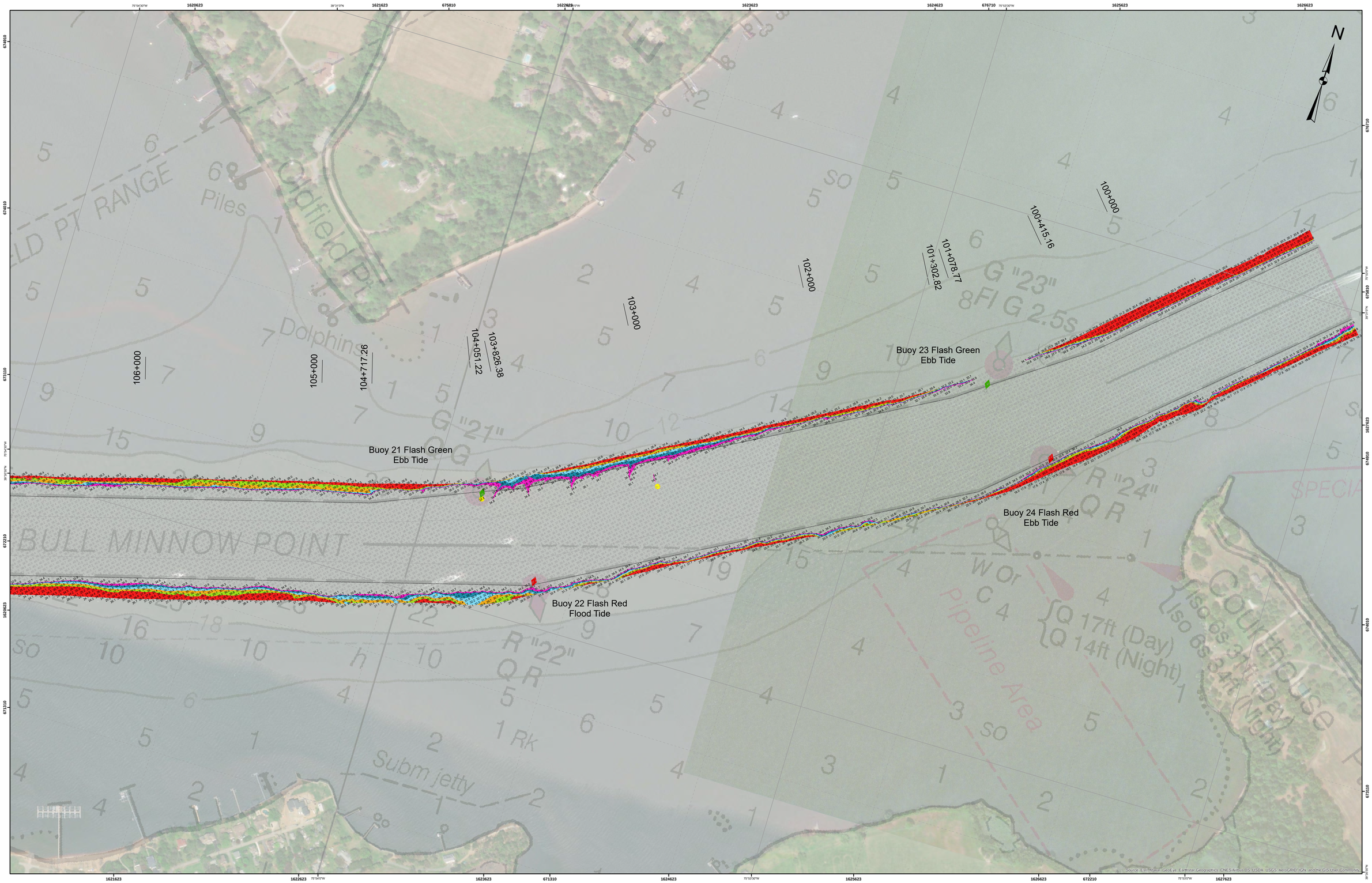

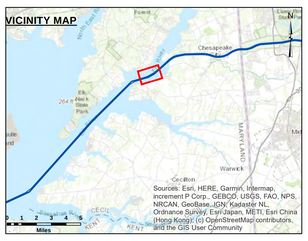

1. THIS SURVEY MEETS STANDARDS AS OUTLINED IN CORPS OF ENGINEERS' HYDROGRAPHIC SURVEY MANUAL EM1110-2-1003, DATED NOVEMBER 30, 2013 FOR NAVIGATION AND DREDGING SUPPORT SURVEYS.

2. HORIZONTAL REFERENCE - NAD 83, MARYLAND STATE PLANE, ZONE 1900, U.S. FOOT.

3. VERTICAL REFERENCE – MEAN LOWER LOW WATER, WHICH IS BELOW N.A.V.D. 88 BY THE FOLLOWING:
1.35' FROM STA. 99+000 TO STA. 101+078.77
1.28' FROM STA. 101+078.77 TO STA. 109+879.2
1.22' FROM STA. 109+879.2 TO STA. 113+000

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 3'X3' 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 CHARACTERISTIC SOF 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

- Shoalest Soundings per Quarter
- CenterLine
- ToeLine
- QuarterLine
- StationLine

35 - 48.39	
34 - 35	
33 - 34	
32 - 33	
31 - 32	
30 - 31	
19.69 - 30	

US Army Corps of Engineers
Philadelphia District

STA. 99+000 to STA. 109+879 -- 10 MAR 23

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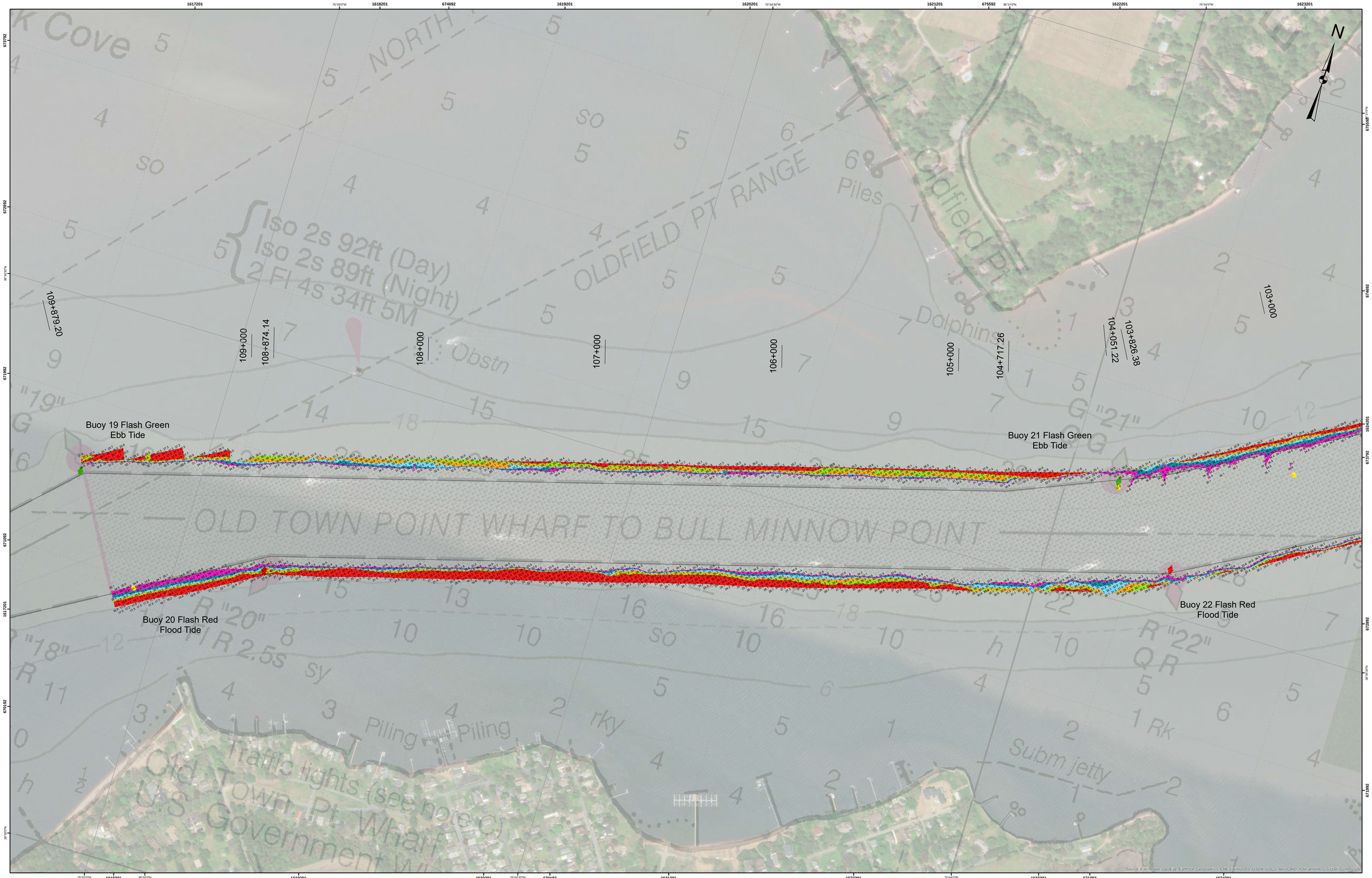
U.S. ARMY CORPS OF ENGINEERS
PHILADELPHIA DISTRICT

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

Chesapeake Bay Approach Channel
Bull Minnow Point to Old Town Point Wharf
Examination
STA. 99+000 TO STA. 113+000

E-CD-104



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