



UNITED STATES DEPARTMENT OF COMMERCE  
National Oceanic and Atmospheric Administration  
NATIONAL OCEAN SERVICE  
Silver Spring, Maryland 20910

TIDE NOTE FOR HYDROGRAPHIC SURVEY

DATE: August 22, 2001

HYDROGRAPHIC BRANCH: Atlantic  
HYDROGRAPHIC PROJECT: OPR-K414-NRT2-2000  
HYDROGRAPHIC SHEET: F00470

LOCALITY: Houston/Galveston, TX  
TIME PERIOD: November 20, 2000 - March 19, 2001

TIDE STATION USED: 877-1450 Galveston Pier 21, Tx.  
Lat. 29° 18.8'N Lon. 94° 47.2'W  
PLANE OF REFERENCE (MEAN LOWER LOW WATER): 0.000 meters  
HEIGHT OF HIGH WATER ABOVE PLANE OF REFERENCE: 0.400 meters

TIDE STATION USED: 877-1510 Galveston Pleasure Pier, Tx.  
Lat. 29° 17.1'N Lon. 94° 47.3'W  
PLANE OF REFERENCE (MEAN LOWER LOW WATER): 0.000 meters  
HEIGHT OF HIGH WATER ABOVE PLANE OF REFERENCE: 0.578 meters

TIDE STATION USED: 877-1328 Port Bolivar, Tx.  
Lat. 29° 21.1'N Lon. 94° 46.1'W  
PLANE OF REFERENCE (MEAN LOWER LOW WATER): 0.000 meters  
HEIGHT OF HIGH WATER ABOVE PLANE OF REFERENCE: 0.400 meters

TIDE STATION USED: 877-1013 Eagle Point, Tx.  
Lat. 29° 28.8'N Lon. 94° 55.1'W  
PLANE OF REFERENCE (MEAN LOWER LOW WATER): 0.000 meters  
HEIGHT OF HIGH WATER ABOVE PLANE OF REFERENCE: 0.323 meters

TIDE STATION USED: 877-0613 Morgans Point, Tx.  
Lat. 29° 40.1'N Lon. 94° 59.0'W  
PLANE OF REFERENCE (MEAN LOWER LOW WATER): 0.000 meters  
HEIGHT OF HIGH WATER ABOVE PLANE OF REFERENCE: 0.370 meters

TIDE STATION USED: 877-0777 Manchester, Tx.  
Lat. 29° 43.0'N Lon. 95° 15.1'W  
PLANE OF REFERENCE (MEAN LOWER LOW WATER): 0.000 meters  
HEIGHT OF HIGH WATER ABOVE PLANE OF REFERENCE: 0.451 meters



**TIDE NOTE FOR HYDROGRAPHIC SURVEY SHEET F00470 cont.**

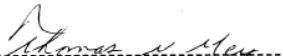
**REMARKS: RECOMMENDED ZONING**

**Use zone(s) identified as:**

- for Water Level Station 877-1510: G320, GB1 & GB2
- for Water Level Station 877-1450: GB3, GB4, GB4A, GB5, GB6 & GB7
- for Water Level Station 877-1328: GB6A, GB9, GB50, GB51, GB52,  
GB54, GB57 & GB60
- for Water Level Station 877-1013: GB69, GB73, GB84, GB106, GB109  
& GB112
- for Water Level Station 877-0613: GB120, GB127 & GB128
- for Water Level Station 877-0777: GB130 & GB131

**Refer to attachments for zoning information.**

- Note 1:** Provided time series data are tabulated in metric units (meters), relative to MLLW and on Greenwich Mean Time.
- Note 2:** Relative sea level trends show that the Galveston Bay, Texas area is undergoing substantial land subsidence. The relative sea level trend observed at the site for the control station for datum computation, Galveston, Pier 21, for the time period 1950 through 1993 is +0.025 ft./yr. with a standard error of 0.002 ft./yr. As a result of high rate of sea level change, the 1960 to 1978 Tidal Epoch value of Mean Lower Low Water (MLLW) used as chart datum and reference datum for NOS tidal predictions does not reflect present conditions. Therefore, the accepted datums in the Galveston area are based on the 1990-1994 update of Mean Sea Level (MSL) on the 1960-1978 Epoch.

  
----- 8/23/01  
**CHIEF, REQUIREMENTS AND DEVELOPMENT DIVISION**