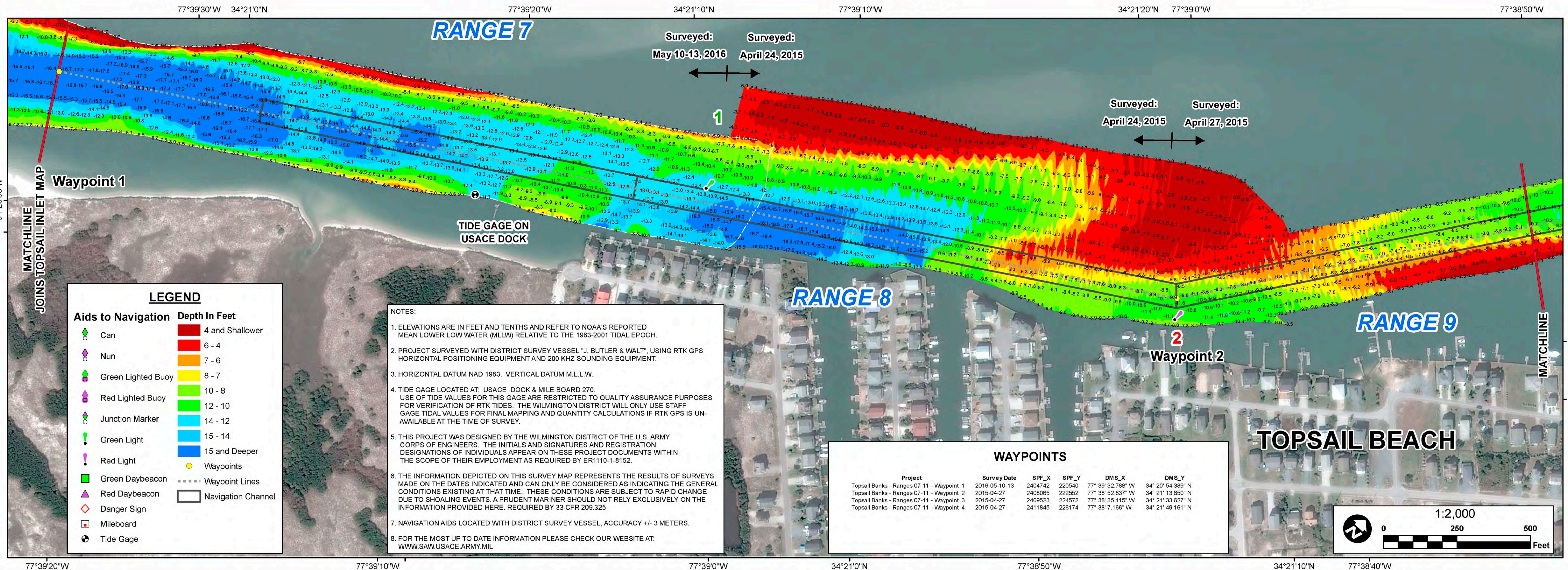


Surveyed By: MAS, JBD, WJC, SRV, LMT
Mapped By: DJM
Map File Name: IN_06_TB1_20160510.mxd



Surveyed: May 10-13, 2016
 Surveyed: April 24, 2015

Surveyed: April 24, 2015
 Surveyed: April 27, 2015

LEGEND

Aids to Navigation	Depth In Feet
Can	4 and Shallower
Nun	6 - 4
Green Lighted Buoy	7 - 6
Red Lighted Buoy	8 - 7
Junction Marker	10 - 8
Green Light	12 - 10
Red Light	14 - 12
Green Daybeacon	15 - 14
Red Daybeacon	Waypoints
Danger Sign	Waypoint Lines
Mileboard	Navigation Channel
Tide Gage	

NOTES:

- ELEVATIONS ARE IN FEET AND TENTHS AND REFER TO NOAA'S REPORTED MEAN LOWER LOW WATER (MLLW) RELATIVE TO THE 1983-2001 TIDAL EPOCH.
- PROJECT SURVEYED WITH DISTRICT SURVEY VESSEL "J. BUTLER & WALT", USING RTK GPS HORIZONTAL POSITIONING EQUIPMENT AND 200 KHZ SOUNDING EQUIPMENT.
- HORIZONTAL DATUM NAD 1983. VERTICAL DATUM M.L.L.W.
- TIDE GAGE LOCATED AT: USACE DOCK & MILE BOARD 270. USE OF TIDE VALUES FOR THIS GAGE ARE RESTRICTED TO QUALITY ASSURANCE PURPOSES FOR VERIFICATION OF RTK TIDES. THE WILMINGTON DISTRICT WILL ONLY USE STAFF GAGE TIDE VALUES FOR FINAL MAPPING AND QUANTITY CALCULATIONS IF RTK GPS IS UNAVAILABLE AT THE TIME OF SURVEY.
- THIS PROJECT WAS DESIGNED BY THE WILMINGTON DISTRICT OF THE U.S. ARMY CORPS OF ENGINEERS. THE INITIALS AND SIGNATURES AND REGISTRATION DESIGNATIONS OF INDIVIDUALS APPEAR ON THESE PROJECT DOCUMENTS WITHIN THE SCOPE OF THEIR EMPLOYMENT AS REQUIRED BY ER1110-1-8152.
- THE INFORMATION DEPICTED ON THIS SURVEY MAP REPRESENTS THE RESULTS OF SURVEYS MADE ON THE DATES INDICATED AND CAN ONLY BE CONSIDERED AS INDICATING THE GENERAL CONDITIONS EXISTING AT THAT TIME. THESE CONDITIONS ARE SUBJECT TO RAPID CHANGE DUE TO SHOALING EVENTS. A PRUDENT MARINER SHOULD NOT RELY EXCLUSIVELY ON THE INFORMATION PROVIDED HERE. REQUIRED BY 33 CFR 209.325
- NAVIGATION AIDS LOCATED WITH DISTRICT SURVEY VESSEL, ACCURACY +/- 3 METERS.
- FOR THE MOST UP TO DATE INFORMATION PLEASE CHECK OUR WEBSITE AT: WWW.SAW.USACE.ARMY.MIL

WAYPOINTS

Project	Survey Date	SPF_X	SPF_Y	DMS_X	DMS_Y
Topsail Banks - Ranges 07-11 - Waypoint 1	2016-05-10-13	2404742	220540	77° 39' 32.788" W	34° 20' 54.389" N
Topsail Banks - Ranges 07-11 - Waypoint 2	2015-04-27	2408065	222552	77° 38' 52.837" W	34° 21' 13.850" N
Topsail Banks - Ranges 07-11 - Waypoint 3	2015-04-27	2409523	224572	77° 38' 35.115" W	34° 21' 33.627" N
Topsail Banks - Ranges 07-11 - Waypoint 4	2015-04-27	2411945	226174	77° 38' 7.166" W	34° 21' 48.161" N

Survey Date: April 24 & 27, 2015 & May 10-13, 2016
Map Date: May 18, 2016
Scale: 1 : 2,000
Imagery Date: October 30, 2015
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HYDROGRAPHIC SURVEY
 U.S. ARMY ENGINEER DISTRICT
 CORPS OF ENGINEERS
 WILMINGTON, NORTH CAROLINA

**TOPSAIL - BANKS CHANNEL
 RANGES 7 - 10**

Topsail Beach, North Carolina