

EVANS-HAMILTON, INC.

APPLIED OCEANOGRAPHY AND MARINE INSTRUMENTATION

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Wilmington Gage Turnaround - Trip Report

6000.14 (6000.21 - Completion)

29Jul02-01Aug02

29 July 2002 – Travel day

Depart Houston Hobby Airport for Raleigh/Durham

Arrive Raleigh/Durham drive to Southport, NC, check in Hampton Inn Southport, NC

30 July 2002 – Weather day, OK shore station lightning protection modifications

Divers were sent out to OK as it has been down since the 05 July 2002.

Sea State was rough winds out of the southwest in excess of 12 kts at times.

Divers went to BH and found sea state too rough and unsafe for diving. They returned to CG station and called it a day.

I went to OK shore station to access the situation and conduct modifications to the lightning protection. A new PolyPhaser and gas discharge tubes were installed and the transorbs were replaced on the meter side of the terminal strip. A loop back test was conducted and passed assuring the computer and the 422 communications were intact.

A new padlock was purchased for the shed and keys were redistributed.

31 July 2002 – Recover MD, EL, OK, BH

New gas discharge tubes installed at BH while divers and Trap recover MD, EL, BH.

Gages cleaned and shut down, All instruments were still pinging. Data downloaded and backed up, compass calibrations conducted and pressure port screws replaced. Upon inspection the urethane faces on EL had endured extensive damage from the barnacles. The urethane had pulled away from the edge of the transducer. With approval from Carl, the DOER MD gage S/N 1506 was prepared for use at EL while the existing gage S/N 1818 was sent to RDI under RMA R6965.

Divers went to OK and pulled the meter, the cable was rang out from shore, no leakage, and all resistances across all lines were consistent (80-82 ohms). A loop back test was performed revealing good cable condition. The cable had been pulled away from the pod and was stretched back to the pod with a come along and strain relief. Now the armored cable reaches the pod and the SO cable is protected within the pod. The meter was brought to shore and tested. The meter failed communication, upon further inspection the 250v 3amp fuse was blown. The fuse was replaced and the meter power reconnected. Communications failed, the meter was reopened and blue smoke arose. Arrangements for the ADCP S/N 1619 were made to ship back to RDI under RMA R6966. S/N 1885 was configured to replace S/N 1619 at OK.

OK S/N 1885, and BH S/N 481 were mounted in their frames with external batteries. A compass calibration was performed and anti-foulant was applied to the faces. The old MD gage was brought back to the hotel and turned around for re-deployment at EL. Compass recalibrations were to be performed in the AM while the divers re-installed BH and OK.

01 August 2002 – Redeployment of EL, OK, and BH. Travel day

Arrived at CG station early to prepare EL for deployment. The divers left with BH and planned to recover the pod at MD as the seastate had improved remarkably. EL was recalibrated and prepared for deployment. BH was installed and started at 0900 EST. All tests pass from shore via PCAnywhere. The MD pod was brought back to shore and the divers left with OK and EL. OK was to be redeployed first, I went to the shore station to test and initialize. I also rerouted the ESSO cable to move it away from the armored cable as an extra precaution from lightning protection. All meter tests passed and the ADCP was set to start at 1100 EST. It was later realized while the divers were redeploying EL that a five second drift was occurring on each successive update of the OK gage. It turns out that with the new Polyphaser or gas discharge tubes data loss occurs at 9600 baud (The ADCP was later retested and restarted at a lower baud rate on Aug 4th). Trap then left for Wilmington to acquire new grounding rods and ship the two ADCP's via FedEx to RDI. Trap returned with the grounding rods and dropped them at OK shore station. Arrangements were then made to have an electrician Charlie to reroute the grounding line and install these grounding rods on Saturday with Buck Vest. The goal is to install the grounding rod to a depth of 30' into the water table as our previous depth was only 10' and of insufficient depth. Arrangements were made for Saturday as to prevent disruption to the vacationers at the OK shore station beach house.

I departed for Raleigh/Durham and flew back to Houston Hobby Airport.