## SUPSALV Underwater Welding Team Conducts Repairs to USS MCFAUL (DDG 74) Rudder

27 February 2015

On 17 February, SUPSALV's UWSH Operations Specialist, Russ Mallet reported to Pier 5, Norfolk Naval Station with the SUPSALV dive van and a team of contract underwater welder/divers to begin repairs to outboard face of USS MCFAUL's starboard rudder which, during an October 2014 underwater hull cleaning and inspection, had been flagged with 12 indications of possible cracks.

SUPSALV was called in to repair those cracks in the water rather than waiting for the next drydock availability. This February has been especially harsh in the mid-Atlantic and Mid February in Norfolk was no exception. As the dive team arrived on station, the area was under a winter storm watch with 6" of snow and sleet expected. That winter storm did not stop progress. By 18 February, the dive station had been set up, a habitat had arrived to allow the divers to operate on the rudder in a dry environment, and the team had completed a detailed inspection of the rudder, confirming and mapping out the 12 original cracks and finding 7 additional cracks that needed attention. This included one crack that was in the rudder's casting, a location that would require unique procedures to ensure the repairs were done properly.



USS McFaul Rudder inside habit during dewatering process. Water leaking from rudder surface confirmed existence of cracks.

After the habitat was set, and dewatered, the team began dry preparation on the first series of indications. This includes excavation and perheating followed by root pass welds, weld filling, and final passes of welds. The following picture shows a series of final welds before the divers ground the seams flush.



Final weld passes complete on first setting of habitat. Still to accomplish is the grinding and preservation.

The team continues the repairs through multiple setting of the habitat in order to address all of the mapped indications. Meanwhile the weather was not improving. On 26 February, Norfolk Naval Base was closed to non-essential personnel due to a new winter storm. This did not stop the NAVSEA team. They had completed repairs at the first location the previous day and during the storm they moved the habitat for a second setting and began the dewatering process.

The team is hoping to complete the USS MCFAUL rudder repairs by the end of the first week of March. Despite extreme winter weather, the repairs go on. After all, as Commander, Naval Sea System Command, VADM William Hilarides says, "It's All About the Ships"



February 26 conditions at the dive site. Base closed for non-essentials, welders in the water, and snow on the pier.