

AIDS TO NAVIGATION

Type	Number	Survey Date	SPF_X	SPF_Y	DMS_X	DMS_Y
Can	01	2014-11-03	2229598	68020	78° 14' 36.310\" W	33° 54' 25.213\" N
Nun	02	2014-11-03	2229839	57989	78° 14' 33.470\" W	33° 54' 24.887\" N
Can	03	2014-11-03	2230024	58971	78° 14' 31.185\" W	33° 54' 34.592\" N
Nun	04	2014-11-03	2230215	58826	78° 14' 28.941\" W	33° 54' 33.141\" N
Can	05	2014-11-03	2230542	60126	78° 14' 24.938\" W	33° 54' 45.989\" N
Nun	06	2014-11-03	2230666	59862	78° 14' 23.495\" W	33° 54' 43.247\" N
Can	07	2014-11-03	2231024	61112	78° 14' 19.131\" W	33° 54' 55.689\" N
Nun	08	2014-11-03	2231422	61131	78° 14' 14.406\" W	33° 54' 55.849\" N
Nun	10	2014-11-03	2231437	62111	78° 14' 14.136\" W	33° 55' 5.541\" N
Nun	12	2014-11-03	2231528	62786	78° 14' 13.001\" W	33° 55' 12.204\" N
Red Lighted Buoy	44	2014-11-03	2234001	63536	78° 13' 43.590\" W	33° 55' 19.436\" N
Can	46	2014-11-03	2233399	63372	78° 13' 50.744\" W	33° 55' 17.861\" N
Nun	46A	2014-11-03	2232123	63226	78° 14' 5.901\" W	33° 55' 16.513\" N
Can	47	2014-11-03	2232012	62988	78° 14' 7.236\" W	33° 55' 14.163\" N
Can	47A	2014-11-03	2230992	62838	78° 14' 19.356\" W	33° 55' 12.782\" N
Nun	48	2014-11-03	2230994	62997	78° 14' 19.320\" W	33° 55' 14.330\" N
Red Light	48A	2014-11-03	2229813	62849	78° 14' 33.337\" W	33° 55' 12.958\" N

WAYPOINTS

Project	Survey Date	SPF_X	SPF_Y	DMS_X	DMS_Y
AIWW CFRLR Tangent 11 - Waypoint 01	2014-11-03	2233958	63433	78° 13' 44.116\" W	33° 55' 18.420\" N
AIWW CFRLR Tangent 11 - Waypoint 02	2014-11-06	2226636	62194	78° 15' 11.088\" W	33° 55' 6.722\" N
Lockwoods Folly Inlet - Waypoint 01	2014-11-03	2229645	58136	78° 14' 35.764\" W	33° 54' 26.360\" N
Lockwoods Folly Inlet - Waypoint 02	2014-11-03	2229900	58525	78° 14' 32.697\" W	33° 54' 30.187\" N
Lockwoods Folly Inlet - Waypoint 03	2014-11-03	2230773	60283	78° 14' 22.191\" W	33° 54' 47.512\" N
Lockwoods Folly Inlet - Waypoint 04	2014-11-03	2231218	60763	78° 14' 16.861\" W	33° 54' 52.218\" N
Lockwoods Folly Inlet - Waypoint 05	2014-11-03	2231378	62337	78° 14' 14.822\" W	33° 55' 7.780\" N
Lockwoods Folly Inlet - Waypoint 06	2014-11-03	2231351	62993	78° 14' 15.082\" W	33° 55' 14.268\" N

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
- Waypoints

Wrecks

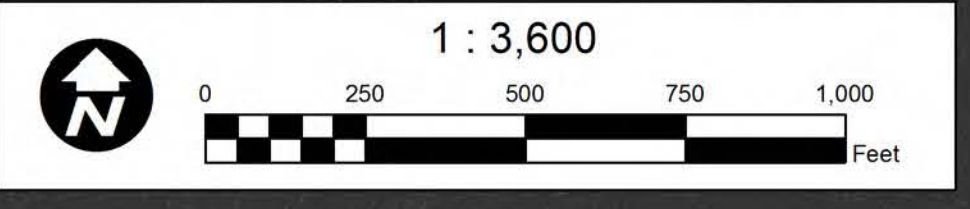
- Waypoint Lines
- Matchlines
- Placement Areas
- Navigation Channel

Depth In Feet

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

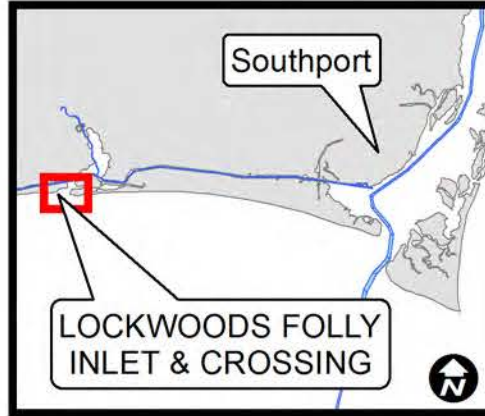
NOTES:

- ELEVATIONS ARE IN FEET AND TENTHS AND REFER TO NOAA'S REPORTED MEAN LOWER LOW WATER (MLLW) RELATIVE TO THE 1983-2001 TIDAL EPOCH. HORIZONTAL POSITIONING EQUIPMENT AND 200 KHZ SOUNDING EQUIPMENT.
- PROJECT SURVEYED WITH DISTRICT SURVEY VESSEL "J. BUTLER". USING RTK GPS 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.
- HORIZONTAL DATUM NAD 1983. VERTICAL DATUM M.L.L.W.
- TIDE GAGE LOCATED AT LIGHT 48A. 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 208.325
- NAVIGATION AIDS LOCATED WITH DISTRICT SURVEY VESSEL, ACCURACY +/- 3 METERS.
- FOR THE MOST UP TO DATE INFORMATION PLEASE CHECK OUR WEBSITE AT: WWW.SAWUSACE.ARMY.MIL



WRECKS

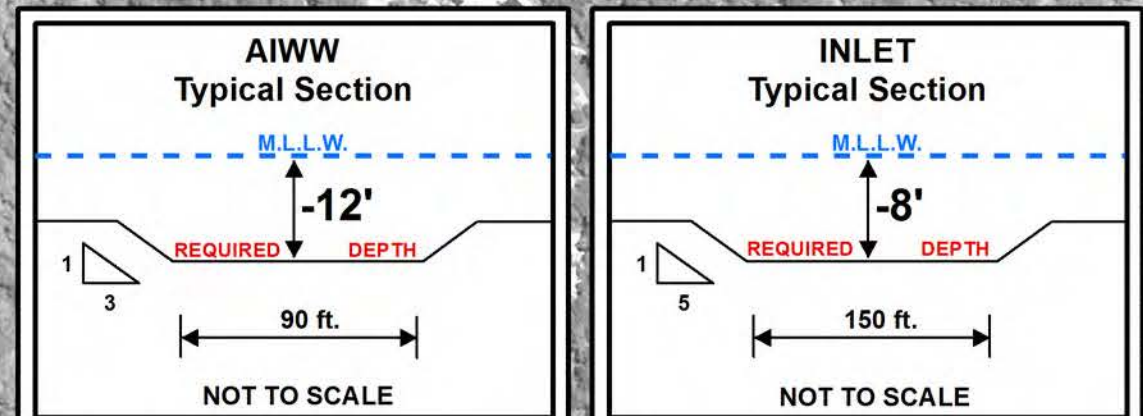
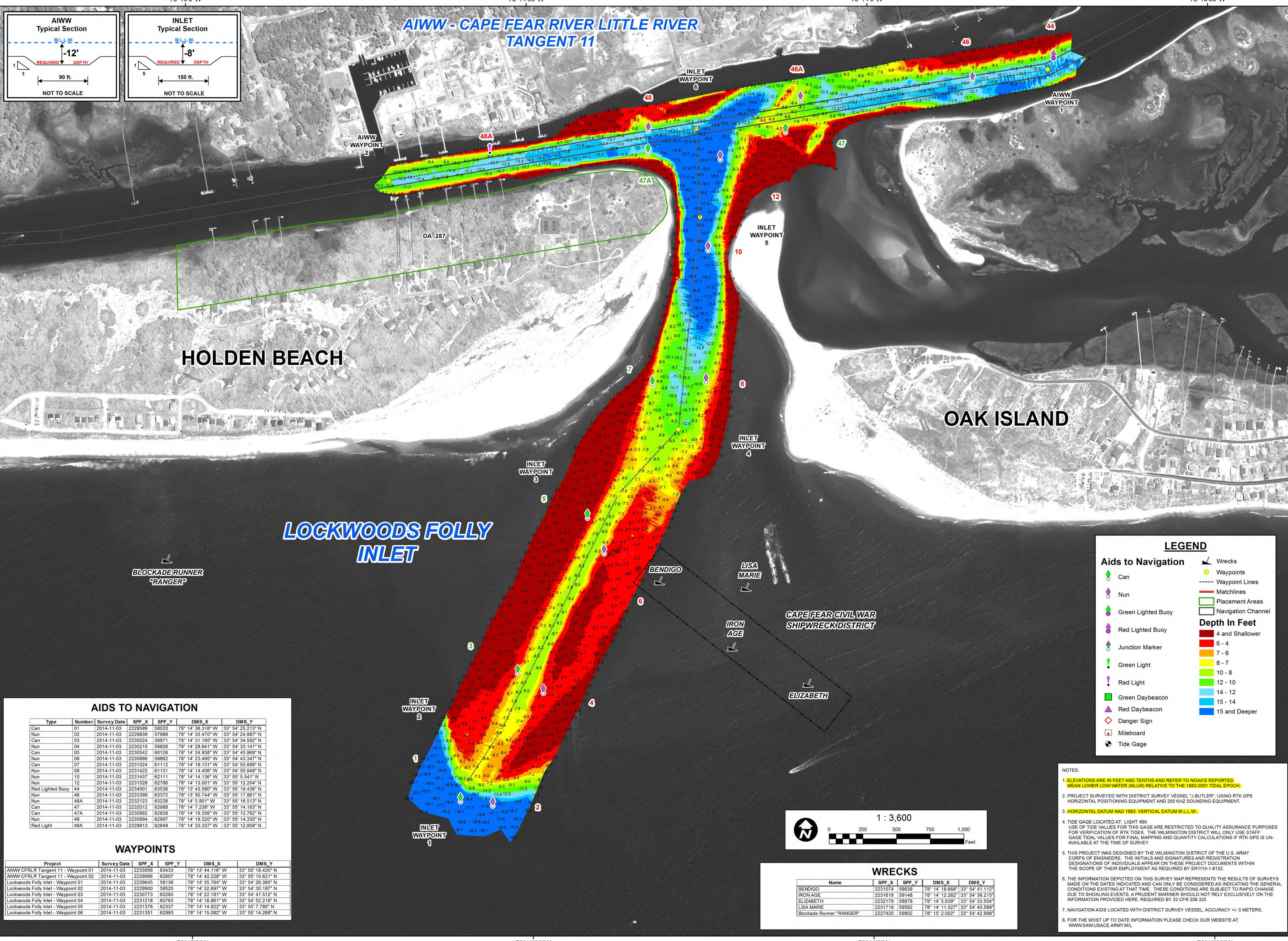
Name	SPF_X	SPF_Y	DMS_X	DMS_Y
BENDIGO	2231074	59639	78° 14' 18.668\" W	33° 54' 41.112\" N
IRON AGE	2231618	59148	78° 14' 12.262\" W	33° 54' 36.215\" N
ELIZABETH	2232179	58878	78° 14' 5.839\" W	33° 54' 33.504\" N
LISA MARIE	2231719	59592	78° 14' 11.027\" W	33° 54' 40.599\" N
Blockade Runner "RANGER"	2227420	59802	78° 15' 2.002\" W	33° 54' 42.998\" N



SURVEY DATE(S): OCTOBER 28 - NOVEMBER 3 & 6, 2014	SURVEYED BY: LMT, JBD
MAP DATE: NOVEMBER 5, 2014	MAPPED BY: DJM
MAP SCALE: 1 : 3,600	
IMAGERY DATE: JUNE 30, 2014 © DIGITALGLOBE, INC.	MAP FILE NAME: LFI-X_2014-11-06_CS.MXD

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

LOCKWOODS FOLLY INLET & AIWW CROSSING
 OAK ISLAND, NORTH CAROLINA

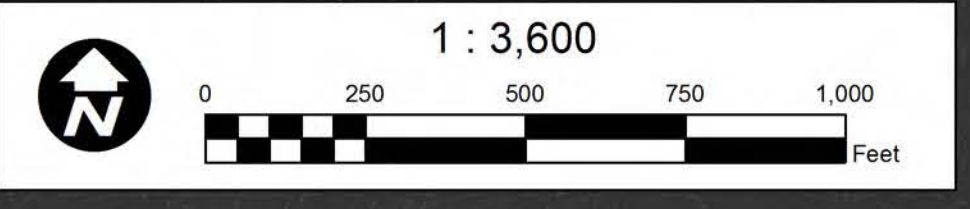


AIDS TO NAVIGATION

Type	Number	Survey Date	SPF_X	SPF_Y	DMS_X	DMS_Y
Can	01	2014-11-03	2229599	68020	78° 14' 36.318" W	33° 54' 25.213" N
Nun	02	2014-11-03	2229839	57989	78° 14' 33.470" W	33° 54' 24.887" N
Can	03	2014-11-03	2230024	58971	78° 14' 31.185" W	33° 54' 34.592" N
Nun	04	2014-11-03	2230215	58826	78° 14' 28.941" W	33° 54' 33.141" N
Can	05	2014-11-03	2230542	60126	78° 14' 24.938" W	33° 54' 45.969" N
Nun	06	2014-11-03	2230666	59862	78° 14' 23.495" W	33° 54' 43.347" N
Can	07	2014-11-03	2231024	61112	78° 14' 19.131" W	33° 54' 55.688" N
Nun	08	2014-11-03	2231422	61131	78° 14' 14.406" W	33° 54' 55.849" N
Nun	10	2014-11-03	2231437	62111	78° 14' 14.136" W	33° 55' 5.541" N
Nun	12	2014-11-03	2231528	62788	78° 14' 13.001" W	33° 55' 12.204" N
Red Lighted Buoy	44	2014-11-03	2234001	63536	78° 13' 43.990" W	33° 55' 19.436" N
Can	46	2014-11-03	2233399	63372	78° 13' 50.744" W	33° 55' 17.861" N
Nun	46A	2014-11-03	2232123	63226	78° 14' 5.901" W	33° 55' 16.513" N
Can	47	2014-11-03	2232012	62988	78° 14' 7.238" W	33° 55' 14.163" N
Can	47A	2014-11-03	2230992	62838	78° 14' 19.356" W	33° 55' 12.762" N
Nun	48	2014-11-03	2230994	62997	78° 14' 19.320" W	33° 55' 14.330" N
Red Light	48A	2014-11-03	2229813	62849	78° 14' 13.337" W	33° 55' 12.958" N

WAYPOINTS

Project	Survey Date	SPF_X	SPF_Y	DMS_X	DMS_Y
AIWW CFRLR Tangent 11 - Waypoint 01	2014-11-03	2233958	63433	78° 13' 44.116" W	33° 55' 18.420" N
AIWW CFRLR Tangent 11 - Waypoint 02	2014-11-03	2229066	62607	78° 14' 42.228" W	33° 55' 10.621" N
Lockwoods Folly Inlet - Waypoint 01	2014-11-03	2229645	58136	78° 14' 35.764" W	33° 54' 26.360" N
Lockwoods Folly Inlet - Waypoint 02	2014-11-03	2229900	58525	78° 14' 32.697" W	33° 54' 30.187" N
Lockwoods Folly Inlet - Waypoint 03	2014-11-03	2230773	60283	78° 14' 22.191" W	33° 54' 47.512" N
Lockwoods Folly Inlet - Waypoint 04	2014-11-03	2231218	60763	78° 14' 16.861" W	33° 54' 52.218" N
Lockwoods Folly Inlet - Waypoint 05	2014-11-03	2231378	62337	78° 14' 14.822" W	33° 55' 7.780" N
Lockwoods Folly Inlet - Waypoint 06	2014-11-03	2231351	62993	78° 14' 15.082" W	33° 55' 14.268" N



WRECKS

Name	SPF_X	SPF_Y	DMS_X	DMS_Y
BENDIGO	2231074	59639	78° 14' 18.668" W	33° 54' 41.112" N
IRON AGE	2231618	59148	78° 14' 12.262" W	33° 54' 36.215" N
ELIZABETH	2232179	58878	78° 14' 5.839" W	33° 54' 33.504" N
LISA MARIE	2231719	59592	78° 14' 11.027" W	33° 54' 40.599" N
Blockade Runner "RANGER"	2227420	59802	78° 15' 2.002" W	33° 54' 42.998" N

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

Other Symbols

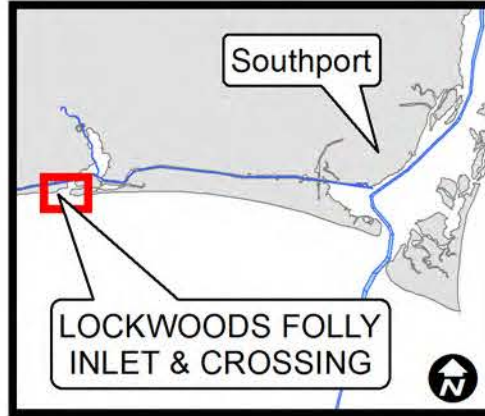
- Wrecks
- Waypoints
- Waypoint Lines
- Matchlines
- Placement Areas
- Navigation Channel

Depth In Feet

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

NOTES:

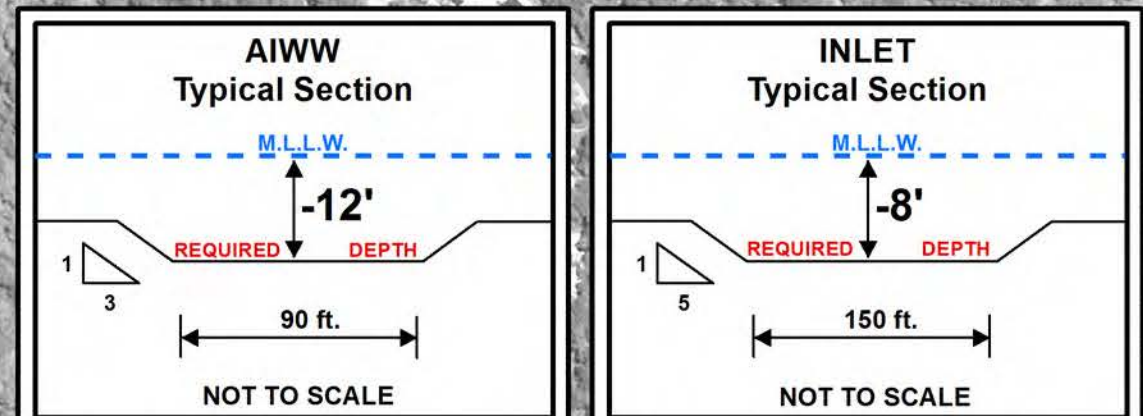
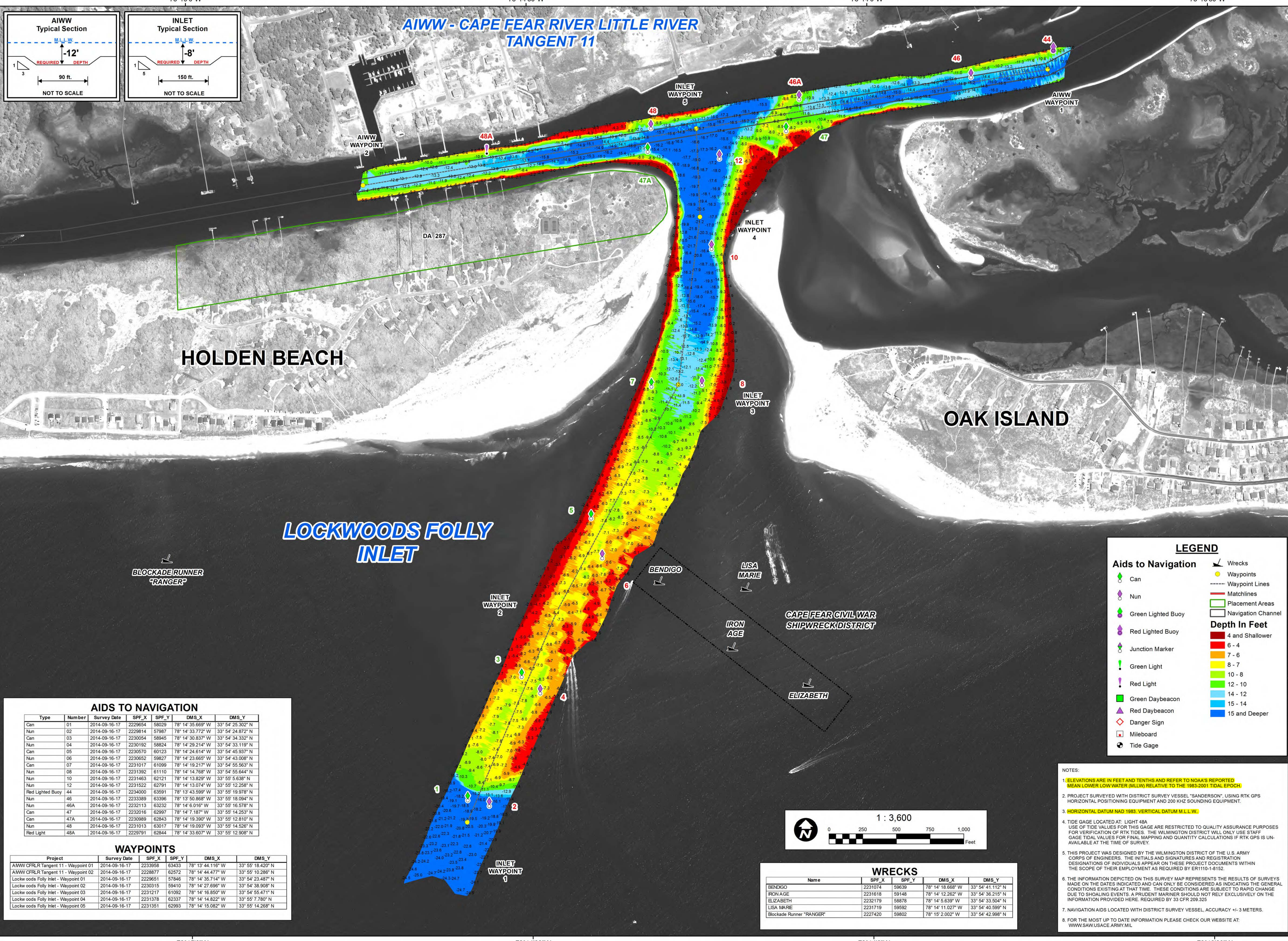
- ELEVATIONS ARE IN FEET AND TENTHS AND REFER TO NOAA'S REPORTED MEAN LOWER LOW WATER (MLLW) RELATIVE TO THE 1983-2001 TIDAL EPOCH.
- PROJECT SURVEYED WITH DISTRICT SURVEY VESSEL "J. BUTLER". USING RTK GPS HORIZONTAL POSITIONING EQUIPMENT AND 200 KHZ SOUNDING EQUIPMENT.
- HORIZONTAL DATUM NAD 1983. VERTICAL DATUM M.L.L.W.
- TIDE GAGE LOCATED AT LIGHT 48A. 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 208.325
- 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



SURVEY DATE(S):	OCTOBER 28 - NOVEMBER 3, 2014
SURVEYED BY:	LMT, JBD
MAPPED BY:	DJM
MAP DATE:	NOVEMBER 5, 2014
MAP SCALE:	1 : 3,600
IMAGERY DATE:	JUNE 30, 2014 © DIGITALGLOBE, INC.
MAP FILE NAME:	LFI-X_2014-10-28_11-03_CS.MXD

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

LOCKWOODS FOLLY INLET & AIWW CROSSING
 OAK ISLAND, NORTH CAROLINA



AIWW - CAPE FEAR RIVER LITTLE RIVER TANGENT 11

HOLDEN BEACH

OAK ISLAND

LOCKWOODS FOLLY INLET

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

Wrecks

- Waypoints
- Waypoint Lines
- Matchlines
- Placement Areas
- Navigation Channel

Depth In Feet

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

NOTES:

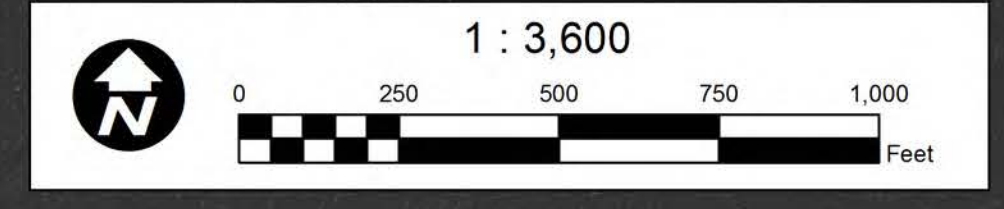
- ELEVATIONS ARE IN FEET AND TENTHS AND REFER TO NOAA'S REPORTED MEAN LOWER LOW WATER (MLLW) RELATIVE TO THE 1983-2001 TIDAL EPOCH.
- PROJECT SURVEYED WITH DISTRICT SURVEY VESSEL "SANDERSON", USING RTK GPS HORIZONTAL POSITIONING EQUIPMENT AND 200 KHZ SOUNDING EQUIPMENT.
- HORIZONTAL DATUM NAD 1983, VERTICAL DATUM M.L.L.W.
- TIDE GAGE LOCATED AT LIGHT 48A. 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

AIDS TO NAVIGATION

Type	Number	Survey Date	SPF_X	SPF_Y	DMS_X	DMS_Y
Can	01	2014-09-16-17	2229654	58029	78° 14' 35.669" W	33° 54' 25.302" N
Nun	02	2014-09-16-17	2229814	57987	78° 14' 33.772" W	33° 54' 24.872" N
Can	03	2014-09-16-17	2230054	58945	78° 14' 30.837" W	33° 54' 34.332" N
Nun	04	2014-09-16-17	2230192	58824	78° 14' 29.214" W	33° 54' 33.119" N
Can	05	2014-09-16-17	2230370	60123	78° 14' 24.614" W	33° 54' 45.937" N
Nun	06	2014-09-16-17	2230652	59827	78° 14' 23.665" W	33° 54' 43.008" N
Can	07	2014-09-16-17	2231017	61099	78° 14' 19.217" W	33° 54' 55.563" N
Nun	08	2014-09-16-17	2231392	61110	78° 14' 14.768" W	33° 54' 55.644" N
Nun	10	2014-09-16-17	2231463	62121	78° 14' 13.829" W	33° 55' 5.638" N
Nun	12	2014-09-16-17	2231522	62791	78° 14' 13.074" W	33° 55' 12.258" N
Red Lighted Buoy	44	2014-09-16-17	2234000	63591	78° 13' 43.599" W	33° 55' 19.978" N
Nun	46	2014-09-16-17	2233389	63396	78° 13' 50.868" W	33° 55' 18.094" N
Nun	46A	2014-09-16-17	2232113	63322	78° 14' 6.016" W	33° 55' 16.578" N
Can	47	2014-09-16-17	2232016	62997	78° 14' 7.187" W	33° 55' 14.253" N
Can	47A	2014-09-16-17	2230989	62843	78° 14' 19.390" W	33° 55' 12.810" N
Nun	48	2014-09-16-17	2231013	63017	78° 14' 19.093" W	33° 55' 14.526" N
Red Light	48A	2014-09-16-17	2229791	62844	78° 14' 33.607" W	33° 55' 12.908" N

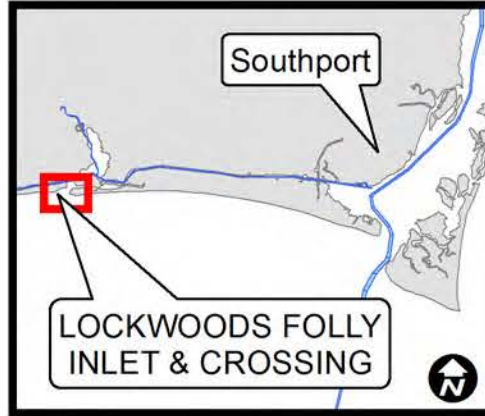
WAYPOINTS

Project	Survey Date	SPF_X	SPF_Y	DMS_X	DMS_Y
AIWW CFRLR Tangent 11 - Waypoint 01	2014-09-16-17	2233958	63433	78° 13' 44.116" W	33° 55' 18.420" N
AIWW CFRLR Tangent 11 - Waypoint 02	2014-09-16-17	2238877	62572	78° 14' 44.477" W	33° 55' 10.286" N
Lockwoods Folly Inlet - Waypoint 01	2014-09-16-17	2229651	57846	78° 14' 35.714" W	33° 54' 23.487" N
Lockwoods Folly Inlet - Waypoint 02	2014-09-16-17	2230315	59410	78° 14' 27.696" W	33° 54' 38.908" N
Lockwoods Folly Inlet - Waypoint 03	2014-09-16-17	2231217	61092	78° 14' 16.850" W	33° 54' 55.471" N
Lockwoods Folly Inlet - Waypoint 04	2014-09-16-17	2231378	62337	78° 14' 14.822" W	33° 55' 7.780" N
Lockwoods Folly Inlet - Waypoint 05	2014-09-16-17	2231351	62993	78° 14' 15.082" W	33° 55' 14.268" N



WRECKS

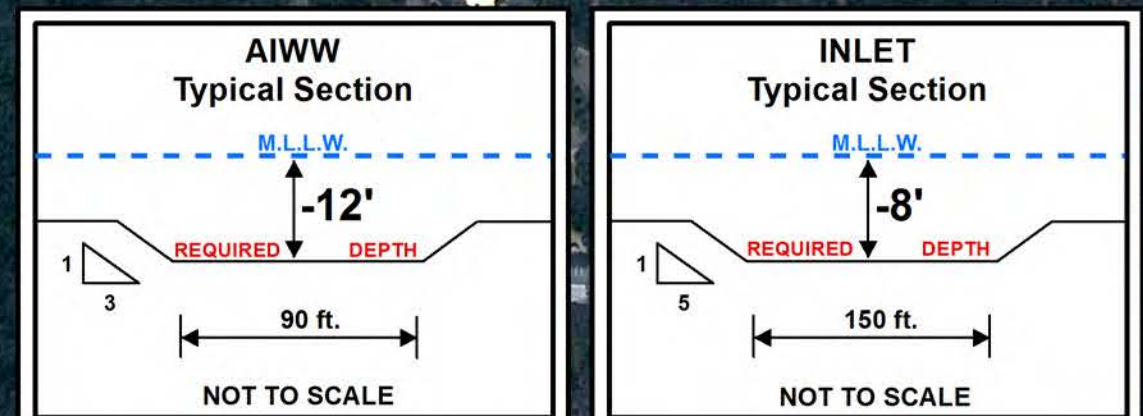
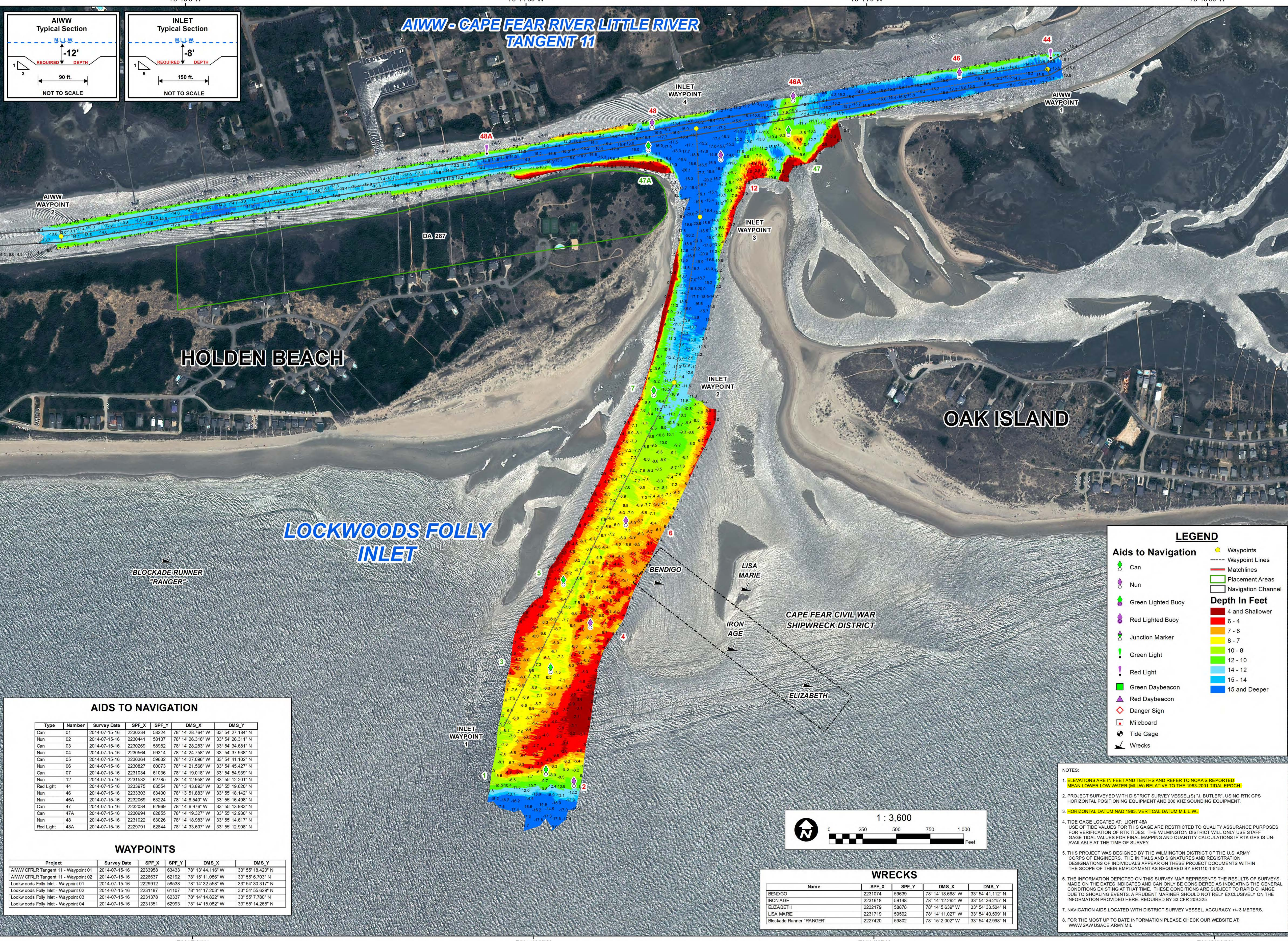
Name	SPF_X	SPF_Y	DMS_X	DMS_Y
BENDIGO	2231074	59639	78° 14' 18.668" W	33° 54' 41.112" N
IRON AGE	2231618	59148	78° 14' 12.262" W	33° 54' 36.215" N
ELIZABETH	2232179	58878	78° 14' 5.639" W	33° 54' 33.504" N
LISA MARIE	2231719	59592	78° 14' 11.027" W	33° 54' 40.599" N
Blockade Runner "RANGER"	2227420	59802	78° 15' 2.002" W	33° 54' 42.998" N



SURVEY DATE(S):	SEPTEMBER 16-17, 2014
SURVEYED BY:	LMT, JBD
MAPPED BY:	DJM
MAP DATE:	SEPTEMBER 18, 2014
MAP SCALE:	1 : 3,600
IMAGERY DATE:	JUNE 30, 2014 © DIGITALGLOBE, INC.
MAP FILE NAME:	LFI-X_2014-09-16-17_CS.MXD

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

LOCKWOODS FOLLY INLET & AIWW CROSSING
 OAK ISLAND, NORTH CAROLINA



AIWW - CAPE FEAR RIVER LITTLE RIVER TANGENT 11

HOLDEN BEACH

OAK ISLAND

LOCKWOODS FOLLY INLET

BLOCKADE RUNNER "RANGER"

BENDIGO

LISA MARIE

CAPE FEAR CIVIL WAR SHIPWRECK DISTRICT

IRON AGE

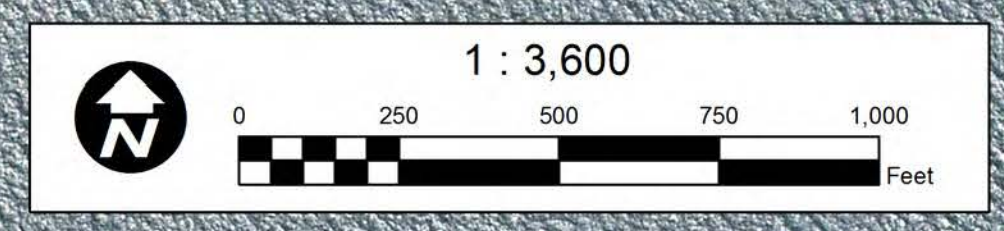
ELIZABETH

AIDS TO NAVIGATION

Type	Number	Survey Date	SPF_X	SPF_Y	DMS_X	DMS_Y
Can	01	2014-07-15-16	2230234	58224	78° 14' 28.764" W	33° 54' 27.184" N
Nun	02	2014-07-15-16	2230441	58137	78° 14' 26.316" W	33° 54' 26.311" N
Can	03	2014-07-15-16	2230269	58962	78° 14' 28.283" W	33° 54' 34.681" N
Nun	04	2014-07-15-16	2230564	59314	78° 14' 24.758" W	33° 54' 37.938" N
Can	05	2014-07-15-16	2230564	59632	78° 14' 27.096" W	33° 54' 41.102" N
Nun	06	2014-07-15-16	2230827	60073	78° 14' 21.566" W	33° 54' 45.627" N
Can	07	2014-07-15-16	2231034	61036	78° 14' 19.018" W	33° 54' 54.939" N
Nun	12	2014-07-15-16	2231532	62785	78° 14' 12.958" W	33° 55' 12.201" N
Red Light	44	2014-07-15-16	2233975	63554	78° 13' 43.893" W	33° 55' 19.620" N
Nun	46	2014-07-15-16	2233303	63400	78° 13' 51.883" W	33° 55' 18.142" N
Nun	46A	2014-07-15-16	2232069	63224	78° 14' 6.540" W	33° 55' 16.498" N
Can	47	2014-07-15-16	2232034	62969	78° 14' 6.976" W	33° 55' 13.983" N
Can	47A	2014-07-15-16	2230994	62855	78° 14' 19.327" W	33° 55' 12.930" N
Nun	48	2014-07-15-16	2231022	63026	78° 14' 18.983" W	33° 55' 14.617" N
Red Light	48A	2014-07-15-16	2229791	62844	78° 14' 33.607" W	33° 55' 12.908" N

WAYPOINTS

Project	Survey Date	SPF_X	SPF_Y	DMS_X	DMS_Y
AIWW CFRLR Tangent 11 - Waypoint 01	2014-07-15-16	2233958	63433	78° 13' 44.116" W	33° 55' 18.420" N
AIWW CFRLR Tangent 11 - Waypoint 02	2014-07-15-16	2226637	62192	78° 15' 11.086" W	33° 55' 6.703" N
Lockwoods Folly Inlet - Waypoint 01	2014-07-15-16	2229912	58538	78° 14' 32.558" W	33° 54' 30.317" N
Lockwoods Folly Inlet - Waypoint 02	2014-07-15-16	2231187	61107	78° 14' 17.203" W	33° 54' 55.629" N
Lockwoods Folly Inlet - Waypoint 03	2014-07-15-16	2231378	62337	78° 14' 14.822" W	33° 55' 7.780" N
Lockwoods Folly Inlet - Waypoint 04	2014-07-15-16	2231351	62993	78° 14' 15.082" W	33° 55' 14.268" N



WRECKS

Name	SPF_X	SPF_Y	DMS_X	DMS_Y
BENDIGO	2231074	59639	78° 14' 18.668" W	33° 54' 41.112" N
IRON AGE	2231618	59148	78° 14' 12.262" W	33° 54' 36.215" N
ELIZABETH	2232179	58878	78° 14' 5.639" W	33° 54' 33.504" N
LISA MARIE	2231719	59592	78° 14' 11.027" W	33° 54' 40.599" N
Blockade Runner "RANGER"	2227420	59802	78° 15' 2.002" W	33° 54' 42.998" N

LEGEND

Aids to Navigation

- Waypoints
- Waypoint Lines
- Matchlines
- Placement Areas
- Navigation Channel

Depth In Feet

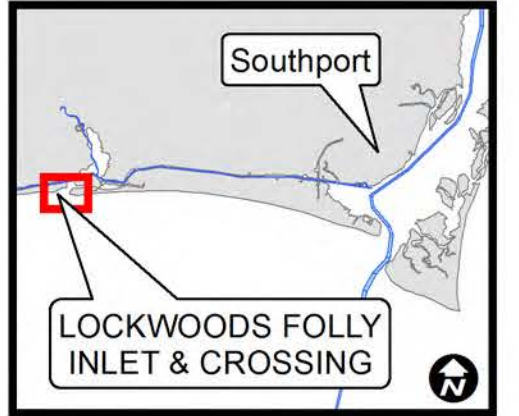
- 4 and Shallower
- 6 - 4
- 7 - 6
- 8 - 7
- 10 - 8
- 12 - 10
- 14 - 12
- 15 - 14
- 15 and Deeper

Other Symbols:

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

NOTES:

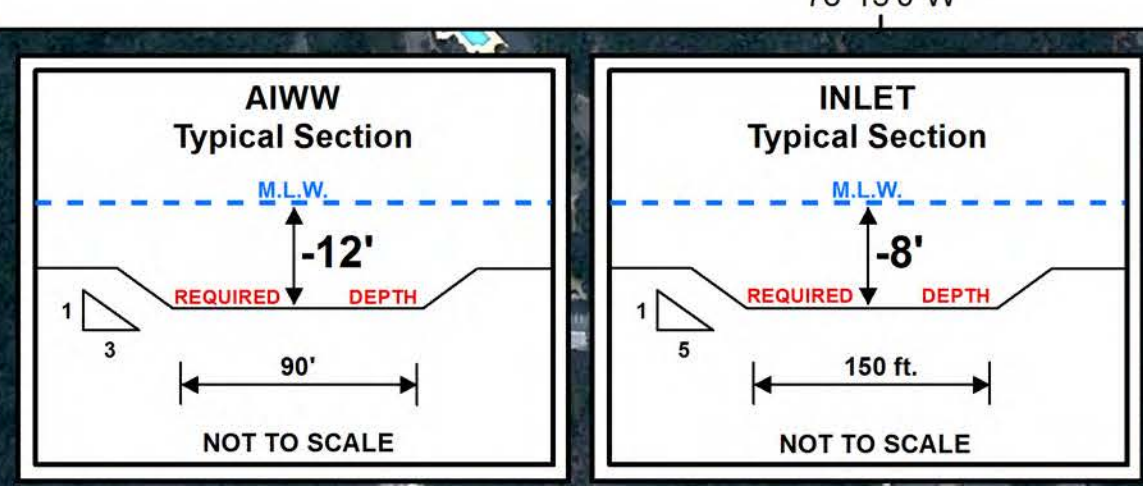
- ELEVATIONS ARE IN FEET AND TENTHS AND REFER TO NOAA'S REPORTED MEAN LOWER LOW WATER (MLLW) RELATIVE TO THE 1983-2001 TIDAL EPOCH.
- PROJECT SURVEYED WITH DISTRICT SURVEY VESSEL(S) "J. BUTLER", USING RTK GPS FOR VERIFICATION OF RTK TIDES. THE WILMINGTON DISTRICT WILL ONLY USE STAFF GAGE TIDAL VALUES FOR FINAL MAPPING AND QUANTITY CALCULATIONS IF RTK GPS IS UNAVAILABLE AT THE TIME OF SURVEY.
- HORIZONTAL DATUM NAD 1983, VERTICAL DATUM M.L.L.W.
- TIDE GAGE LOCATED AT LIGHT 48A. 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.SAV.USACE.ARMY.MIL



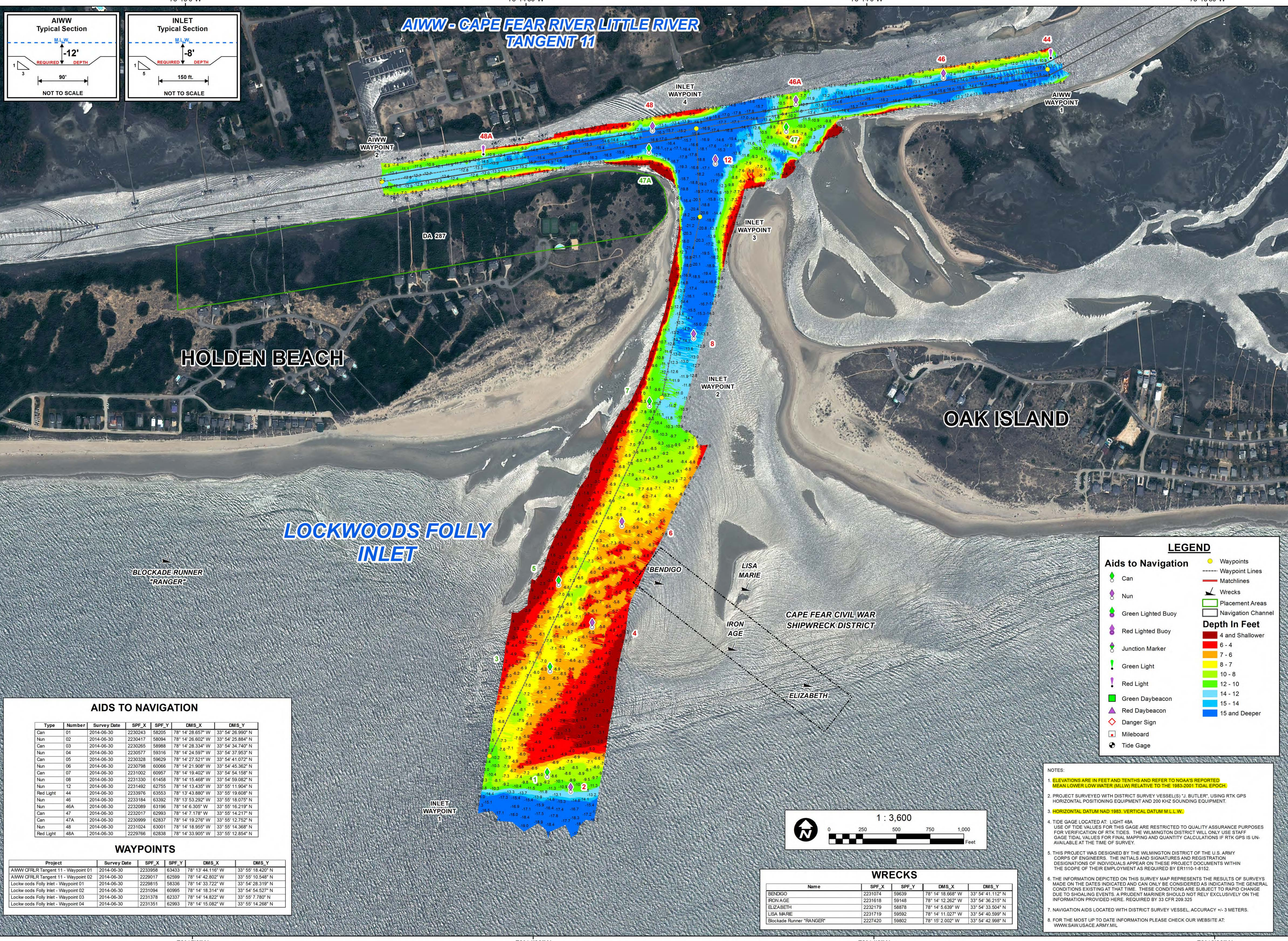
SURVEY DATE(S): JULY 15-16, 2014	SURVEYED BY: LMT, JBD
MAP DATE: JULY 17, 2014	MAPPED BY: DJM
MAP SCALE: 1 : 3,600	MAP FILE NAME: LFI-X_2014-07-15-16_CS.MXD
IMAGERY DATE: APRIL 27, 2014 © DIGITALGLOBE, INC.	

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

LOCKWOODS FOLLY INLET & AIWW CROSSING
 OAK ISLAND, NORTH CAROLINA



AIWW - CAPE FEAR RIVER LITTLE RIVER TANGENT 11



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

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

Other Symbols:

- Waypoints
- Waypoint Lines
- Matchlines
- Wrecks
- Placement Areas
- Navigation Channel

AIDS TO NAVIGATION

Type	Number	Survey Date	SPF_X	SPF_Y	DMS_X	DMS_Y
Can	01	2014-06-30	2230243	58205	78° 14' 28.657" W	33° 54' 26.990" N
Nun	02	2014-06-30	2230417	58094	78° 14' 26.602" W	33° 54' 25.884" N
Can	03	2014-06-30	2230265	58968	78° 14' 28.334" W	33° 54' 34.740" N
Nun	04	2014-06-30	2230577	59316	78° 14' 24.597" W	33° 54' 37.953" N
Can	05	2014-06-30	2230328	59629	78° 14' 27.521" W	33° 54' 41.072" N
Nun	06	2014-06-30	2230798	60068	78° 14' 21.908" W	33° 54' 45.362" N
Can	07	2014-06-30	2231002	60957	78° 14' 19.402" W	33° 54' 54.158" N
Nun	08	2014-06-30	2231330	61458	78° 14' 15.468" W	33° 54' 59.082" N
Nun	12	2014-06-30	2231492	62755	78° 14' 13.435" W	33° 55' 11.904" N
Red Light	44	2014-06-30	2233976	63553	78° 13' 43.880" W	33° 55' 19.608" N
Nun	46	2014-06-30	2233184	63392	78° 13' 53.292" W	33° 55' 18.075" N
Can	46A	2014-06-30	2232089	63196	78° 14' 6.305" W	33° 55' 16.219" N
Can	47	2014-06-30	2232017	62993	78° 14' 7.178" W	33° 55' 14.217" N
Can	47A	2014-06-30	2230999	62837	78° 14' 19.276" W	33° 55' 12.752" N
Nun	48	2014-06-30	2231024	63011	78° 14' 18.965" W	33° 55' 14.368" N
Red Light	48A	2014-06-30	2229766	62838	78° 14' 33.905" W	33° 55' 12.854" N

WAYPOINTS

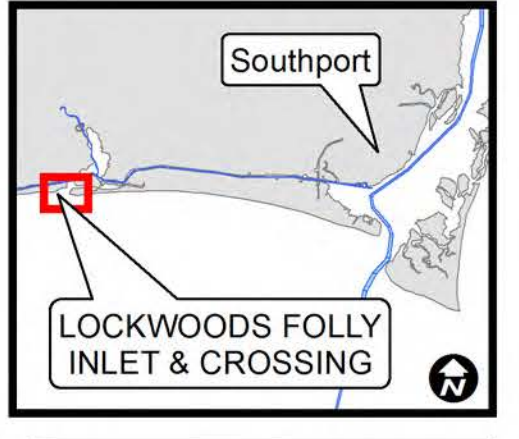
Project	Survey Date	SPF_X	SPF_Y	DMS_X	DMS_Y
AIWW CFRLR Tangent 11 - Waypoint 01	2014-06-30	2233958	63433	78° 13' 44.116" W	33° 55' 18.420" N
AIWW CFRLR Tangent 11 - Waypoint 02	2014-06-30	2229017	62599	78° 14' 42.802" W	33° 55' 10.548" N
Lockwoods Folly Inlet - Waypoint 01	2014-06-30	2229815	58336	78° 14' 33.722" W	33° 54' 28.319" N
Lockwoods Folly Inlet - Waypoint 02	2014-06-30	2231094	60995	78° 14' 18.314" W	33° 54' 54.527" N
Lockwoods Folly Inlet - Waypoint 03	2014-06-30	2231378	62337	78° 14' 14.822" W	33° 55' 7.780" N
Lockwoods Folly Inlet - Waypoint 04	2014-06-30	2231351	62993	78° 14' 15.082" W	33° 55' 14.268" N

WRECKS

Name	SPF_X	SPF_Y	DMS_X	DMS_Y
BENDIGO	2231074	59639	78° 14' 18.668" W	33° 54' 41.112" N
IRON AGE	2231618	59148	78° 14' 12.262" W	33° 54' 36.215" N
ELIZABETH	2232179	58878	78° 14' 5.639" W	33° 54' 33.504" N
LISA MARIE	2231719	59592	78° 14' 11.027" W	33° 54' 40.599" N
Blockade Runner "RANGER"	2227420	59802	78° 15' 2.002" W	33° 54' 42.998" N

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(S) "J. BUTLER", 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: LIGHT 48A. 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



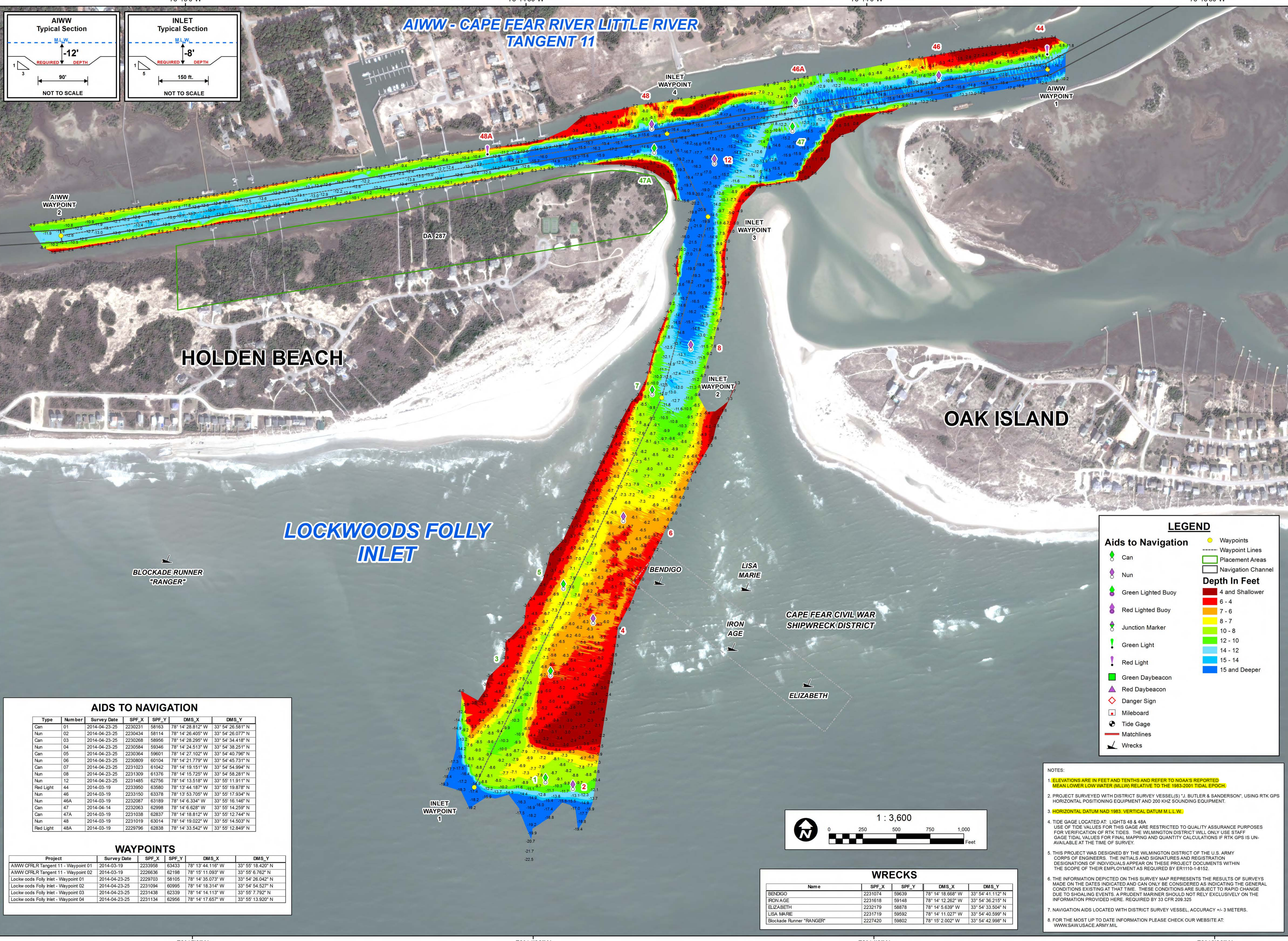
SURVEY DATE(S): JUNE 30 & JULY 1, 2014	SURVEYED BY: LMT, JBD
MAP DATE: JULY 7, 2014	MAPPED BY: DJM
MAP SCALE: 1 : 3,600	MAP FILE NAME: LFI-X_2014-06-30_CS.MXD
IMAGERY DATE: APRIL 27, 2014 © DIGITALGLOBE, INC.	

HYDROGRAPHIC SURVEY

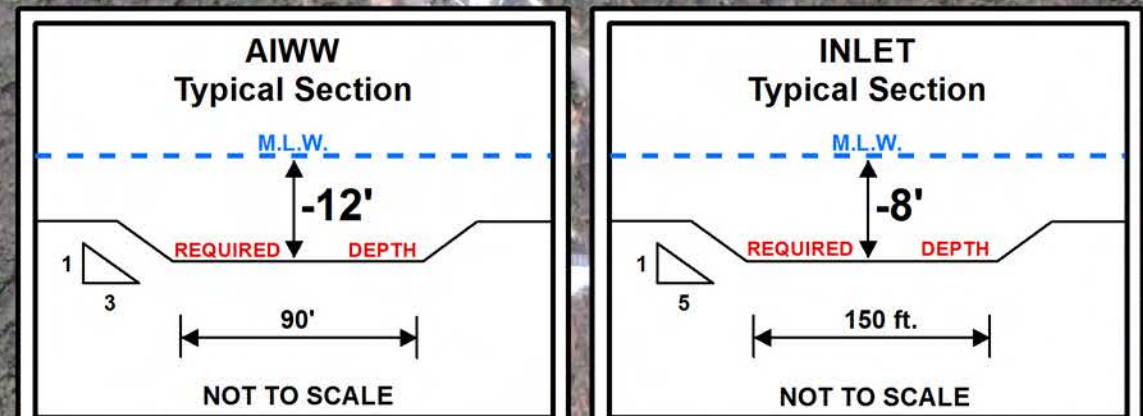
U.S. ARMY ENGINEER DISTRICT
 CORPS OF ENGINEERS
 WILMINGTON, NORTH CAROLINA

LOCKWOODS FOLLY INLET & AIWW CROSSING

OAK ISLAND, NORTH CAROLINA



AIWW - CAPE FEAR RIVER LITTLE RIVER TANGENT 11



HOLDEN BEACH

OAK ISLAND

LOCKWOODS FOLLY INLET

BLOCKADE RUNNER "RANGER"

BENDIGO

LISA MARIE

CAPE FEAR CIVIL WAR SHIPWRECK DISTRICT

IRON AGE

ELIZABETH

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
- Matchlines
- Wrecks

Waypoints

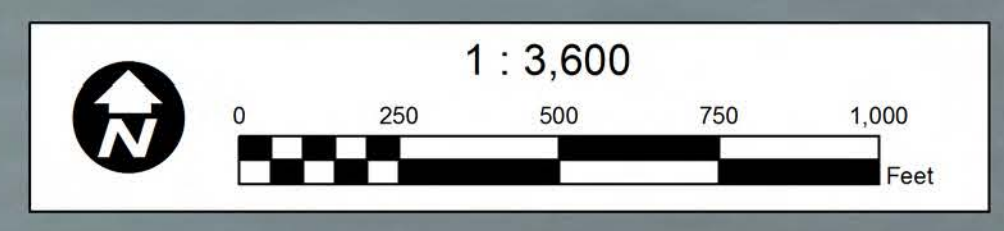
- Waypoint Lines
- Placement Areas
- Navigation Channel

Depth In Feet

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

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(S) "J. BUTLER & SANDERSON", 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: LIGHTS 48 & 48A. 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 ER1101-18152.
- 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



WRECKS

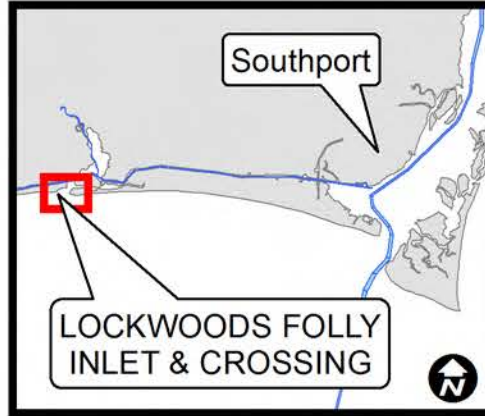
Name	SPF_X	SPF_Y	DMS_X	DMS_Y
BENDIGO	2231074	59639	78° 14' 18.668" W	33° 54' 41.112" N
IRON AGE	2231618	59148	78° 14' 12.262" W	33° 54' 36.215" N
ELIZABETH	2232179	58878	78° 14' 5.639" W	33° 54' 33.504" N
LISA MARIE	2231719	59592	78° 14' 11.027" W	33° 54' 40.599" N
Blockade Runner "RANGER"	2227420	59802	78° 15' 2.002" W	33° 54' 42.998" N

AIDS TO NAVIGATION

Type	Number	Survey Date	SPF_X	SPF_Y	DMS_X	DMS_Y
Can	01	2014-04-23-25	2230231	58163	78° 14' 28.812" W	33° 54' 26.581" N
Nun	02	2014-04-23-25	2230434	58114	78° 14' 26.405" W	33° 54' 26.077" N
Can	03	2014-04-23-25	2230268	58956	78° 14' 28.295" W	33° 54' 34.418" N
Nun	04	2014-04-23-25	2230584	59346	78° 14' 24.513" W	33° 54' 38.251" N
Can	05	2014-04-23-25	2230364	59601	78° 14' 27.102" W	33° 54' 40.796" N
Nun	06	2014-04-23-25	2230809	60104	78° 14' 21.779" W	33° 54' 45.731" N
Can	07	2014-04-23-25	2231023	61042	78° 14' 19.151" W	33° 54' 54.994" N
Nun	08	2014-04-23-25	2231309	61378	78° 14' 15.725" W	33° 54' 58.281" N
Nun	12	2014-04-23-25	2231485	62756	78° 14' 13.518" W	33° 55' 11.911" N
Red Light	44	2014-03-19	2233950	63580	78° 13' 44.187" W	33° 55' 19.878" N
Nun	46	2014-03-19	2233150	63378	78° 13' 53.705" W	33° 55' 17.934" N
Nun	46A	2014-03-19	2232087	63189	78° 14' 6.334" W	33° 55' 16.146" N
Can	47	2014-04-14	2232063	62998	78° 14' 6.628" W	33° 55' 14.259" N
Can	47A	2014-03-19	2231038	62837	78° 14' 18.812" W	33° 55' 12.744" N
Nun	48	2014-03-19	2231019	63014	78° 14' 19.022" W	33° 55' 14.503" N
Red Light	48A	2014-03-19	2229796	62838	78° 14' 33.542" W	33° 55' 12.849" N

WAYPOINTS

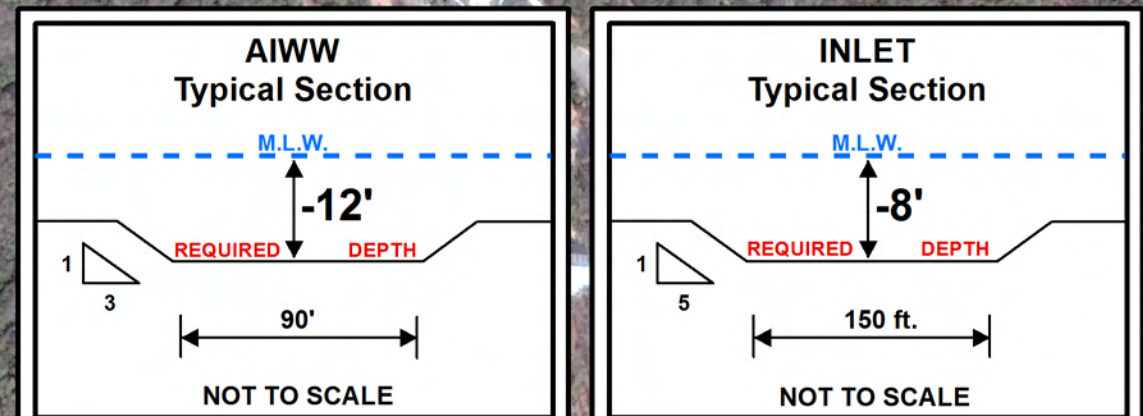
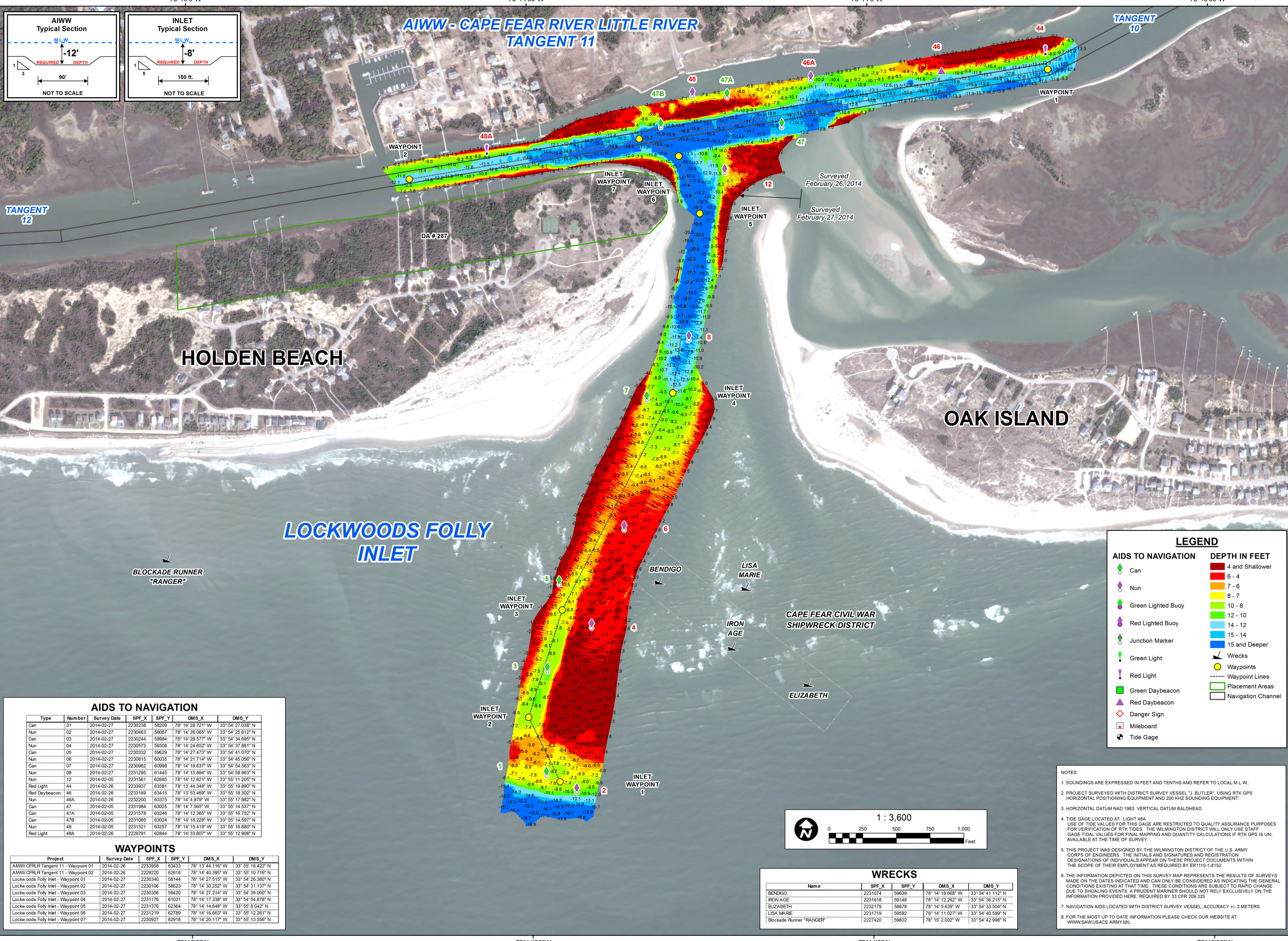
Project	Survey Date	SPF_X	SPF_Y	DMS_X	DMS_Y
AIWW CFRLR Tangent 11 - Waypoint 01	2014-03-19	2223956	63453	78° 13' 44.116" W	33° 55' 18.420" N
AIWW CFRLR Tangent 11 - Waypoint 02	2014-03-19	2228636	62198	78° 15' 11.085" W	33° 55' 6.762" N
Lockwoods Folly Inlet - Waypoint 01	2014-04-23-25	2229703	58105	78° 14' 35.073" W	33° 54' 26.042" N
Lockwoods Folly Inlet - Waypoint 02	2014-04-23-25	2231094	60995	78° 14' 18.314" W	33° 54' 54.527" N
Lockwoods Folly Inlet - Waypoint 03	2014-04-23-25	2231438	62339	78° 14' 14.113" W	33° 55' 7.792" N
Lockwoods Folly Inlet - Waypoint 04	2014-04-23-25	2231134	62956	78° 14' 17.657" W	33° 55' 13.920" N



INLET SURVEY DATE(S): APRIL 23 - 25, 2014	SURVEYED BY: LMT, MAS, JBD
AIWW SURVEY DATE(S): MARCH 19, 2014	MAPPED BY: DJM
MAP DATE: APRIL 29, 2014	
MAP SCALE: 1 : 3,600	
IMAGERY DATE: FEBRUARY 18, 2014 © DIGITALGLOBE, INC.	
MAP FILE NAME: LFI-X_2014-04-23-25CS.MXD	

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

LOCKWOODS FOLLY INLET & AIWW CROSSING
 OAK ISLAND, NORTH CAROLINA



TANGENT 12

HOLDEN BEACH

LOCKWOODS FOLLY INLET

OAK ISLAND

BLOCKADE RUNNER "RANGER"

BENDIGO

LISA MARIE

CAPE FEAR CIVIL WAR SHIPWRECK DISTRICT

IRON AGE

ELIZABETH

AIDS TO NAVIGATION

Type	Number	Survey Date	SPF_X	SPF_Y	DMS_X	DMS_Y
Can	01	2014-02-27	2230238	58209	78° 14' 28.721" W	33° 54' 27.038" N
Nun	02	2014-02-27	2230463	58087	78° 14' 26.065" W	33° 54' 25.812" N
Can	03	2014-02-27	2230244	58984	78° 14' 28.577" W	33° 54' 34.695" N
Nun	04	2014-02-27	2230573	59308	78° 14' 24.652" W	33° 54' 37.881" N
Can	05	2014-02-27	2230332	59629	78° 14' 27.473" W	33° 54' 41.070" N
Nun	06	2014-02-27	2230815	60035	78° 14' 21.714" W	33° 54' 45.059" N
Can	07	2014-02-27	2230982	60998	78° 14' 19.637" W	33° 54' 54.563" N
Nun	08	2014-02-27	2231295	61445	78° 14' 15.884" W	33° 54' 58.963" N
Nun	12	2014-02-05	2231561	62685	78° 14' 12.621" W	33° 55' 11.205" N
Red Light	44	2014-02-26	2233937	63581	78° 13' 44.348" W	33° 55' 19.890" N
Red Daybeacon	46	2014-02-26	2233169	63415	78° 13' 53.469" W	33° 55' 18.302" N
Nun	46A	2014-02-26	2232200	63375	78° 14' 4.979" W	33° 55' 17.982" N
Can	47	2014-02-05	2231984	63025	78° 14' 7.565" W	33° 55' 14.537" N
Can	47A	2014-02-05	2231578	63246	78° 14' 12.365" W	33° 55' 16.752" N
Can	47B	2014-02-05	2231085	63024	78° 14' 18.229" W	33° 55' 14.597" N
Nun	48	2014-02-05	2231321	63257	78° 14' 15.419" W	33° 55' 16.880" N
Red Light	48A	2014-02-26	2229791	62844	78° 14' 33.607" W	33° 55' 12.908" N

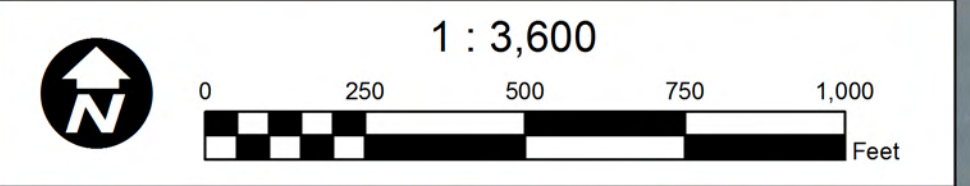
WAYPOINTS

Project	Survey Date	SPF_X	SPF_Y	DMS_X	DMS_Y
AIIWW CRLR Tangent 11 - Waypoint 01	2014-02-26	2233958	63433	78° 13' 44.116" W	33° 55' 18.422" N
AIIWW CRLR Tangent 11 - Waypoint 02	2014-02-26	2232920	62618	78° 14' 40.385" W	33° 55' 10.716" N
Lockwoods Folly Inlet - Waypoint 01	2014-02-27	2230340	58144	78° 14' 27.515" W	33° 54' 26.380" N
Lockwoods Folly Inlet - Waypoint 02	2014-02-27	2230106	58623	78° 14' 30.252" W	33° 54' 31.137" N
Lockwoods Folly Inlet - Waypoint 03	2014-02-27	2230356	59420	78° 14' 27.214" W	33° 54' 39.000" N
Lockwoods Folly Inlet - Waypoint 04	2014-02-27	2231176	61031	78° 14' 17.338" W	33° 54' 54.878" N
Lockwoods Folly Inlet - Waypoint 05	2014-02-27	2231376	62364	78° 14' 14.848" W	33° 55' 8.042" N
Lockwoods Folly Inlet - Waypoint 06	2014-02-27	2231219	62789	78° 14' 16.663" W	33° 55' 12.261" N
Lockwoods Folly Inlet - Waypoint 07	2014-02-27	2230927	62918	78° 14' 20.117" W	33° 55' 13.556" N

LEGEND

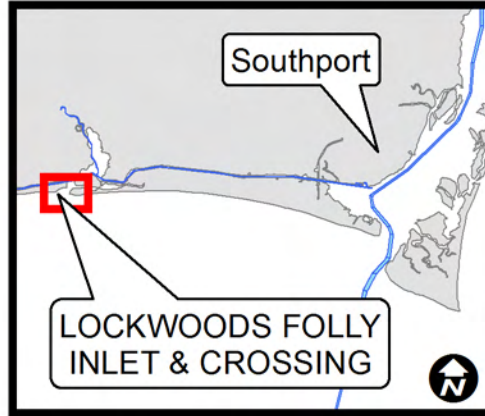
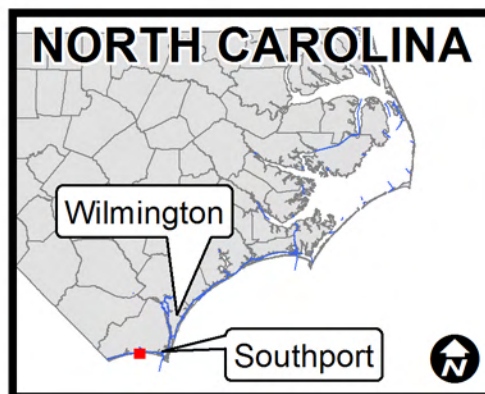
Can	4 and Shallow
Nun	6 - 4
Green Lighted Buoy	7 - 6
Red Lighted Buoy	8 - 7
Junction Marker	10 - 8
Green Light	12 - 10
Red Light	14 - 12
Green Daybeacon	15 - 14
Red Daybeacon	15 and Deeper
Danger Sign	Wrecks
Mileboard	Waypoints
Tide Gage	Waypoint Lines
	Placement Areas
	Navigation Channel

- NOTES:**
- SOUNDINGS ARE EXPRESSED IN FEET AND TENTHS AND REFER TO LOCAL M.L.W.
 - PROJECT SURVEYED WITH DISTRICT SURVEY VESSEL "J. BUTLER", USING RTK GPS HORIZONTAL POSITIONING EQUIPMENT AND 200 KHZ SOUNDING EQUIPMENT.
 - HORIZONTAL DATUM NAD 1983. VERTICAL DATUM BALDHEAD.
 - TIDE GAGE LOCATED AT LIGHT 48A. 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 ERI110-1-812.
 - 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



WRECKS

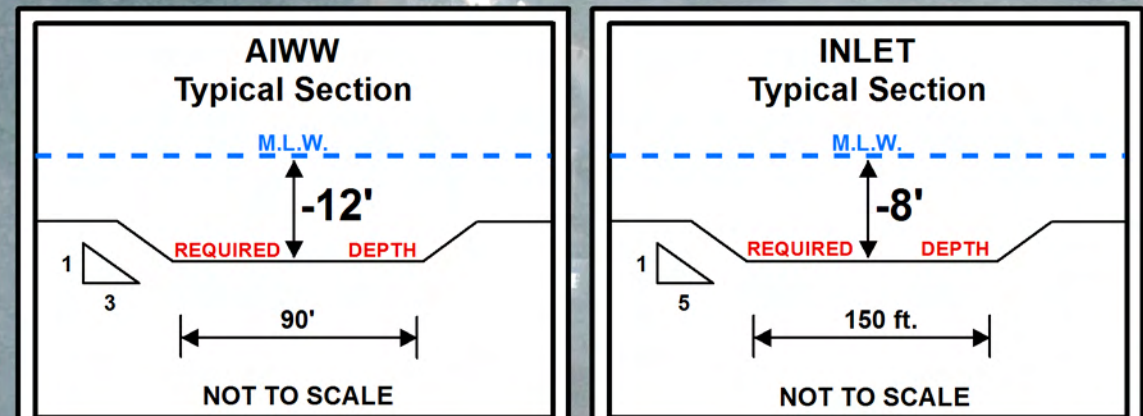
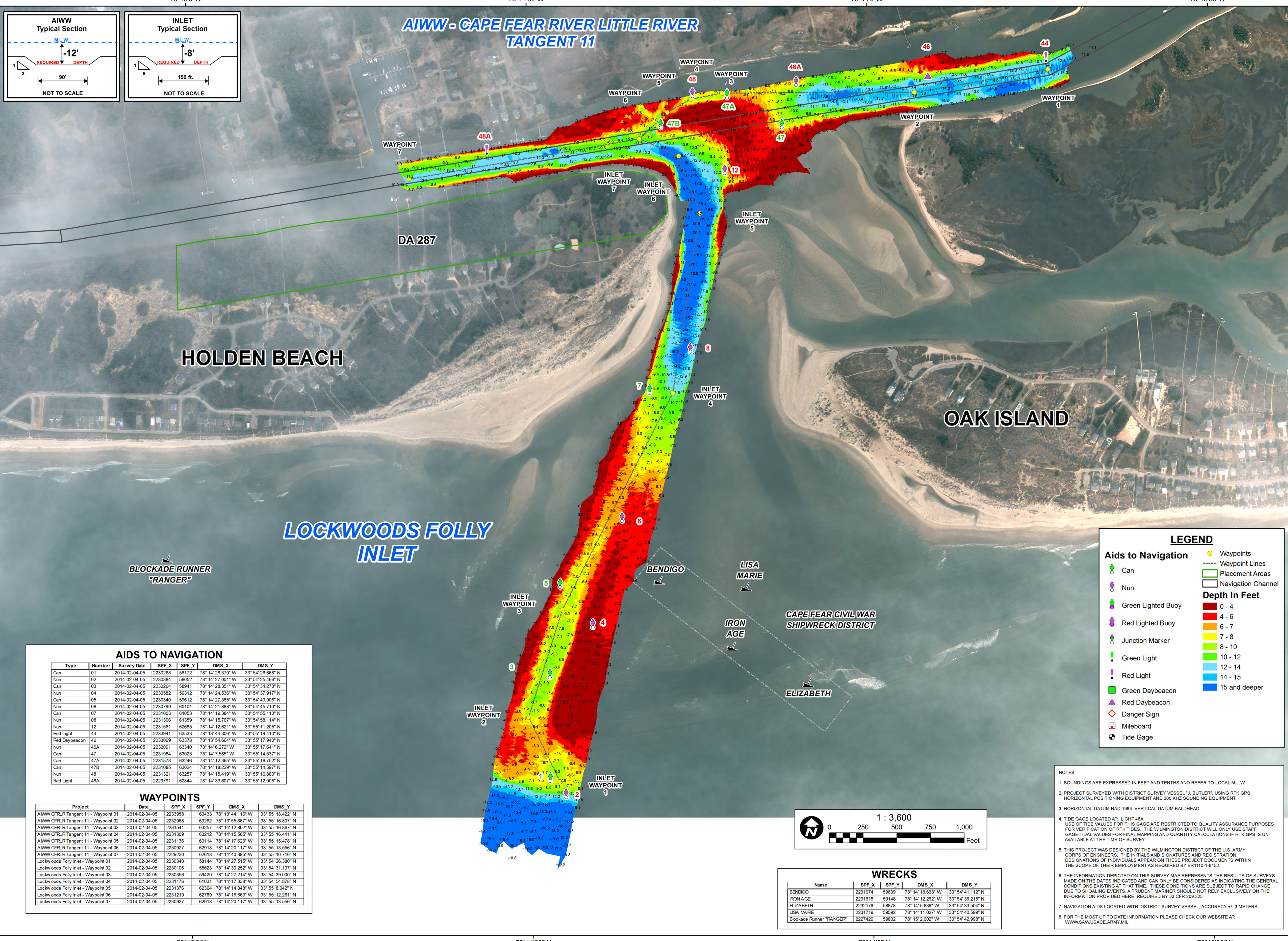
Name	SPF_X	SPF_Y	DMS_X	DMS_Y
BENDIGO	2231074	59639	78° 14' 18.668" W	33° 54' 41.112" N
IRON AGE	2231618	59148	78° 14' 12.262" W	33° 54' 36.215" N
ELIZABETH	2232179	58878	78° 14' 5.639" W	33° 54' 33.504" N
LISA MARIE	2231719	59592	78° 14' 11.027" W	33° 54' 40.599" N
Blockade Runner "RANGER"	2227420	59802	78° 15' 2.002" W	33° 54' 42.998" N



INLET SURVEY DATE(S):	FEBRUARY 27, 2014
AIIWW SURVEY DATE(S):	FEBRUARY 26, 2014
MAP DATE:	FEBRUARY 28, 2014
MAP SCALE:	1 : 3,600
IMAGERY DATE:	FEBRUARY 18, 2014 © DIGITALGLOBE, INC.
SURVEYED BY:	LMT, MAS, JBD
MAPPED BY:	MSA
MAP FILE NAME:	LFI-X_2014-02-27_AD.MXD

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

LOCKWOODS FOLLY INLET & AIIWW CROSSING
 OAK ISLAND, NORTH CAROLINA



AIWW - CAPE FEAR RIVER LITTLE RIVER TANGENT 11

HOLDEN BEACH

OAK ISLAND

LOCKWOODS FOLLY INLET

BLOCKADE RUNNER "RANGER"

BENDIGO

LISA MARIE

CAPE FEAR CIVIL WAR SHIPWRECK DISTRICT

IRON AGE

ELIZABETH

AIDS TO NAVIGATION

Type	Number	Survey Date	SPF_X	SPF_Y	DMS_X	DMS_Y
Can	01	2014-02-04-05	2230268	58172	78° 14' 28.370" W	33° 54' 26.668" N
Nun	02	2014-02-04-05	2230384	58052	78° 14' 27.001" W	33° 54' 25.466" N
Can	03	2014-02-04-05	2230264	58941	78° 14' 28.351" W	33° 54' 34.273" N
Nun	04	2014-02-04-05	2230582	59312	78° 14' 24.536" W	33° 54' 37.917" N
Can	05	2014-02-04-05	2230340	59612	78° 14' 27.385" W	33° 54' 40.906" N
Nun	06	2014-02-04-05	2230799	60101	78° 14' 21.888" W	33° 54' 45.710" N
Can	07	2014-02-04-05	2231003	61053	78° 14' 19.384" W	33° 54' 55.110" N
Nun	08	2014-02-04-05	2231306	61359	78° 14' 15.767" W	33° 54' 58.114" N
Nun	12	2014-02-04-05	2231561	62685	78° 14' 12.621" W	33° 55' 11.205" N
Red Light	44	2014-02-04-05	2233941	63533	78° 13' 44.306" W	33° 55' 19.410" N
Red Daybeacon	46	2014-02-04-05	2233069	63378	78° 13' 54.664" W	33° 55' 17.940" N
Nun	46A	2014-02-04-05	2232091	63340	78° 14' 6.272" W	33° 55' 17.641" N
Can	47	2014-02-04-05	2231984	63025	78° 14' 7.565" W	33° 55' 14.537" N
Can	47A	2014-02-04-05	2231578	63246	78° 14' 12.365" W	33° 55' 16.752" N
Can	47B	2014-02-04-05	2231085	63024	78° 14' 18.229" W	33° 55' 14.597" N
Nun	48	2014-02-04-05	2231321	63257	78° 14' 15.419" W	33° 55' 16.880" N
Red Light	48A	2014-02-04-05	2229791	62844	78° 14' 33.607" W	33° 55' 12.908" N

WAYPOINTS

Project	Date	SPF_X	SPF_Y	DMS_X	DMS_Y
AIWW CFRLR Tangent 11 - Waypoint 01	2014-02-04-05	2233958	63433	78° 13' 44.116" W	33° 55' 18.422" N
AIWW CFRLR Tangent 11 - Waypoint 02	2014-02-04-05	2232968	63262	78° 13' 55.867" W	33° 55' 16.807" N
AIWW CFRLR Tangent 11 - Waypoint 03	2014-02-04-05	2231541	63257	78° 14' 12.802" W	33° 55' 16.857" N
AIWW CFRLR Tangent 11 - Waypoint 04	2014-02-04-05	2231309	63212	78° 14' 15.565" W	33° 55' 16.441" N
AIWW CFRLR Tangent 11 - Waypoint 05	2014-02-04-05	2231136	63114	78° 14' 17.623" W	33° 55' 15.478" N
AIWW CFRLR Tangent 11 - Waypoint 06	2014-02-04-05	2230927	62918	78° 14' 20.117" W	33° 55' 13.556" N
AIWW CFRLR Tangent 11 - Waypoint 07	2014-02-04-05	2229220	62618	78° 14' 40.395" W	33° 55' 10.716" N
Lockwoods Folly Inlet - Waypoint 01	2014-02-04-05	2230340	58144	78° 14' 27.515" W	33° 54' 26.380" N
Lockwoods Folly Inlet - Waypoint 02	2014-02-04-05	2230106	58623	78° 14' 30.252" W	33° 54' 31.137" N
Lockwoods Folly Inlet - Waypoint 03	2014-02-04-05	2230356	59420	78° 14' 27.214" W	33° 54' 39.000" N
Lockwoods Folly Inlet - Waypoint 04	2014-02-04-05	2231176	61031	78° 14' 17.338" W	33° 54' 54.878" N
Lockwoods Folly Inlet - Waypoint 05	2014-02-04-05	2231376	62364	78° 14' 14.848" W	33° 55' 0.042" N
Lockwoods Folly Inlet - Waypoint 06	2014-02-04-05	2231219	62789	78° 14' 16.663" W	33° 55' 12.261" N
Lockwoods Folly Inlet - Waypoint 07	2014-02-04-05	2230927	62918	78° 14' 20.117" W	33° 55' 13.556" N

WRECKS

Name	SPF_X	SPF_Y	DMS_X	DMS_Y
BENDIGO	2231074	59639	78° 14' 18.668" W	33° 54' 41.112" N
IRON AGE	2231618	59148	78° 14' 12.282" W	33° 54' 36.215" N
ELIZABETH	2232179	58878	78° 14' 5.639" W	33° 54' 33.504" N
LISA MARIE	2232179	59592	78° 14' 11.027" W	33° 54' 40.599" N
Blockade Runner "RANGER"	2227420	59802	78° 15' 2.002" W	33° 54' 42.998" N

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

Waypoints

- Waypoint Lines
- Placement Areas
- Navigation Channel

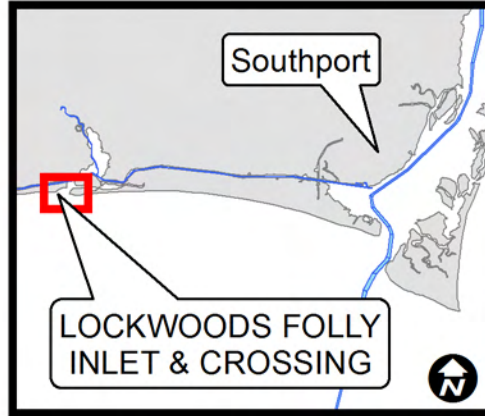
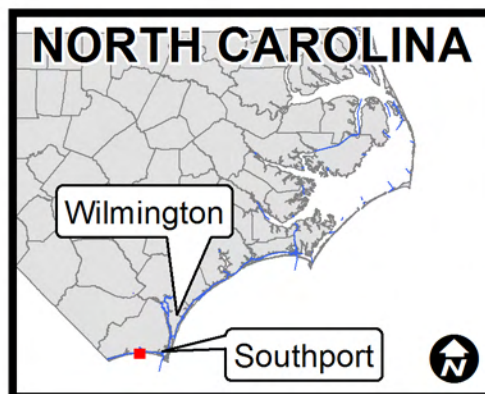
Depth In Feet

- 0 - 4
- 4 - 6
- 6 - 7
- 7 - 8
- 8 - 10
- 10 - 12
- 12 - 14
- 14 - 15
- 15 and deeper

- NOTES:**
- SOUNDINGS ARE EXPRESSED IN FEET AND TENTHS AND REFER TO LOCAL M.L.W.
 - PROJECT SURVEYED WITH DISTRICT SURVEY VESSEL "J. BUTLER", USING RTK GPS HORIZONTAL POSITIONING EQUIPMENT AND 200 KHZ SOUNDING EQUIPMENT.
 - HORIZONTAL DATUM NAD 1983. VERTICAL DATUM BALDHEAD.
 - TIDE GAGE LOCATED AT LIGHT 48A. 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.SAWUSACE.ARMY.MIL



**US Army Corps of Engineers
Wilmington District**



INLET SURVEY DATE(S):	FEBRUARY 4, 2014	SURVEYED BY:	LMT
AIWW SURVEY DATE(S):	FEBRUARY 5, 2014	MAPPED BY:	DJM
MAP DATE:	FEBRUARY 11, 2014		
MAP SCALE:	1 : 3,600		
IMAGERY DATE:	NOVEMBER 29, 2013		
		MAP FILE NAME:	LFI_2014-02-04-05.MXD

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

LOCKWOODS FOLLY INLET & AIWW CROSSING
OAK ISLAND, NORTH CAROLINA