

G.3 Tide zoning for this survey is consistent with the Project Instructions. During data collection tide station Sandy Hook, New Jersey (853-1680) was used as the reference station for hydrography in the areas south of Fire Island Inlet, NY to Ambrose Light, NY. For the area around Stapleton Pier, NY, The Battery, New York (851-8750) was used as the reference station.

Tide zone correctors were developed to resolve possible differing tidal characteristics due to topographic and bathymetric features. Tide zones were developed by

*\*DATA FILED WITH FIELD RECORDS.*

applying time correctors and range correctors to the preliminary unverified tides at Sandy Hook, New Jersey (853-1680) and The Battery, New York (851-8750), respectively. Preliminary unverified tides were downloaded from the National Ocean Service OPSD web site (www.opsd.nos.noaa.gov) and were computed in CARIS-HIPS and HPS for re-application to multibeam and single beam data.

The following table indicates the tide zones that were applied during post-processing application of unverified water levels:

Tide Station 853-1680, Sandy Hook, New Jersey		
Zone #	ATL509	ATL517
Time Corrector	-36 minutes	-30 minutes
Range Corrector	X 0.79	X 0.97

Tide Station 851-8750, The Battery, New York	
Zone #	NY18
Time Corrector	-24 minutes
Range Corrector	X 1.02

- G.4 The diver least depth gage was not used for this survey.
- G.5 No significant systematic errors were detected.
- G.6a The vertical reference surface for this survey is Mean Lower Low Water (MLLW).
- G.6b Tide data was acquired at Sandy Hook, New Jersey (853-1680) and The Battery, New York (851-8750) by N/OES231. A request for verified tides was mailed to N/OPS1 on November 10, 1999. This data will replace the unverified tide data during verification by N/CS33. (see Section G.6d)
- G.6c Note that multibeam data processing was accomplished using preliminary unverified tide values post processing (downloaded from the NOS OPSD web-site).

Zone Station time and height tidal correctors provided by N/CS31, with the project instructions, were applied to all tidal correctors relative to reference stations Sandy Hook, New Jersey (853-1680) and The Battery, New York (851-8750)

G.6d DO NOT REAPPLY ANY CORRECTORS to multibeam data in HPS, including verified smooth tides. Note that only preliminary unverified tide values have been applied to S-C906 data. Verified smooth tide values and correctors need to be applied to the entire multibeam data set in CARIS-HIPS prior to conversion to HPS.

Upon receipt of approved tides, do not apply tide values and correctors in HPS. If necessary, all vertical correctors and horizontal offsets should be reapplied to multibeam data using CARIS software only. APPROVED TIDES AND ZONES WERE APPLIED IN CARIS-HIPS DURING OFFICE PROCESSING.