

G. CORRECTIONS TO ECHO SOUNDINGS

Correctors for the velocity of sound through water were determined from the casts listed below:

<u>Cast No.</u>	<u>Table No.</u>	<u>Deepest * Depth(m)</u>	<u>Applicable DN(s)</u>	<u>Cast Position</u>		<u>Day Taken</u>
1	1	19.6	106	32°48'48"N	079°54'42"W	105
2	2	13.9	110-112	32°51'12"N	079°53'54"W	111
3	3	15.7	117-119	32°52'30"N	079°51'06"W	118
4	4	8.7	125-127	32°54'42"N	079°50'30"W	127
5	5	10.5	132-148	32°53'48"N	079°50'30"W	133
6	6	11.0	153	32°51'42"N	079°53'30"W	153

* = extended depth after processing

The instrument used for determining corrections for the speed of sound through the water column was a Seabird-Seacat Velocity Profiler, model 19-03, S/N 198671-1477. The manufacturer calibrated this unit on December 18, 1996. Data quality assurance tests were performed after each cast. Program VELOCITY was used for computing the correctors. Corrections were applied to the sounding plot using the HPS REAPPLY program. Copies of the velocity tables and support documentation are in the Survey Separates. *

The lead line for launch 1210 was calibrated using a steel tape on January 6, 1997. No corrections were necessary. A copy of the calibration form is in the Survey Separates.* A static draft of 0.5 meters was applied to the final sounding plot by the HPS REAPPLY program. The draft was measured by subtracting the difference from a punch mark on the side of launch 1210, 0.6 meter above the transducer, to the water surface.

Settlement and squat measurements for launch 1210 were taken on September 23, 1997 (DN: 266). These measurements were conducted in the Cooper River, Charleston, SC using the level method. The data from this test is included in the Survey Separates.* Settlement and squat correctors were applied to the final sounding plot using the HPS REAPPLY program.

Field tide reduction of soundings is based on predicted tides from station 866-5530, Charleston, SC. The Product and Services Branch, Datums Section, N/OES231, provided predicted tides for this reference station on diskette for HPS. Correctors for four tidal zones on this survey were used as designated by the Project Instructions. The zones were numbered with the following correctors:

	<u>Time (min.)</u>		<u>Range Ratio</u>
	<u>High Water</u>	<u>Low Water</u>	
Zone #CH29	+ 24 min	+ 24 min	x1.07
Zone #CH32	+ 36 min	+ 36 min	x1.10
Zone #CH33	+ 36 min	+ 36 min	x1.14
Zone #CH34	+ 42 min	+ 42 min	x1.17

* Data filed with original field records

All elevations and soundings on this survey are based on MLLW unless otherwise specified.

Approved tide levels were requested from the Product and Services Branch, Datums Section, N/OES231, in a letter dated July 9, 1998. A copy is appended to this report.

All tides gages required for this survey were NGWLMS gauges installed by Atlantic Hydrographic Party and Atlantic Operations Section personnel.

Approved tides and zoning were applied during office processing