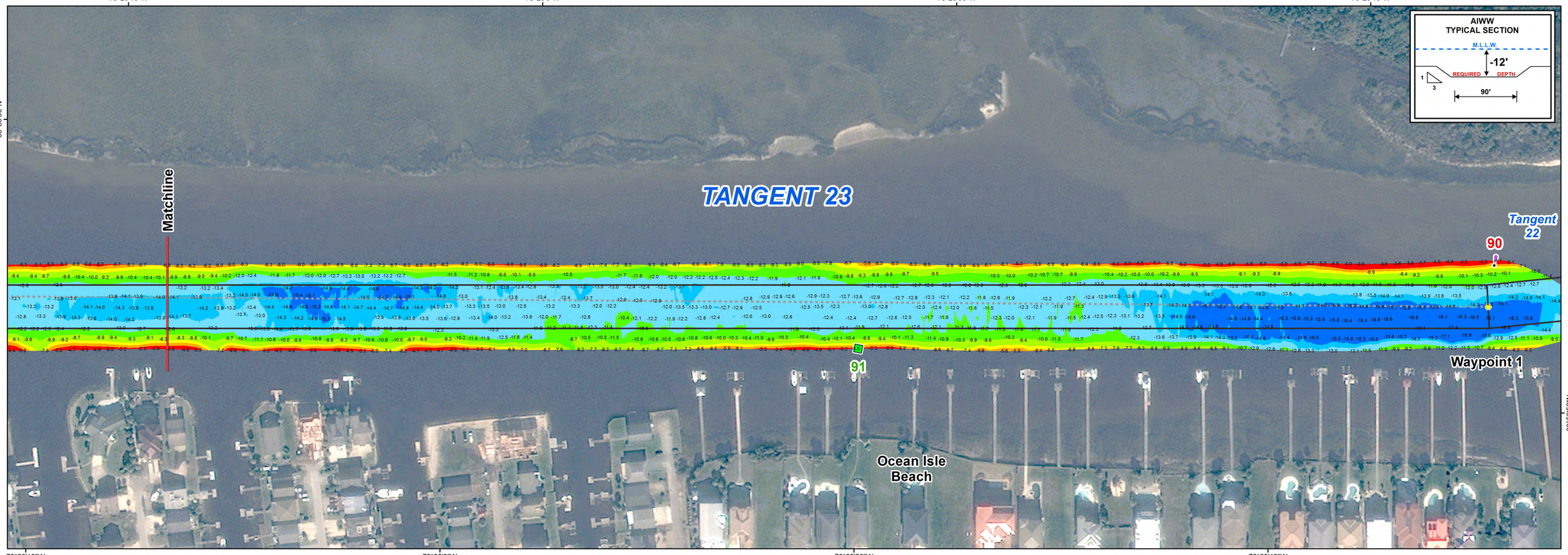
78°26'10"W 78°26'0"W 78°25'50"W 78°25'40"W

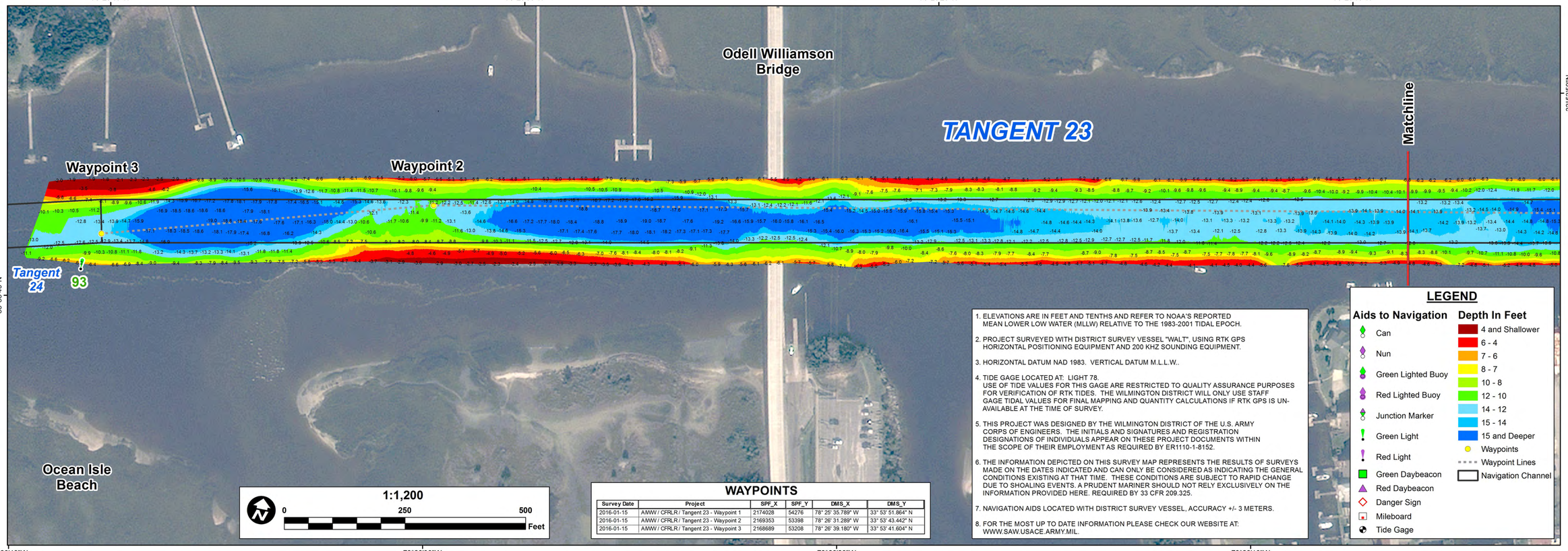
33°53'50"N



78°26'10"W 78°26'0"W 78°25'50"W 78°25'40"W

78°26'40"W 78°26'30"W 78°26'20"W 78°26'10"W

33°53'50"N



78°26'40"W 78°26'30"W 78°26'20"W 78°26'10"W

WAYPOINTS

Survey Date	Project	SPF_X	SPF_Y	DMS_X	DMS_Y
2016-01-15	AIWW / CFRLR / Tangent 23 - Waypoint 1	2174028	54276	78° 25' 35.789" W	33° 53' 51.864" N
2016-01-15	AIWW / CFRLR / Tangent 23 - Waypoint 2	2169353	53398	78° 26' 31.289" W	33° 53' 43.442" N
2016-01-15	AIWW / CFRLR / Tangent 23 - Waypoint 3	2168689	53208	78° 26' 39.180" W	33° 53' 41.604" N

1. ELEVATIONS ARE IN FEET AND TENTHS AND REFER TO NOAA'S REPORTED MEAN LOWER LOW WATER (MLLW) RELATIVE TO THE 1983-2001 TIDAL EPOCH.

2. PROJECT SURVEYED WITH DISTRICT SURVEY VESSEL "WALT", USING RTK GPS HORIZONTAL POSITIONING EQUIPMENT AND 200 KHZ SOUNDING EQUIPMENT.

3. HORIZONTAL DATUM NAD 1983. VERTICAL DATUM M.L.L.W..

4. TIDE GAGE LOCATED AT: LIGHT 78.
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 TIDAL VALUES FOR FINAL MAPPING AND QUANTITY CALCULATIONS IF RTK GPS IS UNAVAILABLE AT THE TIME OF SURVEY.

5. 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.

6. 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.

7. NAVIGATION AIDS LOCATED WITH DISTRICT SURVEY VESSEL, ACCURACY +/- 3 METERS.

8. FOR THE MOST UP TO DATE INFORMATION PLEASE CHECK OUR WEBSITE AT: WWW.SAW.USACE.ARMY.MIL.

LEGEND

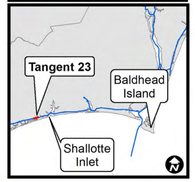
Aids to Navigation

- Can
- Nun
- Green Lighted Buoy
- Red Lighted Buoy
- Junction Marker
- Green Light
- Red Light
- Green Daybeacon
- Red Daybeacon
- Danger Sign
- Mileboard
- Tide Gage

Depth In Feet

- 4 and Shallower
- 6 - 4
- 7 - 6
- 8 - 7
- 10 - 8
- 12 - 10
- 14 - 12
- 15 - 14
- 15 and Deeper
- Waypoints
- Waypoint Lines
- Navigation Channel

US Army Corps of Engineers
Wilmington District
Navigation Branch



Survey Date: January 15, 2016
Map Date: January 19, 2016
Surveyed By: SRV, LMT
Mapped By: SGD
Map Scale: 1:1,200
Imagery Date: November 15, 2015
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File Name: AIWW_CFRLR-T23_2015-01-15_cs.mxd

HYDROGRAPHIC SURVEY
U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
WILMINGTON, NORTH CAROLINA

Atlantic Intracoastal Waterway
Cape Fear River to Little River

TANGENT 23

OCEAN ISLE BEACH, NORTH CAROLINA