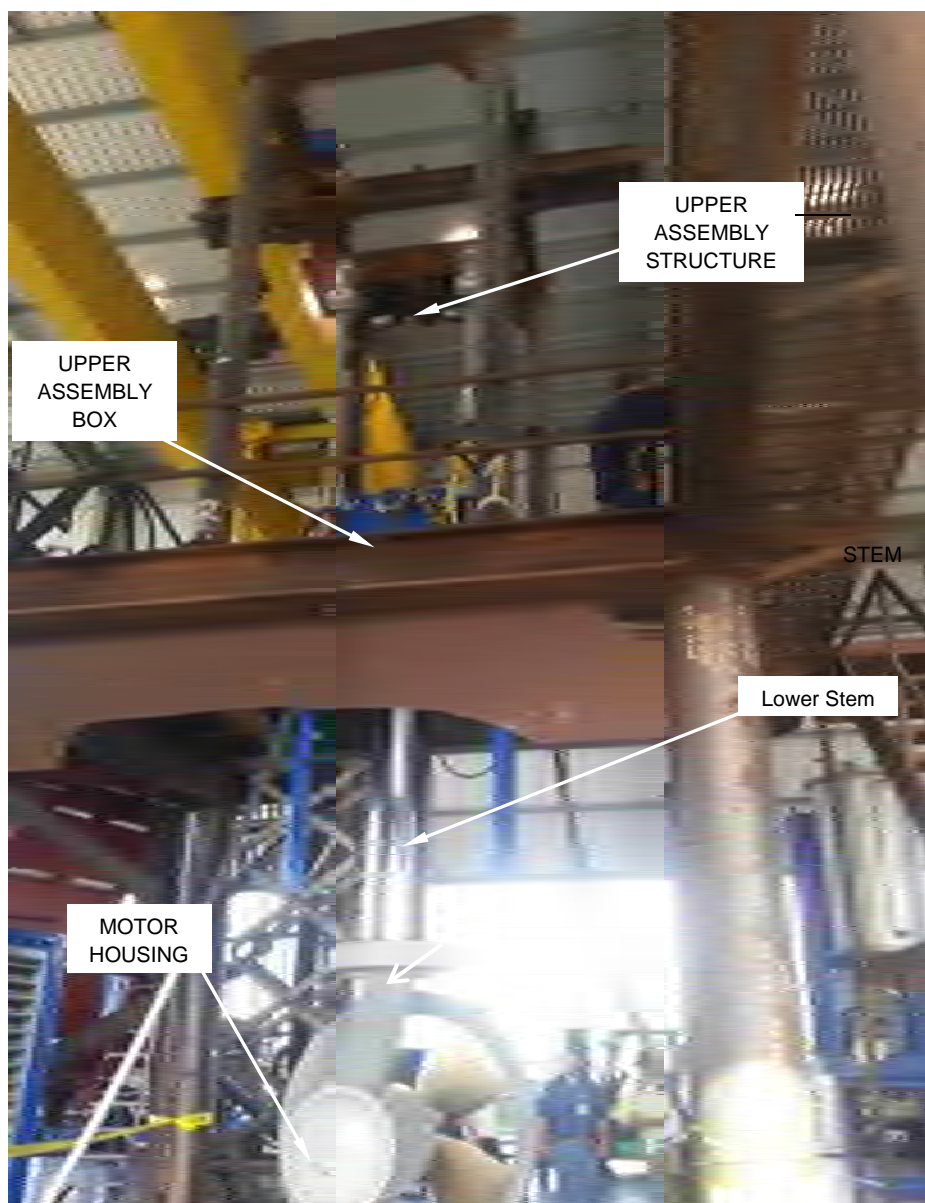


SUPSALV Validates LCS APU Removal/Installation Procedures

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WASHINGTON - The Naval Sea Systems Command's Office of the Director of Ocean Engineering, Supervisor of Salvage and Diving (SUPSALV) has responded to a PEO LCS request to establish underwater maintenance and repair processes and procedures for the Retracting Azimuthing Thruster (RAT) for INDEPENDENCE variant Littoral Combat Ships. SUPSALV's Underwater Ship Husbandry Division (UWSH) that develops waterborne repair procedures for the fleet was assigned the task.



Retracting Azimuthing Thruster (RAT) unit mounted into Thrustmaster of Texas Test Stand used by Southwest and Japan Regional Maintenance Center divers during LCS Independence variant repair and replacement procedure development and validation.

The RAT, which on other classes of ships is known as the Auxiliary Power Unit is located forward on the hulls, is hydraulically driven, and extends and retracts outside the hull where the extreme curvature complicates cofferdam placement without welding pad eyes to the structure. SUPSALV's UWSH team and its contractor, Global PCCI (GPC), working with the RAT manufacturer Thrustmaster of Texas (TMOT) developed a solution that eliminated the need for an oversized cofferdam and pad eyes by designing a cofferdam to be installed directly to the RAT motor housing.

To verify and test the draft procedures, SUPSALV scheduled a week at TMOT and offered the opportunity to our fleet Navy divers to both assist in the evaluation and provide a training opportunity. Fleet Navy divers from Southwest Regional Maintenance Center and Japanese divers from Japan Regional Maintenance Center were on site and walked through the procedural steps from removal to replacement of the RAT assembly. "The opportunity to have our fleet Navy divers as well as our Japanese counterparts onsite and involved is key" said CWO3 Joe Theodorou, UWSH LCS program manager. "Validation of this procedure allows us to have a positive impact on fleet readiness, helps avoid unnecessary dry dockings, and ensures that our ships will meet their mission by getting them quickly back into service."

SUPSALV is currently working with PEO LCS to SHIPALT some design modifications to the ships to support a more rapid repair. Based on procedure validation, it is expected that a RAT can be removed and replaced within three to four days.

The Office of the Director of Ocean Engineering, Supervisor of Salvage, directs development and maintenance of the Navy's salvage, underwater ship husbandry, diving and certification programs for the U.S. Navy.