NOAA FORM 76-35A

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

HVCR

Type of Survey Basic Hydrography

Field No. NRT4

Registry No. H11528

LOCALITY

State Texas

General Locality Galveston Bay

Sublocality Bolivar Roads

2006

CHIEF OF PARTY

Lucy Massimillo, Team Leader

LIBRARY & ARCHIVES

DATE

NOAA FORM 77-28
(11-72)

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

REGISTRY No H-11528

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. NRT4

State Texas

General Locality Galveston Bay

Sub-Locality Bolivar Roads

Scale 1:10,000 **Date of Survey** 9/27/2005 - 5/30/2006

Instructions dated 12/15/2005 **Project No.** OPR-K414-NRT4-06

Vessel NOAA Launch S3001

Chief of party Lucy Massimillo

Surveyed by Lucy Massimillo, Sarah Borakove, Jason McDannold & Brian Link

Soundings by echo sounder, hand lead, pole Odom CVX2 Vertical Beam Echosounder

Graphic record scaled by N/A

Graphic record checked by N/A **Automated Plot** N/A

Verification by Atlantic Hydrographic Branch

Soundings in fathoms feet at MLW MLLW feet at MLLW

REMARKS: (1) All times are in UTC.

(2) This is a basic Hydrographic Survey under the Navigable Area Concept.

(3) Projection is UTM Zone 15 N.

(4) Survey data in Anchorage Area A were collected during the Hurricane RITA response.

NOAA FORM 77-28 SUPERSEDES FORM C&GS-537

U.S GOVERNMENT PRINTING OFFICE: 1976-665-661/1222 REGION NO.6

VERTICAL AND HORIZONTAL CONTROL REPORT

to accompany
HYDROGRAPHIC PROJECT OPR-K414-NRT4-06

Scale of Survey 1:10,000
Year of Survey: 2006
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
North Jetty, TX	877-1341	29.3583 N	-94.7250 W
Galveston Pier 21, TX	877-1450	29.3100 N	-94.7933 W

The vertical datum for this project was the Mean Lower Low Water (MLLW).

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

http://tidesandcurrents.noaa.gov/olddata

These values were downloaded in blocks of data, covering the times of hydrographic data acquisition and saved as text (.txt) files. 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.

No unusual water level 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 15 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.