UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL OCEAN SERVICE
Office of Ocean and Earth Sciences
Silver Spring, Maryland 20910

TIDE NOTE FOR HYDROGRAPHIC SURVEY

DATE: March 23, 1995

HYDROGRAPHIC SECTION: Atlantic

HYDROGRAPHIC PROJECT: OPR-B616

HYDROGRAPHIC SHEET: H-10556

LOCALITY: Massachusetts, Middle Ground and Vicinity, Vineyard Sound

TIME PERIOD: July 23 - September 9, 1994

TIDE STATION USED: 844-8157 Vineyard Haven, Martha's Vineyard, Ma.
Lat. 41° 27.5'N Lon. 70° 36.0'W

PLANE OF REFERENCE (MEAN LOWER LOW WATER): 4.24 ft.
HEIGHT OF HIGH WATER ABOVE PLANE OF REFERENCE: 1.8 ft.

TIDE STATION USED: 844-8208 Oak Bluffs, Martha's Vineyard, Ma.
Lat. 41° 27.5'N Lon. 70° 33.2'W

PLANE OF REFERENCE (MEAN LOWER LOW WATER): 10.87 ft.
HEIGHT OF HIGH WATER ABOVE PLANE OF REFERENCE: 2.1 ft.

TIDE STATION USED: 844-8533 Cape Higgon, Martha's Vineyard, Ma.
Lat. 41° 24.6'N Lon. 70° 42.7'W

PLANE OF REFERENCE (MEAN LOWER LOW WATER): 2.02 ft.
HEIGHT OF HIGH WATER ABOVE PLANE OF REFERENCE: 2.7 ft.

REMARKS: RECOMMENDED ZONING

1. East of 70° 34.0'W times and heights are direct on Oak Bluffs, Martha's Vineyard, Ma. (844-8208).

2. South of a line between East Chop and West Chop on Martha's Vineyard, times and heights are direct on Vineyard Haven, Ma. (844-8157).

3. *North of a line between East Chop and West Chop on Martha's Vineyard, between west of 70° 34.0'W and east of 70° 36.5'W, apply a -30 minute correction to times, and heights are direct on Vineyard Haven, Ma. (844-8157).

4. *Between west of 70° 36.5'W and east of 70° 40.0'W, apply a +1 hour correction to times a X0.76 range ratio to heights using Cape Higgon, Ma. (844-8533).

5. West of 70° 40.0'W, apply a +15 minute correction to times and a X0.76 range ratio to heights using Cape Higgon, Ma. (844-8533).

Notes:

1. Times are tabulated in Greenwich Mean Time.

2. ***Caution:**

The tides in the area of Vineyard Sound at the interface of Vineyard and Nantucket Sounds are very complex due to a mix of the tide progressions from the western entrance to Vineyard Sound and from Nantucket Sound. Tides around the area of Falmouth Harbor exhibit double high waters followed by a phase lag in the falling tide which complicates the Greenwich Time intervals. Those reducers based on zoning corrections from the tide gauge at Vineyard Haven may not replicate the tide curve in the area of Falmouth Harbor and the adjacent area of Vineyard Sound.

William M. Gibson

CHIEF, DATUMS SECTION