

## (2) Diving Operations

A total of five (5) dives were conducted for AWOIS Item #3191, which established, on JD 117, a least depth, corrected for predicted tides, of 33.5 feet MLLW, at the position latitude 37-13-29.93N, longitude 076-11-30.44W. The item is the steel hull of a vessel 60 feet LOA, with a beam of 20 feet, oriented on the centerline from stern to bow at 091 degrees true and is missing the superstructure. This superstructure had been broken off and pieces of debris are lying off the starboard quarter aft of the vessel.

The item was located at the end of the first dive of JD 115, April 24, 1984 by circle search techniques at a distance of approximately 60 feet from a marker buoy deployed by the NOAA Ship HECK. A second dive was conducted on JD 115 as a recon of the wreck to determine an approximate location of least depth with wrist depth gage on the perimeter of the main deck. The marker float was moved and secured to a set of bitts 18 feet aft of the bow on the port side. The remainder of the dive was spent running search arcs originating from the bow with an increasing radius, covering the forward 30-35 feet of the hull and main deck. The wreck was found to be the steel hull of a vessel that was oriented 091 degrees true along the centerline towards the bow. The hull of the wreck was down slightly in the bow and had a 5-10 degree list to starboard with the starboard side level with the bottom sediment.

Three dives were conducted on JD 117 and completed the survey of the hull. Dive one investigated the after portion of the vessel and revealed that the superstructure of the vessel was missing. A radius sweep of 20 feet conducted about the kingpost on the stern established that the debris of the superstructure was astern of the hull and to the starboard side. All the depths taken on the superstructure debris were found to be deeper than the least depth at the marker float.

The second dive obtained the least depth, using PNEUMATIC DEPTH GAUGE #78996, at the position of the marker float. Two readings were taken when the surge of the survey launch pulled the hose away from the divers.

On the third and final dive, three consecutive least depth readings taken at the marker float and three maximum depths, adjacent to the least depth position, were also recorded. The least depth, reduced for predicted tides, was 33.5 feet MLLW (Ref: National Tidal Datum Correction of 1980). The remainder of the third dive was spent taking exact measurements of the hull with a cloth survey tape. These measurements show the hull to be 60 feet LOA and having a beam of 20 feet. A detailed drawing is provided in Appendix F.

## A. Currents and Winds

Tidal currents were closely monitored during the course of this survey, since diving operations were planned to coincide with slack water whenever possible. Comparisons were made with the Tidal Current Tables 1984, Atlantic Coast of North America, for station 5271, York Spit Light.

In general, the times and strengths of maximum current and times of slack water agreed with the predicted times and strengths under normal conditions. However, this entire area is greatly influenced by North, Northwesterly and Southeasterly winds, which considerably prolongs or reduces the tidal currents, depending on wind direction and duration.