

# Vertical and Horizontal Control Report

## OPR-G381 -NRT2-05

**Calendar year 2005, Savannah River, GA**  
**Navigation Response Team 2 – David B. Elliott – Lead Hydrographer**

### **A. Vertical Control**

No tide stations were established by NRT2 during the course of this survey.

The following is a list of Tide Stations for the hydrographic surveys conducted on “The Savannah River”

<u>Site</u>	<u>Location</u>	
Fort Pulaski 867-0870	32° 02'12" N 080° 54'06" W	Entire Survey

### Applications of Correctors

Field soundings are corrected by unverified actual heights from NOAA/CO-OPS. The Real Time Actual 6 min Tides are downloaded from: "[http://co-ops.nos.noaa.gov/data\\_res.html](http://co-ops.nos.noaa.gov/data_res.html)", for all gauges required in the given projects defined by the ZDF file provided in the project letter, and instruction. Tide values are downloaded in blocks of data that covers the Times of Hydrography, and saved in a text file format. The MapInfo program is then used with the "HYDRO\_MI" pre-Survey function, of "Create Cowlis", this function converts the text file into a Caris tide file (.tid).

The time meridian is 75° for this survey.

All elevations and soundings for OPR-G381 are based on MLLW unless otherwise specified.

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

Ellipsoidal benchmark positioning techniques were not required this project.

## **B. Horizontal Control**

The horizontal control datum for this project is the North American Datum (NAD) of 1983 in UTM. The control reference station used for this survey was the USCG DGPS Station located in Savannah, GA.

There were no horizontal control stations established by NRT2 during the course of this survey.

Differential GPS (DGPS) was used for all hydrographic data acquired on this survey. DGPS performance checks were conducted in accordance with the FPM & Hydrographic Survey Specs. & Deliverables. Comparing the DGPS position of the vessel to the position of a Trimble Backpack Calibration Point created by NRT2 performed the data quality assurance check for the navigation system.