

Project Name: Guam Class CC Mooring

Author: Don Wells

Organizations/People Involved: FPO-1; Tom Boyle; PWC Guam

Date: Nov 1980

Project Summary: CHESDIV (FPO-1) was tasked in Sept 1979 to design a Modified Class CC Mooring for PWC Guam. FPO-1 forward to PACDIV the design and installation guidelines in Mar 1980. The installation guidelines called for a 100 kip pull on each chain. However, funds for anchor setting and pull tests were not available. FPO-1 reviewed the anchor setting and pull test requirements and sent PACDIV and PWC Guam a list of the minimum quality assurance (QA) requirements that had to be met. To ensure that the QA requirements actually were met (FPO-1) sent Mr. Tom O'Boyle to Guam as their on-site representative during the installation.

The mooring location is approximately 500 feet west of the existing 25N/25S mooring. The mooring configuration is a three-legged array with two ground chains per leg as in a DM-26 class CC mooring. Each ground chain terminates in a pair of tandem anchors. At the other end of the six chain legs, the termination is at a common ground ring. A single 15,000-pound (in water weight) sinker is attached directly to the ground ring, and a 3.5-inch riser chain connects the ground ring to a 12-foot diameter buoy. The designed hawser from the buoy to the ship is a dual parallel 4.25-inch diameter.:

PWC Guam used a YFNB barge as a work platform. The barge's deck house had been cut off to provide 140 feet proximately clear work deck from the stern forward. To accomplish their work on the moorings, PWC secured a 60-ton, crawler crane to the deck, left of the centerline and at the stern. To the right of the centerline, at the forward end of the work area, PWC secured a 3 drum 10-kip winch. Each of the drums wire ropes passes through its own 5-part block system. The crane and the 3 drum winch are the only pieces of machinery used by PWC to do mooring work. The mooring was successfully installed.

Project Report Link: DTIC ADA167750 Quality Assurance of the Modified Class CC Mooring Installation at Guam