

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

TIDE NOTE FOR HYDROGRAPHIC SHEET

Date: 03/11/85

Marine Center: Atlantic

OPR: B 259

Hydrographic Sheet: H - 10016

Locality: Navesink River, New Jersey

Time Period: August 31 - September 16, 1982

Tide Station Used: 853-1804 Sea Bright, NJ

Plane of Reference (Mean Low Water): 2.61 ft.

Height of Mean High Water Above Plane of Reference: 3.3 ft.

Remarks: Recommended Zoning:

For Hydrography run in the Navesink River after the operating tide station had been removed, use the following zoning; (see other page)

for Donald Carrier  
Chief, Tidal Datums Section

03/11/85

B - 259/H - 10016

A. East of longitude  $73^{\circ}59.0'$ .

- 1) north of latitude  $40^{\circ}23.1'$  apply -45 minute time correction and x1.28 range ratio to all heights.
- 2) south of latitude  $40^{\circ}23.1'$  to  $40^{\circ}22.5'$  apply -30 minute time correction and x1.16 range ratio to all heights.
- 3) south of latitude  $40^{\circ}22.5'$  to  $40^{\circ}22.2'$  apply -15 minute time correction and x1.07 range ratio to all heights.
- 4) south of latitude  $40^{\circ}22.2'$  to  $40^{\circ}21.6'$  zone direct.

B. West of longitude  $73^{\circ}59.0'$  to  $74^{\circ}00.0'$ , apply x1.10 range ratio to all heights.

C. West of longitude  $74^{\circ}00.0'$  to  $74^{\circ}02.0'$  apply +15 minute time correction and x1.10 range ratio to all heights.

D. West of longitude  $74^{\circ}02.0'$  apply +30 minute time correction and x1.13 range ratio to all heights.

DATE: May 3, 1983

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

TIDE NOTE FOR HYDROGRAPHIC SHEET

Processing Division: Atlantic Marine Center:

Hourly heights are approved for

Tide Station Used (NOAA Form 77-12): 853-1712 Highland Bridge, NJ  
853-1804 Sea Bright, NJ ✓  
853-1833 Red Bank, NJ ✓  
853-1925 Gooseneck Bridge, NJ ← *not used*

Period: May 17-September 16, 1982

HYDROGRAPHIC SHEET: H-10016

OPR: B259

Locality: Navesink and Shrewsbury Rivers, New Jersey

Plane of reference (mean ~~lower~~ <sup>XXXX</sup> low water): 853-1712 = 1.56 ft.  
853-1804 = 2.61 ft.  
853-1833 = 2.35 ft.  
853-1925 = 3.09 ft.

Height of Mean High Water above Plane of Reference is  
853-1712 = 4.2 ft.  
853-1804 = 3.3 ft.  
853-1833 = 3.7 ft.  
853-1925 = 2.8 ft.

REMARKS: Recommended Zoning:  
See Page 2

*James R. Hubbard*  
Chief, Tidal Datums Section, Tides & Water  
Levels Branch

May 3, 1983

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

TIDE NOTE FOR HYDROGRAPHIC SHEET

OPR-B259

H-10016, H-10037

II. IN THE NAVESINK RIVER, NEW JERSEY

A. East of Longitude 73°59.0' ✓

1. North of latitude 40°23.1' zone direct on 853-1712.<sup>1</sup>
2. South of 40°23.1' to 40°22.8' zone on 853-1712.<sup>2</sup> apply +15 minute time correction x0.90 range ratio.
3. South of 40°22.8' to 40°22.5' zone on 853-1712.<sup>3</sup> apply +30 minute time correction x0.90 range ratio.
4. South of 40°22.5' to 40°22.2' zone on 853-1712.<sup>4</sup> apply +45 minute time correction x0.83 range ratio.
5. South of 40°22.2' to 40°21.6' zone direct on 853-1804. ← see Tide note dated 3/11/85

B. West of 73°59.0' to 74°00.0' zone on 853-1712.<sup>5</sup> apply +30 minute time correction x0.83 range ratio.

C. West of 74°00.0' to 74°02.0' zone on 853-1833.<sup>6</sup> apply -15 minute time correction.

D. West of 74°02.0' zone direct on 853-1833.<sup>7</sup>

✓ Bld

DATE: May 3, 1983

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

TIDE NOTE FOR HYDROGRAPHIC SHEET  
OPR-B259 H-10016, H-10037

I. IN THE SHREWSBURY RIVER, NEW JERSEY

A. East of Longitude  $73^{\circ}58.9'$

1. North of latitude  $40^{\circ}21.6'$  zone direct on 853-1804.
2. South of  $40^{\circ}21.6'$  zone on 853-1804 apply +15 minute time correction.

B. West of  $73^{\circ}58.9'$  to  $74^{\circ}00.0'$

1. North of  $40^{\circ}19.8'$  zone on 853-1925 apply -30 minute time correction, x1.09 range ratio on 853-1925.
2. South of  $40^{\circ}19.8'$  to  $40^{\circ}19.4'$  zone on 853-1925, apply -15 minute time correction.
3. South of  $40^{\circ}19.4'$  zone direct on 853-1925.

C. West of  $74^{\circ}00.0'$  to  $74^{\circ}00.8'$

1. North of  $40^{\circ}19.0'$  zone on 853-1925 apply -15 minute time correction.
2. South of  $40^{\circ}19.0'$  zone direct on 853-1925.

D. West of  $74^{\circ}00.8'$  zone direct on 853-1925.

FIELD TIDE NOTE  
H-10016

Field tide reduction of soundings were based on predicted tides from Sandy Hook, New Jersey, and were corrected for predetermined tidal zone values from OPR-B259-HSB-82, utilizing a PDP8/e Computer and Program RK500. All times of both predicted and recorded tides are Universal Coordinate Time (GMT).

The number and type of tide gage installed, their geographic locations, dates of installation/removal, leveling, plane of reference and period of operation are appended to this note, along with a copy of a letter to OA/C23 requesting verified hourly heights of tides from the gages listed in this report.

The respective gages reportedly operated properly during this project.

On Julian Days 243 and 245 tide levels at Red Bank (Station # 853-1833) and Highlands Reach (Station #853-1712) were observed and recorded during hydrography. These data were forwarded to the Chief, Tides and Water Levels Branch (OA/C23). Staffs were levelled at the removal of the ADR tide gage and also at the end of the project.



**U.S. DEPARTMENT OF COMMERCE**  
**National Oceanic and Atmospheric Administration**  
NATIONAL OCEAN SURVEY

Date: 13 December 1982

To: Chief, Tides and Water Levels Branch, OA/C23

From: *John W. Humphrey*, Lt. jg, NOAA - *original is signed*  
Officer-in-Charge  
Hydrographic Field Party-5

Subj: Tidal Data for OPR-B259-HSB-82, Shrewsbury River, N.J.

It is requested that verified hourly heights of Tides, using Greenwich Mean Time, from the operating tide gages listed below, be forwarded to the Processing Division (CAM 3), Atlantic Marine Center, Norfolk, VA. 23510

<u>GAGE NAME</u>	<u>NUMBER</u>	<u>LATITUDE</u>	<u>LONGITUDE</u>
Sea Bright (Shrewsbury River)	853-1804	40°21.9'N	73°58.5'W
Gooseneck Bridge (Shrewsbury River)	853-1925	40°19.6'N	74°01.0'W

It is requested that the Time and Height Correctors for each gage be zoned as per Project Instructions for the area described within the following points:

LATITUDE            40°19.8'N, 40°24.5'N  
LONGITUDE           73°57.8'W, 74°05.3'W

This information is requested for the following Times and Dates:

