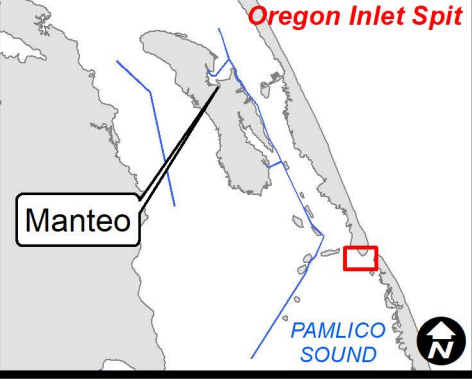
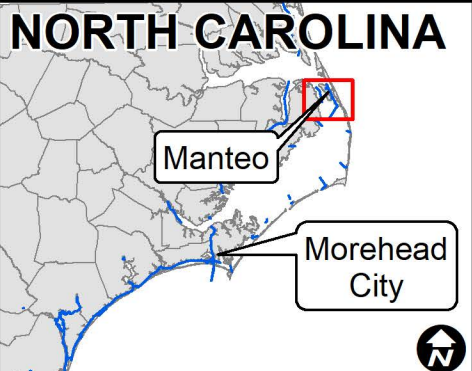


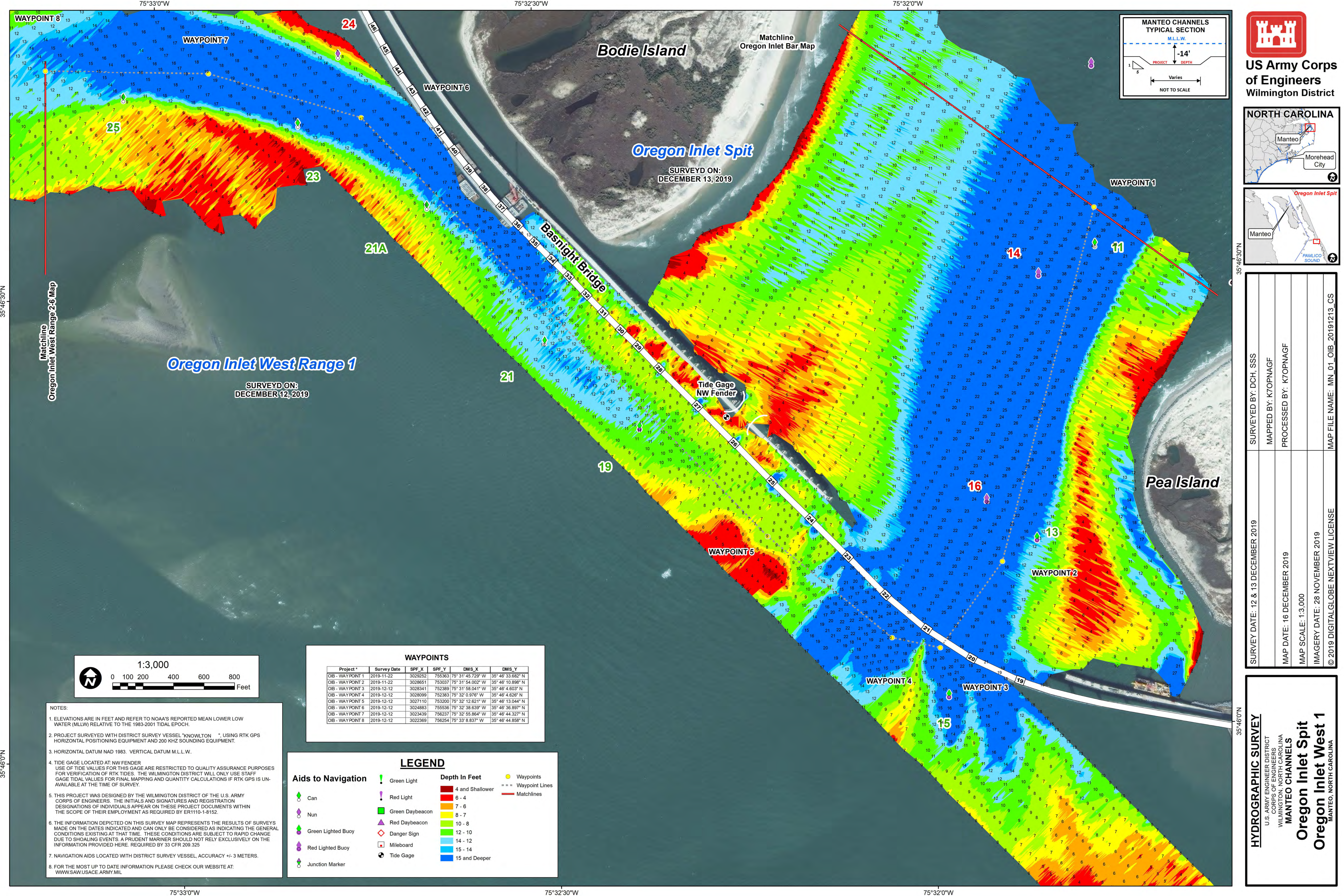
US Army Corps  
of Engineers  
Wilmington District



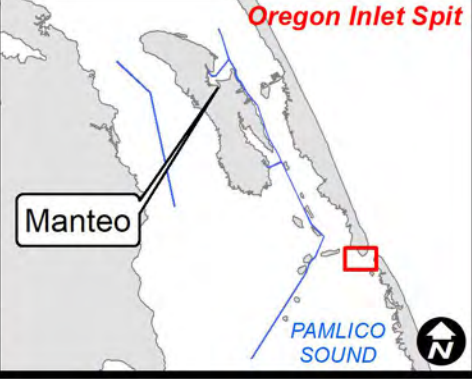
SURVEYED BY: DCH, SSS	SURVEY DATE: 13 & 31 DECEMBER 2019
MAPPED BY: KTOPNAGF	MAP DATE: 02 JANUARY 2020
PROCESSED BY: KTOPNAGF	MAP SCALE: 1:3,000
	IMAGERY DATE: 26 DECEMBER 2019
	© 2019 DIGITALGLOBE NEXTVIEW LICENSE
	MAP FILE NAME: MN_01_20191231_CS

**HYDROGRAPHIC SURVEY**  
U.S. ARMY ENGINEER DISTRICT  
CORPS OF ENGINEERS  
WILMINGTON, NORTH CAROLINA  
**MANTEO CHANNELS**  
**Oregon Inlet Spit**  
**Oregon Inlet West 1**  
MANTEO, NORTH CAROLINA





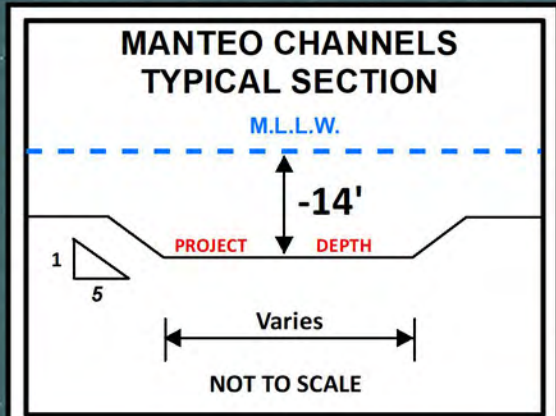
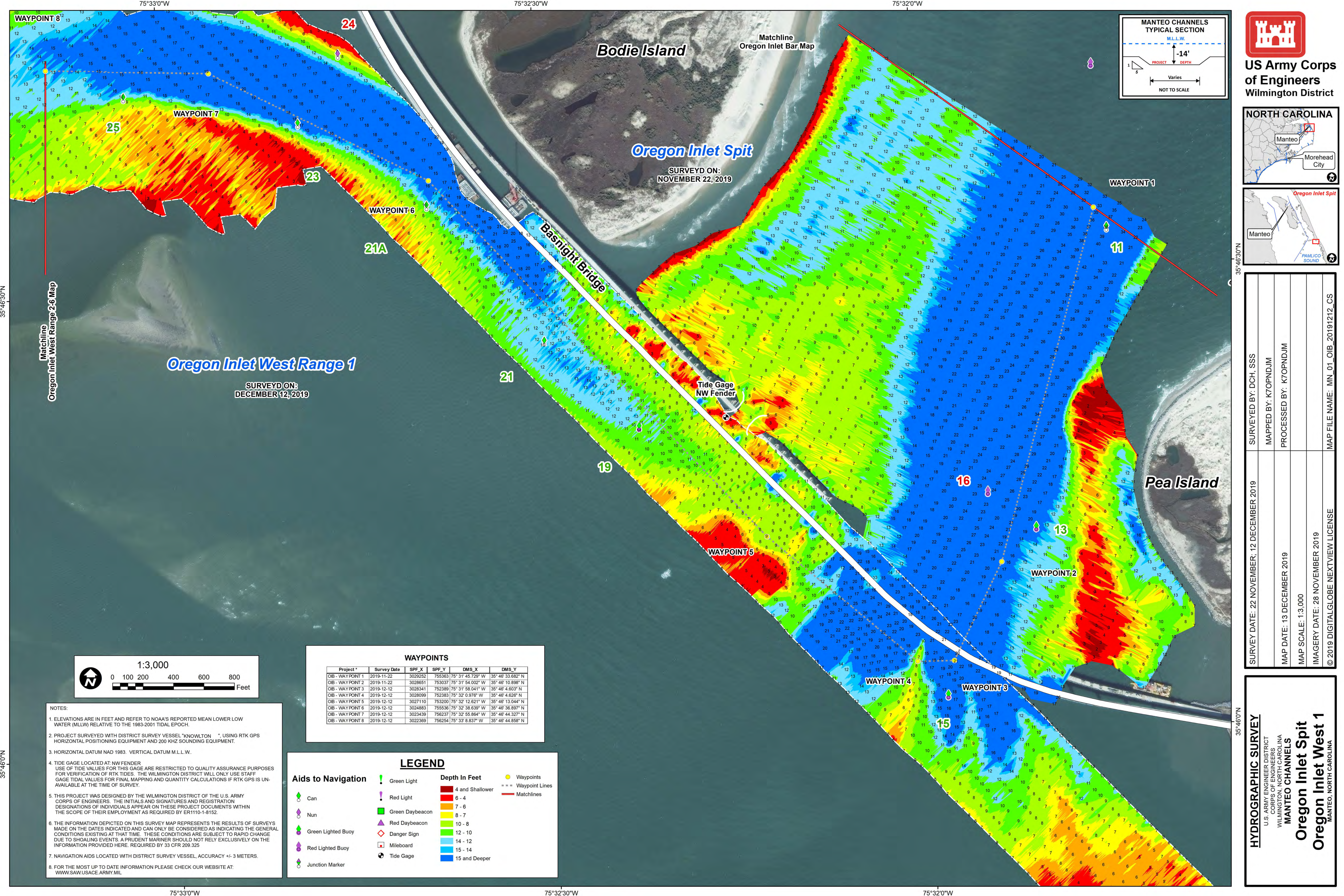
US Army Corps  
of Engineers  
Wilmington District



SURVEY DATE: 12 & 13 DECEMBER 2019	SURVEYED BY: DCH, SSS
MAP DATE: 16 DECEMBER 2019	MAPPED BY: KTOPNAGF
MAP SCALE: 1:3,000	PROCESSED BY: KTOPNAGF
IMAGERY DATE: 28 NOVEMBER 2019	
© 2019 DIGITALGLOBE NEXTVIEW LICENSE	MAP FILE NAME: MN_01_OIB_20191213_CS

**HYDROGRAPHIC SURVEY**  
U.S. ARMY ENGINEER DISTRICT  
CORPS OF ENGINEERS  
WILMINGTON, NORTH CAROLINA  
**MANTEO CHANNELS**  
**Oregon Inlet Spit**  
**Oregon Inlet West 1**  
MANTEO, NORTH CAROLINA





SURVEYED BY: DCH, SSS	SURVEY DATE: 22 NOVEMBER, 12 DECEMBER 2019
MAPPED BY: KTOPNDJM	MAP DATE: 13 DECEMBER 2019
PROCESSED BY: KTOPNDJM	MAP SCALE: 1:3,000
	IMAGERY DATE: 28 NOVEMBER 2019
MAP FILE NAME: MN_01_OIB_20191212_CS	© 2019 DIGITALGLOBE NEXTVIEW LICENSE

WAYPOINTS				
Project *	Survey Date	SPF_X	SPF_Y	DMS_X
OIB - WAYPOINT 1	2019-11-22	3029252	755363	75° 31' 45.720" W
OIB - WAYPOINT 2	2019-11-22	3028651	753037	75° 31' 54.002" W
OIB - WAYPOINT 3	2019-12-12	3028341	752389	75° 31' 58.041" W
OIB - WAYPOINT 4	2019-12-12	3028099	752383	75° 32' 0.976" W
OIB - WAYPOINT 5	2019-12-12	3027110	753200	75° 32' 12.621" W
OIB - WAYPOINT 6	2019-12-12	3024883	755536	75° 32' 38.639" W
OIB - WAYPOINT 7	2019-12-12	3023439	756237	75° 32' 55.864" W
OIB - WAYPOINT 8	2019-12-12	3022369	756254	75° 33' 8.837" W

**LEGEND**

**Aids to Navigation**

- Can
- Nun
- Green Lighted Buoy
- Red Lighted Buoy
- Junction Marker

**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
- Matchlines

- NOTES:**
- ELEVATIONS ARE IN FEET AND REFER TO NOAA'S REPORTED MEAN LOWER LOW WATER (MLLW) RELATIVE TO THE 1983-2001 TIDAL EPOCH.
  - PROJECT SURVEYED WITH DISTRICT SURVEY VESSEL "KNOWLTON", 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 NW FENDER. 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.
  - 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 33 CFR 209.325.
  - 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 WARNER 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](http://WWW.SAW.USACE.ARMY.MIL)

**HYDROGRAPHIC SURVEY**

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

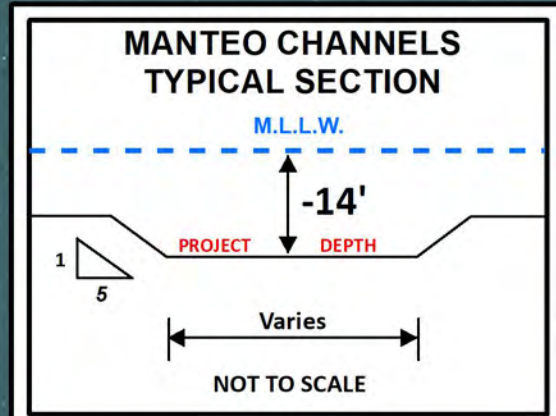
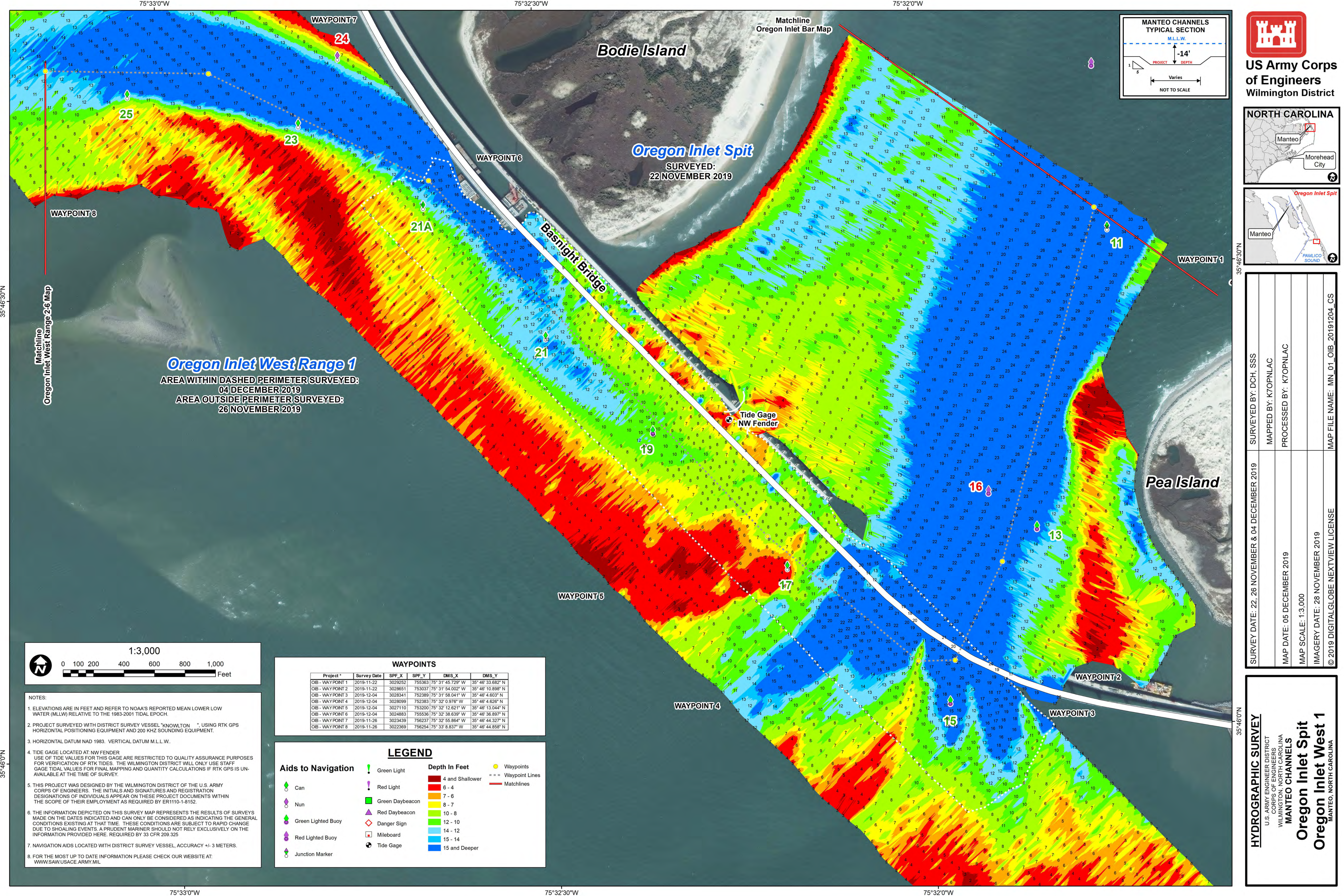
**MANTEO CHANNELS**

**Oregon Inlet Spit**

**Oregon Inlet West 1**

MANTEO, NORTH CAROLINA



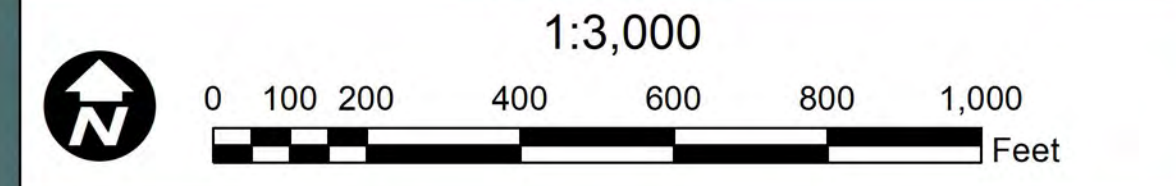


**US Army Corps  
of Engineers**  
Wilmington District

**NORTH CAROLINA**

**Oregon Inlet Spit**

SURVEYED BY: DCH, SSS	SURVEY DATE: 22, 26 NOVEMBER & 04 DECEMBER 2019
MAPPED BY: KTOPNLAC	MAP DATE: 05 DECEMBER 2019
PROCESSED BY: KTOPNLAC	MAP SCALE: 1:3,000
	IMAGERY DATE: 28 NOVEMBER 2019
MAP FILE NAME: MN_01_OIB_20191204_CS	© 2019 DIGITALGLOBE NEXTVIEW LICENSE



- NOTES:
- ELEVATIONS ARE IN FEET AND REFER TO NOAA'S REPORTED MEAN LOWER LOW WATER (MLLW) RELATIVE TO THE 1983-2001 TIDAL EPOCH.
  - PROJECT SURVEYED WITH DISTRICT SURVEY VESSEL "KNOWLTON", 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: NW FENDER  
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](http://WWW.SAW.USACE.ARMY.MIL)

WAYPOINTS					
Project *	Survey Date	SPF_X	SPF_Y	DMS_X	DMS_Y
OIB - WAYPOINT 1	2019-11-22	3029252	753363	75° 31' 45.729" W	35° 46' 33.682" N
OIB - WAYPOINT 2	2019-11-22	3028651	753037	75° 31' 54.002" W	35° 46' 10.898" N
OIB - WAYPOINT 3	2019-12-04	3028341	752389	75° 31' 58.041" W	35° 46' 4.603" N
OIB - WAYPOINT 4	2019-12-04	3028099	752383	75° 32' 0.976" W	35° 46' 4.626" N
OIB - WAYPOINT 5	2019-12-04	3027110	753200	75° 32' 12.621" W	35° 46' 13.044" N
OIB - WAYPOINT 6	2019-12-04	3024883	755536	75° 32' 38.639" W	35° 46' 36.897" N
OIB - WAYPOINT 7	2019-11-26	3023439	756237	75° 32' 55.864" W	35° 46' 44.327" N
OIB - WAYPOINT 8	2019-11-26	3022369	756254	75° 33' 8.837" W	35° 46' 44.858" N

**LEGEND**

**Aids to Navigation**

- Can
- Nun
- Green Lighted Buoy
- Red Lighted Buoy
- Junction Marker

**Depth In Feet**

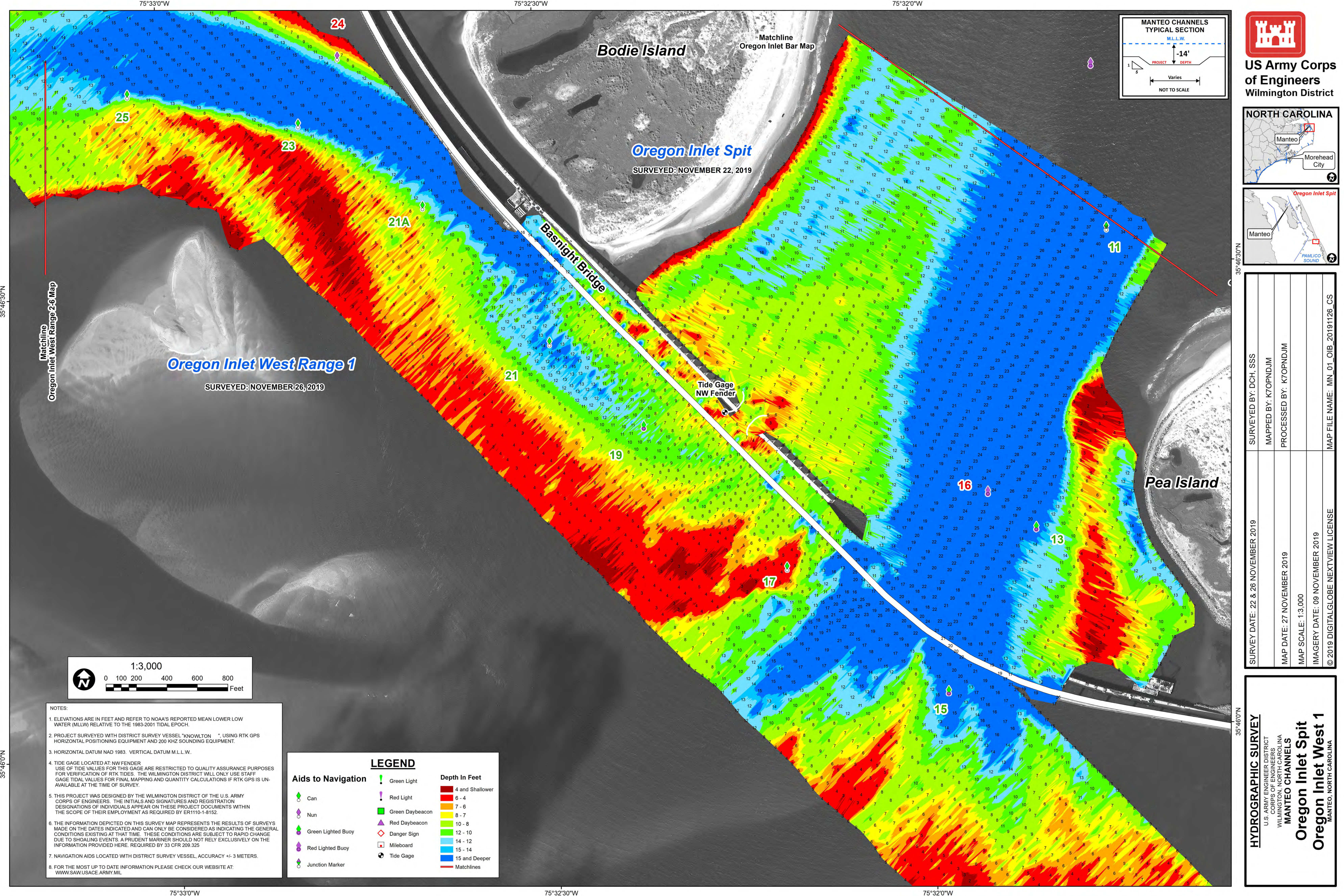
- 4 and Shallower
- 6 - 4
- 7 - 6
- 8 - 7
- 10 - 8
- 12 - 10
- 14 - 12
- 15 - 14
- 15 and Deeper

**Waypoints**

- Waypoint Lines
- Matchlines

**HYDROGRAPHIC SURVEY**  
U.S. ARMY ENGINEER DISTRICT  
CORPS OF ENGINEERS  
WILMINGTON, NORTH CAROLINA  
**MANTEO CHANNELS**  
**Oregon Inlet Spit**  
**Oregon Inlet West 1**  
MANTEO, NORTH CAROLINA

















SURVEY DATE: 22 & 26 NOVEMBER 2019	SURVEYED BY: DCH, SSS
MAP DATE: 27 NOVEMBER 2019	MAPPED BY: KTOPNDJM
MAP SCALE: 1:3,000	PROCESSED BY: KTOPNDJM
IMAGERY DATE: 09 NOVEMBER 2019	
© 2019 DIGITALGLOBE NEXTVIEW LICENSE	MAP FILE NAME: MN_01_20191126_CS

NOTES:

- ELEVATIONS ARE IN FEET AND REFER TO NOAA'S REPORTED MEAN LOWER LOW WATER (MLLW) RELATIVE TO THE 1983-2001 TIDAL EPOCH.
- PROJECT SURVEYED WITH DISTRICT SURVEY VESSEL "KNOWLTON", 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 NW FENDER. 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.
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- 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](http://WWW.SAW.USACE.ARMY.MIL)

**LEGEND**

 Green Light	 Green Daybeacon	 Red Daybeacon
 Nun	 Green Lighted Buoy	 Red Lighted Buoy
 Green Lighted Buoy	 Red Lighted Buoy	 Junction Marker
 Nun	 Green Lighted Buoy	 Red Lighted Buoy

**Aids to Navigation**

- Can
- Nun
- Green Lighted Buoy
- Red Lighted Buoy
- Junction Marker

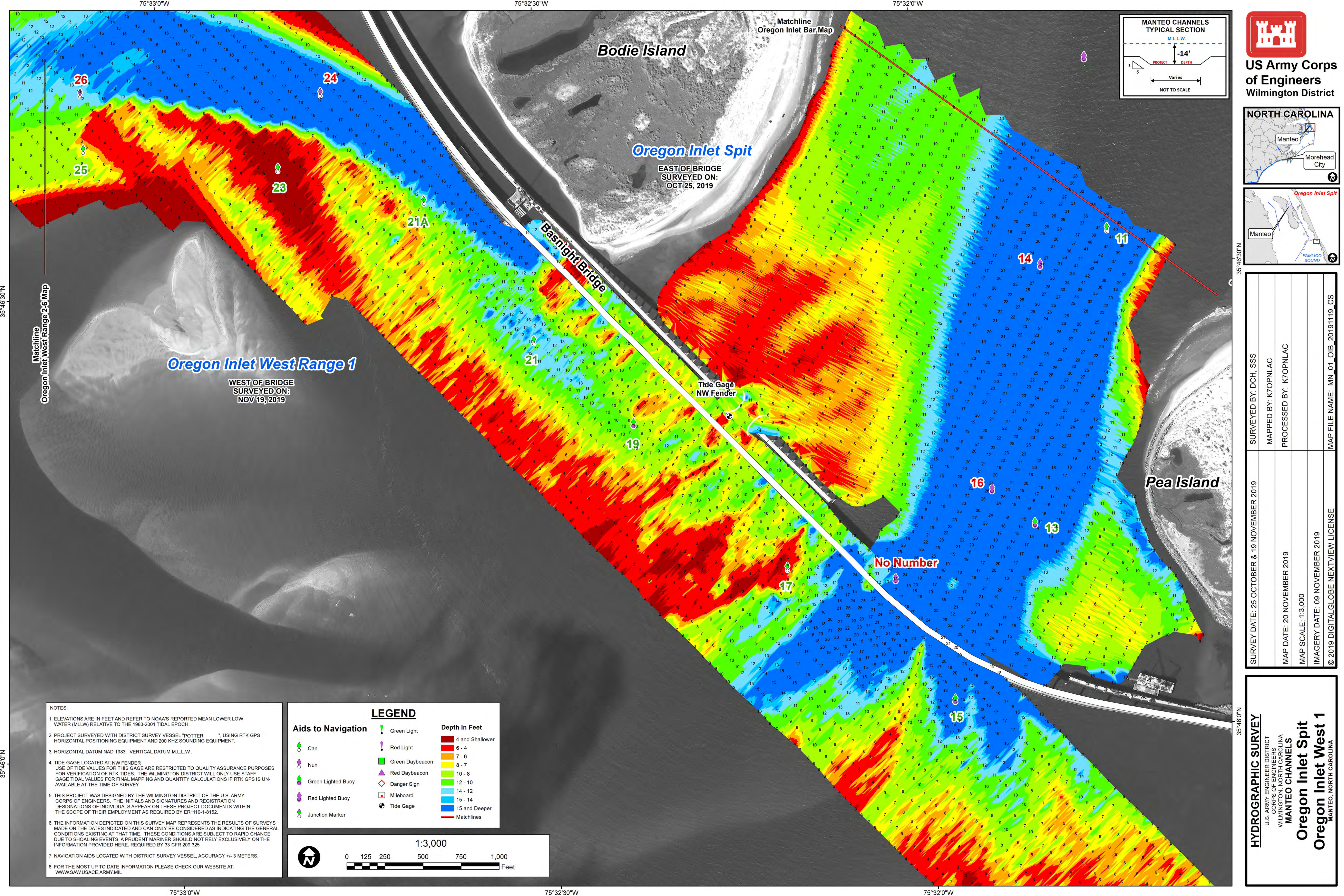
**Depth In Feet**

- 4 and Shallower
- 6 - 4
- 7 - 6
- 8 - 7
- 10 - 8
- 12 - 10
- 14 - 12
- 15 - 14
- 15 and Deeper
- Matchlines

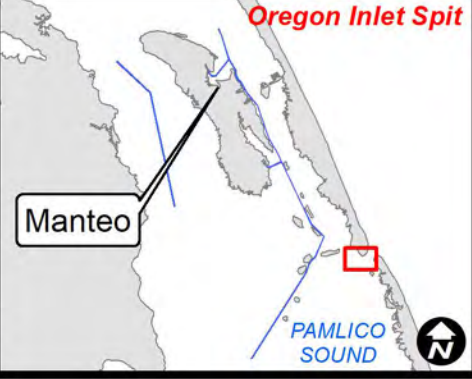








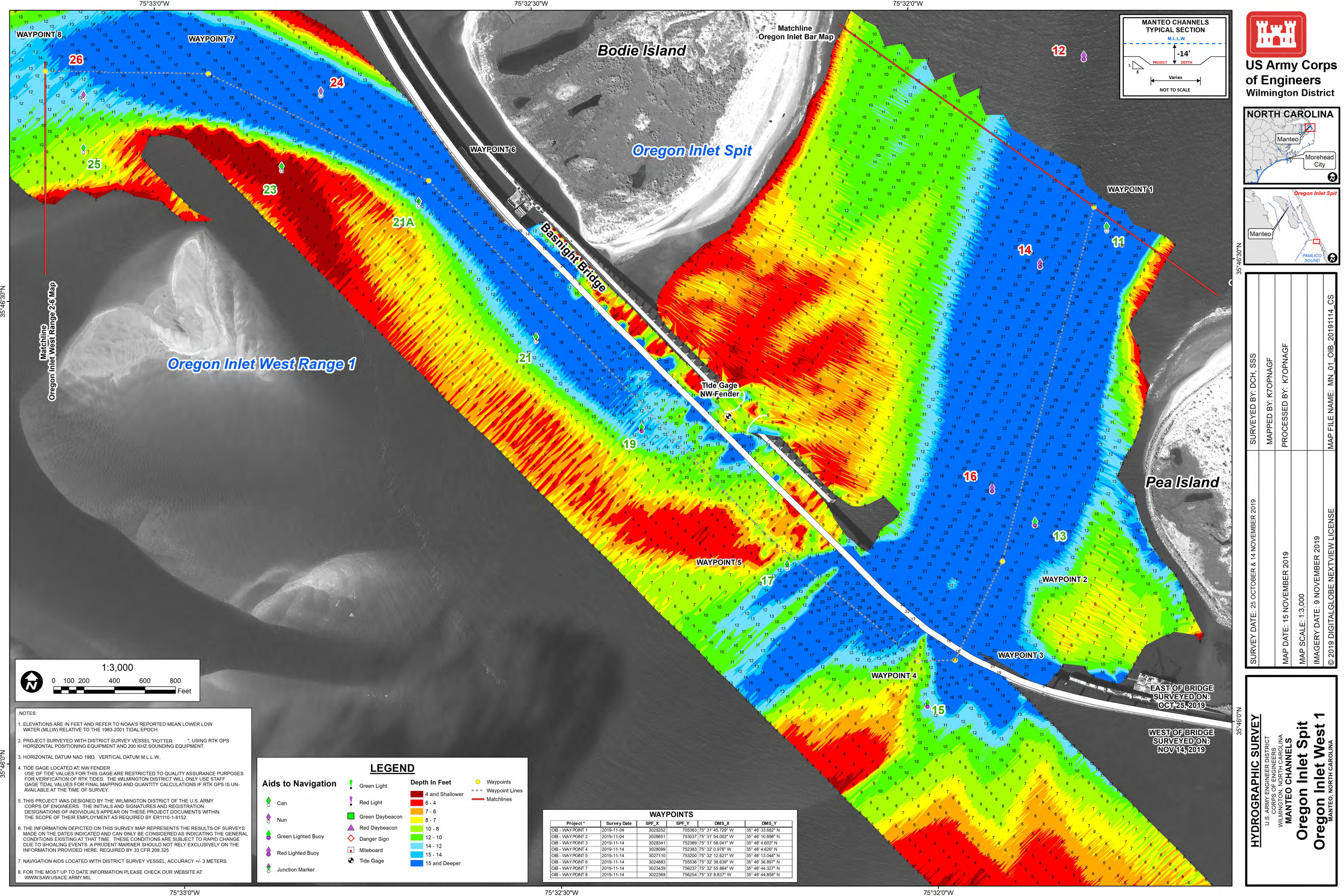
US Army Corps  
of Engineers  
Wilmington District



SURVEY DATE: 25 OCTOBER & 19 NOVEMBER 2019	SURVEYED BY: DCH, SSS
MAP DATE: 20 NOVEMBER 2019	MAPPED BY: KTOPNLAC
MAP SCALE: 1:3,000	PROCESSED BY: KTOPNLAC
IMAGERY DATE: 09 NOVEMBER 2019	
© 2019 DIGITALGLOBE NEXTVIEW LICENSE	MAP FILE NAME: MN_01_OIB_20191119_CS

**HYDROGRAPHIC SURVEY**  
U.S. ARMY ENGINEER DISTRICT  
CORPS OF ENGINEERS  
WILMINGTON, NORTH CAROLINA  
**MANTEO CHANNELS**  
**Oregon Inlet Spit**  
**Oregon Inlet West 1**  
MANTEO, NORTH CAROLINA

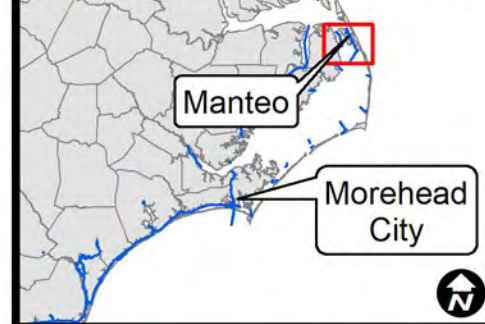


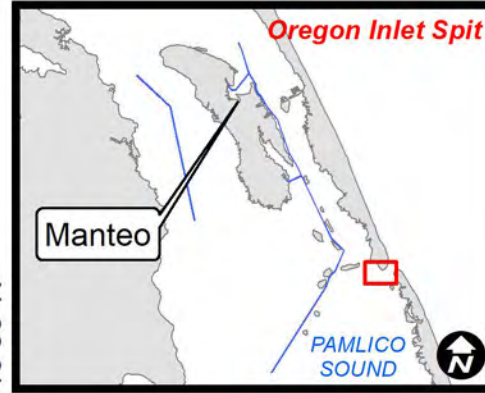




**US Army Corps  
of Engineers**  
Wilmington District

**NORTH CAROLINA**





SURVEYED BY: DCH, SSS	SURVEY DATE: 25 OCTOBER & 14 NOVEMBER 2019
MAPPED BY: KTOPNAGF	MAP DATE: 15 NOVEMBER 2019
PROCESSED BY: KTOPNAGF	MAP SCALE: 1:3,000
	IMAGERY DATE: 9 NOVEMBER 2019
MAP FILE NAME: MN_01_OIB_20191114_CS	© 2019 DIGITALGLOBE NEXTVIEW LICENSE

**HYDROGRAPHIC SURVEY**

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

**MANTEO CHANNELS**

**Oregon Inlet Spit**

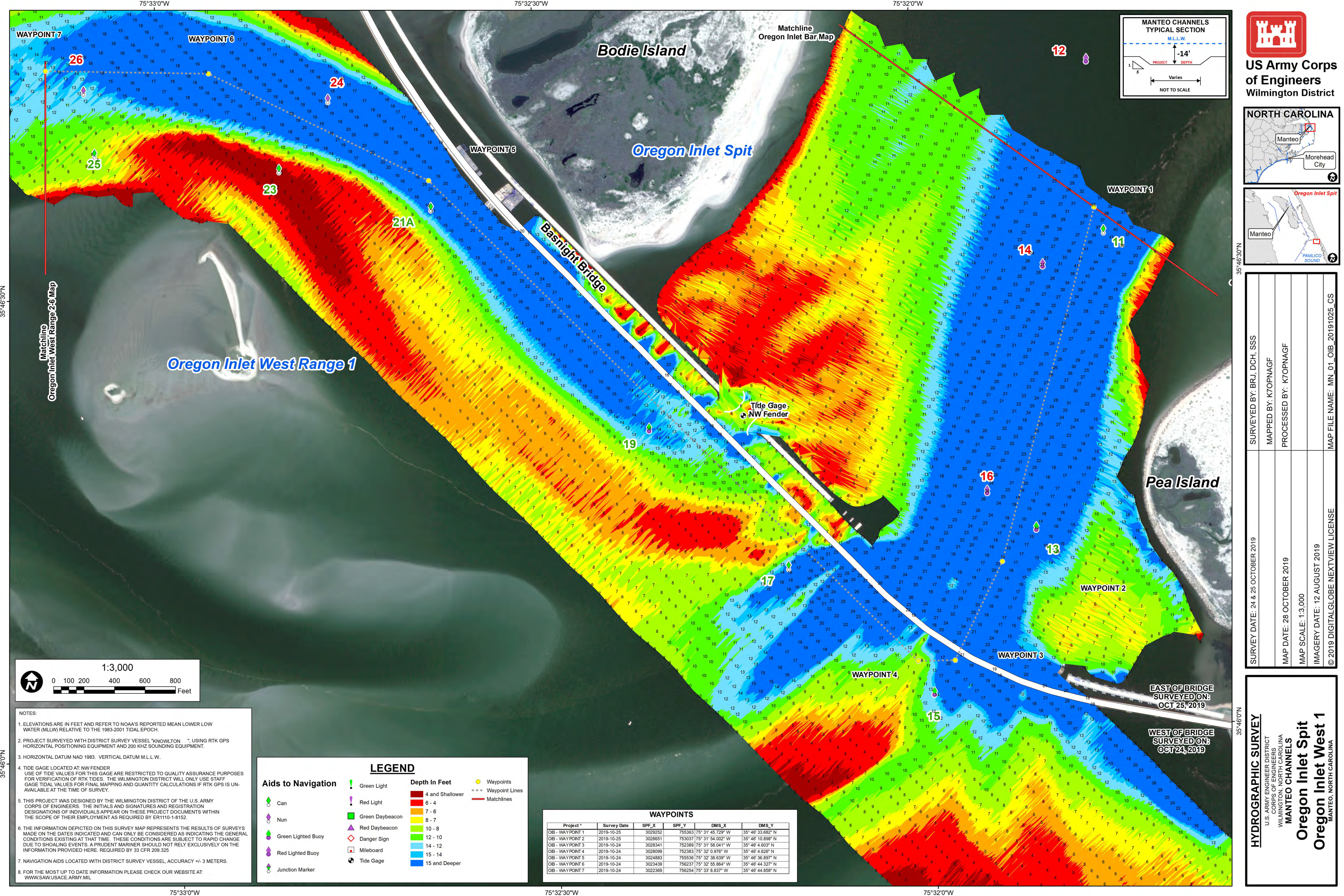
**Oregon Inlet West 1**

MANTEO, NORTH CAROLINA

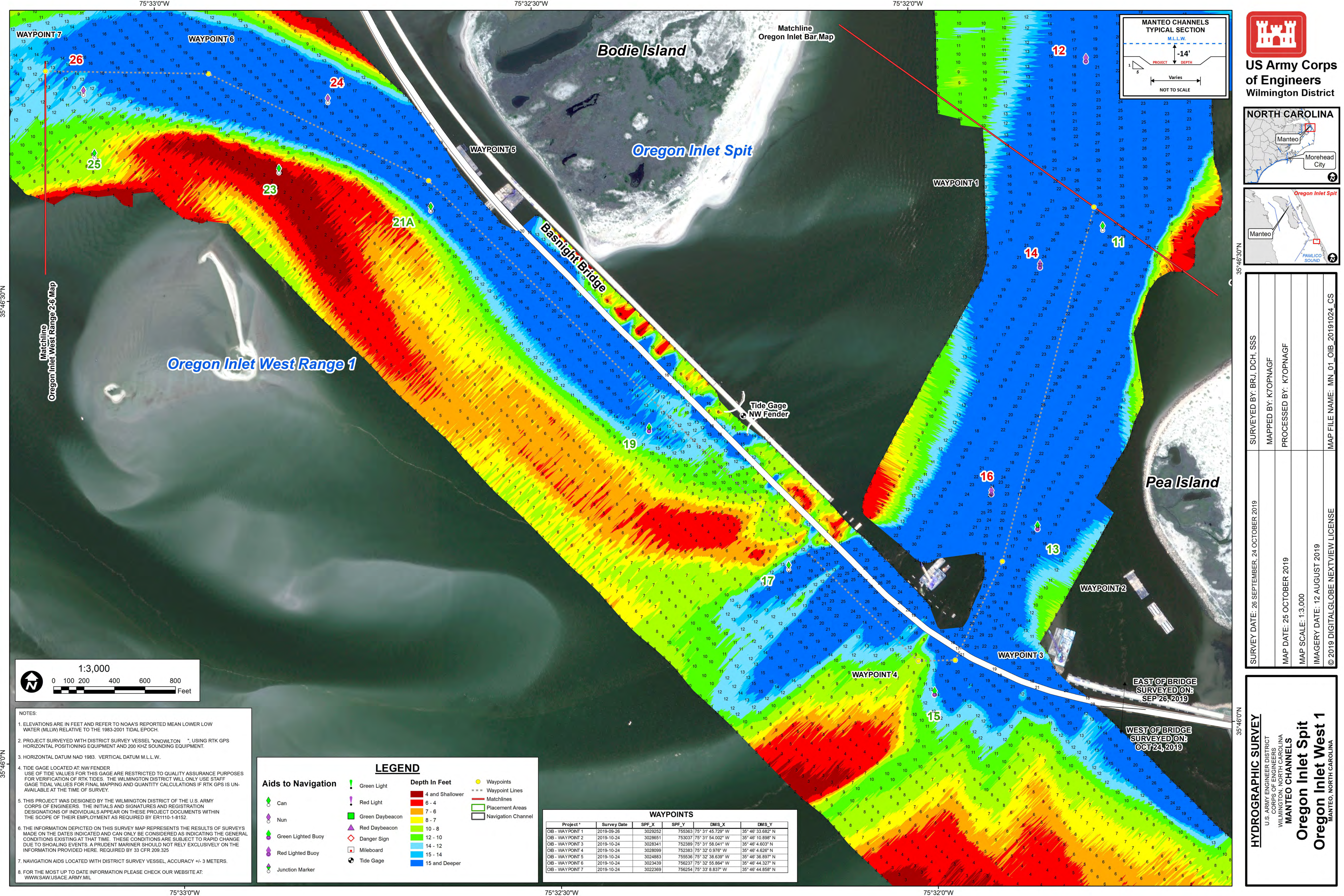






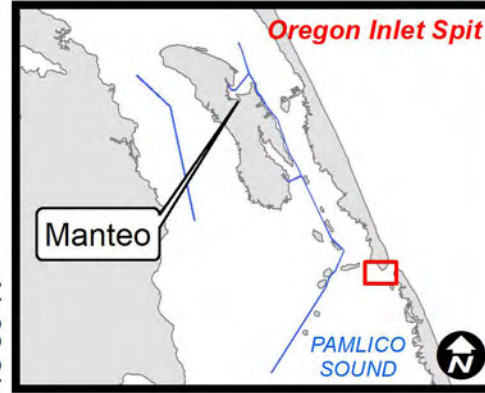
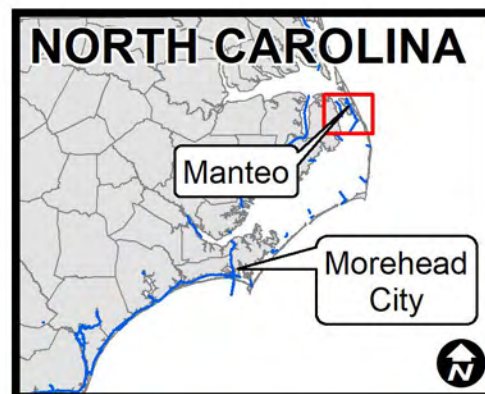








**US Army Corps  
of Engineers**  
Wilmington District



SURVEYED BY: BRJ, DCH, SSS	SURVEY DATE: 26 SEPTEMBER, 24 OCTOBER 2019
MAPPED BY: KTOPNAGF	MAP DATE: 25 OCTOBER 2019
PROCESSED BY: KTOPNAGF	MAP SCALE: 1:3,000
	IMAGERY DATE: 12 AUGUST 2019
	© 2019 DIGITALGLOBE NEXTVIEW LICENSE
	MAP FILE NAME: MN_01_OIB_20191024_CS

**HYDROGRAPHIC SURVEY**

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

**MANTEO CHANNELS**

**Oregon Inlet Spit**

**Oregon Inlet West 1**

MANTEO, NORTH CAROLINA

NOTES:

- ELEVATIONS ARE IN FEET AND REFER TO NOAA'S REPORTED MEAN LOWER LOW WATER (MLLW) RELATIVE TO THE 1983-2001 TIDAL EPOCH.
- PROJECT SURVEYED WITH DISTRICT SURVEY VESSEL "KNOWLTON", 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: NW FENDER. 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.
- 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.MIL](http://WWW.SAW.USACE.MIL)

**LEGEND**

**Aids to Navigation**

- Can
- Nun
- Green Lighted Buoy
- Red Lighted Buoy
- Junction Marker

**Depth In Feet**

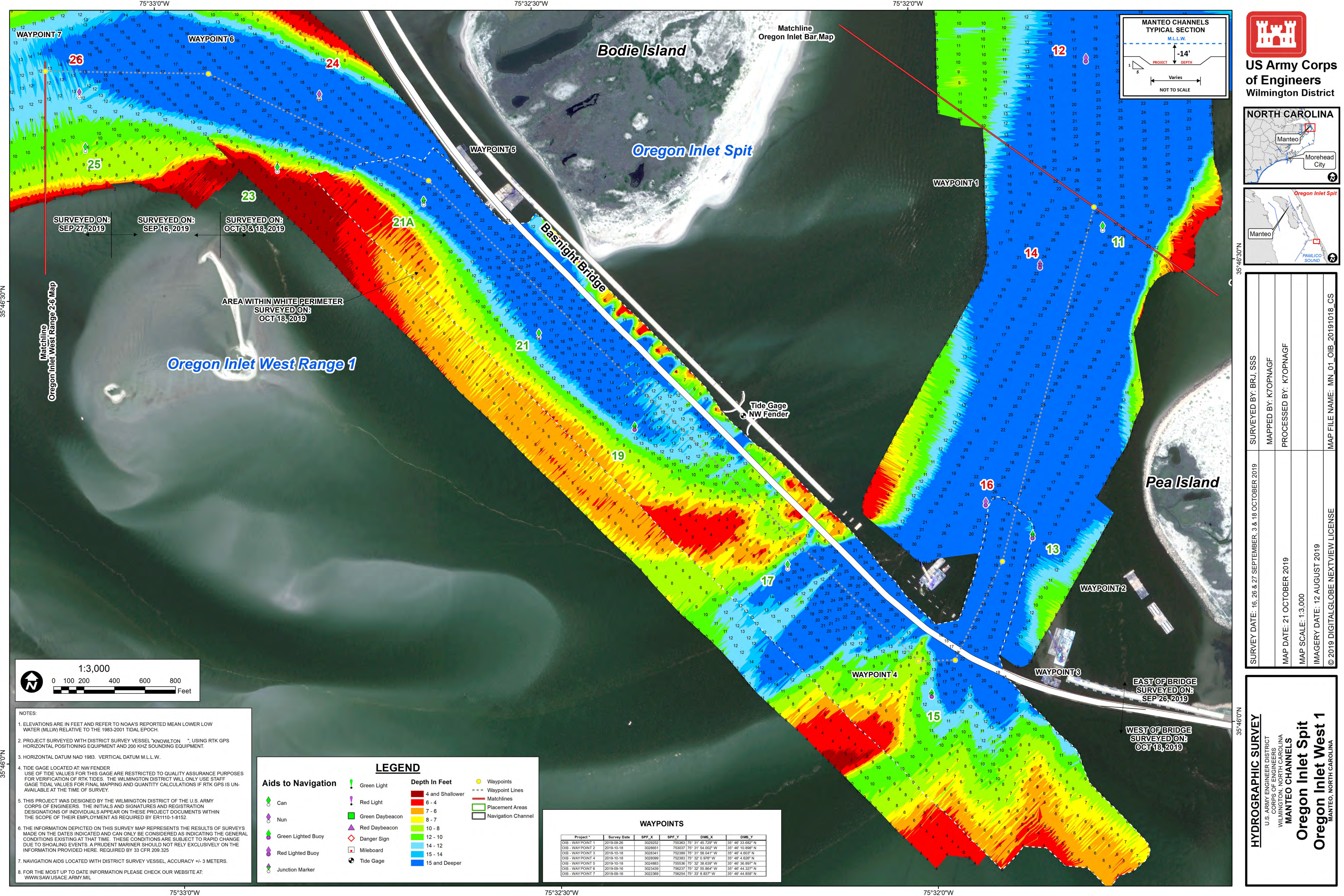
- 4 and Shallower
- 6 - 4
- 7 - 6
- 8 - 7
- 10 - 8
- 12 - 10
- 14 - 12
- 15 - 14
- 15 and Deeper

**Waypoints**

- Waypoint Lines
- Matchlines
- Placement Areas
- Navigation Channel

WAYPOINTS					
Project *	Survey Date	SPF_X	SPF_Y	DMS_X	DMS_Y
OIB - WAYPOINT 1	2019-09-26	3028252	755363	75° 31' 45.729" W	35° 46' 33.682" N
OIB - WAYPOINT 2	2019-10-24	3028651	753037	75° 31' 54.002" W	35° 46' 10.898" N
OIB - WAYPOINT 3	2019-10-24	3028341	752389	75° 31' 58.041" W	35° 46' 4.603" N
OIB - WAYPOINT 4	2019-10-24	3028099	752383	75° 32' 0.976" W	35° 46' 4.626" N
OIB - WAYPOINT 5	2019-10-24	3024883	755536	75° 32' 38.639" W	35° 46' 36.897" N
OIB - WAYPOINT 6	2019-10-24	3023439	756237	75° 32' 55.864" W	35° 46' 44.327" N
OIB - WAYPOINT 7	2019-10-24	3022369	756254	75° 33' 6.837" W	35° 46' 44.898" N

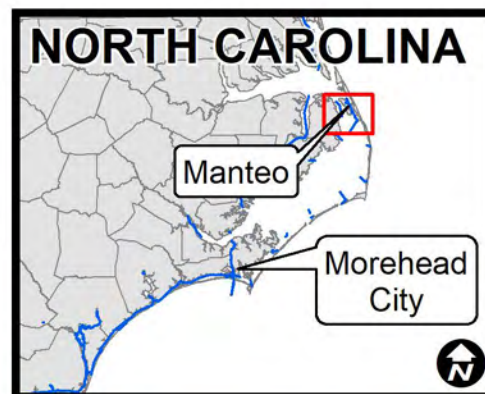




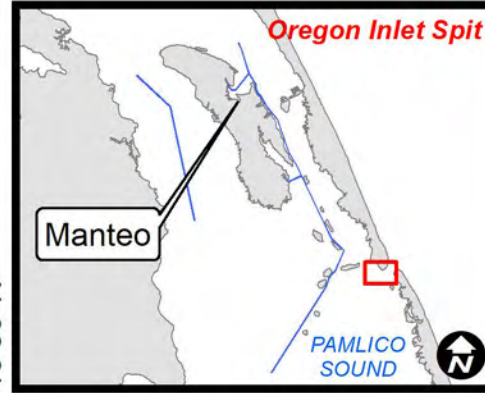


**US Army Corps  
of Engineers**  
Wilmington District

**NORTH CAROLINA**



**Oregon Inlet Spit**



SURVEYED BY: BRJ, SSS	SURVEY DATE: 16, 26 & 27 SEPTEMBER, 3 & 18 OCTOBER 2019
MAPPED BY: KTOPNAGF	MAP DATE: 21 OCTOBER 2019
PROCESSED BY: KTOPNAGF	MAP SCALE: 1:3,000
IMAGERY DATE: 12 AUGUST 2019	© 2019 DIGITALGLOBE NEXTVIEW LICENSE
MAP FILE NAME: MN_01_OIB_20191018_CS	

**HYDROGRAPHIC SURVEY**

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

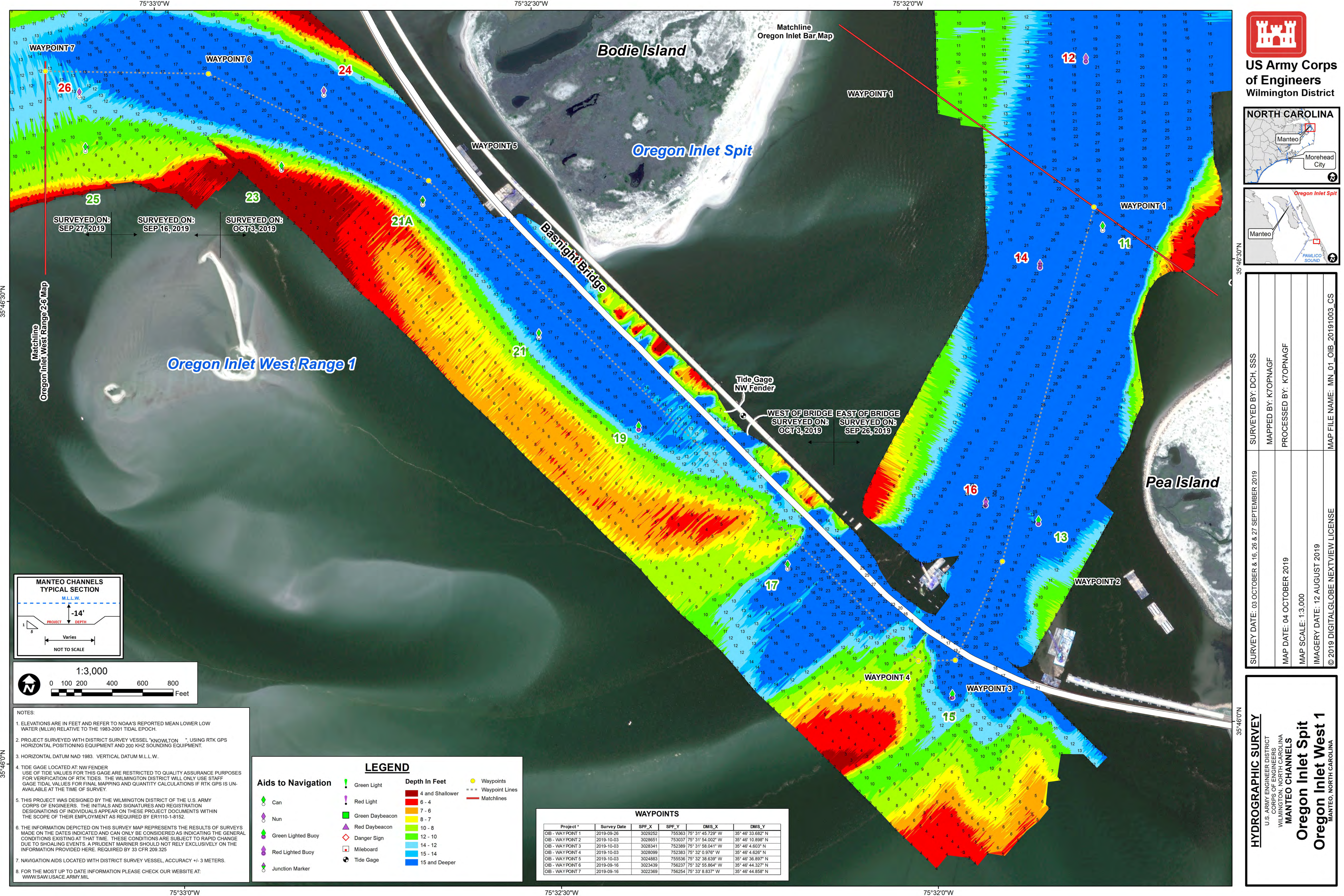
**MANTEO CHANNELS**

**Oregon Inlet Spit**

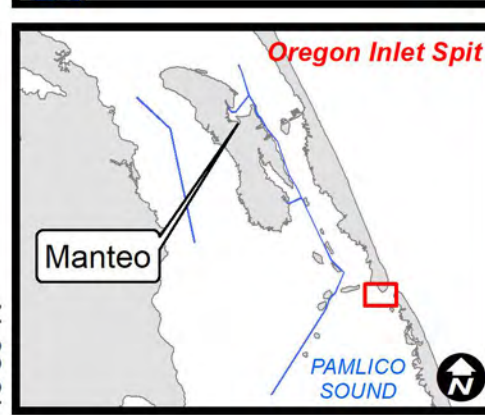
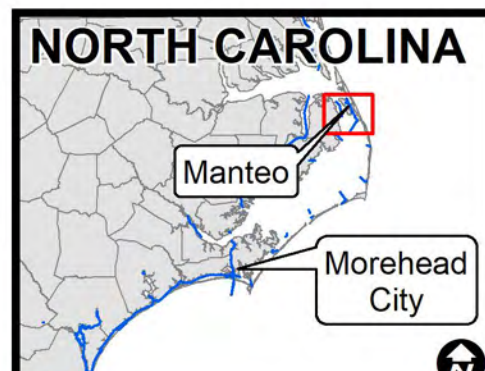
**Oregon Inlet West 1**

MANTEO, NORTH CAROLINA





US Army Corps  
of Engineers  
Wilmington District



SURVEYED BY: DCH, SSS	MAP FILE NAME: MN_01_20191003_CS
MAPPED BY: KTOPNAGF	
PROCESSED BY: KTOPNAGF	
MAP DATE: 04 OCTOBER 2019	
MAP SCALE: 1:3,000	
IMAGERY DATE: 12 AUGUST 2019	
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SURVEY DATE: 03 OCTOBER & 16, 26 & 27 SEPTEMBER 2019	

HYDROGRAPHIC SURVEY

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

MANTEO CHANNELS

Oregon Inlet Spit

Oregon Inlet West 1

MANTEO, NORTH CAROLINA

NOTES:

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- PROJECT SURVEYED WITH DISTRICT SURVEY VESSEL "KNOWLTON", 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: NW FENDER. 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.
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Aids to Navigation

Green Light

Red Light

Green Daybeacon

Red Daybeacon

Green Lighted Buoy

Red Lighted Buoy

Mileboard

Tide Gage

Can

Nun

Green Lighted Buoy

Red Lighted Buoy

Junction Marker

LEGEND

Depth In Feet

4 and Shallower

6 - 4

7 - 6

8 - 7

10 - 8

12 - 10

14 - 12

15 - 14

15 and Deeper

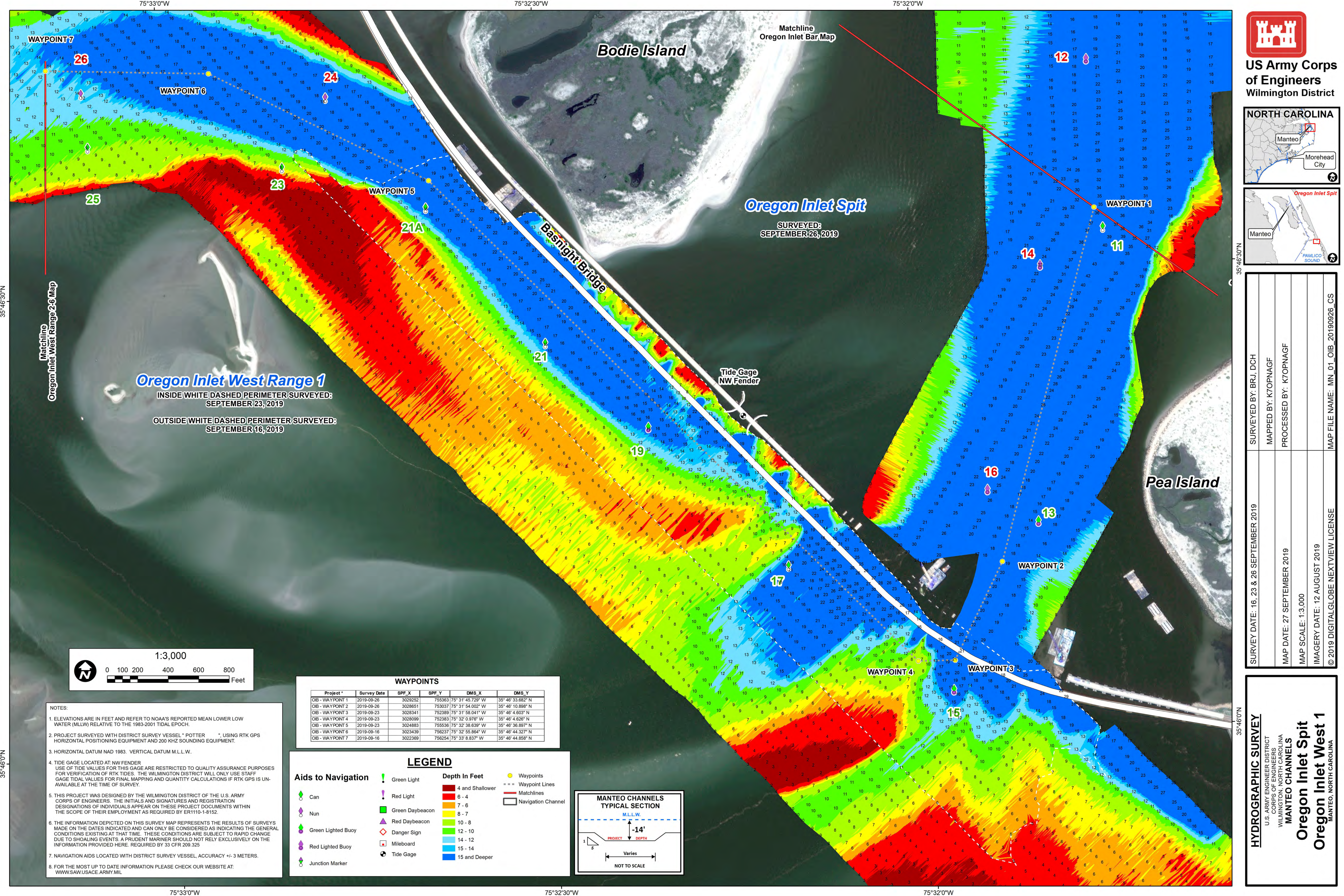
Waypoints

Waypoint Lines

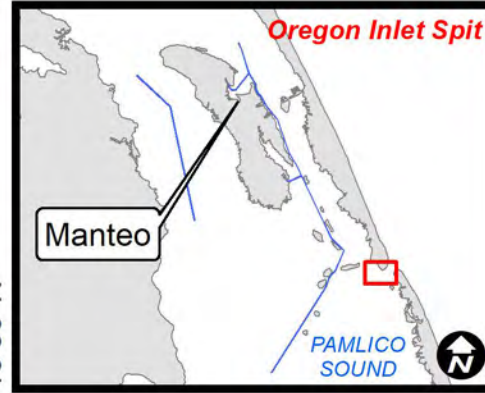
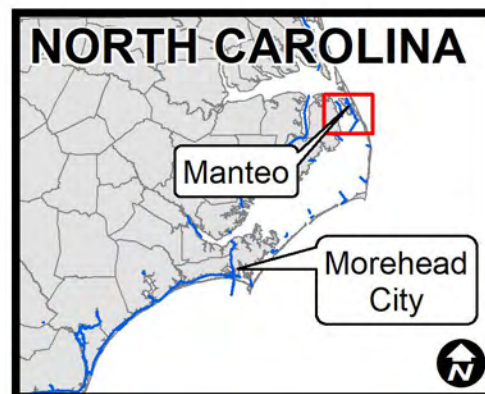
Matchlines

WAYPOINTS					
Project*	Survey Date	SPF_X	SPF_Y	DMS_X	DMS_Y
OIB - WAYPOINT 1	2019-09-26	3029252	755363	75° 31' 45.729" W	35° 46' 33.682" N
OIB - WAYPOINT 2	2019-10-03	3028651	753037	75° 31' 54.002" W	35° 46' 10.898" N
OIB - WAYPOINT 3	2019-10-03	3028341	752389	75° 31' 58.041" W	35° 46' 4.603" N
OIB - WAYPOINT 4	2019-10-03	3028099	752383	75° 32' 0.976" W	35° 46' 4.626" N
OIB - WAYPOINT 5	2019-10-03	3024883	755536	75° 32' 38.639" W	35° 46' 36.897" N
OIB - WAYPOINT 6	2019-09-16	3023439	756237	75° 32' 55.864" W	35° 46' 44.327" N
OIB - WAYPOINT 7	2019-09-16	3022369	756254	75° 33' 8.837" W	35° 46' 44.858" N





US Army Corps  
of Engineers  
Wilmington District



SURVEYED BY: BRJ, DCH	SURVEY DATE: 16, 23 & 26 SEPTEMBER 2019
MAPPED BY: KTOPNAGF	MAP DATE: 27 SEPTEMBER 2019
PROCESSED BY: KTOPNAGF	MAP SCALE: 1:3,000
	IMAGERY DATE: 12 AUGUST 2019
MAP FILE NAME: MN_01_OIB_20190926_CS	© 2019 DIGITALGLOBE NEXTVIEW LICENSE

**HYDROGRAPHIC SURVEY**  
U.S. ARMY ENGINEER DISTRICT  
CORPS OF ENGINEERS  
WILMINGTON, NORTH CAROLINA  
**MANTEO CHANNELS**  
**Oregon Inlet Spit**  
**Oregon Inlet West 1**  
MANTEO, NORTH CAROLINA

NOTES:

- ELEVATIONS ARE IN FEET AND REFER TO NOAA'S REPORTED MEAN LOWER LOW WATER (MLLW) RELATIVE TO THE 1983-2001 TIDAL EPOCH.
- PROJECT SURVEYED WITH DISTRICT SURVEY VESSEL "POTTER" USING RTK GPS HORIZONTAL POSITIONING EQUIPMENT AND 200 KHZ SOUNDING EQUIPMENT.
- HORIZONTAL DATUM NAD 1983. VERTICAL DATUM M.L.L.W.
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WAYPOINTS					
Project *	Survey Date	SPF_X	SPF_Y	DMS_X	DMS_Y
OIB - WAYPOINT 1	2019-09-26	3029252	755363	75° 31' 45.729" W	35° 46' 33.682" N
OIB - WAYPOINT 2	2019-09-26	3028651	753037	75° 31' 54.002" W	35° 46' 10.898" N
OIB - WAYPOINT 3	2019-09-23	3028341	752389	75° 31' 58.041" W	35° 46' 4.603" N
OIB - WAYPOINT 4	2019-09-23	3028099	752383	75° 32' 0.976" W	35° 46' 4.626" N
OIB - WAYPOINT 5	2019-09-23	3024883	755536	75° 32' 38.639" W	35° 46' 36.897" N
OIB - WAYPOINT 6	2019-09-16	3023439	756237	75° 32' 55.864" W	35° 46' 44.327" N
OIB - WAYPOINT 7	2019-09-16	3022369	756254	75° 33' 8.837" W	35° 46' 44.858" N

**Aids to Navigation**

- Can
- Nun
- Green Lighted Buoy
- Red Lighted Buoy
- Junction Marker

**LEGEND**

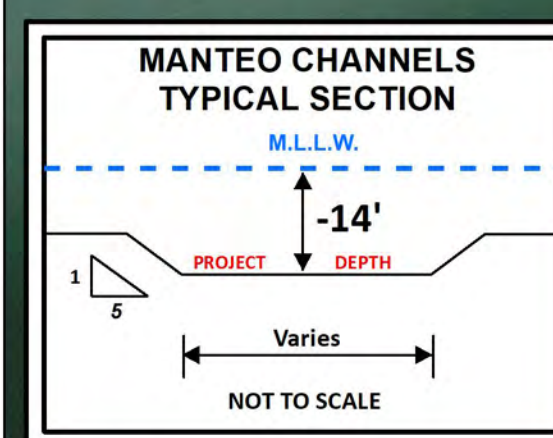
- Green Light
- Red Light
- Green Daybeacon
- Red Daybeacon
- Danger Sign
- Mileboard
- Tide Gage

**Depth In Feet**

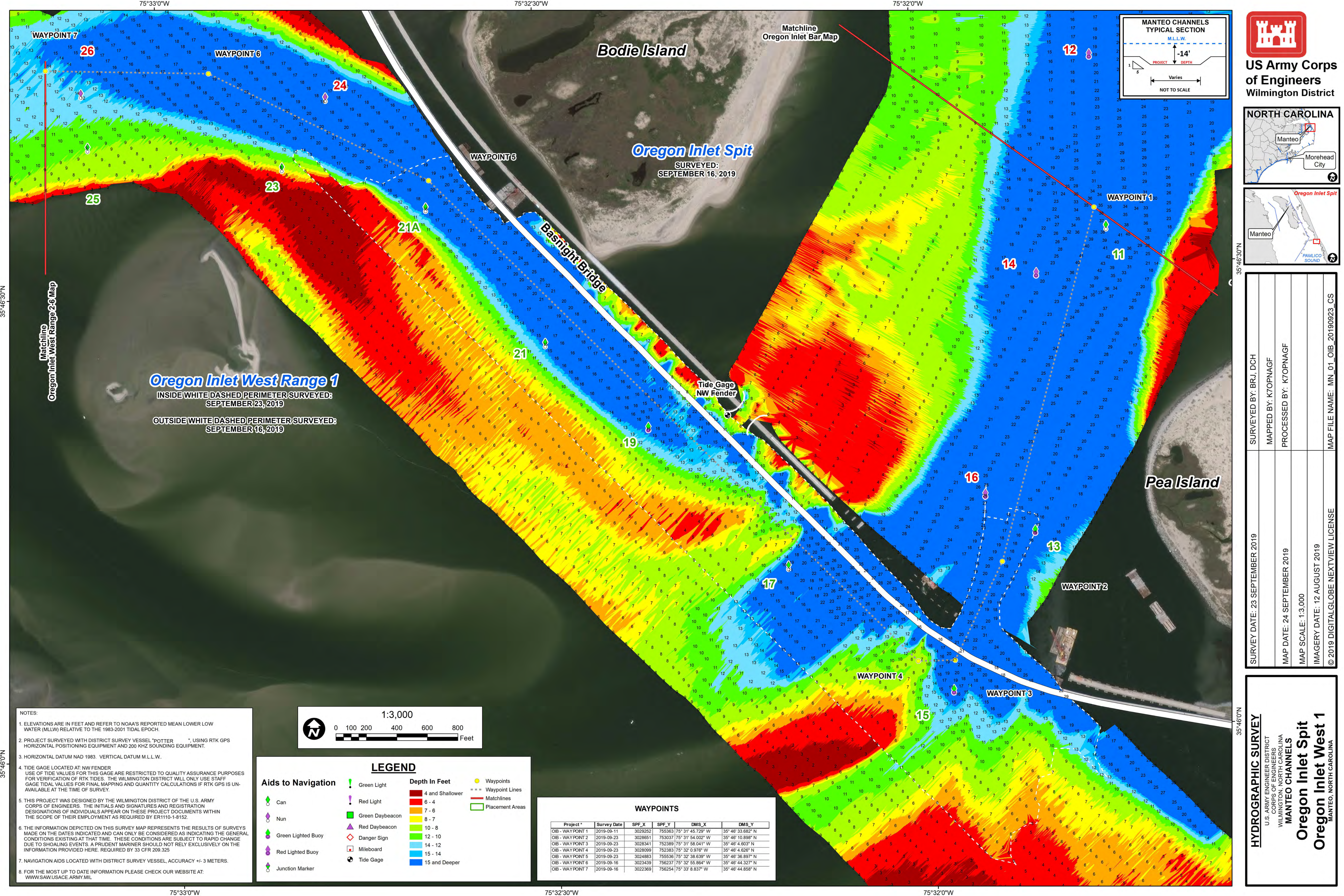
- 4 and Shallower
- 6 - 4
- 7 - 6
- 8 - 7
- 10 - 8
- 12 - 10
- 14 - 12
- 15 - 14
- 15 and Deeper

Waypoints

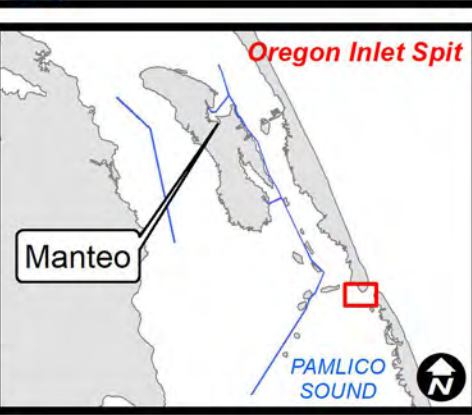
- Waypoint Lines
- Matchlines
- Navigation Channel







US Army Corps  
of Engineers  
Wilmington District



SURVEYED BY: BRJ, DCH	SURVEY DATE: 23 SEPTEMBER 2019
MAPPED BY: KTOPNAGF	MAP DATE: 24 SEPTEMBER 2019
PROCESSED BY: KTOPNAGF	MAP SCALE: 1:3,000
	IMAGERY DATE: 12 AUGUST 2019
MAP FILE NAME: MN_01_OIB_20190923_CS	© 2019 DIGITALGLOBE NEXTVIEW LICENSE

HYDROGRAPHIC SURVEY

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

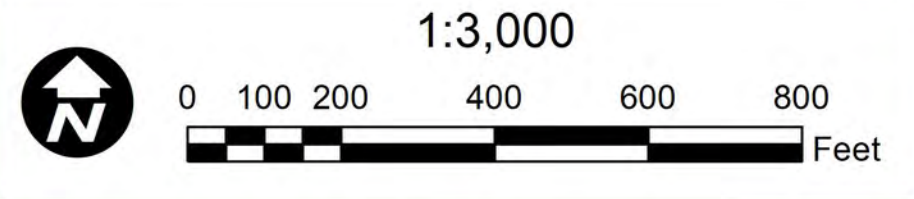
MANTEO CHANNELS

Oregon Inlet Spit

Oregon Inlet West 1

MANTEO, NORTH CAROLINA

- NOTES:
- ELEVATIONS ARE IN FEET AND REFER TO NOAA'S REPORTED MEAN LOWER LOW WATER (MLLW) RELATIVE TO THE 1983-2001 TIDAL EPOCH.
  - PROJECT SURVEYED WITH DISTRICT SURVEY VESSEL "POTTER", 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: NW FENDER. 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.
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Aids to Navigation

Green Light

Red Light

Green Daybeacon

Red Daybeacon

Green Lighted Buoy

Red Lighted Buoy

Junction Marker

Can

Nun

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

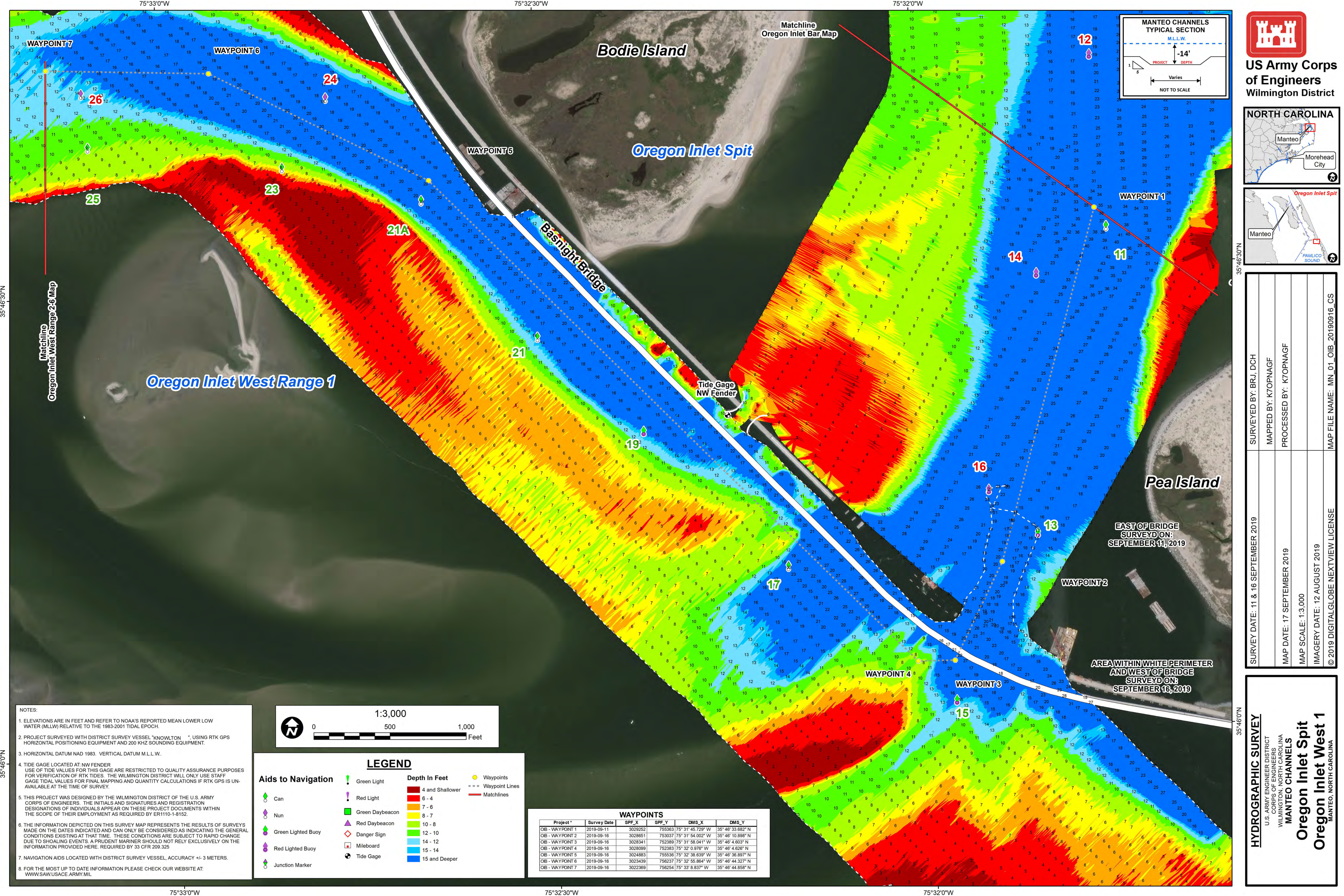
Waypoint Lines

Matchlines

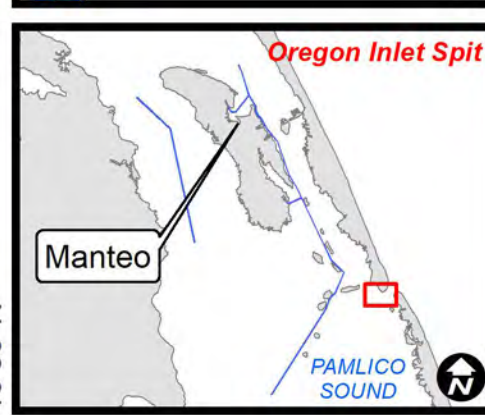
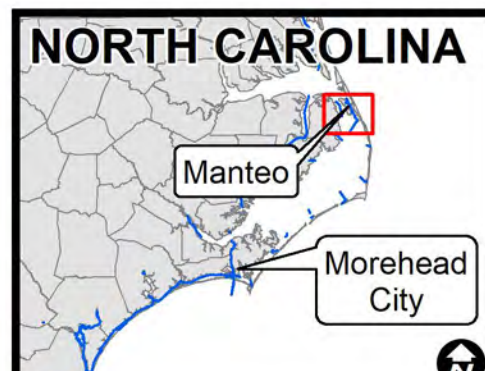
Placement Areas

WAYPOINTS					
Project *	Survey Date	SPF_X	SPF_Y	DMS_X	DMS_Y
OIB - WAYPOINT 1	2019-09-11	3029252	755363	75° 31' 45.729" W	35° 46' 33.682" N
OIB - WAYPOINT 2	2019-09-23	3028651	753037	75° 31' 54.002" W	35° 46' 10.898" N
OIB - WAYPOINT 3	2019-09-23	3028341	752389	75° 31' 58.041" W	35° 46' 4.603" N
OIB - WAYPOINT 4	2019-09-23	3028099	752383	75° 32' 0.978" W	35° 46' 4.626" N
OIB - WAYPOINT 5	2019-09-23	3024883	755356	75° 32' 38.639" W	35° 46' 36.897" N
OIB - WAYPOINT 6	2019-09-16	3023439	756237	75° 32' 55.984" W	35° 46' 44.327" N
OIB - WAYPOINT 7	2019-09-16	3022369	756254	75° 33' 8.837" W	35° 46' 44.858" N





US Army Corps  
of Engineers  
Wilmington District



SURVEYED BY: BRJ, DCH	SURVEY DATE: 11 & 16 SEPTEMBER 2019
MAPPED BY: KTOPNAGF	
PROCESSED BY: KTOPNAGF	
MAP DATE: 17 SEPTEMBER 2019	
MAP SCALE: 1:3,000	
IMAGERY DATE: 12 AUGUST 2019	
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MAP FILE NAME: MN_01_OIB_20190916_CS	

HYDROGRAPHIC SURVEY

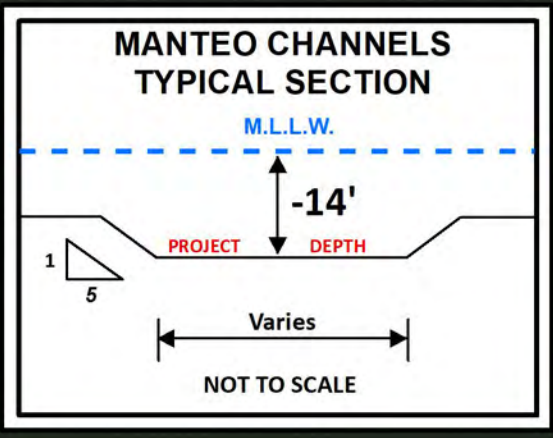
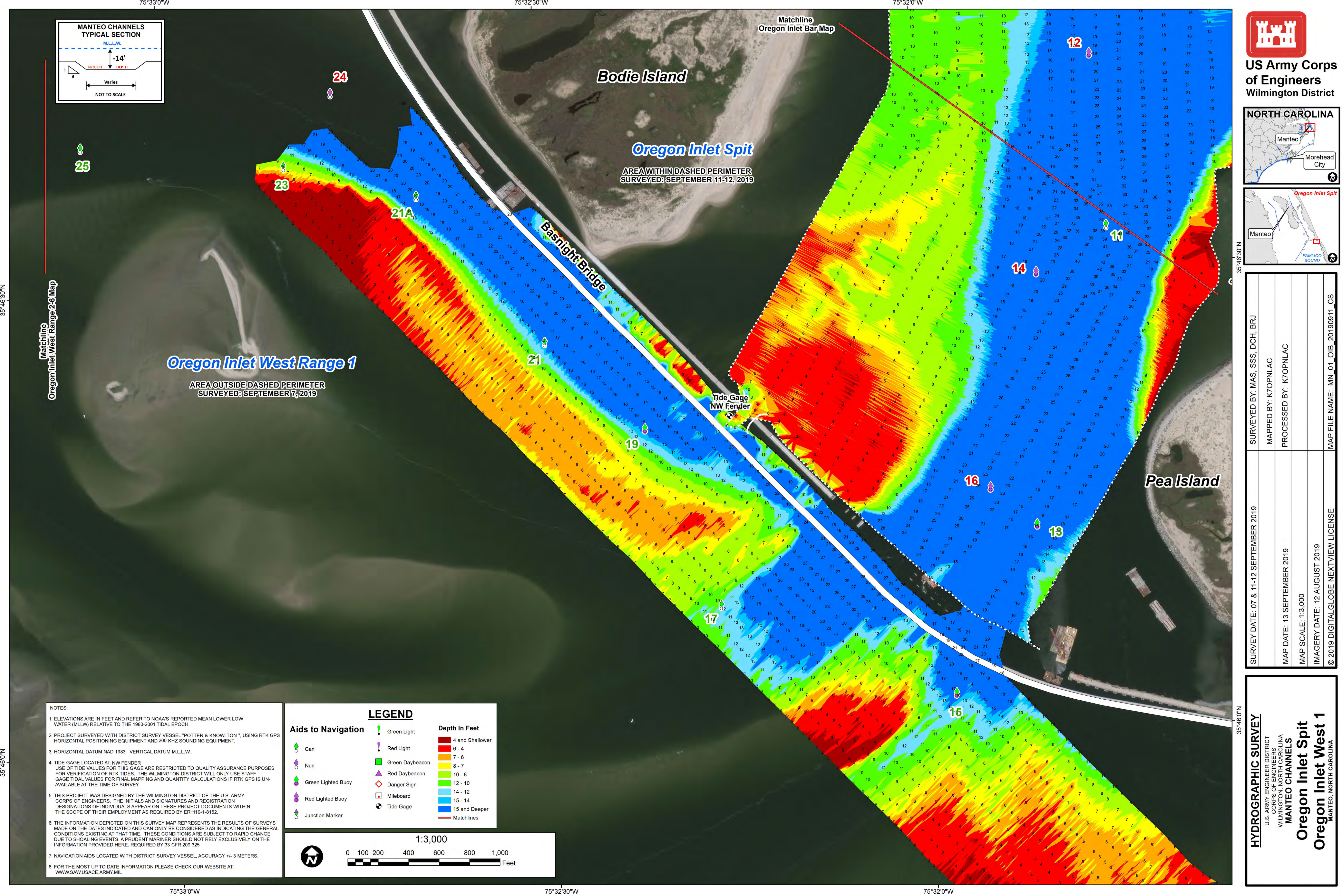
U.S. ARMY ENGINEER DISTRICT  
CORPS OF ENGINEERS  
WILMINGTON, NORTH CAROLINA

MANTEO CHANNELS

Oregon Inlet Spit  
Oregon Inlet West 1

MANTEO, NORTH CAROLINA





Matchline  
Oregon Inlet West Range 2-6 Map

Matchline  
Oregon Inlet Bar Map

**NOTES:**

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**LEGEND**

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

1:3,000

0 100 200 400 600 800 1,000 Feet

**US Army Corps  
of Engineers  
Wilmington District**

**NORTH CAROLINA**

Manteo  
Morehead City

**Oregon Inlet Spit**

Manteo  
PAMLICO SOUND

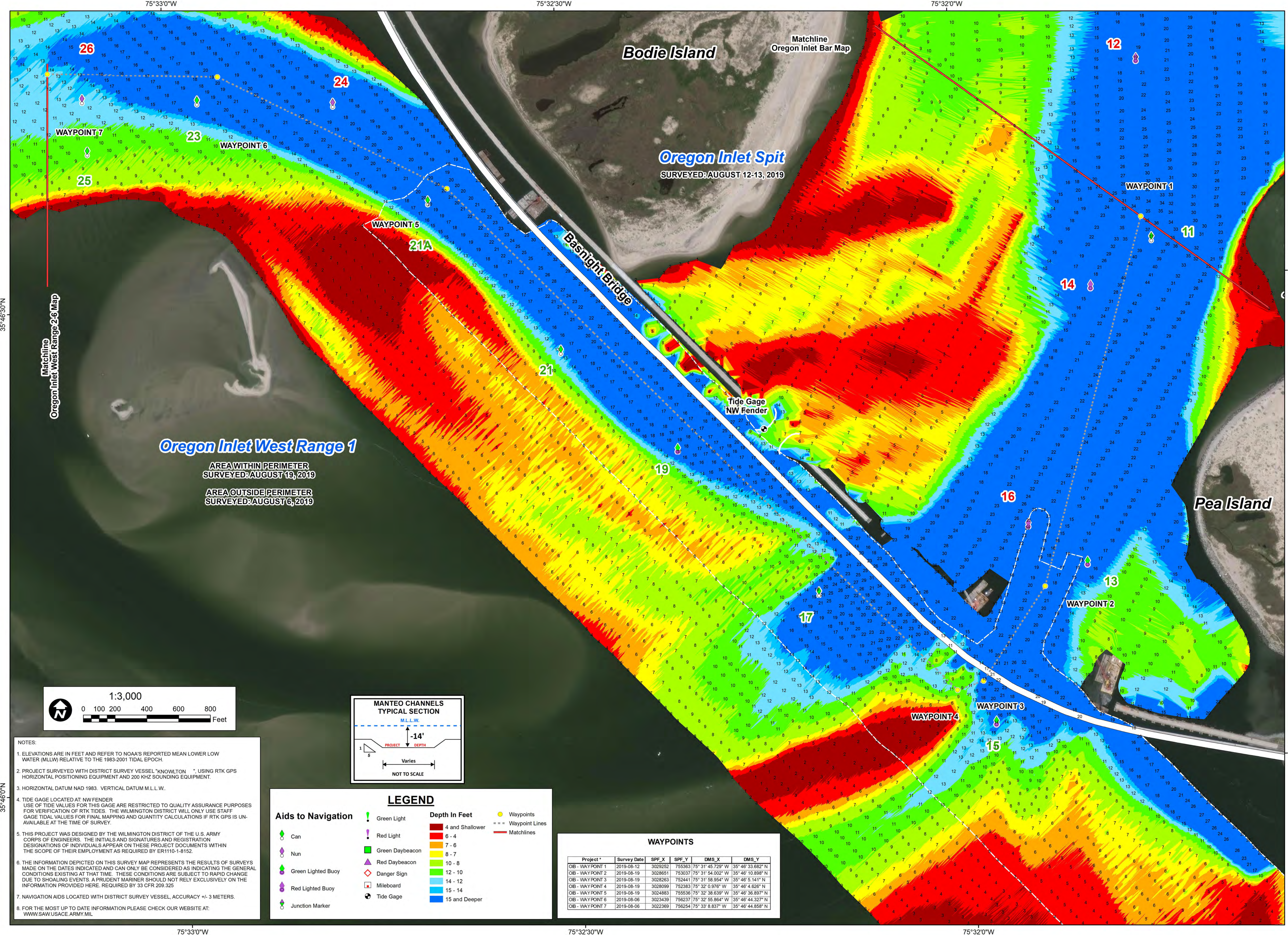
SURVEY DATE: 07 & 11-12 SEPTEMBER 2019	SURVEYED BY: MAS, SSS, DCH, BRJ
MAP DATE: 13 SEPTEMBER 2019	MAPPED BY: KTOPNLAC
MAP SCALE: 1:3,000	PROCESSED BY: KTOPNLAC
IMAGERY DATE: 12 AUGUST 2019	
© 2019 DIGITAL GLOBE NEXTVIEW LICENSE	MAP FILE NAME: MN_01_OIB_20190911_CS

**HYDROGRAPHIC SURVEY**

U.S. ARMY ENGINEER DISTRICT  
CORPS OF ENGINEERS  
WILMINGTON, NORTH CAROLINA  
**MANTEO CHANNELS**

**Oregon Inlet Spit**  
**Oregon Inlet West 1**  
MANTEO, NORTH CAROLINA





35°46'30"N

35°46'00"N

35°46'00"N

**US Army Corps of Engineers**  
Wilmington District

**NORTH CAROLINA**

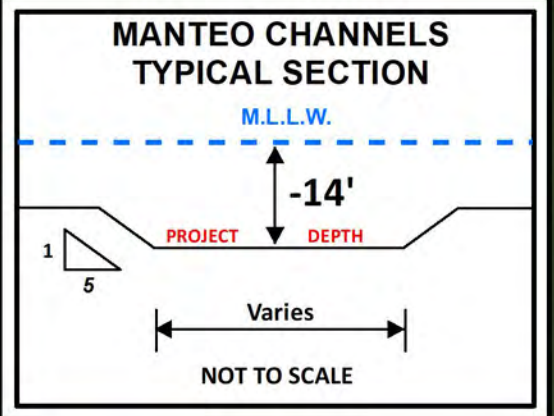
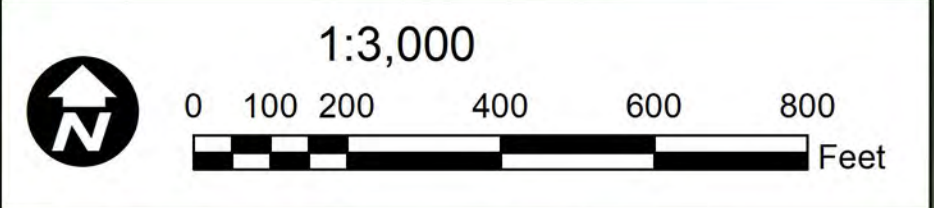
Manteo  
Morehead City

**Oregon Inlet Spit**

Manteo  
PAMLICO SOUND

SURVEYED BY: BRJ, DCH	SURVEY DATE: 06, 12-13, & 19 AUGUST 2019
MAPPED BY: KTOPNDJM	MAP DATE: 21 AUGUST 2019
PROCESSED BY: KTOPNDJM	MAP SCALE: 1:3,000
	IMAGERY DATE: 12 AUGUST 2019
	© 2019 DIGITALGLOBE NEXTVIEW LICENSE
	MAP FILE NAME: MN_01_OIB_20190819_CS

**HYDROGRAPHIC SURVEY**  
U.S. ARMY ENGINEER DISTRICT  
CORPS OF ENGINEERS  
WILMINGTON, NORTH CAROLINA  
**MANTEO CHANNELS**  
**Oregon Inlet Spit**  
Oregon Inlet West 1  
MANTEO, NORTH CAROLINA



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**LEGEND**

**Aids to Navigation**

- Can
- Nun
- Green Lighted Buoy
- Red Lighted Buoy
- Junction Marker

**Depth In Feet**

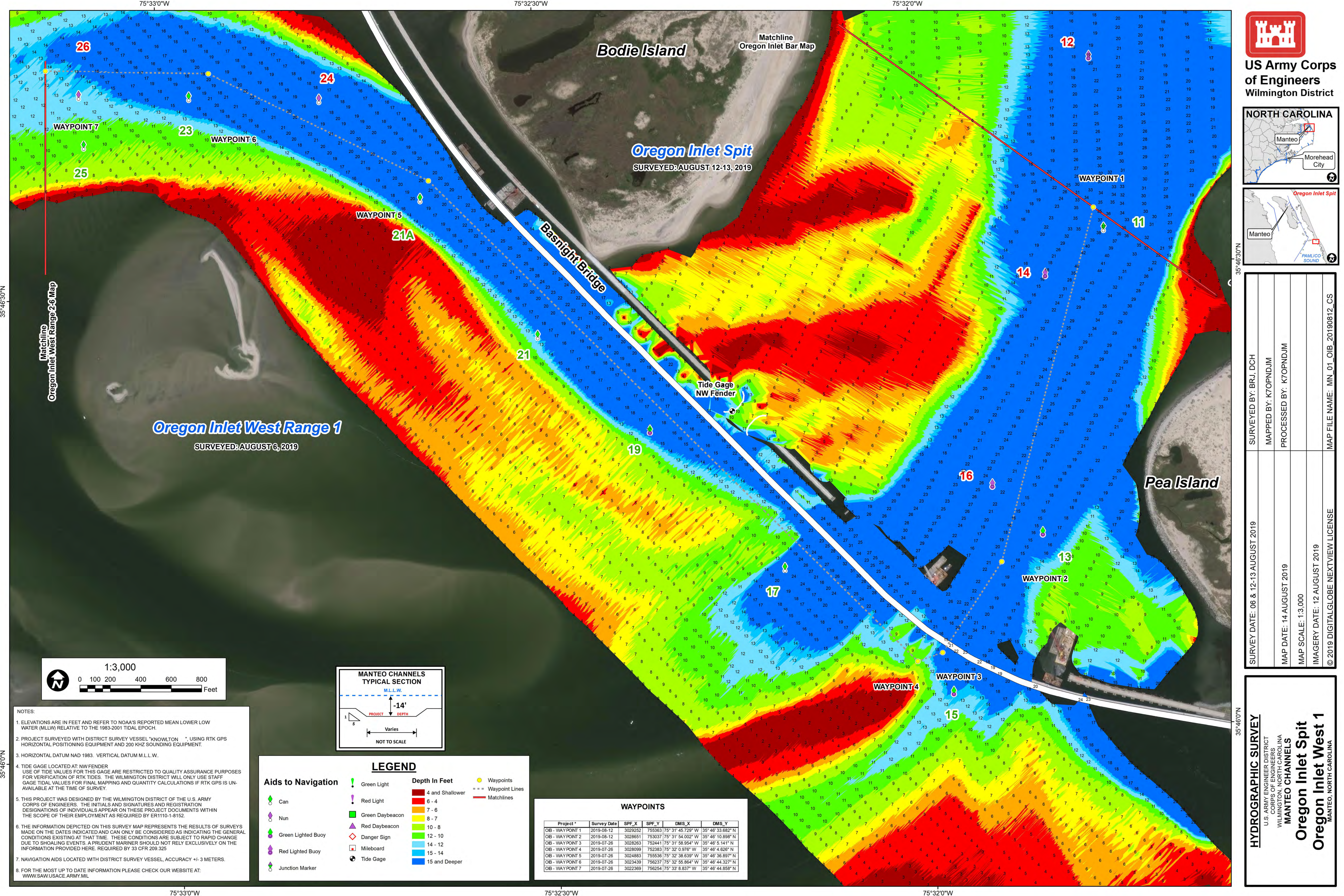
- 4 and Shallower
- 6 - 4
- 7 - 6
- 8 - 7
- 10 - 8
- 12 - 10
- 14 - 12
- 15 - 14
- 15 and Deeper


**Waypoints**

- Waypoint Lines
- Matchlines

WAYPOINTS					
Project *	Survey Date	SPF_X	SPF_Y	DMS_X	DMS_Y
OIB - WAYPOINT 1	2019-08-12	3029252	755363	75° 31' 45.729" W	35° 46' 33.682" N
OIB - WAYPOINT 2	2019-08-19	3028651	753037	75° 31' 54.002" W	35° 46' 10.898" N
OIB - WAYPOINT 3	2019-08-19	3028263	752441	75° 31' 58.954" W	35° 46' 5.141" N
OIB - WAYPOINT 4	2019-08-19	3028099	752383	75° 32' 0.976" W	35° 46' 4.626" N
OIB - WAYPOINT 5	2019-08-19	3024483	755536	75° 32' 38.638" W	35° 46' 36.897" N
OIB - WAYPOINT 6	2019-08-06	3023439	756237	75° 32' 55.864" W	35° 46' 44.327" N
OIB - WAYPOINT 7	2019-08-06	3022369	756254	75° 33' 8.837" W	35° 46' 44.858" N

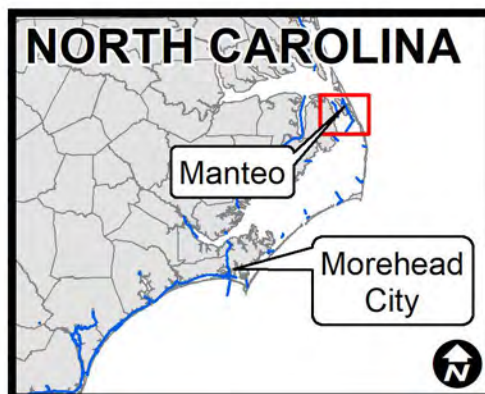






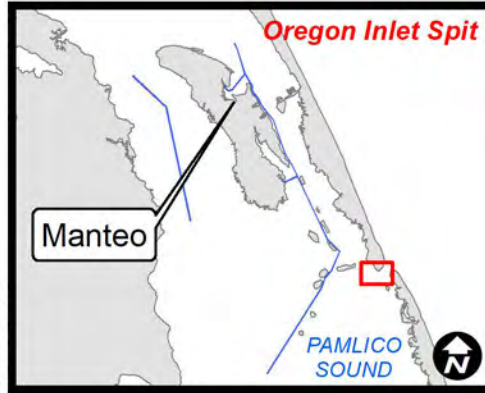
**US Army Corps  
of Engineers**  
Wilmington District

**NORTH CAROLINA**



Manteo  
Morehead City

**Oregon Inlet Spit**



Manteo  
PAMLICO SOUND

SURVEYED BY: BRJ, DCH	SURVEY DATE: 06 & 12-13 AUGUST 2019
MAPPED BY: KTOPNDJM	MAP DATE: 14 AUGUST 2019
PROCESSED BY: KTOPNDJM	MAP SCALE: 1:3,000
	IMAGERY DATE: 12 AUGUST 2019
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	MAP FILE NAME: MN_01_OIB_20190812_CS

**HYDROGRAPHIC SURVEY**

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

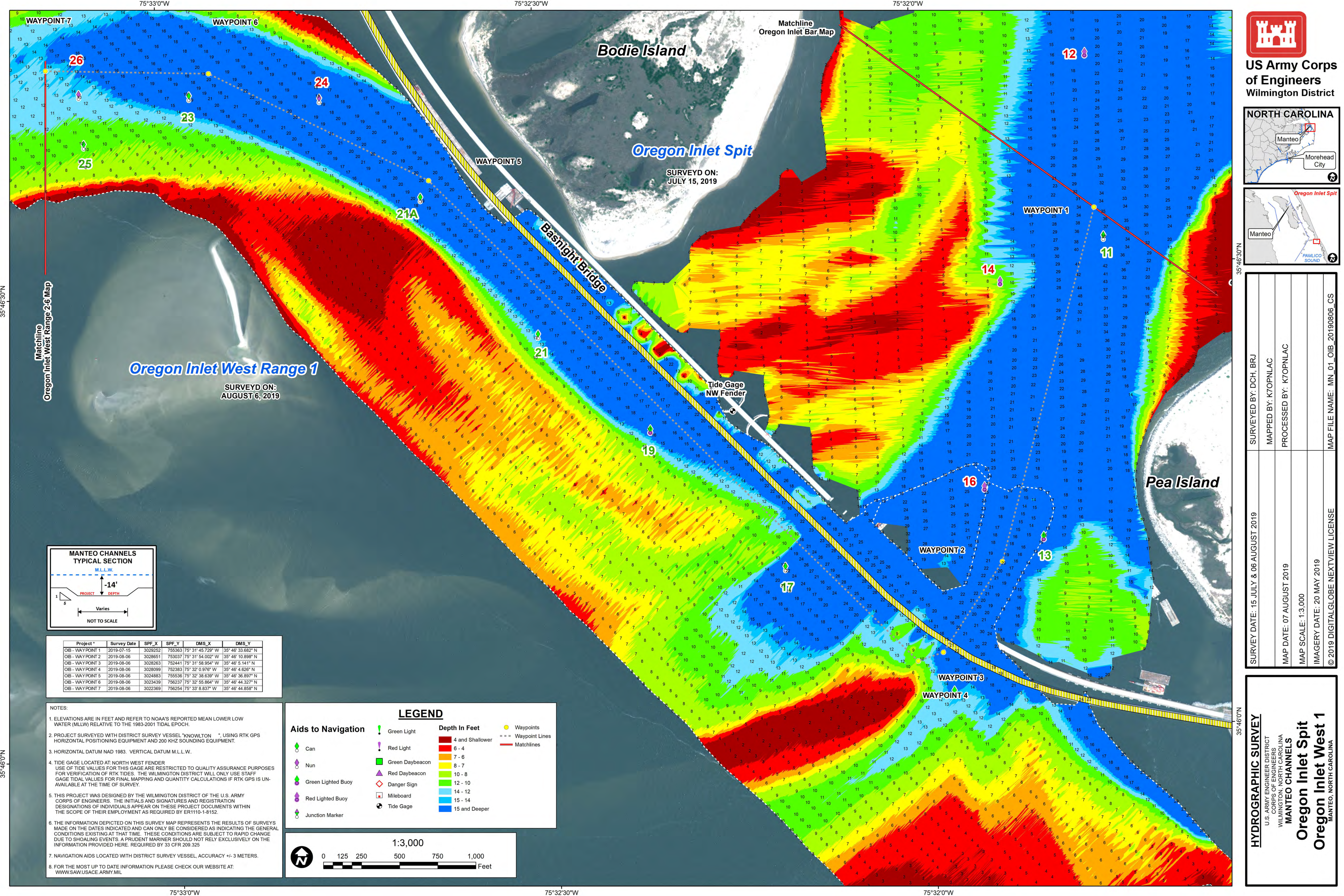
**MANTEO CHANNELS**

**Oregon Inlet Spit**

**Oregon Inlet West 1**

MANTEO, NORTH CAROLINA







**US Army Corps  
of Engineers**  
Wilmington District

**NORTH CAROLINA**



SURVEYED BY: DCH, BRJ	
MAPPED BY: KTOPNAC	
PROCESSED BY: KTOPNAC	
MAP DATE: 07 AUGUST 2019	
MAP SCALE: 1:3,000	
IMAGERY DATE: 20 MAY 2019	
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MAP FILE NAME: MN_01_OIB_20190806_CS	

**HYDROGRAPHIC SURVEY**

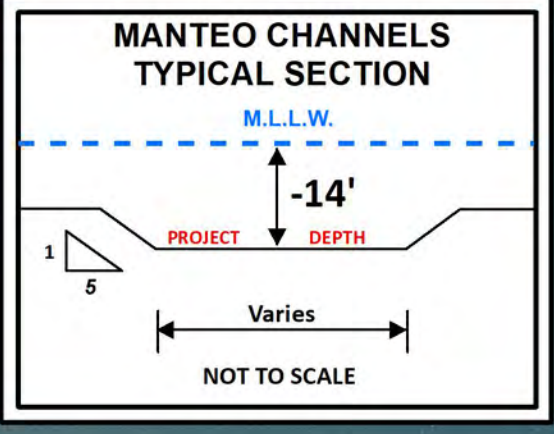
U.S. ARMY ENGINEER DISTRICT  
CORPS OF ENGINEERS  
WILMINGTON, NORTH CAROLINA

**MANTEO CHANNELS**

**Oregon Inlet Spit**

**Oregon Inlet West 1**

MANTEO, NORTH CAROLINA



Project *	Survey Date	SPF_X	SPF_Y	DMS_X	DMS_Y
OIB - WAYPOINT 1	2019-07-15	3029252	755363	75° 31' 45.729" W	35° 46' 33.682" N
OIB - WAYPOINT 2	2019-08-06	3028651	753037	75° 31' 54.002" W	35° 46' 10.898" N
OIB - WAYPOINT 3	2019-08-06	3028263	753441	75° 31' 58.954" W	35° 46' 5.141" N
OIB - WAYPOINT 4	2019-08-06	3028099	752383	75° 32' 0.976" W	35° 46' 4.626" N
OIB - WAYPOINT 5	2019-08-06	3024883	755536	75° 32' 38.639" W	35° 46' 36.897" N
OIB - WAYPOINT 6	2019-08-06	3023439	756237	75° 32' 56.864" W	35° 46' 44.327" N
OIB - WAYPOINT 7	2019-08-06	3022369	756254	75° 33' 8.837" W	35° 46' 44.858" N

- NOTES:
- ELEVATIONS ARE IN FEET AND REFER TO NOAA'S REPORTED MEAN LOWER LOW WATER (MLLW) RELATIVE TO THE 1983-2001 TIDAL EPOCH.
  - PROJECT SURVEYED WITH DISTRICT SURVEY VESSEL "KNOWLTON" 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 NORTH WEST FENDER. 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](http://WWW.SAW.USACE.ARMY.MIL)

**LEGEND**

**Aids to Navigation**

- Can
- Nun
- Green Lighted Buoy
- Red Lighted Buoy
- Junction Marker

**Depth In Feet**

- 4 and Shallower
- 6 - 4
- 7 - 6
- 8 - 7
- 10 - 8
- 12 - 10
- 14 - 12
- 15 - 14
- 15 and Deeper

**Waypoints**

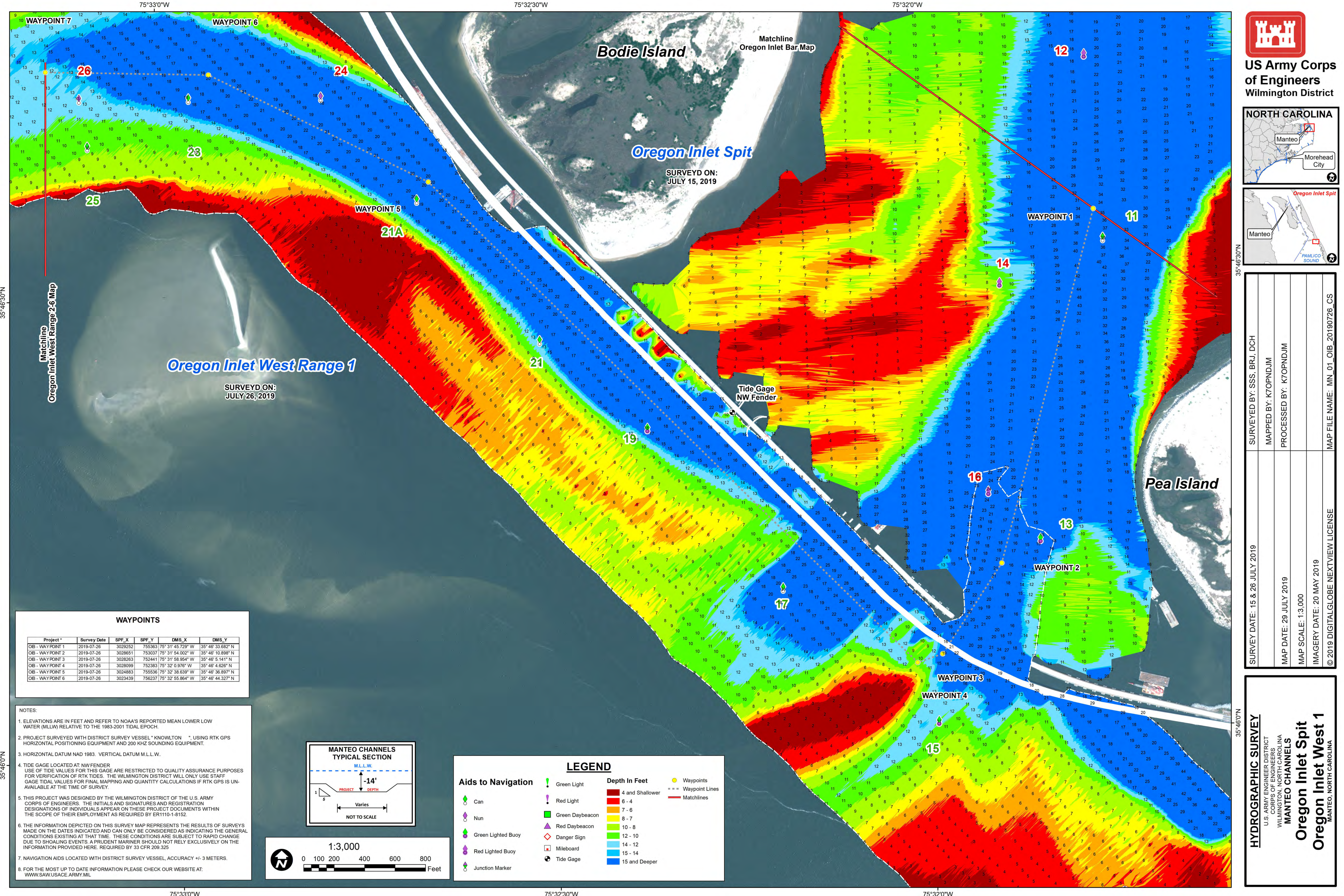
- Waypoints
- Waypoint Lines
- Matchlines

**Scale**

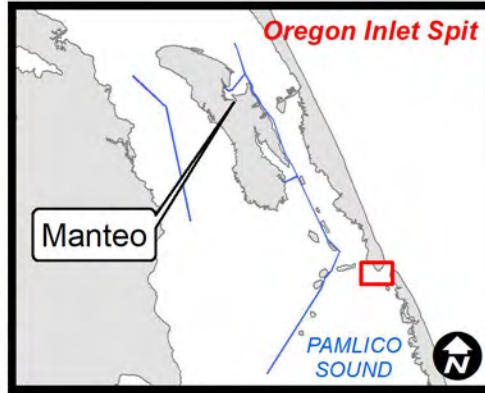
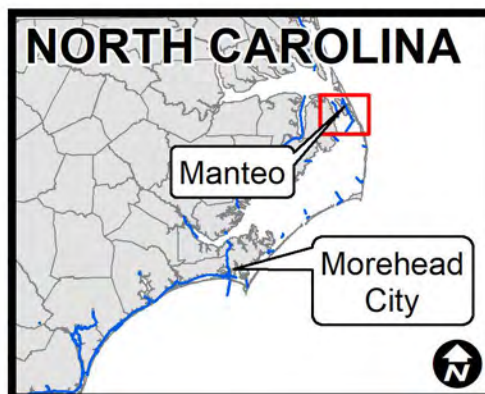
1:3,000

0 125 250 500 750 1,000 Feet





US Army Corps  
of Engineers  
Wilmington District



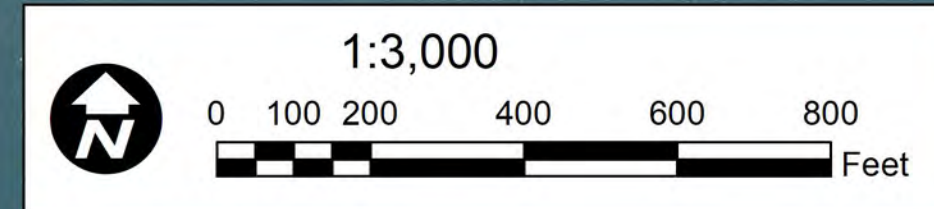
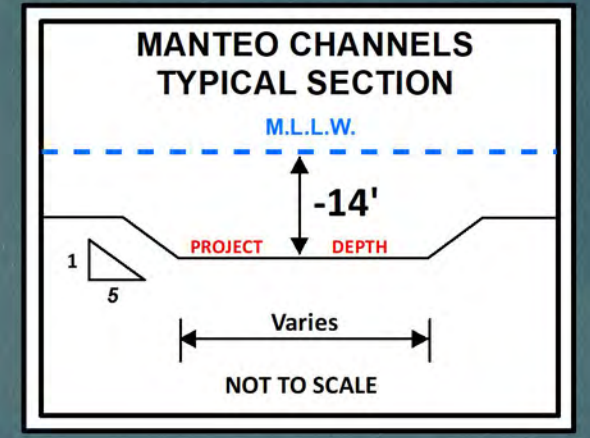
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MAPPED BY: KTOPNDJM	MAP DATE: 29 JULY 2019
PROCESSED BY: KTOPNDJM	MAP SCALE: 1:3,000
	IMAGERY DATE: 20 MAY 2019
MAP FILE NAME: MN_01_OIB_20190726_CS	© 2019 DIGITALGLOBE NEXTVIEW LICENSE

**HYDROGRAPHIC SURVEY**  
U.S. ARMY ENGINEER DISTRICT  
CORPS OF ENGINEERS  
WILMINGTON, NORTH CAROLINA  
**MANTEO CHANNELS**  
**Oregon Inlet Spit**  
**Oregon Inlet West 1**  
MANTEO, NORTH CAROLINA

Project *	Survey Date	SPF_X	SPF_Y	DMS_X	DMS_Y
OIB - WAYPOINT 1	2019-07-26	3029252	755363	75° 31' 45.729" W	35° 46' 33.882" N
OIB - WAYPOINT 2	2019-07-26	3028651	753037	75° 31' 54.002" W	35° 46' 10.898" N
OIB - WAYPOINT 3	2019-07-26	3028263	752441	75° 31' 58.954" W	35° 46' 5.141" N
OIB - WAYPOINT 4	2019-07-26	3028089	752383	75° 32' 0.976" W	35° 46' 4.626" N
OIB - WAYPOINT 5	2019-07-26	3024883	755536	75° 32' 38.639" W	35° 46' 36.897" N
OIB - WAYPOINT 6	2019-07-26	3023439	756237	75° 32' 55.864" W	35° 46' 44.327" N

NOTES:

- ELEVATIONS ARE IN FEET AND REFER TO NOAA'S REPORTED MEAN LOWER LOW WATER (MLLW) RELATIVE TO THE 1983-2001 TIDAL EPOCH.
- PROJECT SURVEYED WITH DISTRICT SURVEY VESSEL "KNOWLTON", 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: NW FENDER. 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.
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**LEGEND**

**Aids to Navigation**

- Can
- Nun
- Green Lighted Buoy
- Red Lighted Buoy
- Junction Marker

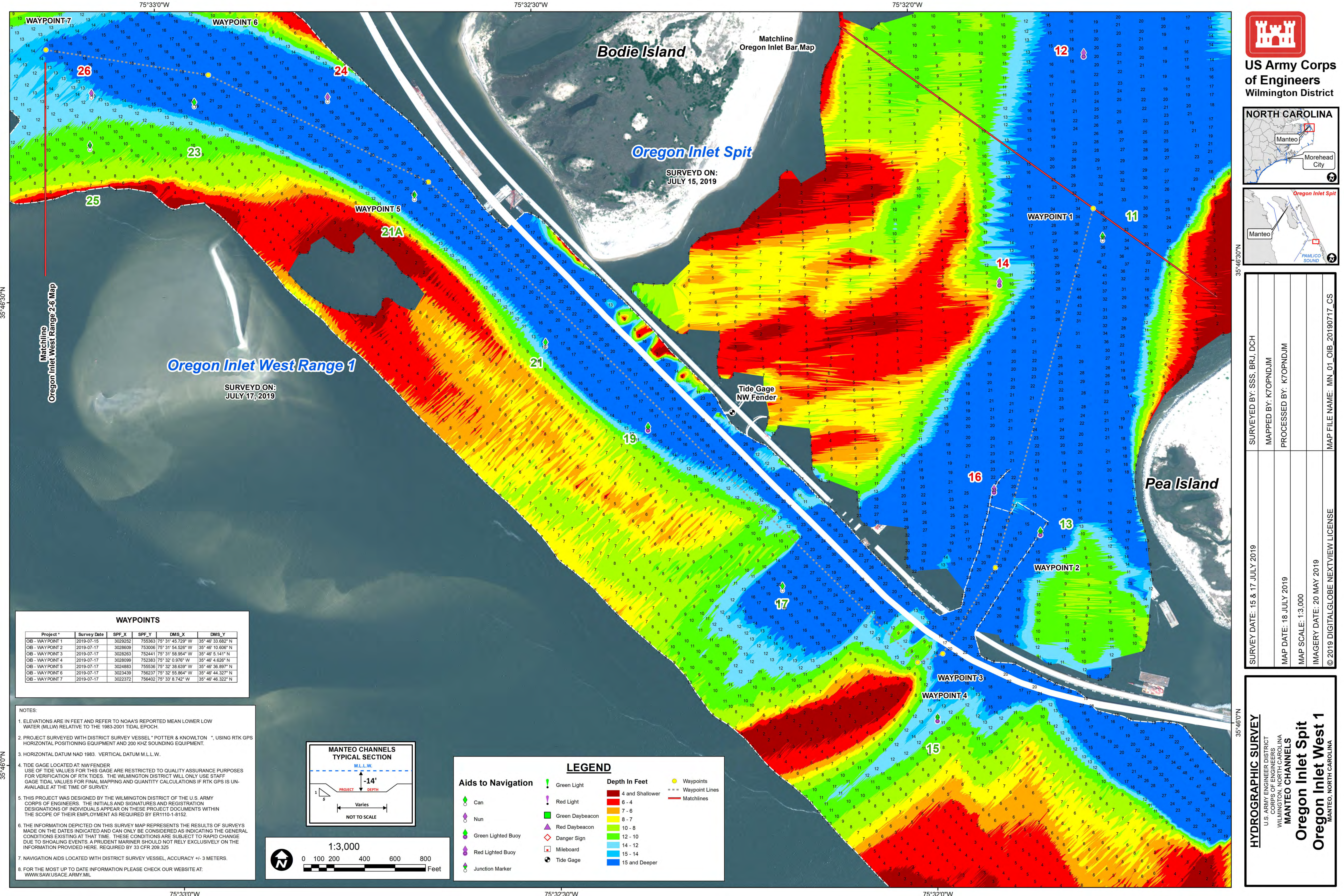
**Depth In Feet**

- 4 and Shallower
- 6 - 4
- 7 - 6
- 8 - 7
- 10 - 8
- 12 - 10
- 14 - 12
- 15 - 14
- 15 and Deeper

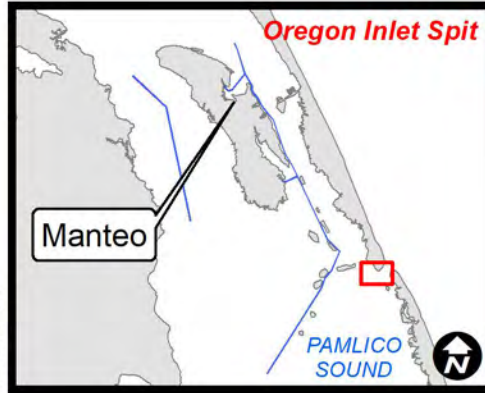
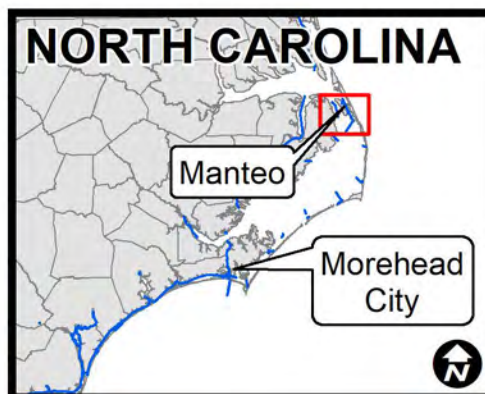
**Waypoints**

- Waypoint Lines
- Matchlines





US Army Corps  
of Engineers  
Wilmington District



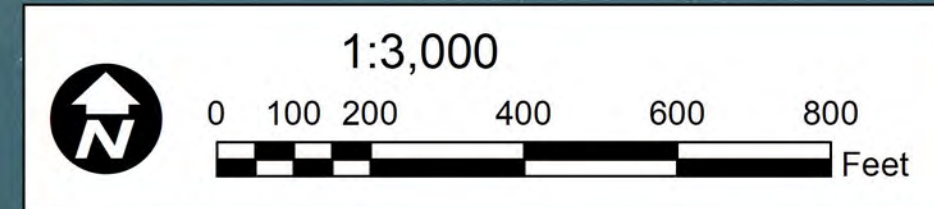
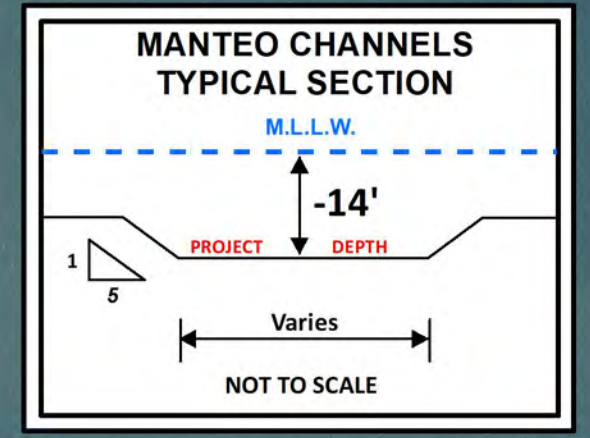
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MAPPED BY: KTOPNDJM	MAP DATE: 18 JULY 2019
PROCESSED BY: KTOPNDJM	MAP SCALE: 1:3,000
	IMAGERY DATE: 20 MAY 2019
MAP FILE NAME: MN_01_OIB_20190717_CS	© 2019 DIGITALGLOBE NEXTVIEW LICENSE

**HYDROGRAPHIC SURVEY**  
U.S. ARMY ENGINEER DISTRICT  
CORPS OF ENGINEERS  
WILMINGTON, NORTH CAROLINA  
**MANTEO CHANNELS**  
**Oregon Inlet Spit**  
**Oregon Inlet West 1**  
MANTEO, NORTH CAROLINA

Project *	Survey Date	SPF_X	SPF_Y	DMS_X	DMS_Y
OIB - WAYPOINT 1	2019-07-15	302252	753363	75° 31' 45.729" W	35° 46' 33.682" N
OIB - WAYPOINT 2	2019-07-17	3028609	753006	75° 31' 54.526" W	35° 46' 10.606" N
OIB - WAYPOINT 3	2019-07-17	3028263	752441	75° 32' 0.976" W	35° 46' 5.141" N
OIB - WAYPOINT 4	2019-07-17	3028099	752383	75° 32' 0.976" W	35° 46' 4.626" N
OIB - WAYPOINT 5	2019-07-17	3024883	755536	75° 32' 38.639" W	35° 46' 36.897" N
OIB - WAYPOINT 6	2019-07-17	3023439	756237	75° 32' 55.864" W	35° 46' 44.327" N
OIB - WAYPOINT 7	2019-07-17	3022372	756402	75° 33' 8.742" W	35° 46' 46.322" N

NOTES:

- ELEVATIONS ARE IN FEET AND REFER TO NOAA'S REPORTED MEAN LOWER LOW WATER (MLLW) RELATIVE TO THE 1983-2001 TIDAL EPOCH.
- PROJECT SURVEYED WITH DISTRICT SURVEY VESSEL "POTTER & KNOWLTON", 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: NW FENDER  
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.
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**Aids to Navigation**

- Can
- Nun
- Green Lighted Buoy
- Red Lighted Buoy
- Junction Marker

**LEGEND**

- Green Light
- Red Light
- Green Daybeacon
- Red Daybeacon
- Danger Sign
- Mileboard
- Tide Gage

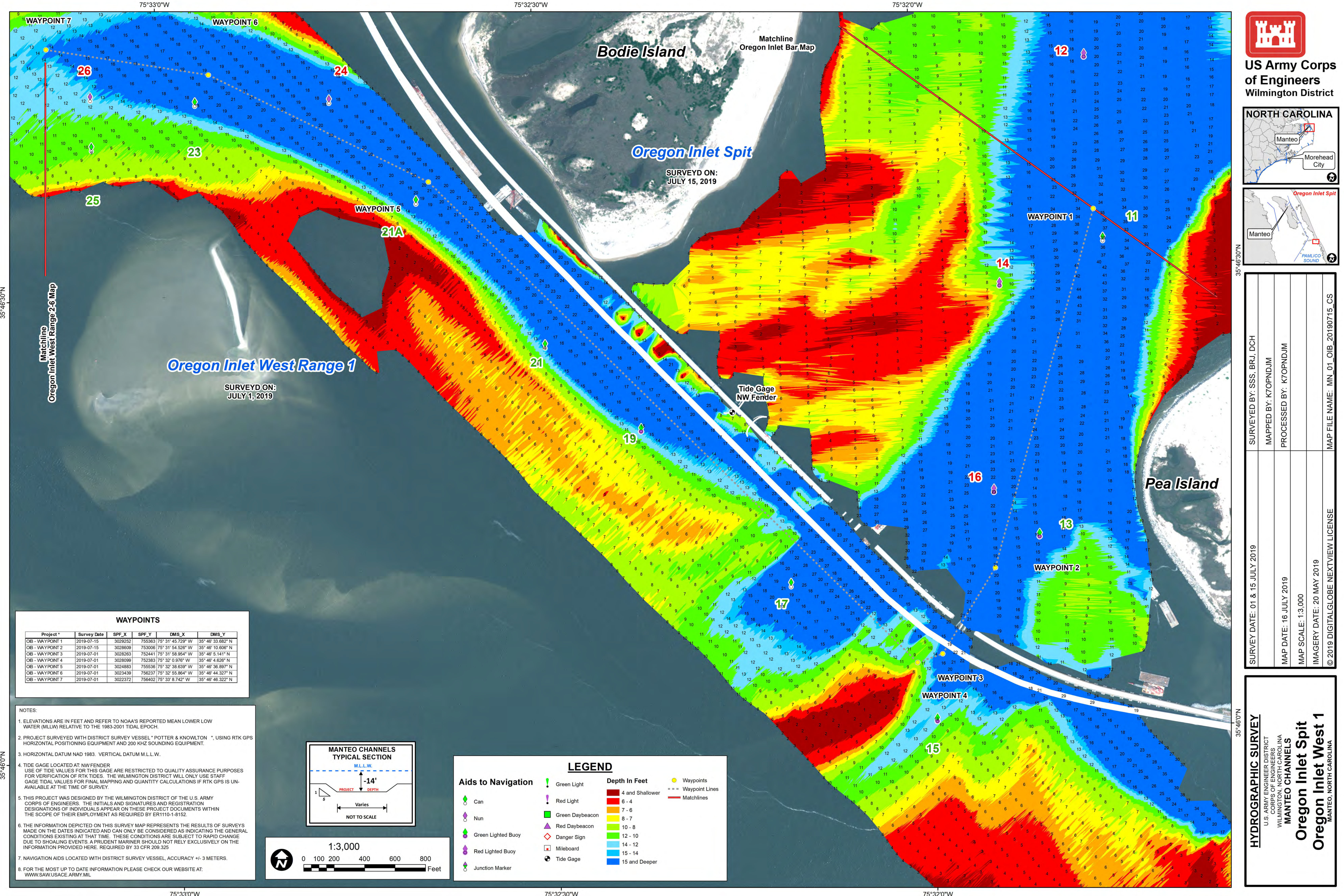
**Depth In Feet**

- 4 and Shallower
- 6 - 4
- 7 - 6
- 8 - 7
- 10 - 8
- 12 - 10
- 14 - 12
- 15 - 14
- 15 and Deeper

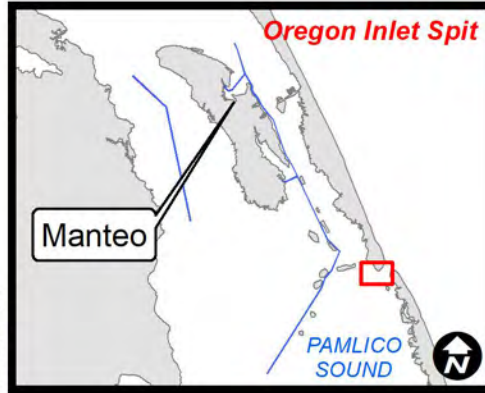
**Waypoints**

- Waypoints
- Waypoint Lines
- Matchlines





US Army Corps  
of Engineers  
Wilmington District



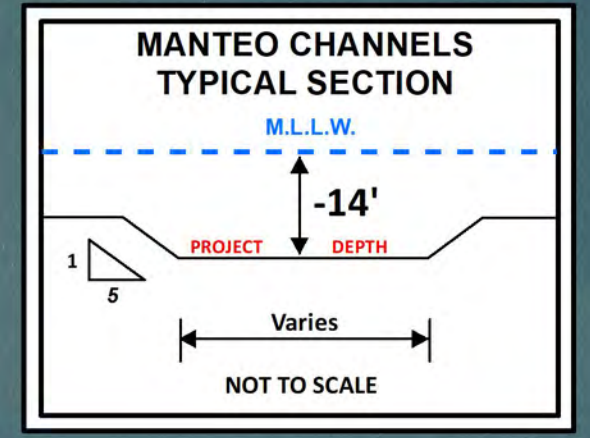
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MAPPED BY: KTOPNDJM	MAP DATE: 16 JULY 2019
PROCESSED BY: KTOPNDJM	MAP SCALE: 1:3,000
	IMAGERY DATE: 20 MAY 2019
MAP FILE NAME: MN_01_OIB_20190715_CS	© 2019 DIGITALGLOBE NEXTVIEW LICENSE

**HYDROGRAPHIC SURVEY**  
U.S. ARMY ENGINEER DISTRICT  
CORPS OF ENGINEERS  
WILMINGTON, NORTH CAROLINA  
**MANTEO CHANNELS**  
**Oregon Inlet Spit**  
**Oregon Inlet West 1**  
MANTEO, NORTH CAROLINA

Project *	Survey Date	SPF_X	SPF_Y	DMS_X	DMS_Y
OIB - WAYPOINT 1	2019-07-15	3028252	755383	75° 31' 45.729° W	35° 46' 33.882° N
OIB - WAYPOINT 2	2019-07-15	3028609	753006	75° 31' 54.528° W	35° 46' 10.606° N
OIB - WAYPOINT 3	2019-07-01	3028263	752441	75° 31' 58.954° W	35° 46' 5.141° N
OIB - WAYPOINT 4	2019-07-01	3028099	752383	75° 32' 0.976° W	35° 46' 4.626° N
OIB - WAYPOINT 5	2019-07-01	3024883	755536	75° 32' 38.639° W	35° 46' 36.897° N
OIB - WAYPOINT 6	2019-07-01	3023439	756237	75° 32' 55.864° W	35° 46' 44.327° N
OIB - WAYPOINT 7	2019-07-01	3022372	756402	75° 33' 8.742° W	35° 46' 46.322° N

NOTES:

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- HORIZONTAL DATUM NAD 1983. VERTICAL DATUM M.L.L.W.
- TIDE GAGE LOCATED AT: NW FENDER  
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.
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**Aids to Navigation**

- Can
- Nun
- Green Lighted Buoy
- Red Lighted Buoy
- Junction Marker

**LEGEND**

- Green Light
- Red Light
- Green Daybeacon
- Red Daybeacon
- Danger Sign
- Mileboard
- Tide Gage

**Depth In Feet**

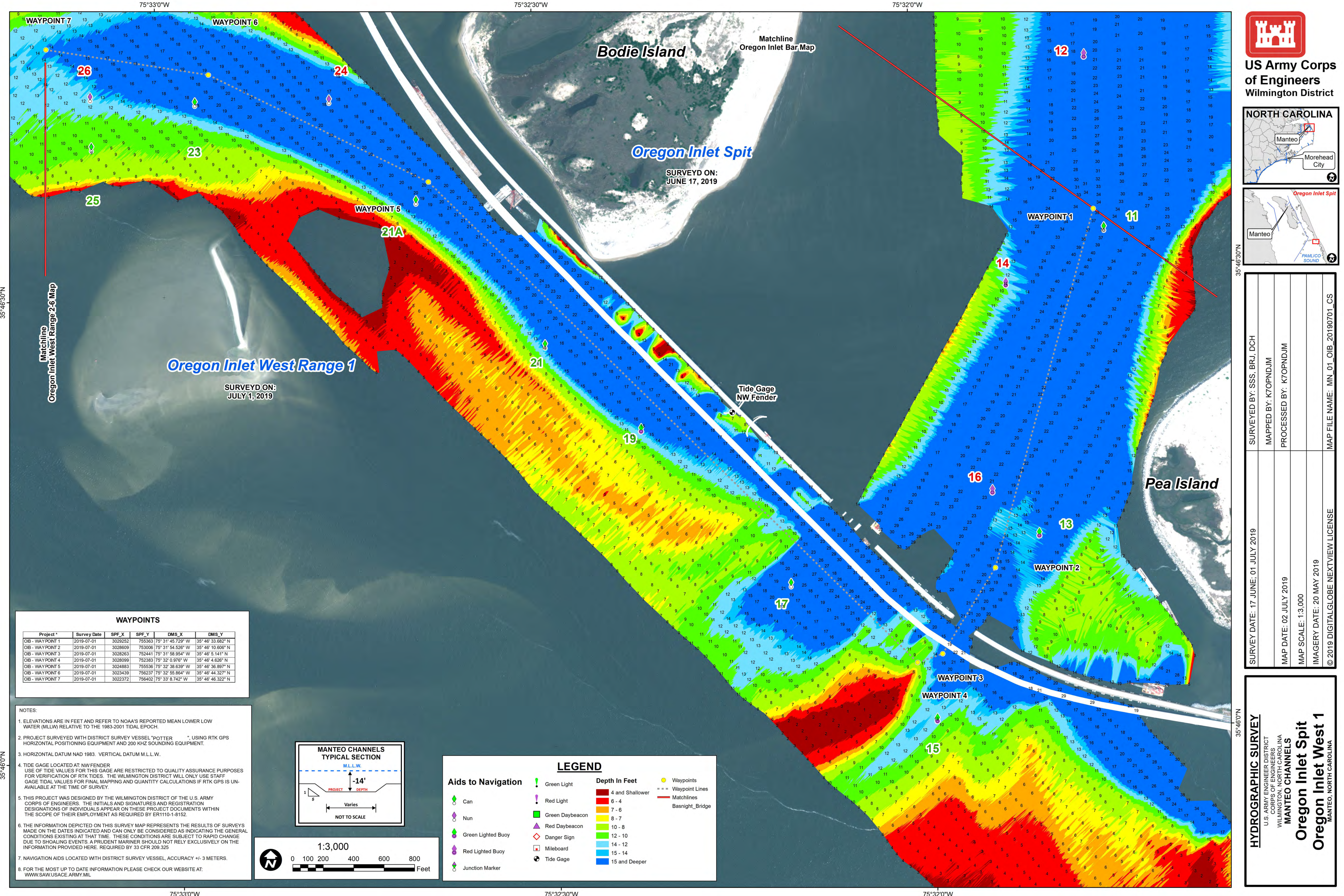
- 4 and Shallower
- 6 - 4
- 7 - 6
- 8 - 7
- 10 - 8
- 12 - 10
- 14 - 12
- 15 - 14
- 15 and Deeper

Waypoints

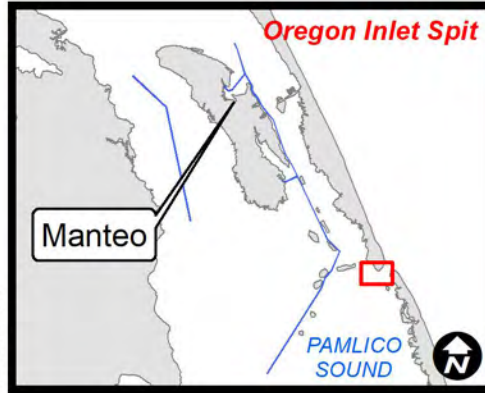
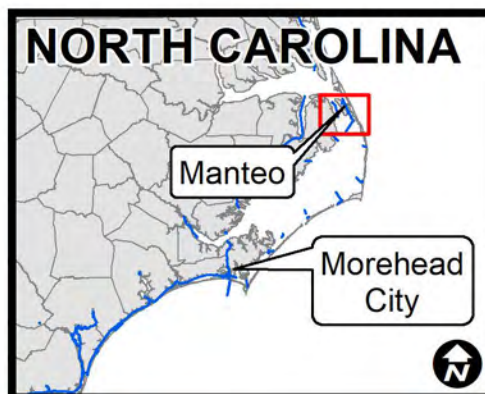
Waypoint Lines

Matchlines





US Army Corps  
of Engineers  
Wilmington District



SURVEYED BY: SSS, BRJ, DCH	SURVEY DATE: 17 JUNE: 01 JULY 2019
MAPPED BY: KTOPNDJM	MAP DATE: 02 JULY 2019
PROCESSED BY: KTOPNDJM	MAP SCALE: 1:3,000
	IMAGERY DATE: 20 MAY 2019
MAP FILE NAME: MN_01_OIB_20190701_CS	© 2019 DIGITALGLOBE NEXTVIEW LICENSE

HYDROGRAPHIC SURVEY

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

MANTEO CHANNELS

Oregon Inlet Spit

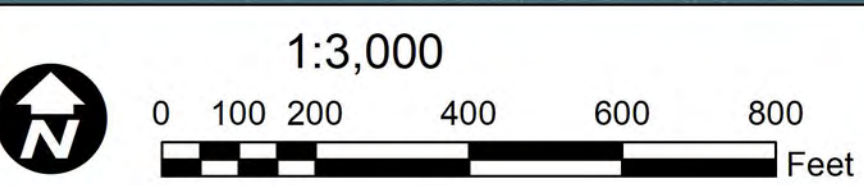
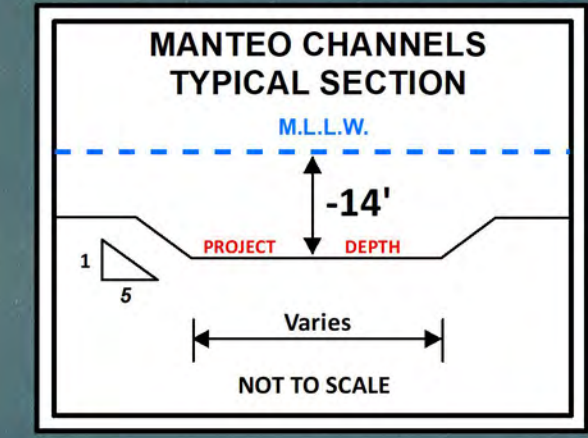
Oregon Inlet West 1

MANTEO, NORTH CAROLINA

Project *	Survey Date	SPF_X	SPF_Y	DMS_X	DMS_Y
OIB - WAYPOINT 1	2019-07-01	3029252	753363	75° 31' 45.729" W	35° 46' 33.682" N
OIB - WAYPOINT 2	2019-07-01	3028609	753006	75° 31' 54.528" W	35° 46' 10.606" N
OIB - WAYPOINT 3	2019-07-01	3028263	752441	75° 31' 58.954" W	35° 46' 5.141" N
OIB - WAYPOINT 4	2019-07-01	3028099	752383	75° 32' 0.976" W	35° 46' 4.626" N
OIB - WAYPOINT 5	2019-07-01	3024883	755536	75° 32' 38.639" W	35° 46' 36.897" N
OIB - WAYPOINT 6	2019-07-01	3023439	756237	75° 32' 55.864" W	35° 46' 44.327" N
OIB - WAYPOINT 7	2019-07-01	3022372	756402	75° 32' 8.742" W	35° 46' 46.322" N

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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

Waypoints

Waypoint Lines

Matchlines

Basnight\_Bridge

LEGEND

Depth In Feet

4 and Shallower

6 - 4

7 - 6

8 - 7

10 - 8

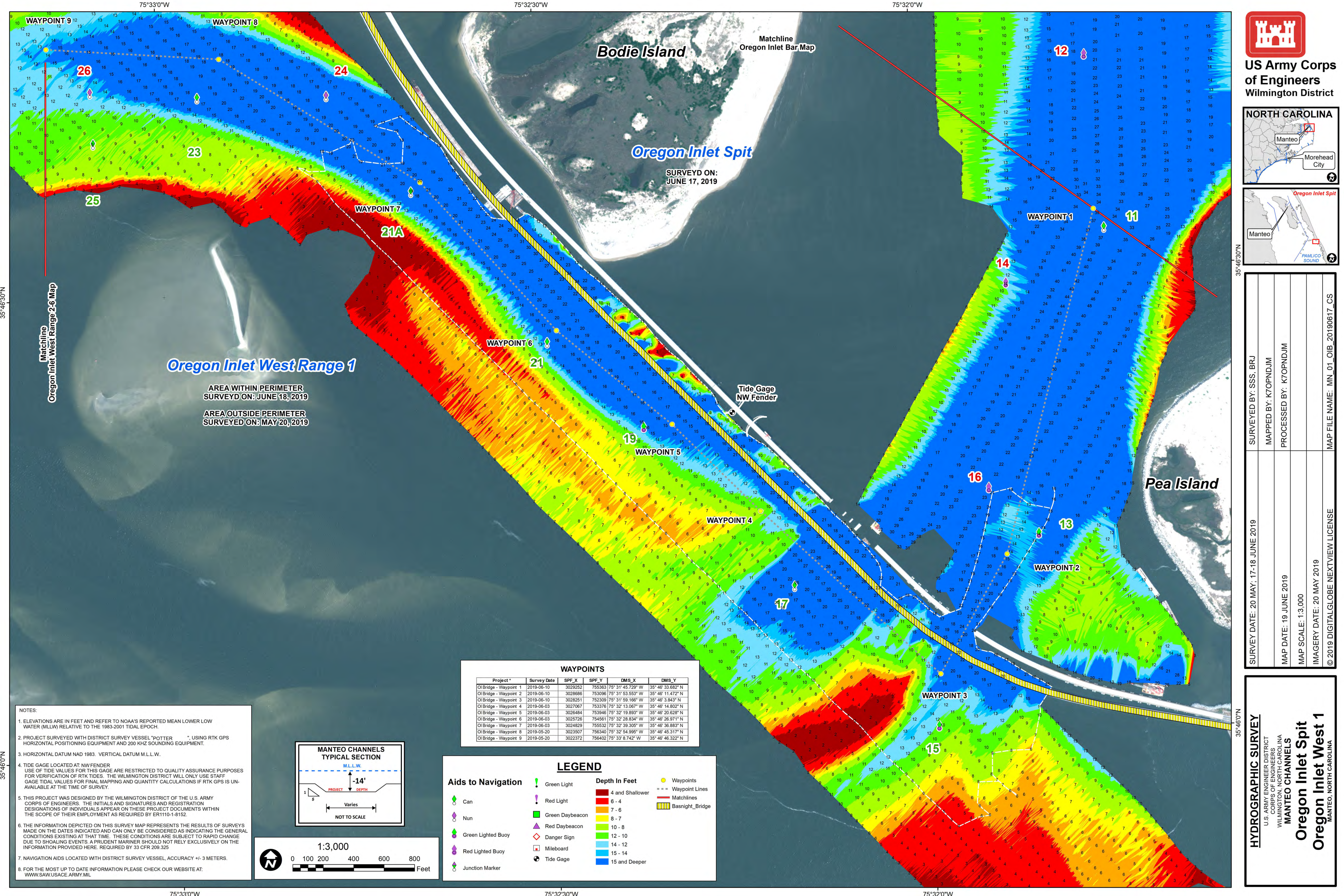
12 - 10


14 - 12

15 - 14

15 and Deeper

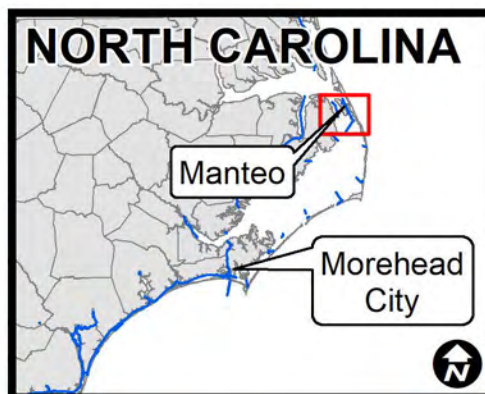






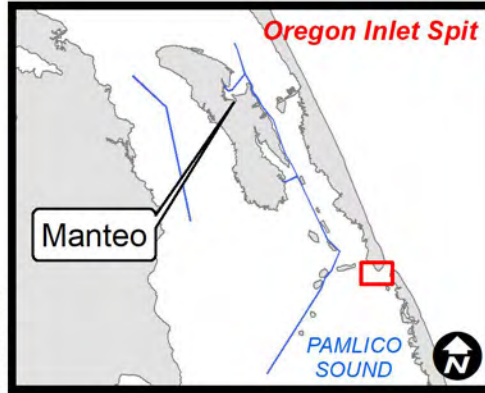
**US Army Corps  
of Engineers**  
Wilmington District

**NORTH CAROLINA**



Manteo  
Morehead City

**Oregon Inlet Spit**

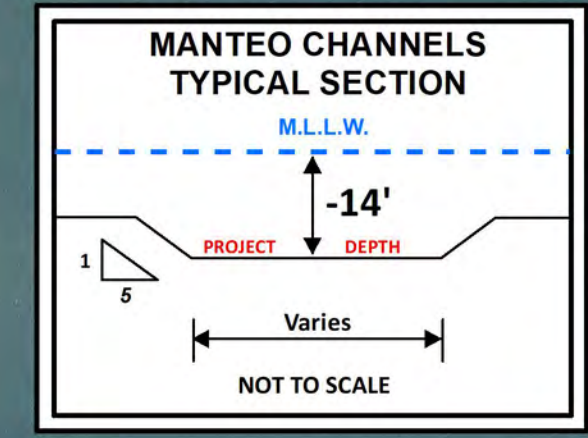


Manteo  
Pamlico Sound

SURVEYED BY: SSS, BRJ	SURVEY DATE: 20 MAY; 17-18 JUNE 2019
MAPPED BY: KTOPNDJM	
PROCESSED BY: KTOPNDJM	
MAP FILE NAME: MN_01_OIB_20190617_CS	

NOTES:

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WAYPOINTS					
Project *	Survey Date	SPF_X	SPF_Y	DMS_X	DMS_Y
OI Bridge - Waypoint 1	2019-06-10	3029252	755363	75° 31' 45.729" W	35° 46' 33.682" N
OI Bridge - Waypoint 2	2019-06-10	3028686	753096	75° 31' 53.553" W	35° 46' 11.472" N
OI Bridge - Waypoint 3	2019-06-10	3028251	752309	75° 31' 59.166" W	35° 46' 3.843" N
OI Bridge - Waypoint 4	2019-06-03	3027067	753376	75° 32' 13.067" W	35° 46' 14.802" N
OI Bridge - Waypoint 5	2019-06-03	3025494	753346	75° 32' 19.893" W	35° 46' 20.628" N
OI Bridge - Waypoint 6	2019-06-03	3025726	754561	75° 32' 28.834" W	35° 46' 26.971" N
OI Bridge - Waypoint 7	2019-06-03	3024829	755532	75° 32' 39.305" W	35° 46' 36.883" N
OI Bridge - Waypoint 8	2019-05-20	3023507	756340	75° 32' 54.995" W	35° 46' 45.317" N
OI Bridge - Waypoint 9	2019-05-20	3022372	756402	75° 33' 8.742" W	35° 46' 46.322" N

**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**

**Matchlines**

**Basnight\_Bridge**

**HYDROGRAPHIC SURVEY**

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

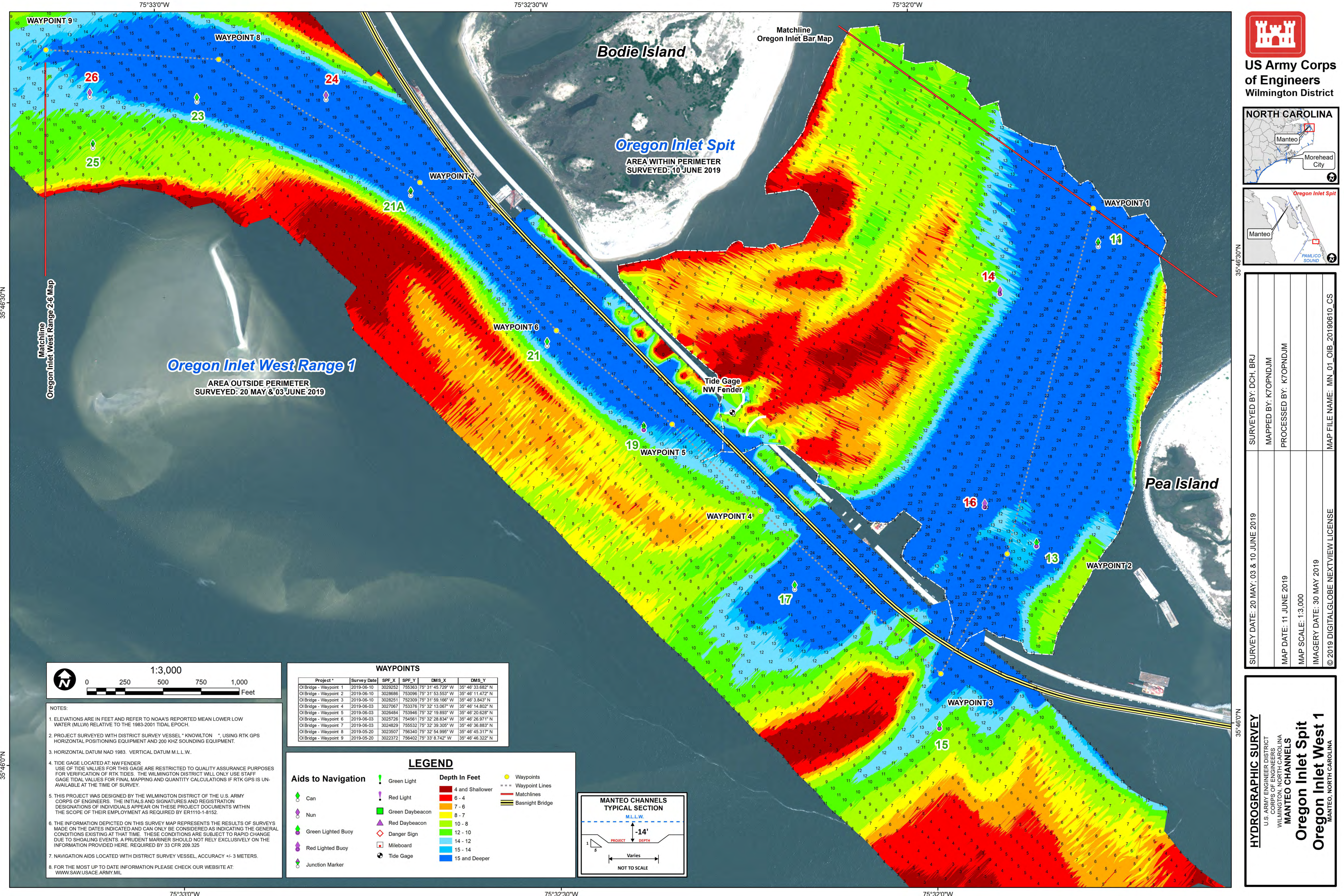
**MANTEO CHANNELS**


**Oregon Inlet Spit**

**Oregon Inlet West 1**

MANTEO, NORTH CAROLINA

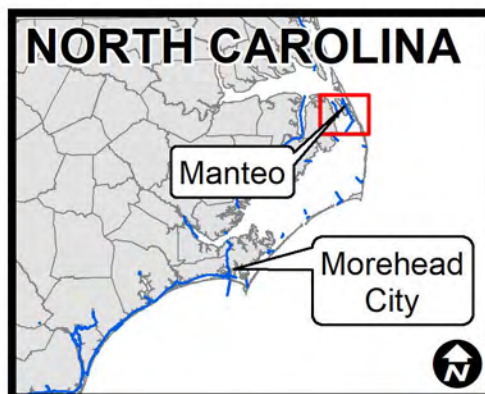






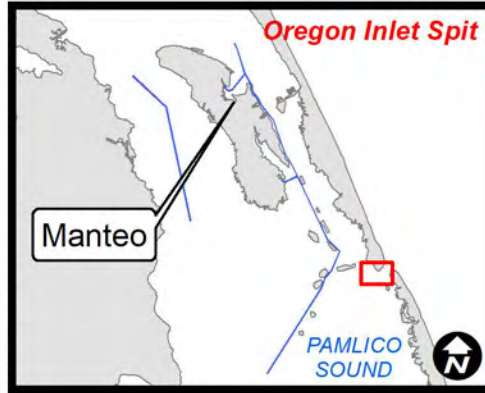
**US Army Corps  
of Engineers**  
Wilmington District

**NORTH CAROLINA**



Manteo  
Morehead City

**Oregon Inlet Spit**



Manteo  
PAMLICO SOUND

SURVEYED BY: DCH, BRJ	SURVEY DATE: 20 MAY; 03 & 10 JUNE 2019
MAPPED BY: KTOPNDJM	MAP DATE: 11 JUNE 2019
PROCESSED BY: KTOPNDJM	MAP SCALE: 1:3,000
	IMAGERY DATE: 30 MAY 2019
	© 2019 DIGITALGLOBE NEXTVIEW LICENSE
	MAP FILE NAME: MN_01_OIB_20190610_CS

**HYDROGRAPHIC SURVEY**

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

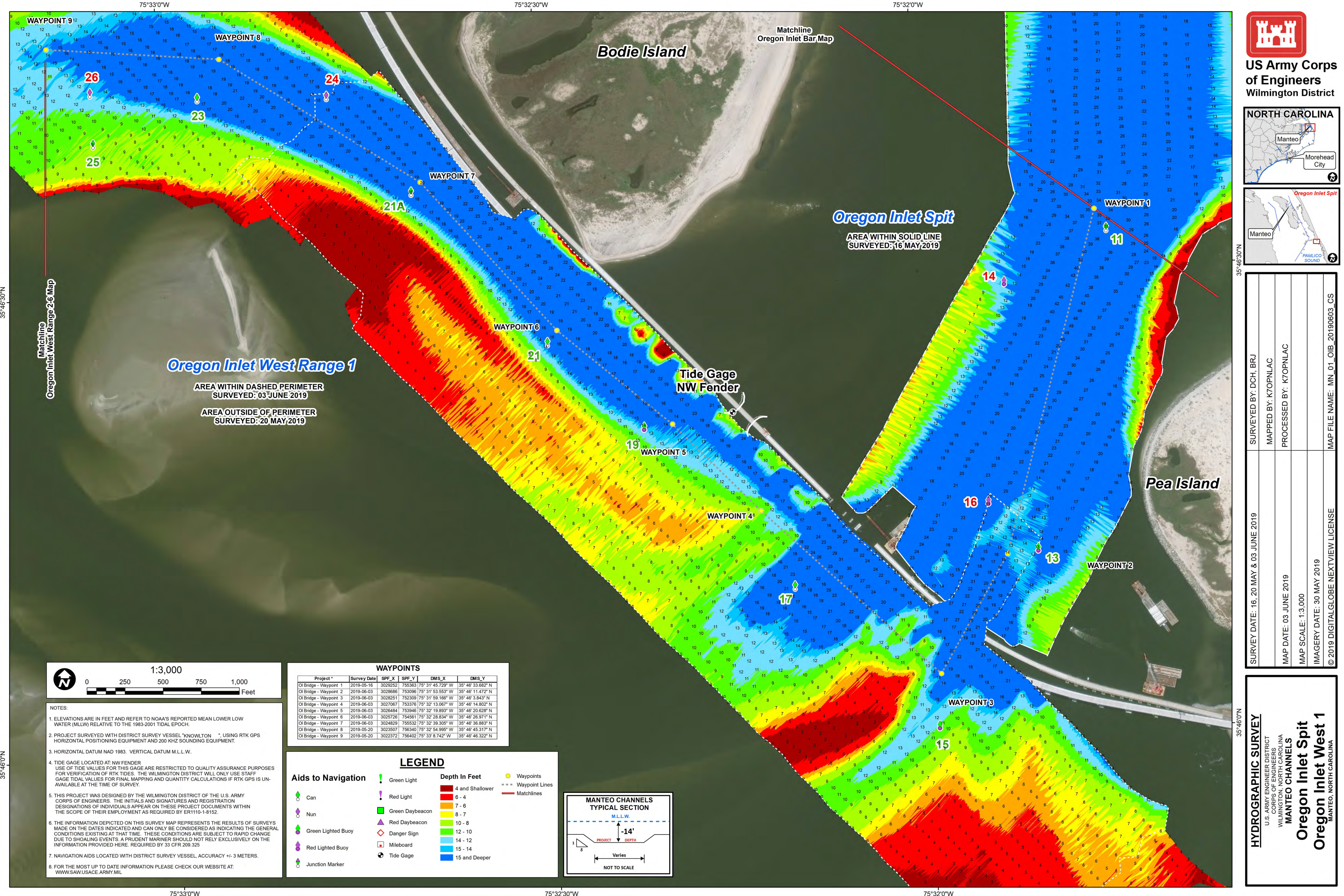
**MANTEO CHANNELS**

**Oregon Inlet Spit**

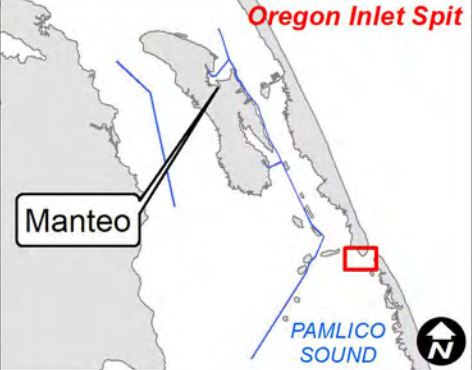
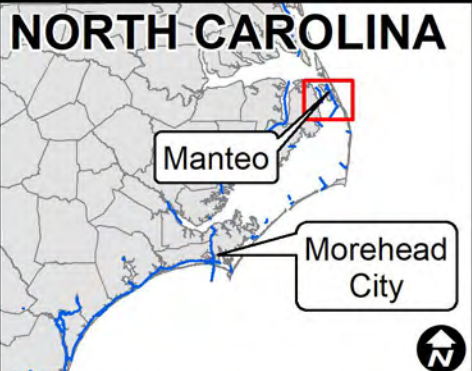
**Oregon Inlet West 1**

MANTEO, NORTH CAROLINA





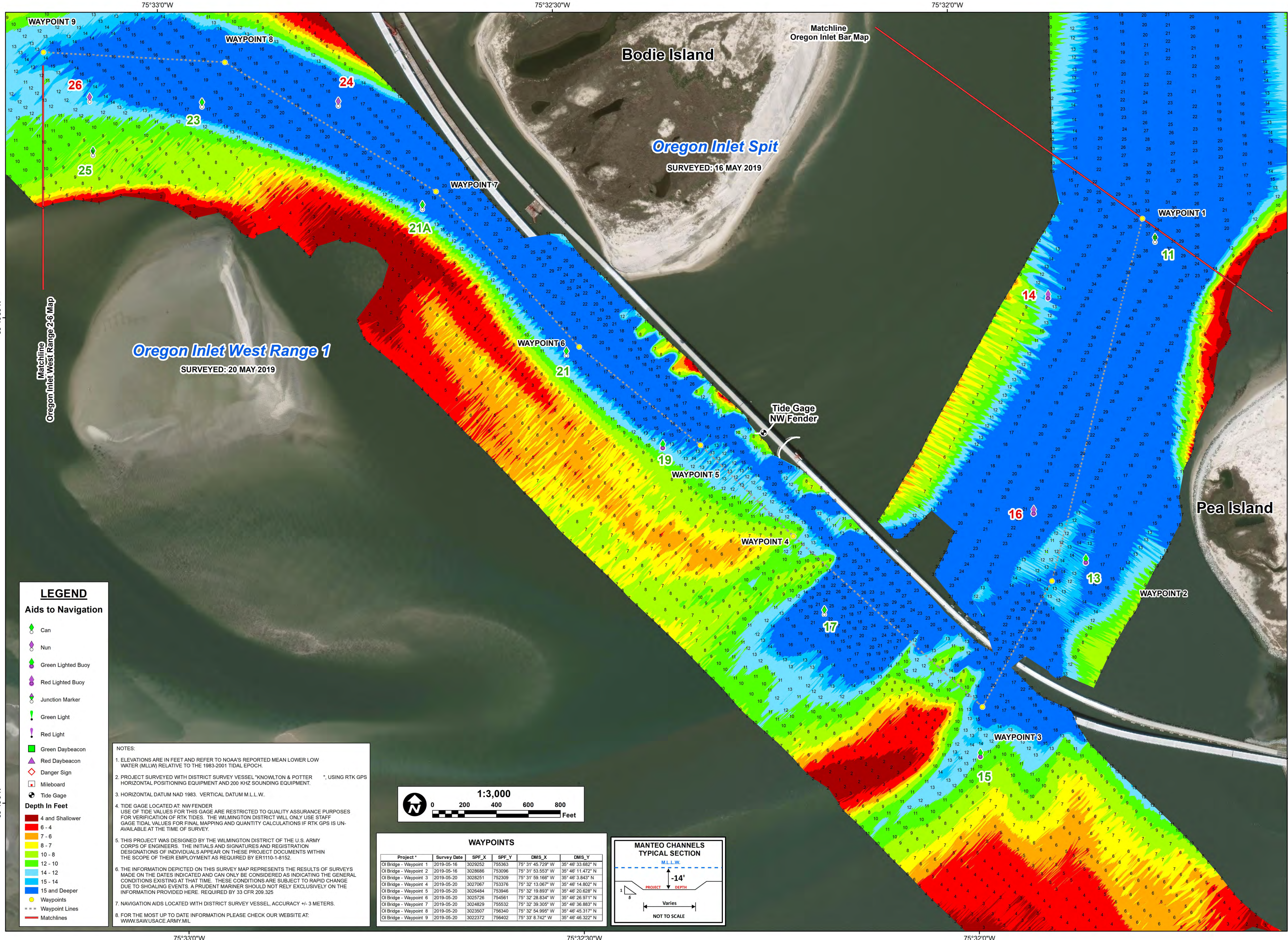
US Army Corps  
of Engineers  
Wilmington District



SURVEYED BY: DCH, BRJ	SURVEY DATE: 16, 20 MAY & 03 JUNE 2019
MAPPED BY: KTOPNLAC	MAP DATE: 03 JUNE 2019
PROCESSED BY: KTOPNLAC	MAP SCALE: 1:3,000
	IMAGERY DATE: 30 MAY 2019
	© 2019 DIGITALGLOBE NEXTVIEW LICENSE
	MAP FILE NAME: MN_01_OIB_20190603_CS

**HYDROGRAPHIC SURVEY**  
U.S. ARMY ENGINEER DISTRICT  
CORPS OF ENGINEERS  
WILMINGTON, NORTH CAROLINA  
**MANTEO CHANNELS**  
**Oregon Inlet Spit**  
**Oregon Inlet West 1**  
MANTEO, NORTH CAROLINA





**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**

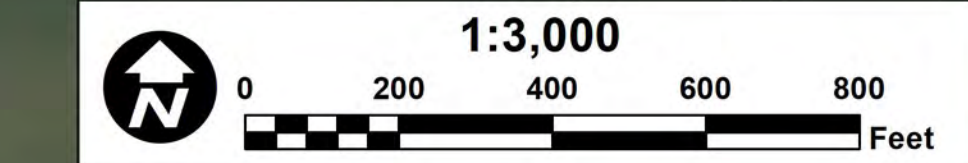
- 4 and Shallower
- 6 - 4
- 7 - 6
- 8 - 7
- 10 - 8
- 12 - 10
- 14 - 12
- 15 - 14
- 15 and Deeper

**Waypoints**

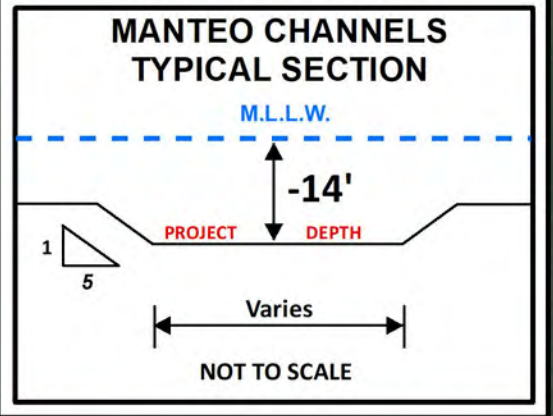
- Waypoint Lines
- Matchlines

NOTES:

- ELEVATIONS ARE IN FEET AND REFER TO NOAA'S REPORTED MEAN LOWER LOW WATER (MLLW) RELATIVE TO THE 1983-2001 TIDAL EPOCH.
- PROJECT SURVEYED WITH DISTRICT SURVEY VESSEL "KNOWLTON & POTTER", 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: NW FENDER  
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.
- 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](http://WWW.SAW.USACE.ARMY.MIL)



WAYPOINTS					
Project *	Survey Date	SPF_X	SPF_Y	DMS_X	DMS_Y
Oil Bridge - Waypoint 1	2019-05-16	3029252	755363	75° 31' 45.729" W	35° 46' 33.682" N
Oil Bridge - Waypoint 2	2019-05-16	3028686	753096	75° 31' 53.553" W	35° 46' 11.472" N
Oil Bridge - Waypoint 3	2019-05-20	3028251	752309	75° 31' 59.166" W	35° 46' 3.843" N
Oil Bridge - Waypoint 4	2019-05-20	3027067	753376	75° 32' 13.067" W	35° 46' 14.802" N
Oil Bridge - Waypoint 5	2019-05-20	3026484	753946	75° 32' 19.893" W	35° 46' 20.628" N
Oil Bridge - Waypoint 6	2019-05-20	3025726	754561	75° 32' 28.834" W	35° 46' 26.971" N
Oil Bridge - Waypoint 7	2019-05-20	3024829	755532	75° 32' 39.305" W	35° 46' 36.883" N
Oil Bridge - Waypoint 8	2019-05-20	3023507	756340	75° 32' 54.995" W	35° 46' 45.317" N
Oil Bridge - Waypoint 9	2019-05-20	3022372	756402	75° 33' 8.742" W	35° 46' 46.322" N



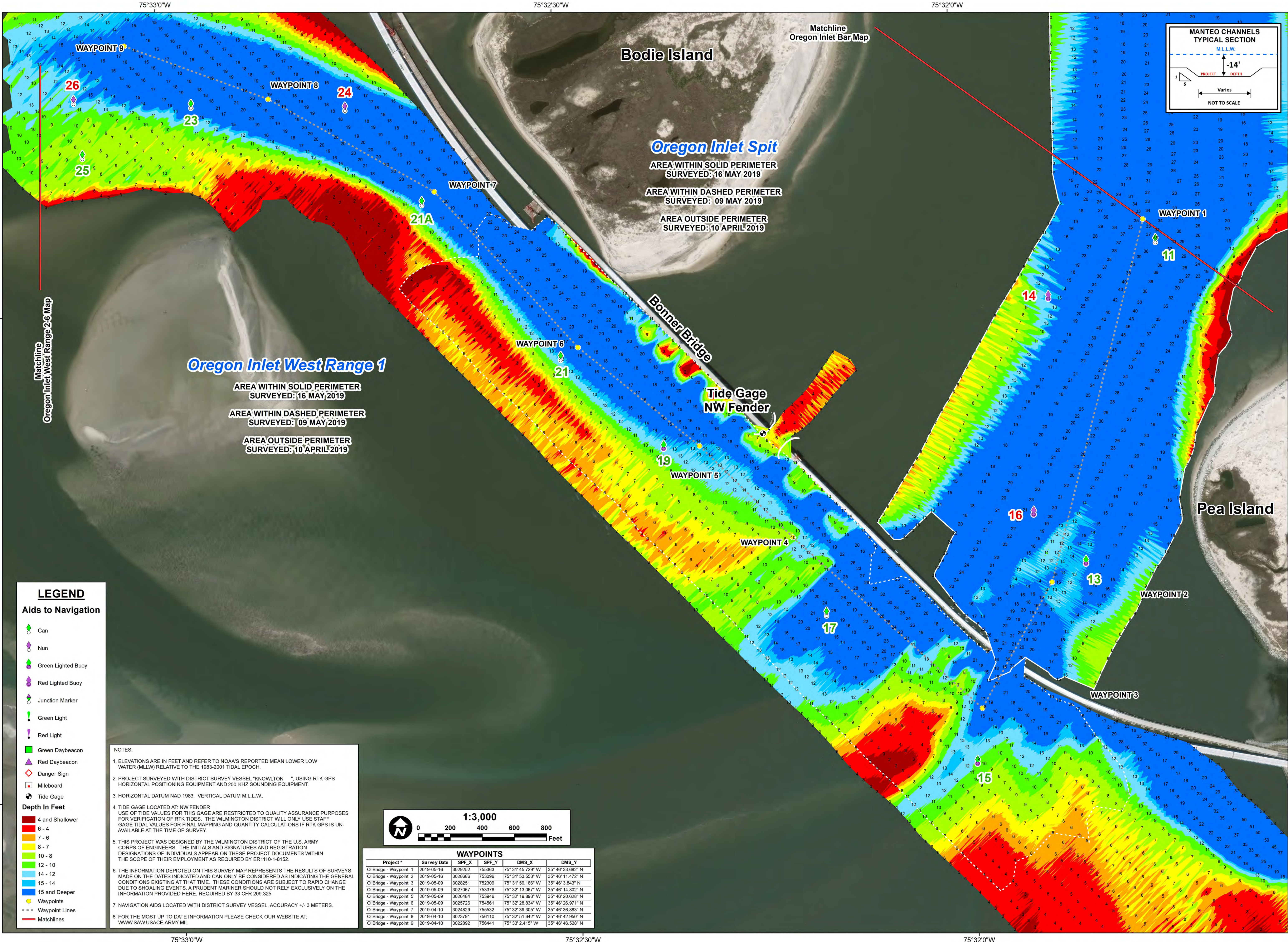
**US Army Corps of Engineers**  
Wilmington District

**NORTH CAROLINA**

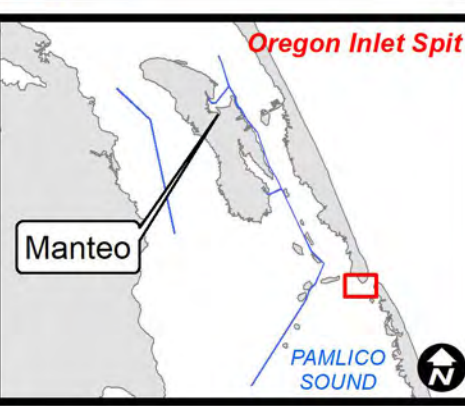
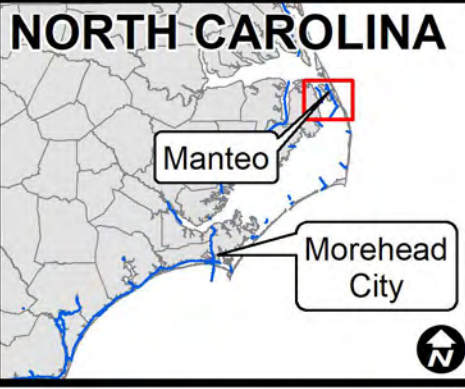
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MAPPED BY: KTOPNDJM	MAP DATE: 21 MAY 2019
PROCESSED BY: KTOPNLAC, KTOPNDJM	MAP SCALE: 1:3,000
	IMAGERY DATE: 16 APRIL 2019
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	MAP FILE NAME: MN_01_OIB_20190520_CS

**HYDROGRAPHIC SURVEY**  
U.S. ARMY ENGINEER DISTRICT  
CORPS OF ENGINEERS  
WILMINGTON, NORTH CAROLINA  
**MANTEO CHANNELS**  
**Oregon Inlet Spit**  
**Oregon Inlet West 1**  
MANTEO, NORTH CAROLINA





US Army Corps  
of Engineers  
Wilmington District



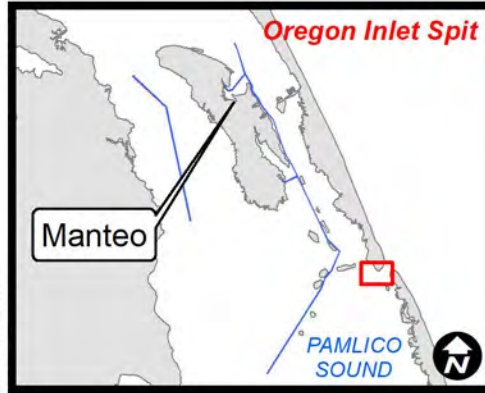
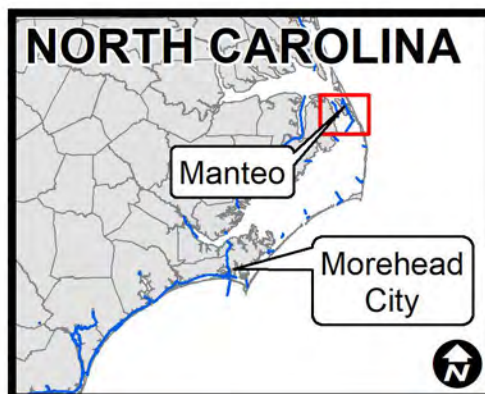
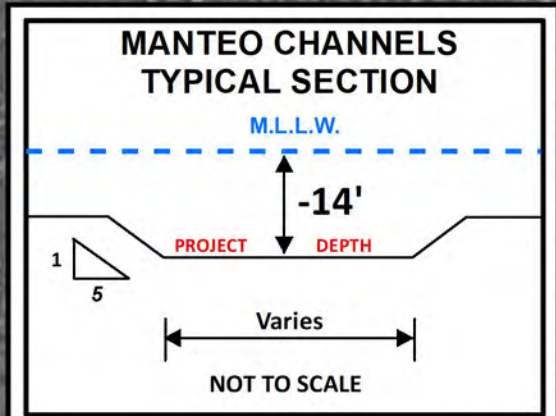
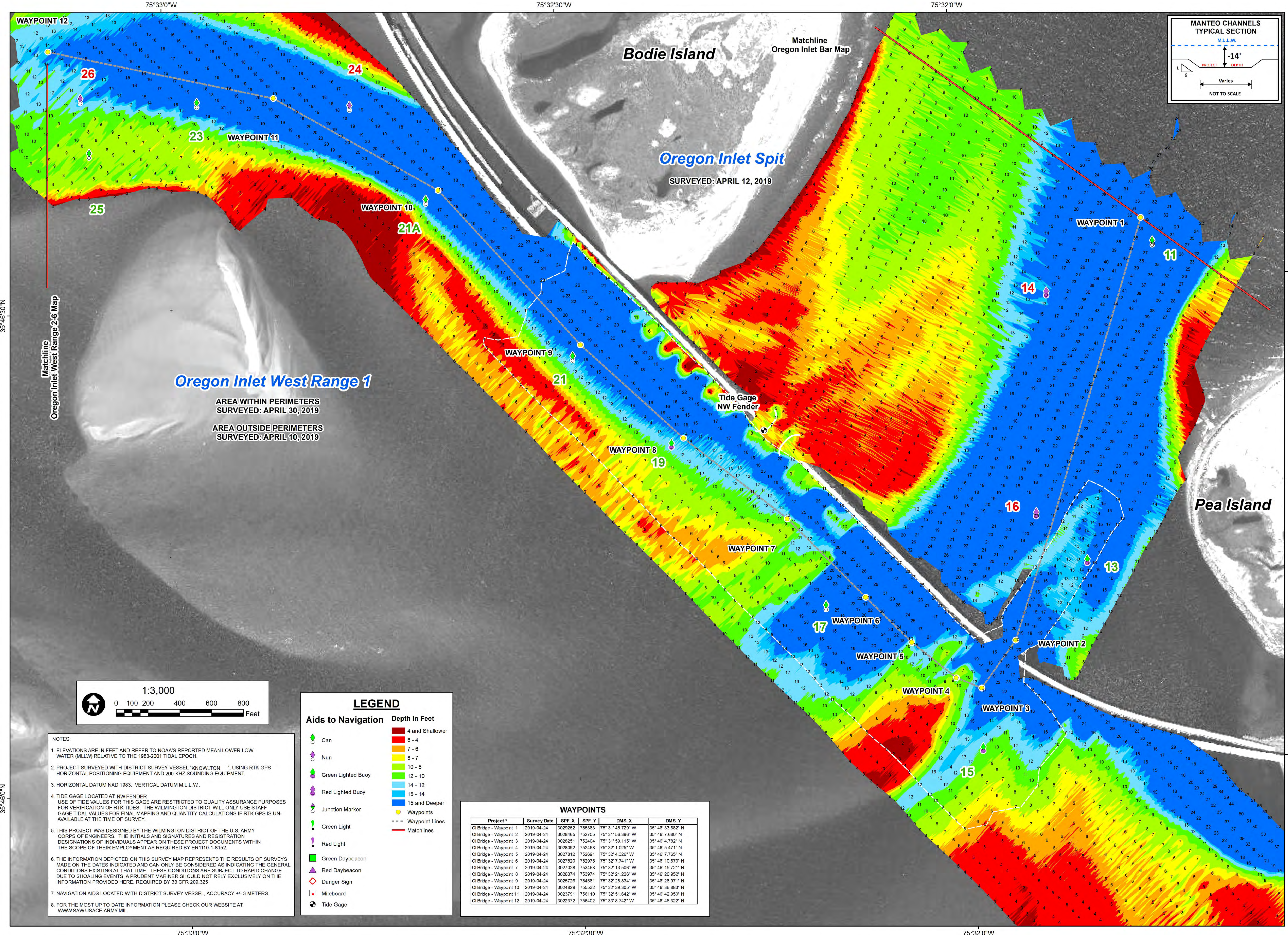
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MAP DATE: 17 MAY 2019	
MAP SCALE: 1:3,000	
IMAGERY DATE: 16 APRIL 2019	
MAP FILE NAME: MN_30_OIE_20190516_CS_BRIDGE	

**HYDROGRAPHIC SURVEY**  
U.S. ARMY ENGINEER DISTRICT  
CORPS OF ENGINEERS  
WILMINGTON, NORTH CAROLINA  
**MANTEO CHANNELS**  
**Oregon Inlet Spit**  
**Oregon Inlet West 1**  
MANTEO, NORTH CAROLINA









SURVEYED BY: BRJ, DCH, SSS	SURVEY DATE: 10, 12, & 30 APRIL 2019
MAPPED BY: KTOPNDJM	MAP DATE: 01 MAY 2019
PROCESSED BY: KTOPNDJM	MAP SCALE: 1:3,000
	IMAGERY DATE: 10 APRIL 2019
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NOTES:

- ELEVATIONS ARE IN FEET AND REFER TO NOAA'S REPORTED MEAN LOWER LOW WATER (MLLW) RELATIVE TO THE 1983-2001 TIDAL EPOCH.
- PROJECT SURVEYED WITH DISTRICT SURVEY VESSEL "KNOWLTON", 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 NW FENDER. 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 WARNER 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](http://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

- Waypoint Lines
- Matchlines

WAYPOINTS					
Project *	Survey Date	SPF_X	SPF_Y	DMS_X	DMS_Y
OI Bridge - Waypoint 1	2019-04-24	3029252	755363	75° 31' 45.729" W	35° 46' 33.682" N
OI Bridge - Waypoint 2	2019-04-24	3028465	752705	75° 31' 56.396" W	35° 46' 7.680" N
OI Bridge - Waypoint 3	2019-04-24	3028251	752404	75° 31' 59.115" W	35° 46' 4.782" N
OI Bridge - Waypoint 4	2019-04-24	3028092	752468	75° 32' 1.025" W	35° 46' 5.471" N
OI Bridge - Waypoint 5	2019-04-24	3027812	752691	75° 32' 4.326" W	35° 46' 7.765" N
OI Bridge - Waypoint 6	2019-04-24	3027520	752975	75° 32' 7.741" W	35° 46' 10.673" N
OI Bridge - Waypoint 7	2019-04-24	3027028	753468	75° 32' 13.506" W	35° 46' 15.721" N
OI Bridge - Waypoint 8	2019-04-24	3026374	753974	75° 32' 21.226" W	35° 46' 20.952" N
OI Bridge - Waypoint 9	2019-04-24	3025726	754561	75° 32' 28.834" W	35° 46' 26.971" N
OI Bridge - Waypoint 10	2019-04-24	3024829	755532	75° 32' 39.305" W	35° 46' 36.883" N
OI Bridge - Waypoint 11	2019-04-24	3023791	756110	75° 32' 51.642" W	35° 46' 42.950" N
OI Bridge - Waypoint 12	2019-04-24	3022372	756402	75° 33' 8.742" W	35° 46' 46.322" N

**HYDROGRAPHIC SURVEY**

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

**MANTEO CHANNELS**

**Oregon Inlet Spit**

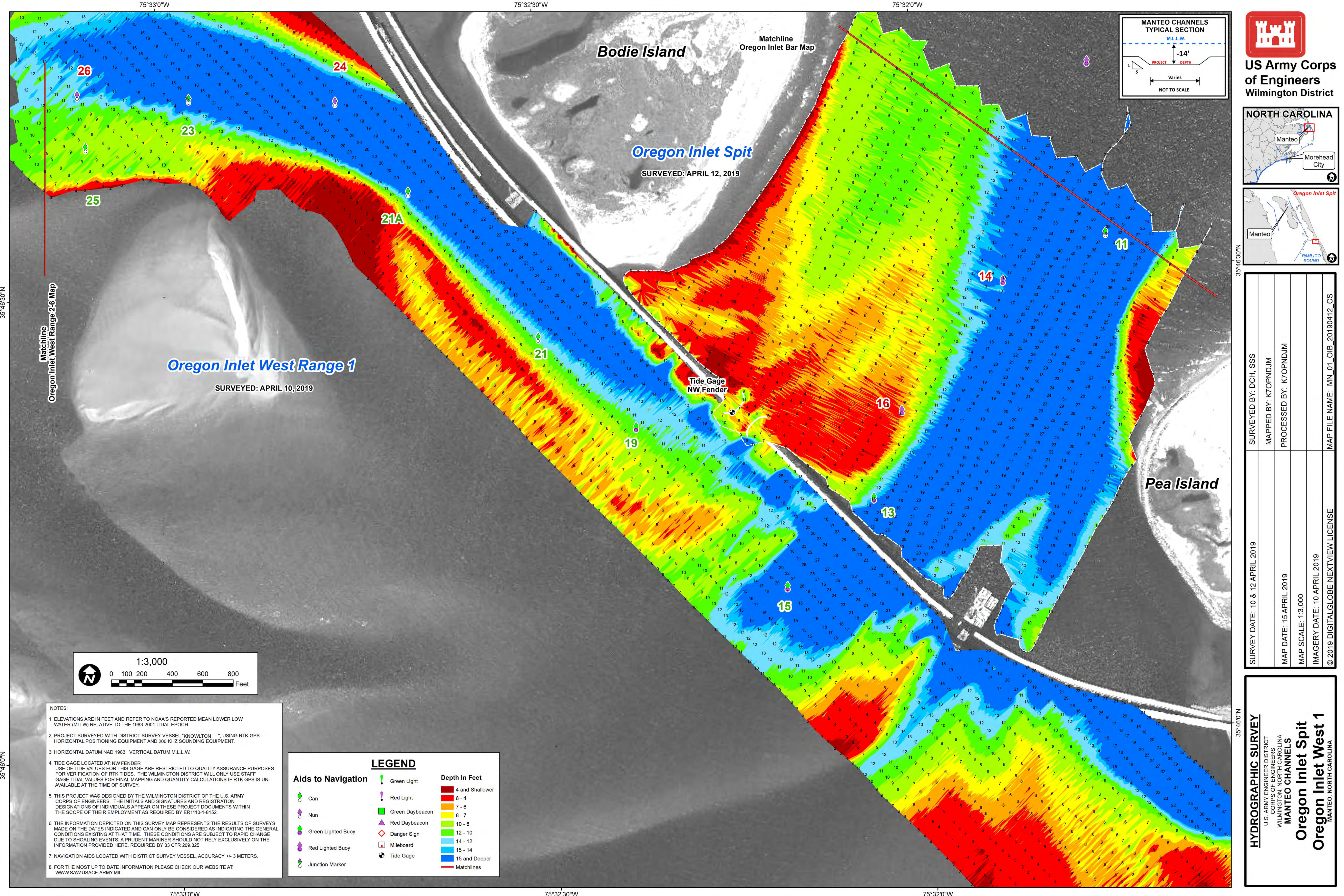
**Oregon Inlet West 1**

MANTEO, NORTH CAROLINA



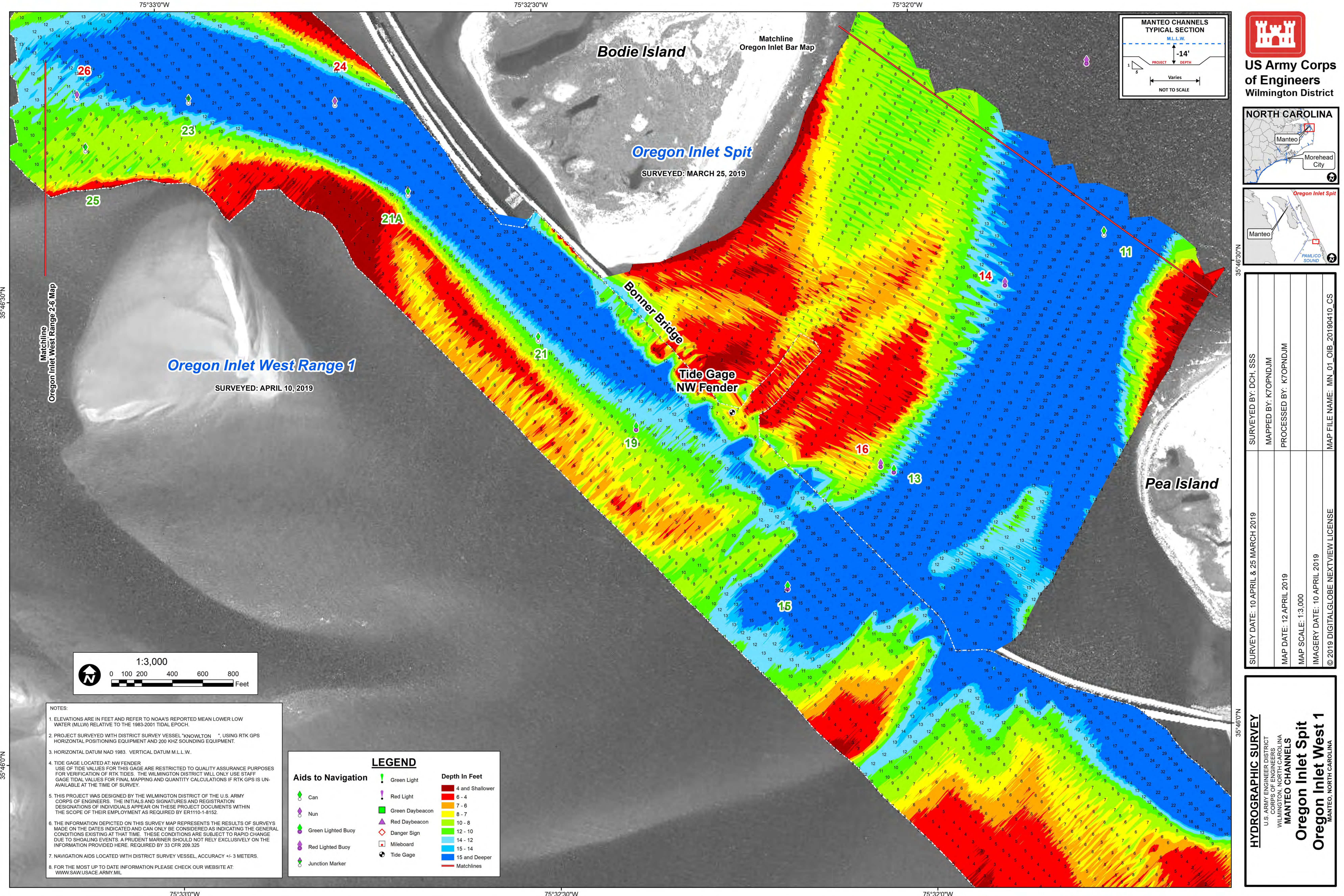






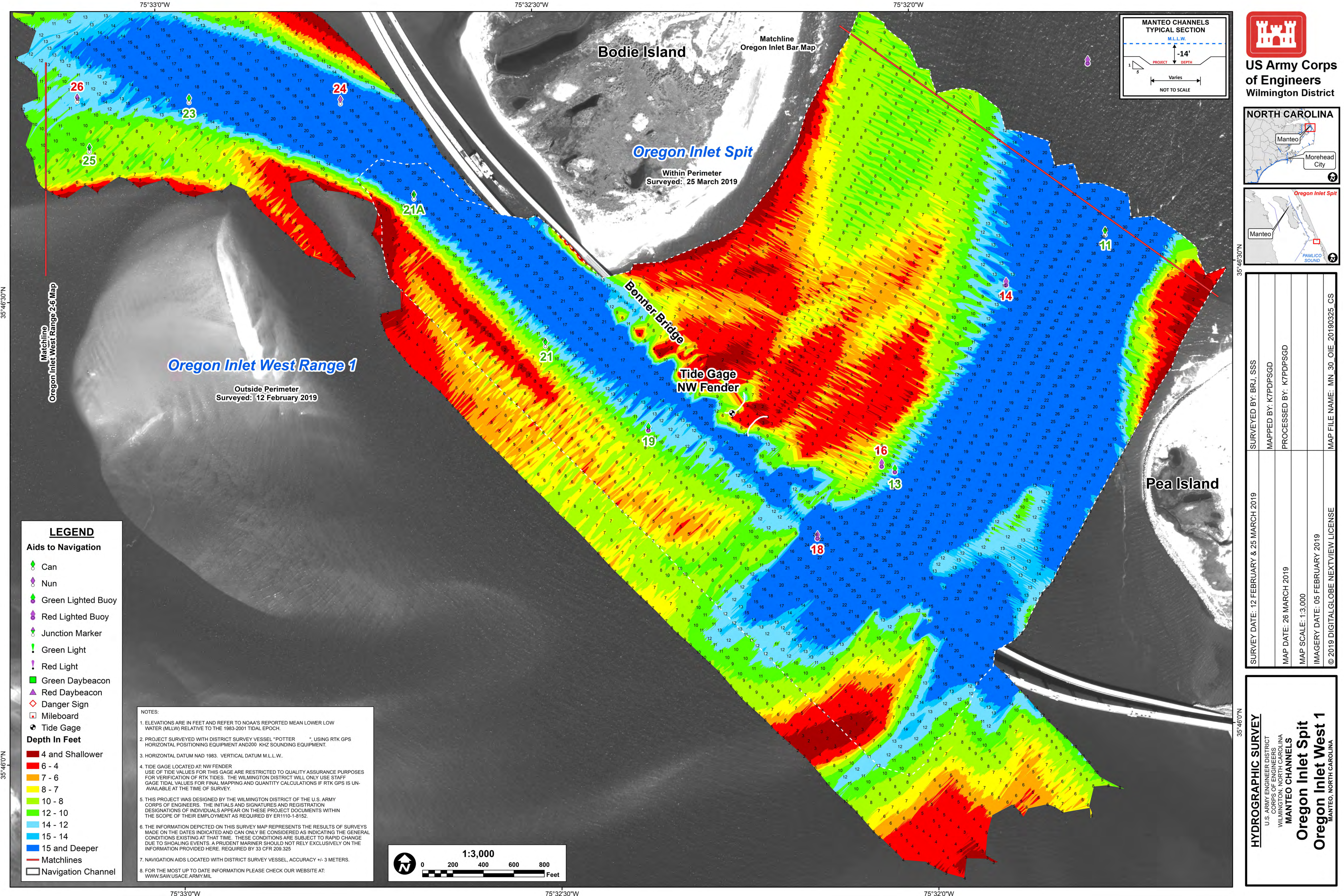
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IMAGERY DATE: 10 APRIL 2019	
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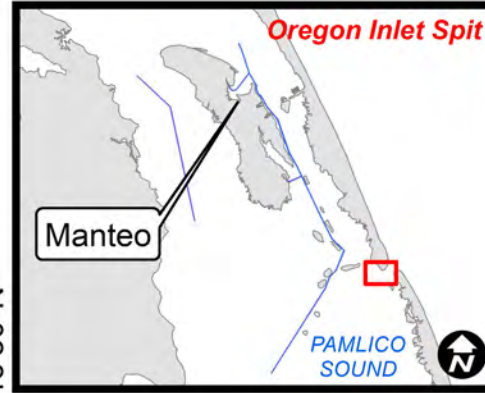
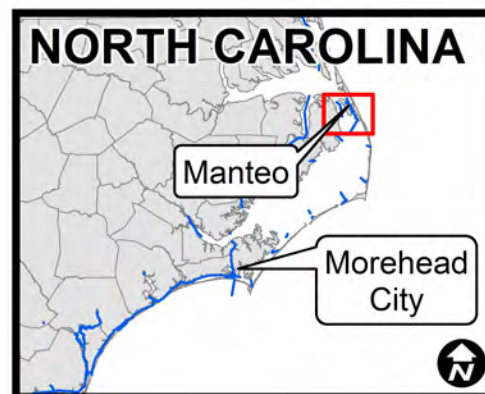
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MAP SCALE: 1:3,000	PROCESSED BY: KTOPNDJM
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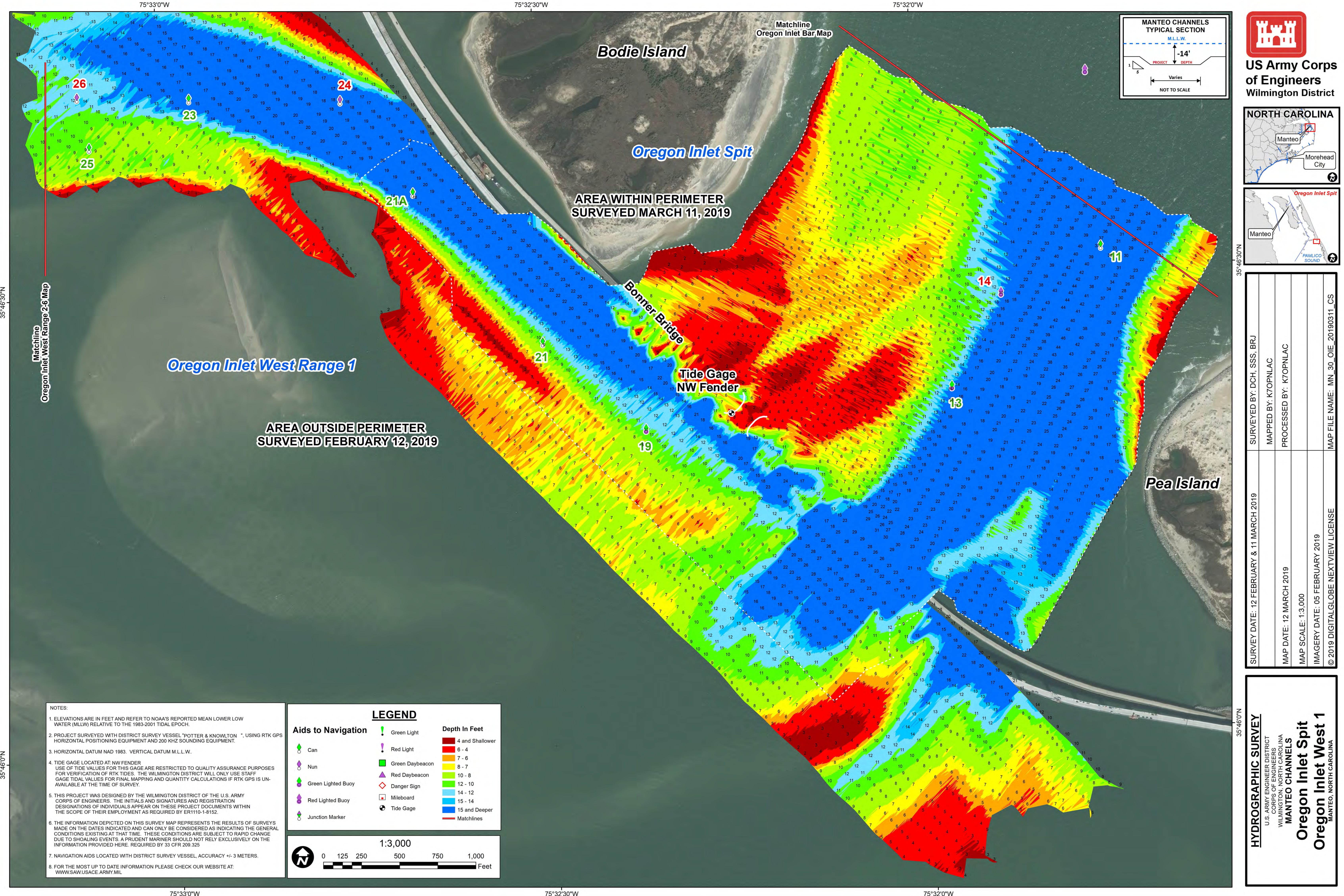
**US Army Corps  
of Engineers**  
Wilmington District




SURVEYED BY: BRJ, SSS	
MAPPED BY: K7PDPSGD	
PROCESSED BY: K7PDPSGD	
MAP DATE: 26 MARCH 2019	
MAP SCALE: 1:3,000	
IMAGERY DATE: 05 FEBRUARY 2019	
© 2019 DIGITALGLOBE NEXTVIEW LICENSE	
MAP FILE NAME: MN_30_OIE_20190325_CS	

**HYDROGRAPHIC SURVEY**  
U.S. ARMY ENGINEER DISTRICT  
CORPS OF ENGINEERS  
WILMINGTON, NORTH CAROLINA  
**MANTEO CHANNELS**  
**Oregon Inlet Spit**  
**Oregon Inlet West 1**  
MANTEO, NORTH CAROLINA








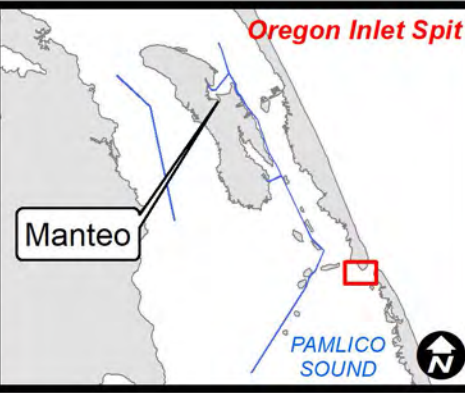
**US Army Corps  
of Engineers**  
Wilmington District

**NORTH CAROLINA**



Manteo  
Morehead City

**Oregon Inlet Spit**



Manteo  
PAMLICO SOUND

SURVEYED BY: DCH, SSS, BRJ	SURVEY DATE: 12 FEBRUARY & 11 MARCH 2019
MAPPED BY: KTOPNLAC	MAP DATE: 12 MARCH 2019
PROCESSED BY: KTOPNLAC	MAP SCALE: 1:3,000
	IMAGERY DATE: 05 FEBRUARY 2019
MAP FILE NAME: MN_30_OIE_20190311_CS	© 2019 DIGITALGLOBE NEXTVIEW LICENSE

**HYDROGRAPHIC SURVEY**

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

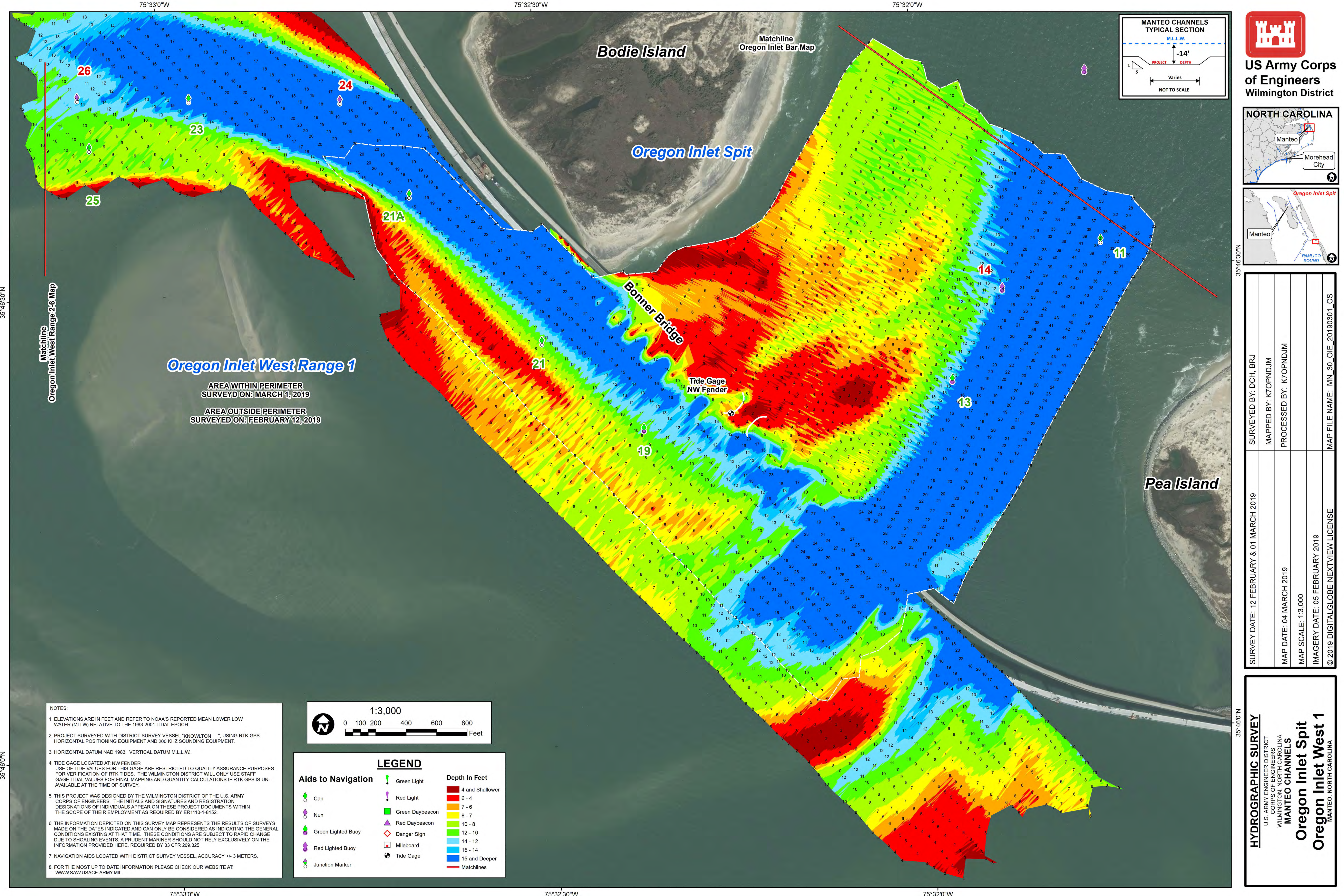
**MANTEO CHANNELS**

**Oregon Inlet Spit**

**Oregon Inlet West 1**

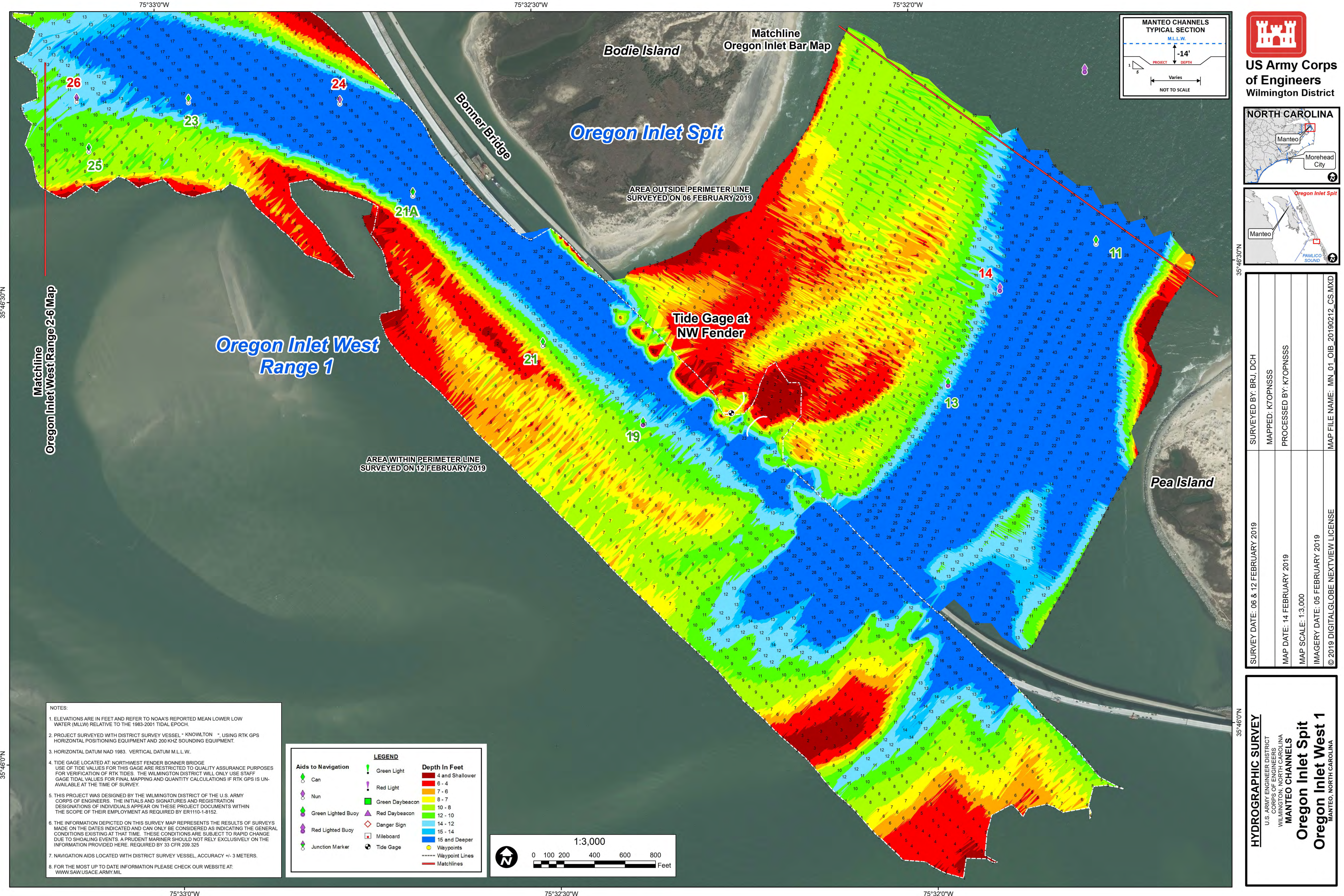
MANTEO, NORTH CAROLINA





SURVEY DATE: 12 FEBRUARY & 01 MARCH 2019	SURVEYED BY: DCH, BRJ
MAP DATE: 04 MARCH 2019	MAPPED BY: KTOPNDJM
MAP SCALE: 1:3,000	PROCESSED BY: KTOPNDJM
IMAGERY DATE: 05 FEBRUARY 2019	
© 2019 DIGITALGLOBE NEXTVIEW LICENSE	MAP FILE NAME: MN_30_OIE_20190301_CS





NOTES:

1. ELEVATIONS ARE IN FEET 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 \* KNOWLTON \*, 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: NORTHWEST FENDER BONNER BRIDGE. 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.

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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.SAV.USACE.ARMY.MIL](http://WWW.SAV.USACE.ARMY.MIL)

**Aids to Navigation**

- Can
- Nun
- Green Lighted Buoy
- Red Lighted Buoy
- Junction Marker

**LEGEND**

- Green Light
- Red Light
- Green Daybeacon
- Red Daybeacon
- Danger Sign
- Mileboard
- Tide Gage

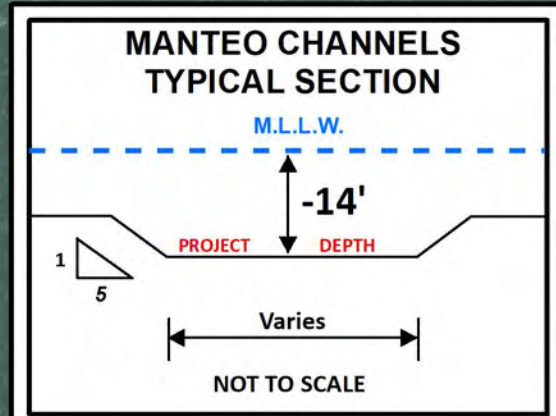
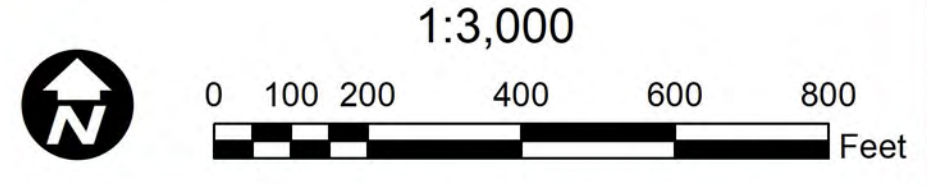
**Depth In Feet**

- 4 and Shallower
- 6 - 4
- 7 - 6
- 8 - 7
- 10 - 8
- 12 - 10
- 14 - 12
- 15 - 14
- 15 and Deeper

Waypoints

Waypoint Lines

Matchlines



**US Army Corps of Engineers**  
Wilmington District

**NORTH CAROLINA**

**Oregon Inlet Spit**

SURVEY DATE: 06 & 12 FEBRUARY 2019	SURVEYED BY: BRJ, DCH
MAP DATE: 14 FEBRUARY 2019	MAPPED: K7OPNSSS
MAP SCALE: 1:3,000	PROCESSED BY: K7OPNSSS
IMAGERY DATE: 05 FEBRUARY 2019	
© 2019 DIGITALGLOBE NEXTVIEW LICENSE	MAP FILE NAME: MN_01_OIB_20190212_CS.MXD

**HYDROGRAPHIC SURVEY**

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

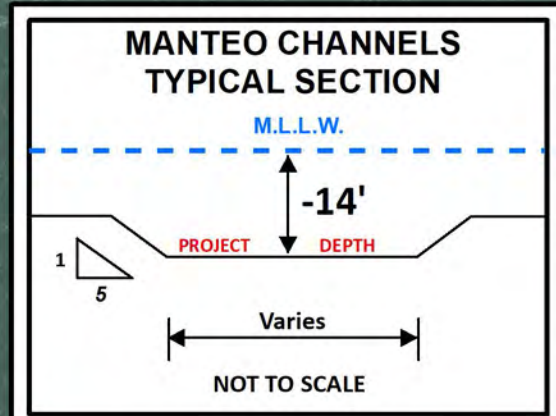
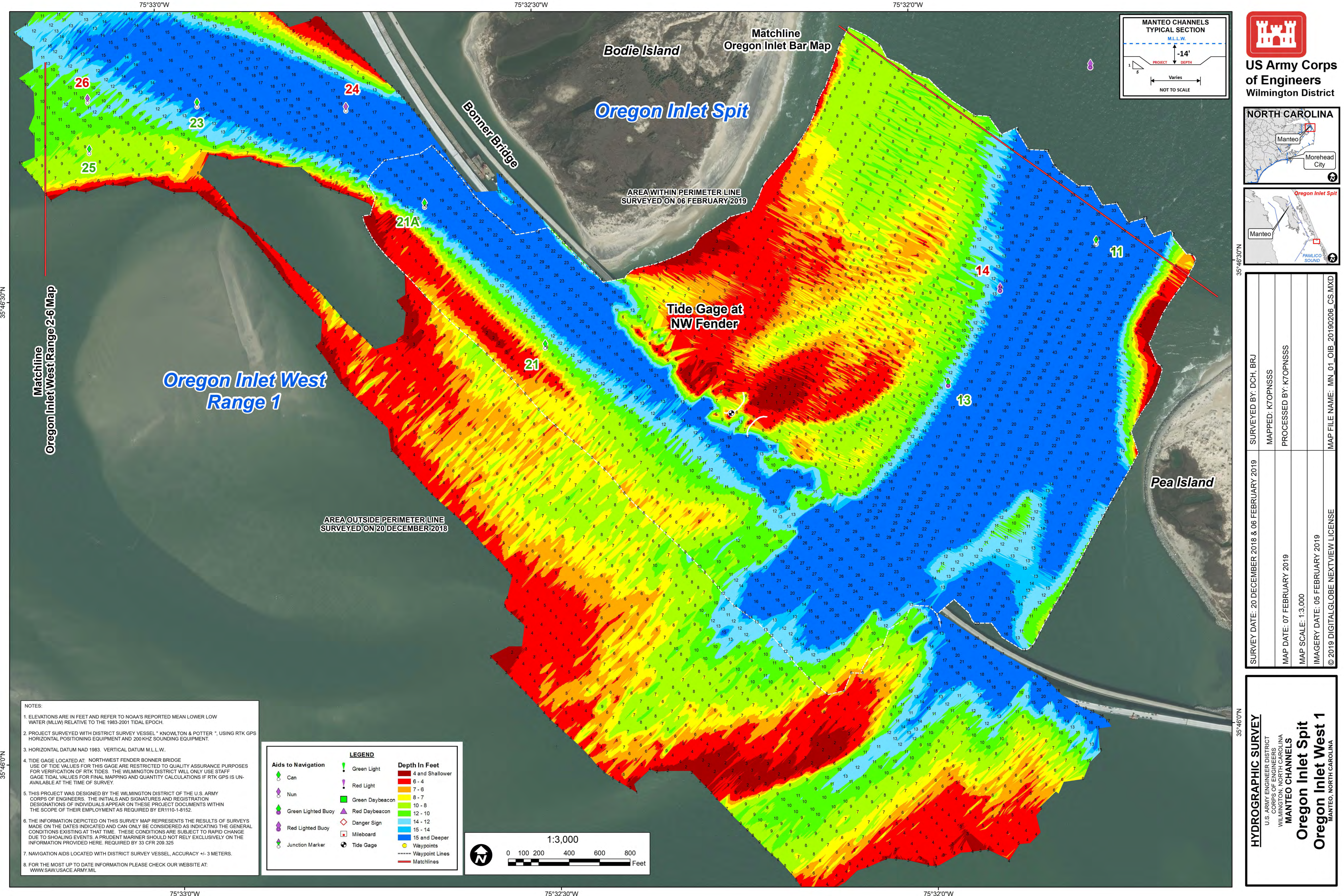
**MANTEO CHANNELS**

**Oregon Inlet Spit**

**Oregon Inlet West 1**

MANTEO, NORTH CAROLINA





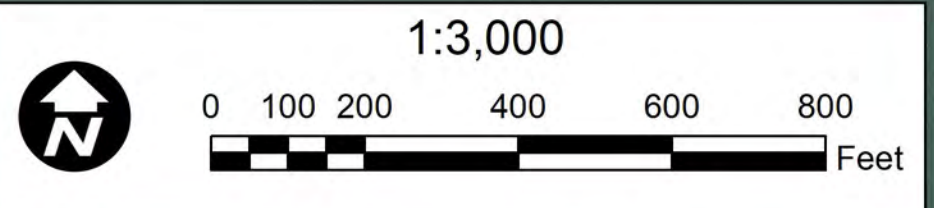
SURVEY DATE: 20 DECEMBER 2018 & 06 FEBRUARY 2019	SURVEYED BY: DCH, BRJ
MAP DATE: 07 FEBRUARY 2019	MAPPED: K7OPNSSS
MAP SCALE: 1:3,000	PROCESSED BY: K7OPNSSS
IMAGERY DATE: 05 FEBRUARY 2019	
© 2019 DIGITALGLOBE NEXTVIEW LICENSE	MAP FILE NAME: MN_01_OIB_20190206_CS.MXD

NOTES:

- ELEVATIONS ARE IN FEET AND REFER TO NOAA'S REPORTED MEAN LOWER LOW WATER (MLLW) RELATIVE TO THE 1983-2001 TIDAL EPOCH.
- PROJECT SURVEYED WITH DISTRICT SURVEY VESSEL "KNOWLTON & POTTER", 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: NORTHWEST FENDER BONNER BRIDGE. 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.
- 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](http://WWW.SAW.USACE.ARMY.MIL)

**LEGEND**

<b>Aids to Navigation</b>	Green Light	<b>Depth In Feet</b>
Nun	Red Light	4 and Shallower
Green Lighted Buoy	Green Daybeacon	6 - 4
Red Lighted Buoy	Red Daybeacon	7 - 6
Junction Marker	Danger Sign	8 - 7
	Mileboard	10 - 8
	Tide Gage	12 - 10
		14 - 12
		15 - 14
		15 and Deeper
		Waypoint Lines
		Matchlines



**HYDROGRAPHIC SURVEY**

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

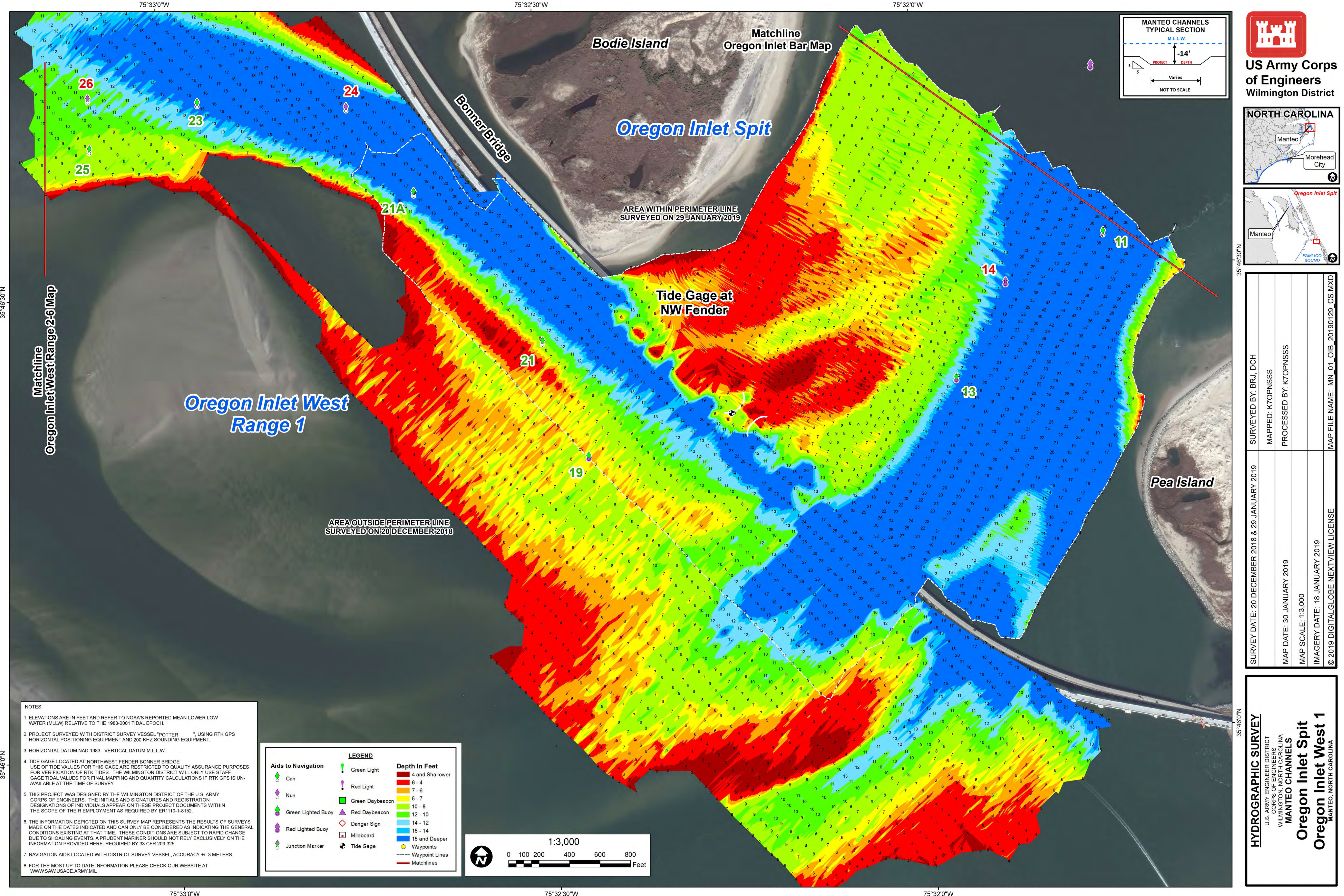
**MANTEO CHANNELS**

**Oregon Inlet Spit**

**Oregon Inlet West 1**

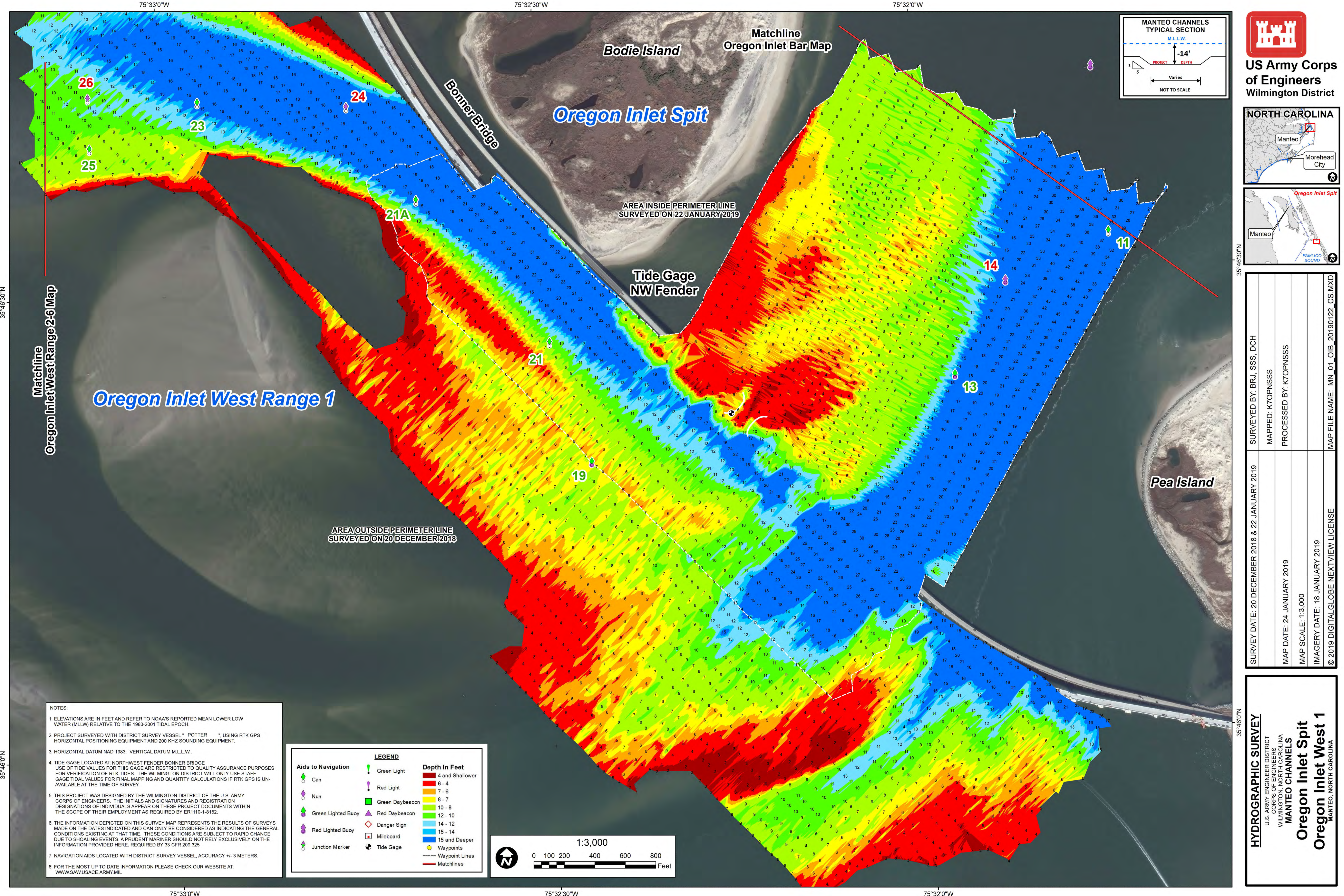
MANTEO, NORTH CAROLINA



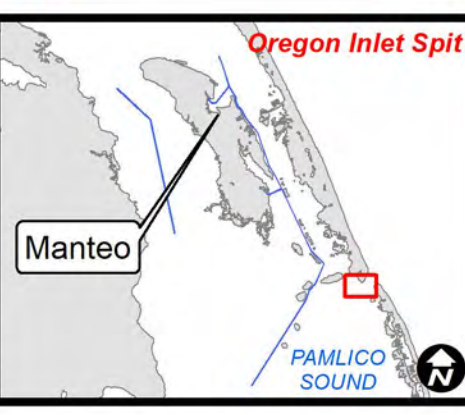
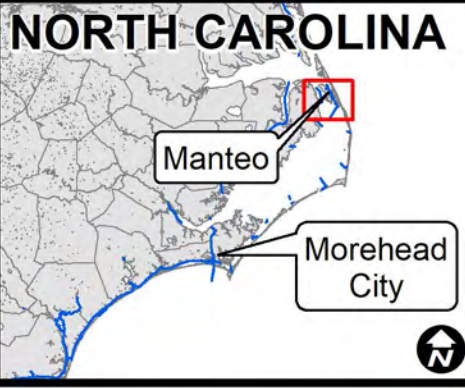


SURVEY DATE: 20 DECEMBER 2018 & 29 JANUARY 2019	SURVEYED BY: BRJ, DCH
MAP DATE: 30 JANUARY 2019	MAPPED: KTOPNSSS
MAP SCALE: 1:3,000	PROCESSED BY: KTOPNSSS
IMAGERY DATE: 18 JANUARY 2019	
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US Army Corps  
of Engineers  
Wilmington District



SURVEY DATE: 20 DECEMBER 2018 & 22 JANUARY 2019	SURVEYED BY: BRJ, SSS, DCH
MAP DATE: 24 JANUARY 2019	MAPPED: K7OPNSSS
MAP SCALE: 1:3,000	PROCESSED BY: K7OPNSSS
IMAGERY DATE: 18 JANUARY 2019	
© 2019 DIGITAL GLOBE NEXTVIEW LICENSE	MAP FILE NAME: MN_01_OIB_20190122_CS.MXD

**HYDROGRAPHIC SURVEY**  
U.S. ARMY ENGINEER DISTRICT  
CORPS OF ENGINEERS  
WILMINGTON, NORTH CAROLINA  
**MANTEO CHANNELS**  
**Oregon Inlet Spit**  
**Oregon Inlet West 1**  
MANTEO, NORTH CAROLINA

NOTES:

- ELEVATIONS ARE IN FEET AND REFER TO NOAA'S REPORTED MEAN LOWER LOW WATER (MLLW) RELATIVE TO THE 1983-2001 TIDAL EPOCH.
- PROJECT SURVEYED WITH DISTRICT SURVEY VESSEL "POTTER" USING RTK GPS HORIZONTAL POSITIONING EQUIPMENT AND 200 KHZ SOUNDING EQUIPMENT.
- HORIZONTAL DATUM NAD 1983. VERTICAL DATUM M.L.L.W..
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- 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
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- FOR THE MOST UP TO DATE INFORMATION PLEASE CHECK OUR WEBSITE AT: [WWW.SAW.USACE.ARMY.MIL](http://WWW.SAW.USACE.ARMY.MIL)

**Aids to Navigation**

- Can
- Nun
- Green Lighted Buoy
- Red Lighted Buoy
- Junction Marker

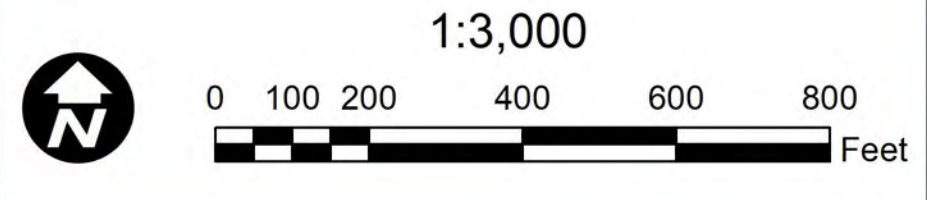
**LEGEND**

- Green Light
- Red Light
- Green Daybeacon
- Red Daybeacon
- Danger Sign
- Mileboard
- Tide Gage

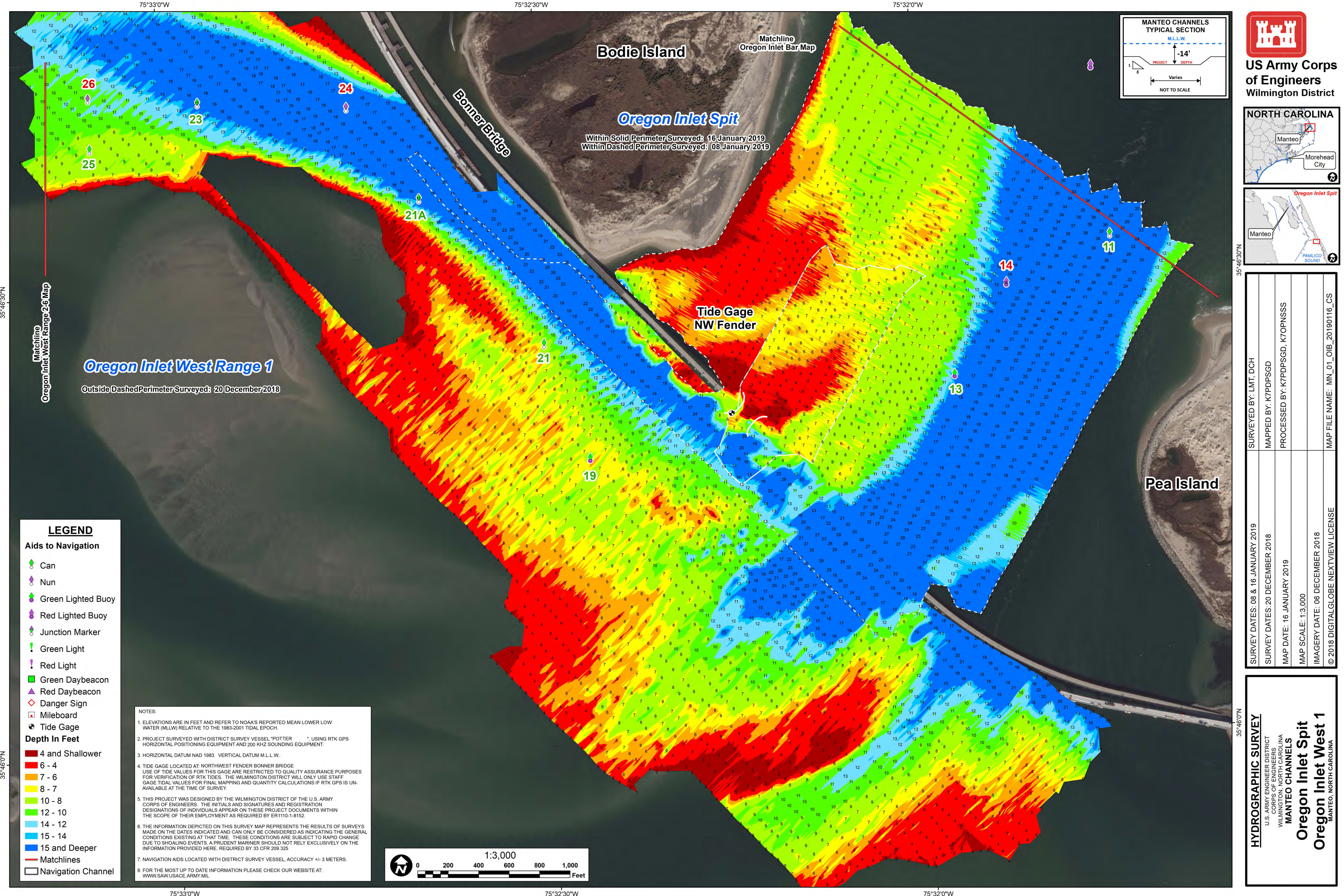
**Depth In Feet**

- 4 and Shallower
- 6 - 4
- 7 - 6
- 8 - 7
- 10 - 8
- 12 - 10
- 14 - 12
- 15 - 14
- 15 and Deeper

Waypoints  
Waypoint Lines  
Matchlines







**US Army Corps of Engineers**  
Wilmington District

**NORTH CAROLINA**

**Oregon Inlet Spit**

SURVEYED BY: LMT, DCH	
MAPPED BY: K7PDPSGD	
PROCESSED BY: K7PDPSGD, K7OPNSSS	
MAP DATE: 16 JANUARY 2019	
MAP SCALE: 1:3,000	
IMAGERY DATE: 06 DECEMBER 2018	
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MAP FILE NAME: MN_01_OIB_20190116_CS	

**HYDROGRAPHIC SURVEY**

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

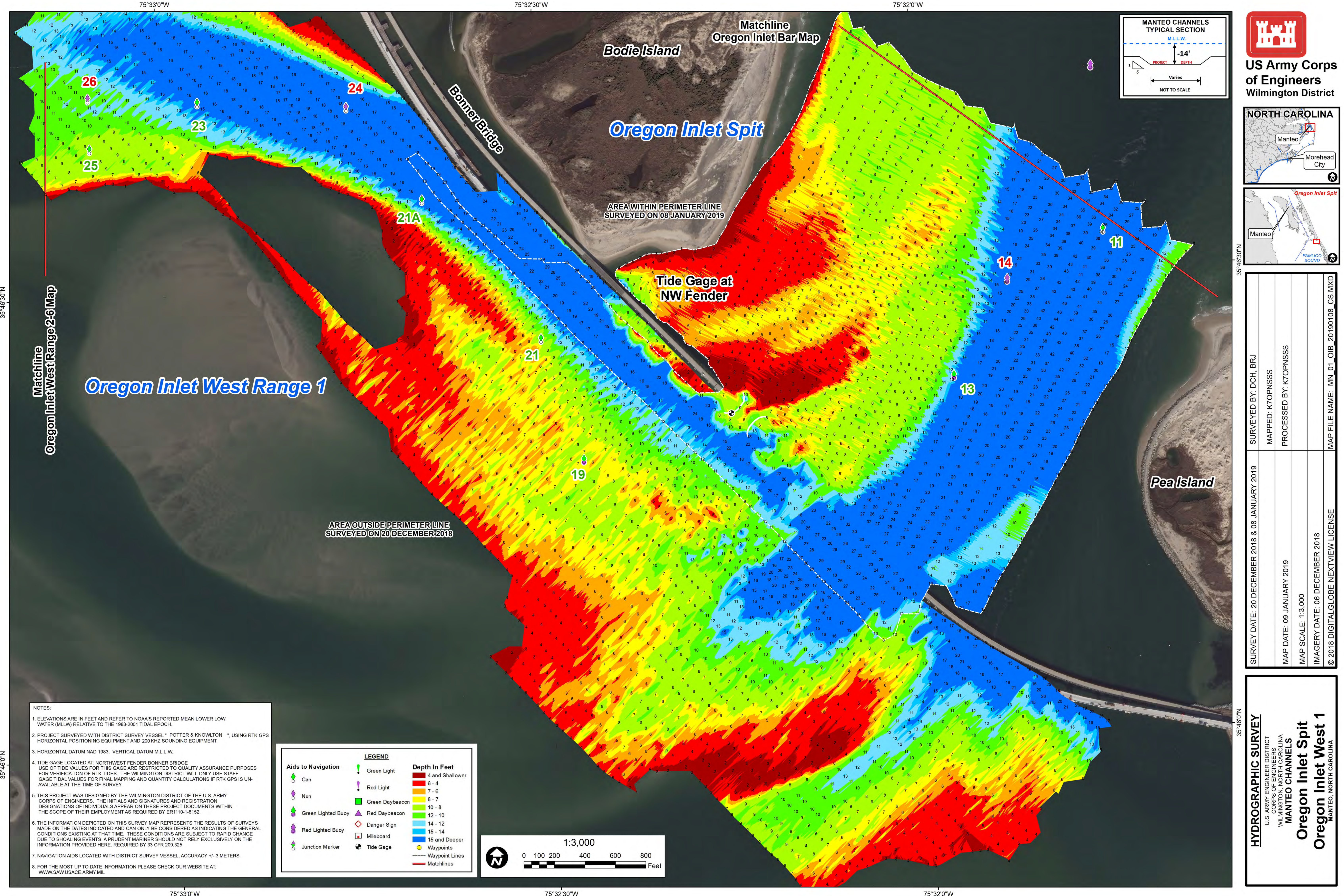
**MANTEO CHANNELS**

**Oregon Inlet Spit**

**Oregon Inlet West 1**

MANTEO, NORTH CAROLINA





NOTES:

1. ELEVATIONS ARE IN FEET 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 "POTTER & KNOWLTON", 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: NORTHWEST FENDER BONNER BRIDGE. 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](http://WWW.SAW.USACE.ARMY.MIL)

**Aids to Navigation**

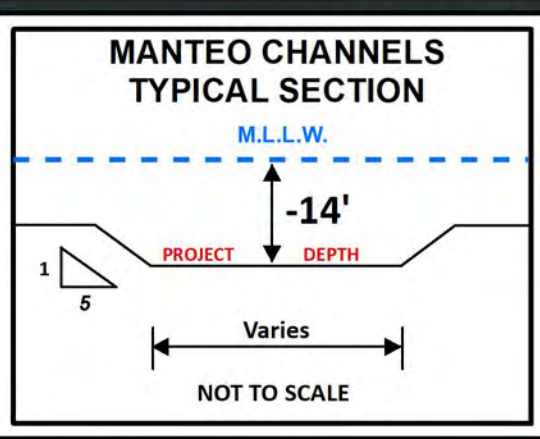
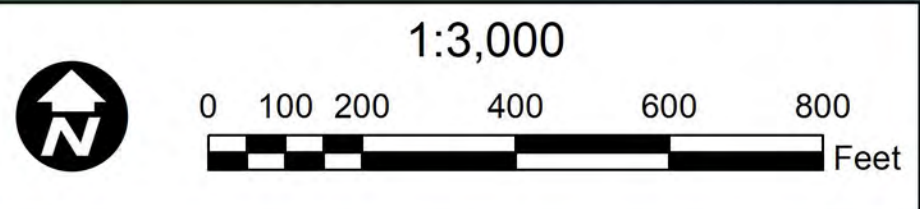
- Can
- Nun
- Green Lighted Buoy
- Red Lighted Buoy
- Junction Marker

**LEGEND**

- Green Light
- Red Light
- Green Daybeacon
- Red Daybeacon
- Danger Sign
- Mileboard
- Waypoints
- 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
- Waypoint Lines
- Matchlines



**US Army Corps of Engineers**  
Wilmington District

**NORTH CAROLINA**

**Oregon Inlet Spit**

SURVEY DATE: 20 DECEMBER 2018 & 08 JANUARY 2019	SURVEYED BY: DCH, BRJ
MAP DATE: 09 JANUARY 2019	MAPPED: K7OPNSSS
MAP SCALE: 1:3,000	PROCESSED BY: K7OPNSSS
IMAGERY DATE: 06 DECEMBER 2018	
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**HYDROGRAPHIC SURVEY**

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

**MANTEO CHANNELS**

**Oregon Inlet Spit**

**Oregon Inlet West 1**

MANTEO, NORTH CAROLINA