

NOAA FORM 76-35A

U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEAN SERVICE

HVCR

Type of Survey

Field No.

Registry No.

LOCALITY

State

General Locality

Sublocality

CHIEF OF PARTY

LIBRARY & ARCHIVES

DATE

NOAA FORM 77-28
(11-72)

U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

REGISTRY No

HYDROGRAPHIC TITLE SHEET

INSTRUCTIONS - The Hydrographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.

FIELD No.

State _____

General Locality _____

Sub-Locality _____

Scale _____ **Date of Survey** _____

Instructions dated _____ **Project No.** _____

Vessel _____

Chief of party _____

Surveyed by _____

Soundings by echo sounder, hand lead, pole _____

Graphic record scaled by _____

Graphic record checked by _____ **Automated Plot** _____

Verification by _____

Soundings in fathoms feet at MLW MLLW _____

REMARKS: _____

VERTICAL AND HORIZONTAL CONTROL REPORT

to accompany
HYDROGRAPHIC PROJECT S-Y916-NRT4-05
Registry Number F00511

Scale of Survey 1:5,000 & 1:10,000
Year of Survey: 2005
Navigation Response Team 4
NOAA Launch S3001
Lucy Massimillo, Team Leader

A. VERTICAL CONTROL

No Water Level Stations were established by NRT4 during the course of this survey.

The time meridian used for this survey was UTC.

The following is a list of Water Level Stations used during this project:

Site	Station Number	Latitude	Longitude	Area Used
Green Bay, WI	908-7078	44.540000° N	88.008333° W	Menominee/Marinette
Port Inland, MI	908-7096	45.970000° N	85.871667° W	Port Inland & Beaver Island

The vertical datum for this project was the low water datum (LWD). LWD for Green Bay, WI (908-7078) and Port Inland, MI (908-7096) are at elevation 176.00 meters International Great Lakes Datum of 1985 (IGLD 85).

Field soundings were corrected by verified actual water levels from NOAA/CO-OPS. Verified/Historical six minute water levels for each station were obtained from the following website:

<http://co-ops.nos.noaa.gov/>

These values were downloaded in blocks of data, covering the times of hydrography and saved as text (.txt) files. The 176.00 meters was then subtracted in order to reduce these values to the Low Water Datum. The "Create Cowlis from Tides File" function of the MapInfo Hydro MI MBX tool was then used to convert the text file into a CARIS tide (.tid) file. Finally, the preliminary zoning (.zdf) file, provided with the letter instructions, was used to apply the tides in CARIS.

There were no unusual tidal or current conditions noted during this survey.

Ellipsoidal benchmark positioning techniques were not required during this project.

B. HORIZONTAL CONTROL

The horizontal control datum for this project is the North American Datum of 1983 (NAD83). The projection for this project was Universal Transverse Mercator (UTM) zone 16 North.

There were no horizontal control stations established by NRT4 during the course of the survey.

Differential GPS (DGPS) was used for all hydrographic data acquired during this survey. DGPS performance checks were conducted in accordance with the Field Procedures Manual (FPM) and the Hydrographic Survey Specifications and Deliverables (HSSD) document. A quality assurance check was performed by NRT4 by comparing the position produced by the vessel mounted DGPS unit to that of a Trimble Backpack calibration point.