123+000
122+500
122+000
121+500
121+000
120+500
120+000
119+500
119+000
118+500
118+000
117+500
117+000
116+500
116+000
115+620.01
45' Project
40' Project
Anchorage Buoy C
Ebb Tide
Delaware River
Delaware Bay and the Anchorage Area
Fort Mifflin Range Front
Fort Mifflin Range Rear
Fort Mifflin Range Rear
Fort Mifflin Range Front

1. THIS SURVEY MEETS STANDARDS AS OUTLINED IN CORPS OF ENGINEERS' HYDROGRAPHIC SURVEY MANUAL EM1110-2-1003, DATED NOVEMBER 30, 2013 FOR NAVIGATION AND DREDGING SUPPORT SURVEYS.

2. HORIZONTAL REFERENCE - NAD 83, NEW JERSEY STATE PLANE, ZONE 2900, U.S. FOOT.

3. VERTICAL REFERENCE – MEAN LOWER LOW WATER, WHICH IS 3.00' BELOW N.A.V.D. 88.

4. GEOID 12B AND NOAA TIDAL EPOCH: 1983 – 2001 WERE USED. SOUNDINGS ARE EXPRESSED IN FEET AND TENTHS AND REFER TO MEAN LOWER LOW WATER.

5. SOUNDINGS WERE SELECTED FOR PLOTTING PURPOSES ONLY, USING THE MINIMUM DEPTH WITHIN A 30'X30' CELL SHIFTED TO THE CELL CENTER.

6. CONTOURS DEPICT ACTUAL LOCATION OF BATHYMETRY AND DO NOT NECESSARILY REFLECT PLOTTED SOUNDING LOCATIONS.

7. CONTOURS WERE GENERATED USING THE MINIMUM DEPTH WITHIN A 15'X15' CELL.

8. HYPACK, INC. SOFTWARE WAS USED TO PERFORM THE SOUNDING SELECTION AND CONTOUR GENERATION.

9. THE INFORMATION DEPICTED ON THIS MAP REPRESENT THE RESULTS OF SURVEYS MADE ON THE DATES INDICATED AND CAN ONLY BE CONSIDERED AS INDICATING THE GENERAL CONDITIONS EXISTING AT THAT TIME.

10. THE POSITIONS OF THE AIDS TO NAVIGATION ARE PROVIDED FOR INFORMATION ONLY, AND SHOULD NOT BE USED FOR NAVIGATION.

11. THE LIMITS OF THE FEDERAL CHANNEL DEPICT THE MOST CURRENT CHANNEL FRAMEWORK AVAILABLE WHICH CAN ALSO BE DOWNLOADED HERE:

http://navigation.usace.army.mil/Survey/Framework

12. BASE MAPPING LINEWORK OR ORTHOPHOTOGRAPHY HAS BEEN COMPILED FROM A VARIETY OF SOURCES AND DATES AND IS INTENDED TO PORTRAY GENERAL CHARACTERISTICS OF THE SHORELINE AND OTHER FEATURES. TEMPORAL CHANGES MAY HAVE OCCURRED SINCE THIS DATA SET WAS COLLECTED AND SOME PARTS OF THE DATA MAY NO LONGER BE AN ACCURATE REPRESENTATION OF THE SURFACE CONDITIONS.

Scale in Feet

200 0 200 400 600

CenterLine
ToeLine
Station Lines

45 ' Project	40 ' Project
45 - 55.45	40 - 53.08
44 - 45	39 - 40
43 - 44	38 - 39
42 - 43	37 - 38
41 - 42	36 - 37
40 - 41	35 - 36
15.81 - 40	11.15 - 35

US Army Corps of Engineers
Philadelphia District

Exam data - 28 MAR 24; 01, 02, 08, 17 APR 24
Dredging data - 05, 07, 19 NOV 24; 06, 13, 20, 31 DEC 24

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U.S. ARMY CORPS OF ENGINEERS
PHILADELPHIA DISTRICT

Surveyed By:
Plotted By: E. Anthony
Checked By:
Drawing No.
Plot Scale
Approved: Chief, Survey Section

DELAWARE RIVER, PHILADELPHIA TO THE SEA
MARCUS HOOK ANCHORAGE
AFTER DREDGE
STA. 115+620.01 to STA. 133+230.13

E-PS-351

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