regional Maintenance Center (JRMC) Yokosuka, Japan DET Sasebo Dive Locker teamed with SUPSALV's Underwater Ship Husbandry Division to provide maintenance support to its western Pacific forward-deployed ships in the port of Sasebo, Japan. SUPSALV (SEA OOC) was asked to support repairs to two LSD Class ships this winter. The ships were experiencing leaking seals in their controllable pitch propeller hub. The Navy wanted the issues resolved to allow both these ships to carry on with their scheduled operations and training cycles.

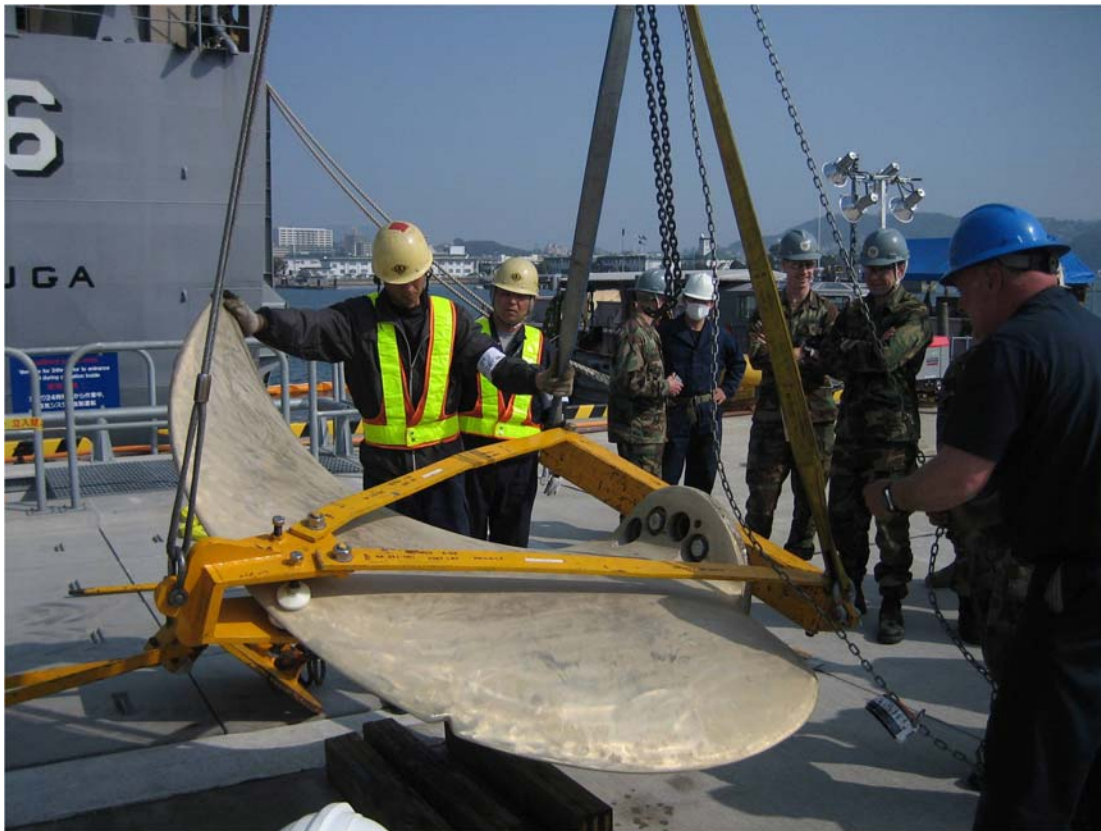
USS HARPERS FERRY (LSD 49) repairs took place between January 17 and February 3. The OOC team, lead by Scott Heineman and LCDR John Bauer were called in to assist in resolving leaks from the ship's port and starboard controllable pitch propeller hubs. The SUPSALV engineers provided technical assistance to NDC (MDV) Pierick and his Sasebo Detachment Divers, augmented by SRF Yokosuka Divers in removing and replacing ten individual blades in order to replace the leaky hub O-rings. To meet the ambitious schedule, the dive team put in 18 straight days of diving. The amphibious dock landing ship USS HARPERS FERRY (LSD 49) is assigned to the permanently forward-deployed ESSEX Amphibious Ready Group in the western Pacific Ocean.



*USS HARPERS FERRY (LSD 49) Port & Starboard Hub Seal Repairs SRF-JRMC Sasebo Dive Locker - Jan-Feb 2011*

USS TORTUGA (LSD 46) repairs occurred 11 days after the completion of USS HARPERS FERRY as an

emergent repair. It started on 21 February and finished on 11 March, the same day as a 9.0 magnitude earthquake hit Japan. This repair involved replacing seals on all five blades for both the port and starboard propellers. The OOC and SRF Dive team had to overcome many challenges again; from freezing weather, 35 degree water temps to material issues and 15 hour workdays. In the face of adversity and time constraints the team was able to complete the work four days earlier than scheduled. Within 48 hours after the completion of the work the USS TORTUGA (LSD-46) was issued orders to get underway and provide immediate humanitarian relief to the devastated North Coast of Japan that was battered by the worst earthquake/tsunami in Japanese history.



*Sasebo divers performing Controllable Pitch Propeller (CPP) repairs on USS TORTUGA (LSD 46). In this image, the dive locker is using a blade righting fixture to lower a blade to the pier after removing it from the ship's hub.*

During the 50 day span encompassing HARPERS FERRY and TORTUGA repairs, SRF-JRMC Sasebo/Yokosuka Dive Locker removed and reinstalled 21 blades, 168 bolts, 126 o-rings, 378 springs, 15 anti-rotational pins, removed one 230-pound cone cover, tested two different NAVSEA OOC blade lifting fixtures, completed the first in-water hub cone torque, modified several tools within the NAVSEA LSD-41 kit to expedite the process, and accumulated a total of 30 man-days of bottom time. Three of the big bottom-time diving leaders were; ND1 (DST) Strause (94 hrs 50 mins), ND2 Larribas (85 hrs 18 mins), and HM2 Schneider (88 hrs). The job may not have been very deep but the long days, high-precision tasks and the ability to think out of the box made this job a historical Deep Sea job, HOOYA!

The Underwater Ship Husbandry division of SUPSALV consists of engineers and divers who develop techniques, procedures, and equipment necessary to perform ship repairs waterborne. Waterborne maintenance minimizes the need to use dry docks for repairs, extends the interval between dry-dockings, and minimizes the amount of ship time spent in dry dock. In addition to the dollar cost

savings, the repairs also return ships back to operational status more quickly than if they were dry-docked for the duration of the repair. NAVSEA's Underwater Ship Husbandry team conducts ship repairs worldwide. Ship repairs such as these in Japan are examples of the NAVSEA and Local Dive Locker's ability to support Fleet readiness anywhere or anytime there is a requirement!