

<p style="text-align: center;">U.S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION NATIONAL OCEAN SERVICE</p> <p style="text-align: center;">HORIZONTAL AND VERTICAL CONTROL REPORT</p>
<p><i>Type of Survey</i> Navigable Area</p> <p><i>Field No.</i> B310-TJ-06</p> <p><i>Registry No.</i> H11600 & H11601</p>
<p style="text-align: center;">LOCALITY</p> <p><i>State:</i> New York</p> <p><i>General Locality:</i> New York Harbor</p>
<p style="text-align: center;"><u>2006</u></p> <p style="text-align: center;">CHIEF OF PARTY</p> <p style="text-align: center;">CDR Raymond C. Slagle NOAA Ship THOMAS JEFFERSON</p>
<p style="text-align: center;">LIBRARY & ARCHIVES</p> <p>DATE</p>

I. Projects Surveyed

B310-TJ-06

Registry #: H11600

- General Locality: New York Harbor
- Sublocality: Upper Bay
- Chief of party: CDR Raymond C. Slagle
- Project Instructions: July 6, 2006

Registry #: H11601

- General Locality: New York Harbor
- Sublocality: Lower Bay to Rockaway Inlet
- Chief of party: CDR Raymond C. Slagle
- Project Instructions: July 6, 2006

II. Vertical Control

A. B310-TJ-06

The operating National Water Level Observation Network (NWLON) stations at The Battery, NY (851-8750) and Sandy Hook, NJ (853-1680) served as datum control for the survey area and will also provide water level reducers for this project. Neither of these stations required leveling by NOAA ship THOMAS JEFFERSON personnel. Both gauges used for OPR-D304-TJ-06 were GOES enabled. Preliminary tide zoning was provided with the Project Instructions. Observed water level data were downloaded from the CO-OPS website. These water level data and preliminary zoning were applied to bathymetry data in Caris Hips.

The Battery, NY

- Station ID: 851-8750
- Latitude: 40° 42.0' N
- Longitude: 074° 00.9' W
- No unusual tidal, water level or current conditions were reported.
- No leveling was required by personnel from NOAA Ship THOMAS JEFFERSON
- See table 1 for the dates of hydrography.

Sandy Hook, NJ

- Station ID: 853-1680
- Latitude: 40° 28.0' N
- Longitude: 074° 00.6' W
- No unusual tidal, water level or current conditions were reported.
- No leveling was required by personnel from NOAA Ship THOMAS JEFFERSON
- See table 1 for the dates of hydrography.

Table 1 - Dates of Hydrography

Year_DOY	Min Time	Max Time	Year_DOY	Min Time	Max Time
2006_225	12:40:18	19:38:45	2006_282	13:09:10	19:06:11
2006_226	12:19:49	19:35:22	2006_283	12:37:28	18:32:25
2006_227	12:21:42	19:28:30	2006_284	13:24:14	21:25:54
2006_228	15:31:48	19:34:22	2006_285	13:03:48	20:57:53
2006_229	13:39:46	19:33:24	2006_286	12:41:32	21:06:33
2006_230	12:47:29	19:40:18	2006_288	12:41:01	20:51:49
2006_232	12:29:21	19:26:56	2006_289	12:46:45	20:56:24
2006_233	12:31:51	19:42:26	2006_290	12:41:11	20:25:03
2006_234	12:39:44	19:35:29	2006_291	12:39:27	20:40:05
2006_235	12:51:13	19:29:56	2006_292	12:44:25	20:41:32
2006_236	12:43:16	19:08:31	2006_293	13:18:11	18:40:09
2006_237	13:01:30	19:40:17	2006_294	13:11:43	19:28:06
2006_238	12:42:34	19:33:07	2006_295	12:32:49	20:59:26
2006_239	12:48:26	19:25:17			
2006_240	12:22:14	19:33:02			
2006_241	12:23:51	19:42:21			
2006_242	13:00:18	19:21:28			
2006_243	12:38:12	17:38:33			
2006_244	13:26:42	16:44:33			
2006_248	13:38:27	19:06:08			
2006_249	13:08:15	19:44:42			
2006_250	12:47:12	19:26:19			
2006_251	13:16:54	19:18:35			
2006_252	12:56:10	19:24:15			
2006_253	14:02:39	19:15:33			
2006_254	13:07:06	19:16:16			
2006_255	12:43:15	19:06:50			
2006_256	13:35:22	15:28:09			
2006_257	13:28:01	19:00:29			
2006_258	12:23:32	19:15:56			
2006_261	12:57:42	19:17:30			
2006_262	12:32:25	19:16:17			
2006_263	12:44:15	19:05:39			
2006_264	12:38:35	19:18:25			
2006_266	12:45:49	19:08:37			
2006_267	12:59:36	19:14:55			
2006_268	12:37:39	18:19:14			
2006_270	13:00:34	19:42:46			
2006_271	13:47:23	18:30:18			
2006_272	17:16:48	18:34:00			
2006_277	14:46:07	19:09:48			
2006_278	13:55:33	18:50:51			
2006_279	13:55:52	18:57:01			
2006_281	13:20:57	19:19:03			

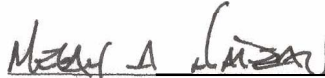
III. Horizontal Control

All parameters were provided in the letter instructions and no additional fieldwork was completed that would change these parameters.

IV. Approval


As Chief of Party, I have ensured that all information contained in the Vertical and Horizontal Control Report is complete and accurate to the best of my knowledge.

Submitted:

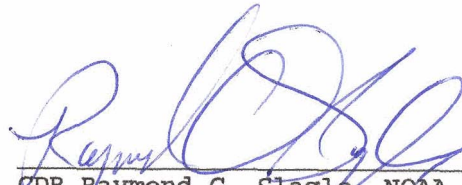


ENS Megan A. Nadeau, NOAA
Tides Officer

Approved and Forwarded:



LT Christiaan VanWestendorp, NOAA
Operations Officer



CDR Raymond C. Slagle, NOAA
Commanding Officer