

During the survey period the TDC unit was sent to MESA calibration for tests. It was found to be inaccurate at very cold temperatures and at certain conductivities, soon afterwards the unit ceased to function. Both the TDC data and the bar check averages were plotted and they show similar slopes, but the TDC slope is shifted from 0.2 to 0.4 feet from the bar check slope. All velocity corrections were taken from the bar check averages. The TDC casts did reveal that the water did increase in temperature over the survey period. On Julian Day 187 the surface temperature was 21.8°C and on Julian Day 214 the surface temperature had risen to 27.6°C . At a given time the water temperature appeared to be constant with change in location. Salinity measurements were found to change with location and the stage of the tide. Analysis of the data shows that the velocity corrections are strongly dependent on temperature which as stated above changed over the survey period. The corrections were not location dependent.

The data was examined and found that it could be grouped within specific time frames. The bar checks shown in Table I (JD 172 - 194) were used for one set of velocity corrections. Table II (JD 197 - 242) shows the data that was used for the calculation of the other set of correctors. The bar checks from Julian Days 240 and 242 were taken after the second group of velocity correctors was calculated. When the data from these two days was averaged into the second table of velocity correctors there was an insignificant change to the correctors. So instead of calculating a third velocity table based on three bar checks, these two days were just grouped in table II.

Velocity, tide and TRA corrections were applied to all soundings on the field sheets. On 6 August, JD 218 it was determined that the TRA

correction for launch 1014 was 1.5 feet instead of 1.7 feet. All data was corrected and 0.2 feet was added to all correctors on the direct comparison logs for all bar checks taken before this date. The launch was run at a variety of speeds from 700 to 2600 RPM's. Settlement and squat trials were run on launch 1014 on 28 June 1979. The graph and corresponding table for settlement and squat are included in the appendix. The Monark was always run at idle speed and has no settlement and squat correction. The correctors for the launch range from -0.2 feet to +0.2 feet. This corrector has ~~not~~ been applied to the soundings.