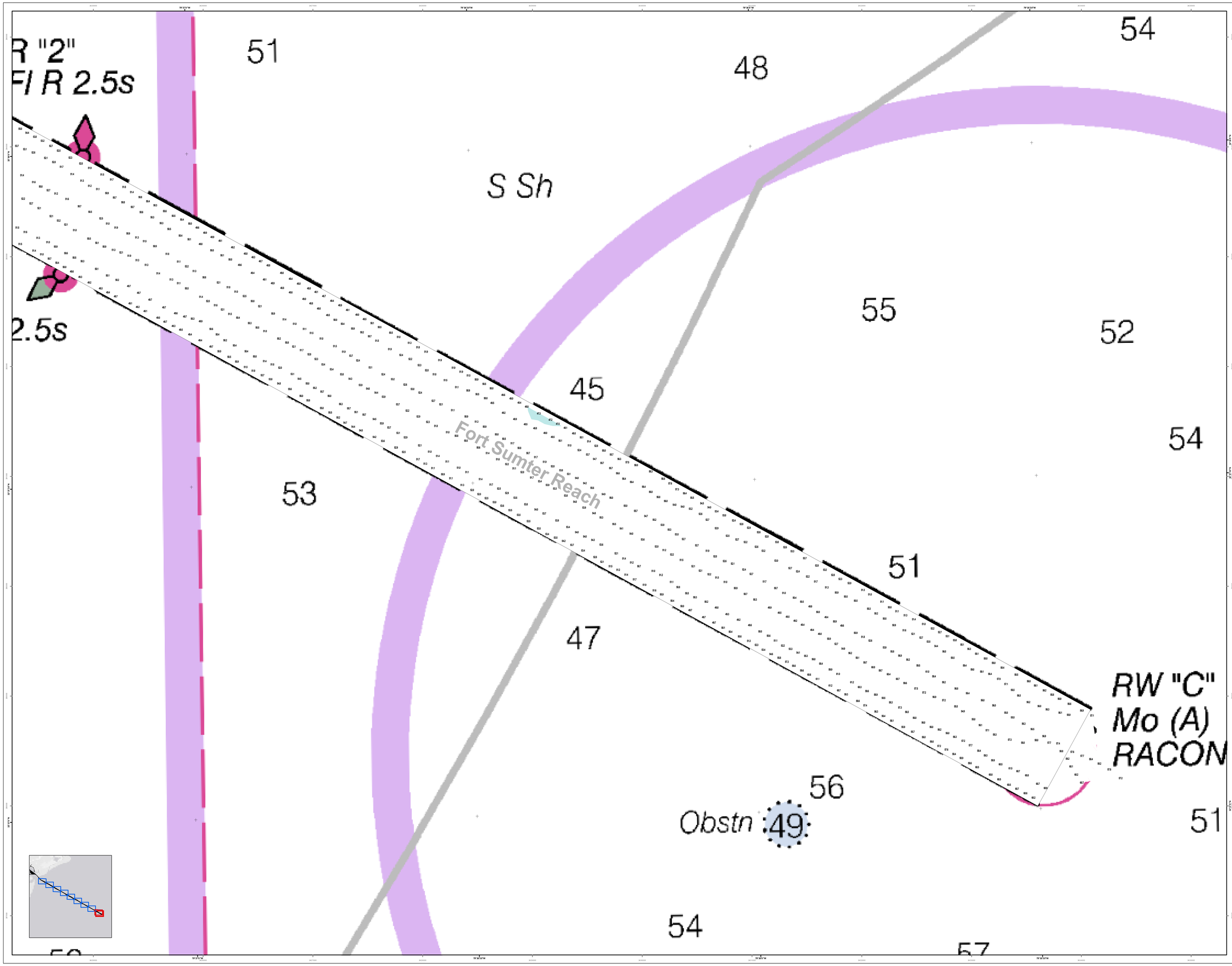


U.S. Army Corps of Engineers
Charleston District

Legend

Bluewater Boating
- Dredged Channel
- Survey Area
- Soundings may not cover entire area due to survey coverage per mark quarter area

Channel Marks
- Lighted Buoy
- Unlighted Buoy
- Water Sounding

USCG Buoys
- Green
- Red
- White

Fairway Navigation Channel
- Left TOC Line
- Right TOC Line
- True Centerline

Depths in feet
- Less than 35.0
- 35.1 to 40.0
- 40.1 to 45.0
- 45.1 to 47.0
- Greater than 47.0

Production Notes:
1. Coordinates and depths shown are for preliminary plotting purposes only. Final products will be produced from the source data collected by the Corps of Engineers and stored in the Corps' Hydrographic Survey Database.
2. Soundings are often and tenths of feet, depths are rounded to the nearest tenth of a foot.
3. Soundings are often and tenths of feet, depths are rounded to the nearest tenth of a foot.
4. Chart Datum (MLLW) is the Tidal Datum of Mean Low Water.
Prep ver.xxx 11Oct 1 yrs 11Oct 3

In no event shall the U.S. Army Corps of Engineers, Charleston District Office, Epsilon Data Branch be liable for direct, indirect, special, incidental, or consequential damages arising out of the use of the data, including but not limited to, loss of anticipated profits or benefits arising out of the use of this data or any part thereof.
These data sets have been developed from the best available source data. No warranty is made as to the accuracy, reliability, or completeness of these data. Users are advised that the data may be subject to frequent change and that the accuracy of the data may be affected by time and tide.
The data should not be used for navigation.
Mariners are encouraged to use all prudent safety measures.

N

0 125 250 500 750 1000 Feet

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
CHARLESTON, SOUTH CAROLINA

SPATIAL DATA BRANCH
69 A TRADD AVE
CHARLESTON, SC 29403

CESAC-GIS@USACE.ARMY.MIL

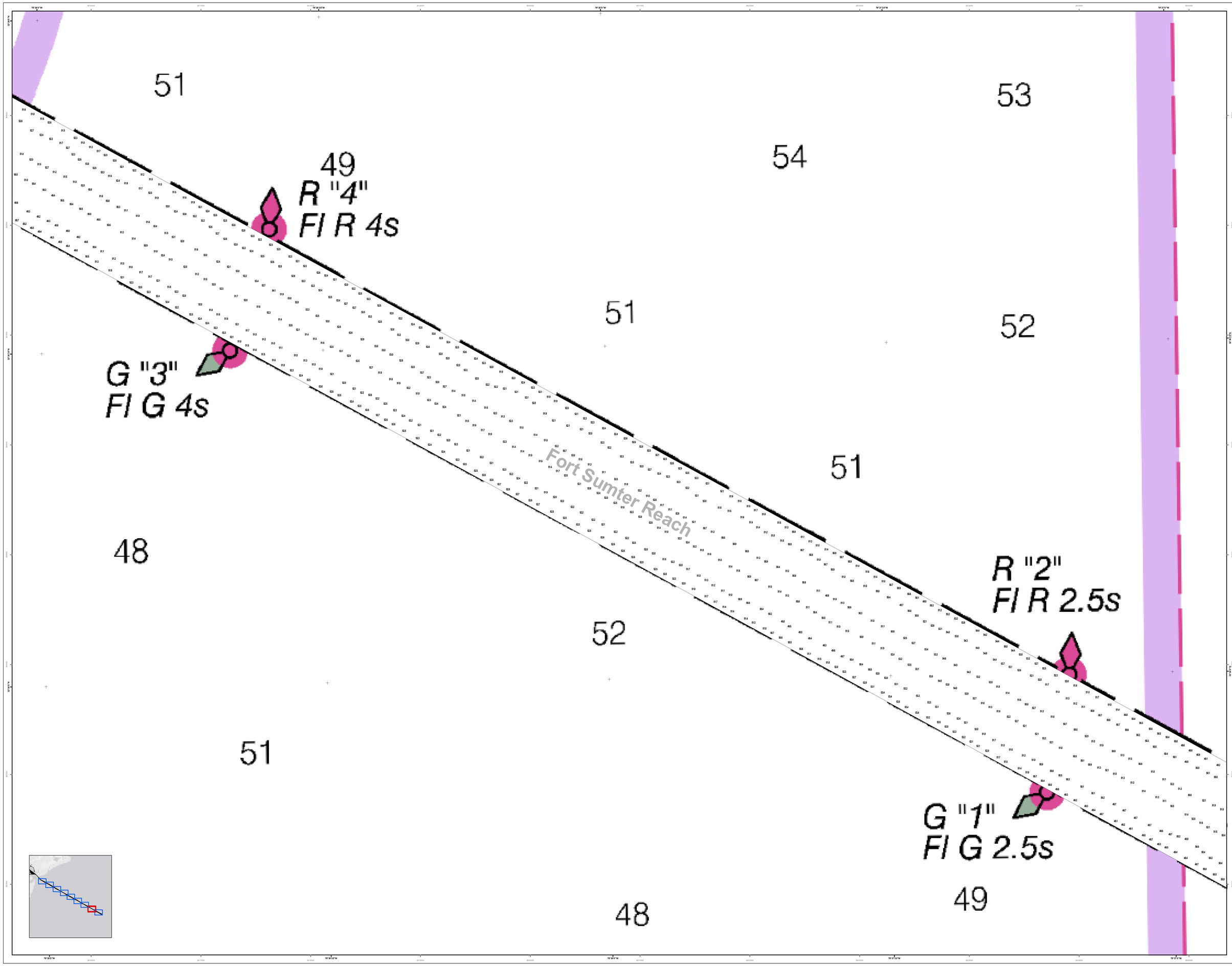
Designed By: eHydro Software v3.82
Reviewed By: COK
Reference Scale: 1 inch = 250 feet
Projection: NAD 1983 StatePlane South Carolina FIPS 3900 Feet Intl

Survey Date: 19 JUL 2016
Project Reference Number: CEAC-CHS-2016-0010
Survey Type: CONDITION

Production Date: 19 JUL 2016

Charleston Entrance Channel Survey
The information depicted on this map represents the results of surveys made on the dates indicated and can only be considered as indicative of general conditions existing at that time.
Concluded on: **19 JUL 2016**
Charleston, South Carolina

SHEET REFERENCE NUMBER
C002
SHEET 1 OF 9



U.S. Army Corps of Engineers

Charleston District

Legend

Bravo Sounding

Survey Area

Sounding may not cover entire area, but coverage is complete per each quarter area.

Charleston Fleet

Wrecks Submerged

Depth in feet

Less than 30.0

30.1 to 40.0

40.1 to 45.0

45.1 to 47.0

Greater than 47.0

USCG Buoys

Green

Red

USCG Beacons

Green

Red

White

Federal Navigation Channel

Left TOC Line

Right TOC Line

True Centerline

USCG Lights

Yellow

White

Red

Green

Coast Guard Recon

Production Notes:

1. This map was produced using data collected during a hydrographic survey conducted by the Charleston District, Corps of Engineers and verified by the Coast Guard.
2. Soundings are in feet and tenths referenced to Mean Lower Low Water (MLLW).
3. Soundings are shown on the Mean Low Water Shoreline (MLW).

Map version 1TCF1 and 1TCF3

In no event shall the U.S. Army Corps of Engineers, Charleston District Office, Surveys Branch be liable for direct, indirect, special, incidental, or consequential damages arising out of or in connection with the use of the data, including but not limited to, loss of anticipated profits or benefits arising out of the use of this data.

These data sets have been developed from the best available sources and are believed to be accurate and reliable. However, datasets are accurate and reliable, errors and inaccuracies in the data may still exist. Use of the data for navigation purposes is not recommended. **Mariners are encouraged to use all prudent safety measures.**

N

0 125 250 500 750 1000 Feet

Designed By: eHydro Software v3.82	Survey Date: 19 JUL 2016
Reviewed By: CCVA	Production Date: 19 JUL 2016
Reviewed By: Pickup Scale: 1:1,000	Project Reference Number: CESAC-CD-PROJ-2016-0010
Reference Scale: 1 inch = 250 feet	Survey Type: CONDITION
Projection: NAD 1983 StatePlane South Carolina FIPS 3900 Feet Intl	

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
CHARLESTON, SOUTH CAROLINA

SPATIAL DATA BRANCH
69A TRADD AVE
CHARLESTON, SC 29403

CESAC-GIS@USACE.ARMY.MIL

Charleston Entrance Channel Survey

The information depicted on this map represents the results of surveys made on the dates indicated and can only be considered as representing the conditions existing at that time.

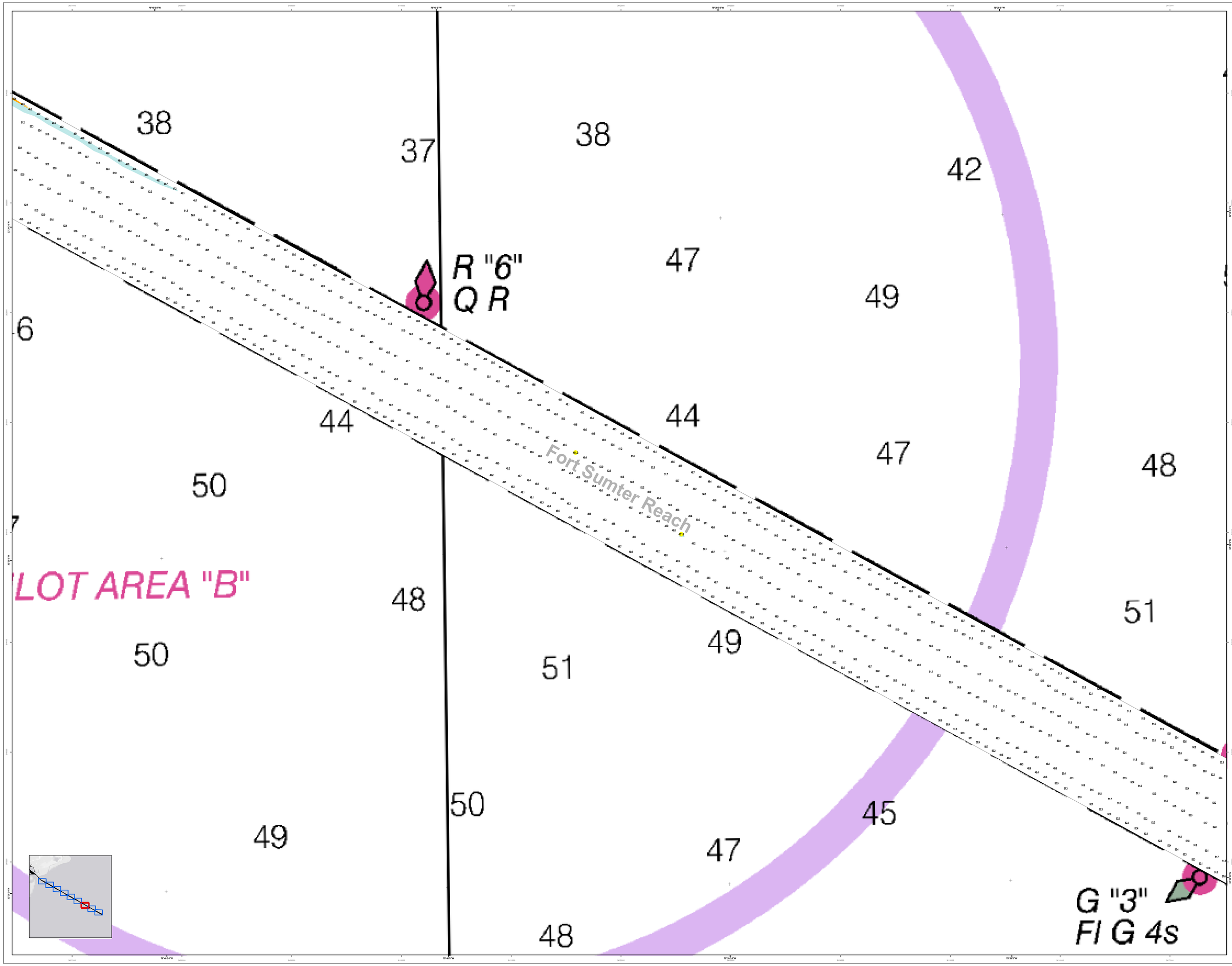
Concluded on: **19 JUL 2016**

Charleston, South Carolina

SHEET REFERENCE NUMBER

C002

SHEET 2 OF 9



U.S. Army Corps of Engineers

Charleston District

Disclaimer:

In no event shall the U.S. Army Corps of Engineers, Charleston District Office, Survey Data Branch be liable for direct, indirect, special, incidental, or consequential damages arising out of or resulting, but not limited to, loss of anticipated profits or benefits arising out of the use of this map.

These data sets have been developed from the best available source data. Every effort has been made to ensure that the data sets are accurate and reliable, errors and variable conditions may exist in the source data. Users should carefully verify critical data before relying on it for a specific application.

This chart is not intended to be used for navigation.

Mariners are encouraged to use all prudent safety measures.

Production Notes:

1. Coordinate system: NAD 1983 StatePlane South Carolina FIPS 3900 Feet, projected in the positing purposes only.
2. Depths are in feet and based on the most recent survey data available conducted by the USACE Charleston District and tied to Mean Low Low Water (MLLW).
3. Soundings are often and tenths in feet at depths less than 10 feet.

Author: Brandon Lindsey, USACE, Charleston District, Survey Data Branch

Map version: 115C1 and 115C3

N

0 125 250 500 750 1000 Feet

Depth in feet

- 0.0 to 3.0
- 3.1 to 4.0
- 4.1 to 5.0
- 5.1 to 6.0
- Greater than 6.0

Legend

Shoaled Boundary

- Surveyed
- Not Surveyed

Sounding may cover several years of data and may be updated per each quarter data.

Obstructions

- Wreck
- Obstruction

USCG Buoys

- Green
- Red
- White

USCG Beacons

- Green
- Red
- White
- Yellow

Fairway Navigation Channel

- Left TOC Line
- Right TOC Line
- True Centerline

USCG Light

Wreck-Submerged

Coast Guard Rescue

Designed By: ellyotte Software v3.82	Survey Date: 19 JUL 2016
Reviewed By: CONYAK	Production Date: 19 JUL 2016
Absolute Scale: 1:3,000	Project Reference Number: CESAC-2016-0210
Reference Scale: 1 inch = 250 feet	Survey Type: CONDITION
Projection: NAD 1983 StatePlane South Carolina FIPS 3900 Feet Intl	

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
CHARLESTON, SOUTH CAROLINA

SPATIAL DATA BRANCH
69A HAGOOD AVE
CHARLESTON, SC 29403

CESAC-GIS@USACE.ARMY.MIL

Charleston Entrance Channel Survey

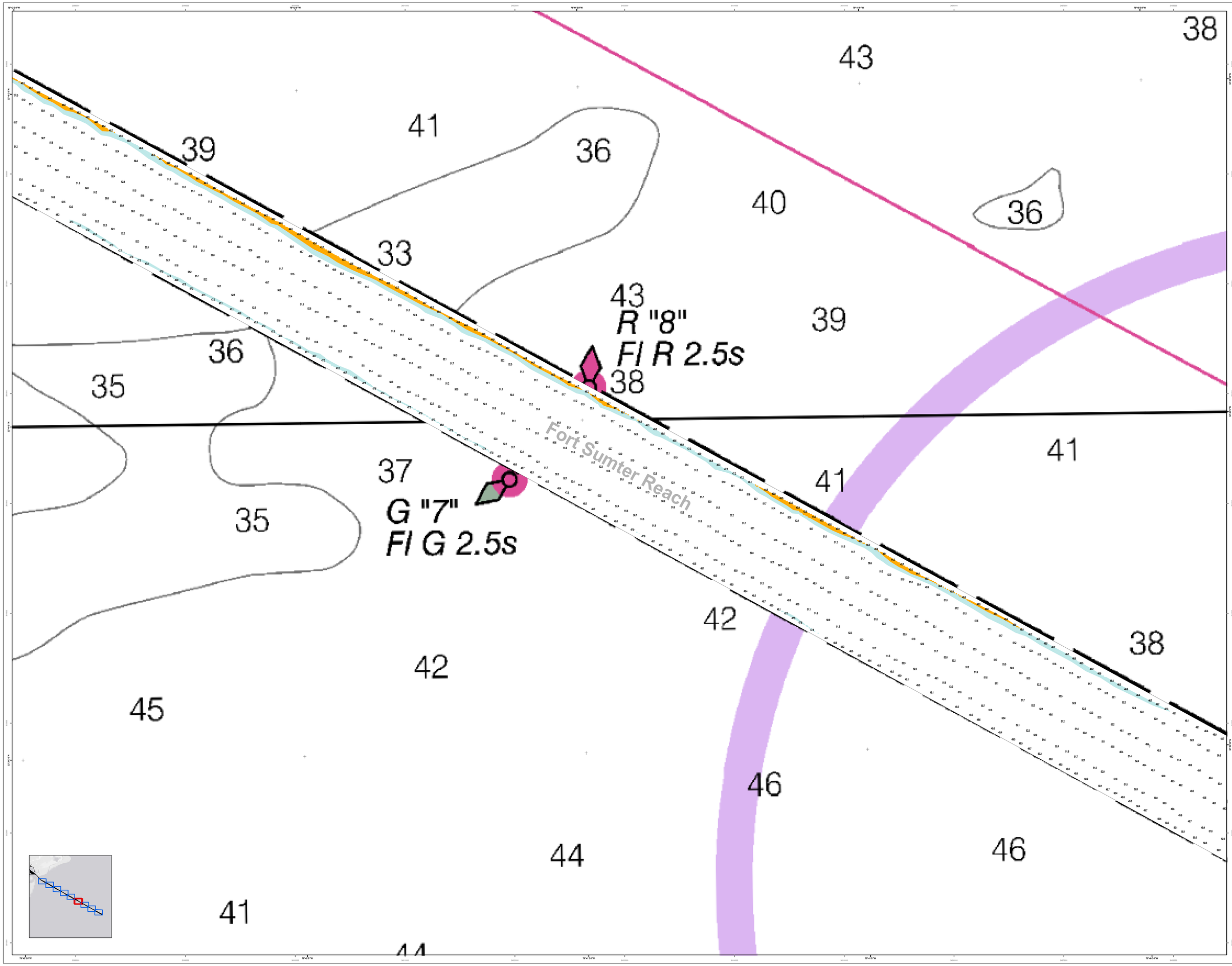
The information depicted on this map represents the results of surveys made on the dates indicated and can only be considered as accurate for the geometric conditions existing at that time.

Concluded on: **19 JUL 2016**

Charleston, South Carolina

SHEET REFERENCE NUMBER

C002



U.S. Army Corps of Engineers

Charleston District

In no event shall the U.S. Army Corps of Engineers, Charleston District Office, Boston Dock Branch be liable for direct, indirect, incidental, special, exemplary, or consequential damages arising, but not limited to, loss of anticipated profits or benefits arising out of the use of these data.

These data sets have been developed from the best available source data. No guarantee is made as to the accuracy of these datasets are accurate and reliable, errors and variable conditions may exist in the source data. Survey data may not be current or reflected in the data sources.

These data are not intended to be used for navigation.

Mariners are encouraged to use all prudent safety measures.

Production Notes:

1. Depth contours are shown as they appear in the source data. Contours are provided for visual reference only and may not be accurate.
2. Soundings are in feet and tenths.
3. Soundings are corrected for the Mean Lower Low Water (MLLW) Tide Station Charleston, SC (8665530).

Ref: Tide Station CHS/CO-OPS Predictions 1TGT and 1TGS

N

0 125 250 500 750 1000 Feet

Depth in feet

- 0.0 to 4.0
- 4.1 to 6.0
- 6.1 to 8.0
- 8.1 to 12.0
- Greater than 12.0

USCG Beacon

- Square
- Triangular
- Red
- White

Fixed Navigation Channel

- Left TOC Line
- Right TOC Line
- Toe Centerline

USCG Buoy

- Square
- Triangular
- Red
- White
- Yellow

USCG Light

Gold Guard Rescue

Legend

Survey Soundings

Soundings may cover every square foot or be spaced per each quarter area.

Obstructions

- Wreck
- Rock
- Wreck-Submerged

Designed By: eHydro Software v3.82	Survey Date: 19 JUL 2016
Reviewed By: CCOV	Production Date: 19 JUL 2016
Accepted By: CCOV	Project Reference Number: CESAC_PROJ_20160
Reference Scale: 1 inch = 250 feet	Survey Type: CONDITION
Projection: NAD 1983 StatePlane South Carolina FIPS 3900 Feet Intl	

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
CHARLESTON, SOUTH CAROLINA

SPATIAL DATA BRANCH
69A HAGOOD AVE
CHARLESTON, SC 29403

CESAC-GIS@USACE.ARMY.MIL

Charleston Entrance Channel Survey

The information depicted on this map represents the results of survey made on the dates indicated and can only be considered an accurate representation of the general conditions existing at that time.

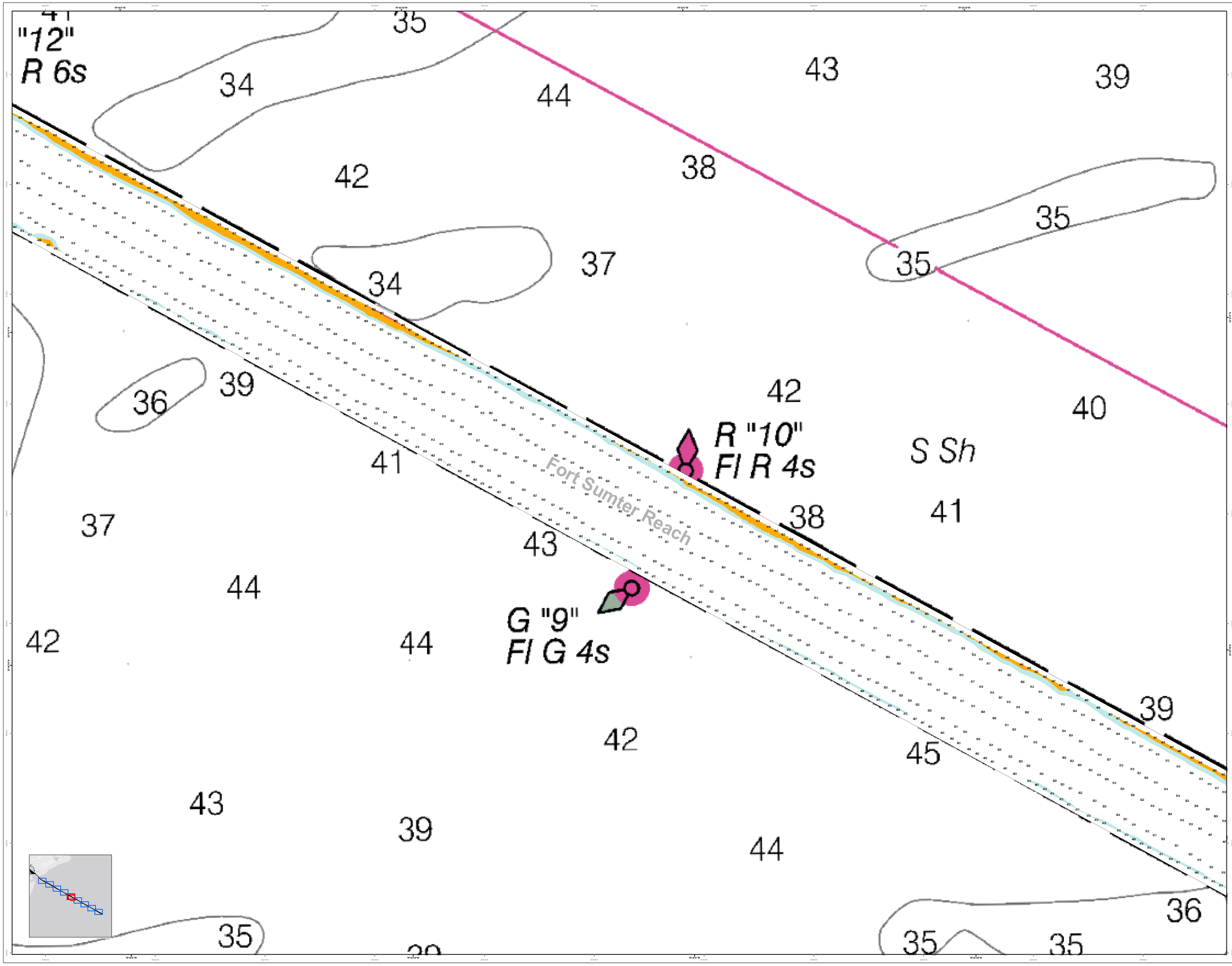
Concluded on: **19 JUL 2016**

Charleston, South Carolina

SHEET REFERENCE NUMBER

C002

SHEET 4 OF 9



U.S. Army Corps of Engineers
Charleston District

Legend

Shoaled Sounding
- Sounding
- Sounding may cover an area of shoal water or may be part of a much larger area

Observed Wreck
- Wreck
- Wreck-Submerged

USCG Buoy
- Lateral
- Cardinal
- Isolated Danger
- Safe Water
- Special Purpose/Regulatory

Color: Green, Red, White, Yellow

USCG Beacon
- Lateral
- Cardinal
- Isolated Danger
- Safe Water
- Special Purpose/Regulatory

Color: Green, Red, White

False Navigation Channel
- Left TOC Line
- Right TOC Line
- True Centerline

USCG Light
Coast Guard Racon

Depth's feet
- 0 to 3.0
- 3.1 to 6.0
- 6.1 to 9.0
- 9.1 to 12.0
- Greater than 12.0

N

0 125 250 500 750 1000 Feet

Production Notes:
1. This chart is not to be used for navigation purposes but rather for planning purposes only. 2. Depths are in feet and are referenced to the Mean Lower Low Water (MLLW) Tide Datum. 3. Soundings are in feet and tenths. 4. Coordinates are in decimal degrees.

In no event shall the U.S. Army Corps of Engineers, Charleston District Office, Charleston Data Branch be liable for direct, indirect, special, incidental, or consequential damages arising out of or in connection with the use of the data herein, including, but not limited to, loss of anticipated profits or benefits arising out of the use of this data.
These data sets have been developed from the best available source data. No warranty is expressed or implied as to whether the datasets are accurate and reliable, errors and variable conditions may exist in the source data, and all features may not be depicted or in the correct position.
This chart is not intended to be used for navigation.
Mariners are encouraged to use all prudent safety measures.

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
CHARLESTON, SOUTH CAROLINA

SPATIAL DATA BRANCH
69A HAGOOD AVE
CHARLESTON, SC 29403

CESAC-GIS@USACE.ARMY.MIL

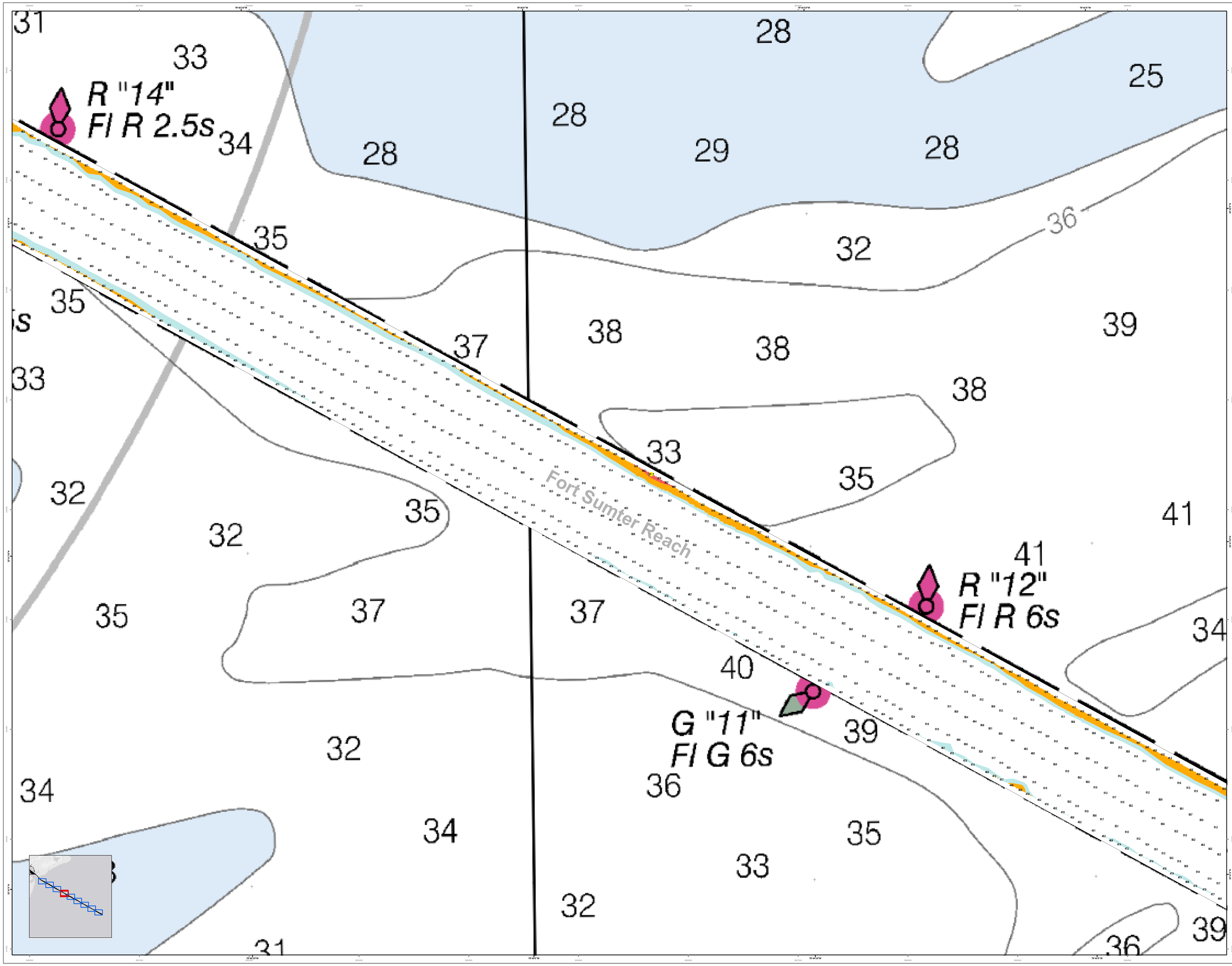
Designed By: ellyx/ms Software v3.82
Reviewed By: CWW
Absolute Scale: 1:5,000
Reference Scale: 1 inch = 250 feet
Projection: NAD 1983 StatePlane South Carolina FIPS 3900 Feet (ft)

Survey Date: 19 JUL 2016
Survey Type: CONDITION

Production Date: 19 JUL 2016
Project Reference Number: CESAC-PROJ-0010

Charleston Entrance Channel Survey
The information depicted on this map represents the results of surveys made on the dates indicated and can only be considered as accurate to the geometric conditions existing at that time.
Concluded on: **19 JUL 2016**
Charleston, South Carolina

SHEET REFERENCE NUMBER
C002
SHEET 5 OF 9



U.S. Army Corps of Engineers

Charleston District

Production Notes:

1. This map was produced using Hydro Office Software v3.82 and is for planning purposes only. Positions are based on data from surveys conducted by the U.S. Army Corps of Engineers.
2. Soundings are in feet and tenths.
3. Datum: Mean Lower Low Water (MLLW)

Coordinate System: NAD 1983 StatePlane South Carolina FIPS 3900 Feet Intl Map version 1102-1 and 1102-3

In no event shall the U.S. Army Corps of Engineers, Charleston District Office, Charleston Branch be liable for direct, indirect, incidental, special, exemplary, or consequential damages including but not limited to, loss of anticipated profits or benefits arising out of the use of this map or its data.

These data sets have been developed from the best available sources. It is not to be used for navigation. Although these datasets are accurate and reliable, errors and variable conditions may exist in the source data. Users should exercise independent verification of the information before using it.

This product is not intended to be used for navigation.

Mariners are encouraged to use all prudent safety measures.

Legend

Bluewater Sounding

- Sounding
- Sounding may not represent the least depth over the entire pier/wharf/dolphin area

Channel Markers

- Port Side
- Starboard Side

USCG Buoys

- Green
- Red
- White

USCG Beacon

- Green
- Red
- White
- Yellow

False Navigation Channel

- Left TOC Line
- Right TOC Line
- True Centerline

USCG Light

- Coast Guard Beacon

Depth Set

- 0 to 3.0
- 3.1 to 4.0
- 4.1 to 5.0
- 5.1 to 6.0
- Greater than 6.0

N

0 125 250 500 750 1000 Feet

U.S. ARMY ENGINEER DISTRICT CORPS OF ENGINEERS CHARLESTON, SOUTH CAROLINA	Designed By: eHydro Software v3.82	Survey Date: 19 JUL 2016
	Reviewed By: COE	Production Date: 19 JUL 2016
	Reproduction Scale: 1:2,000	Project Reference Number: CHA-16-PRO-0010
SP-ATAL-DATA BRANCH 69A HAGOOD AVE CHARLESTON, SC 29403	Reference Scale: 1 inch = 250 feet	Survey Type: CONDITION
CESAC-GIS@USACE.ARMY.MIL	Projection: NAD 1983 StatePlane South Carolina FIPS 3900 Feet Intl	

Charleston Entrance Channel Survey

The information depicted on this map represents the results of surveys made on the dates indicated and can only be considered as a reflection of the general conditions existing at that time.

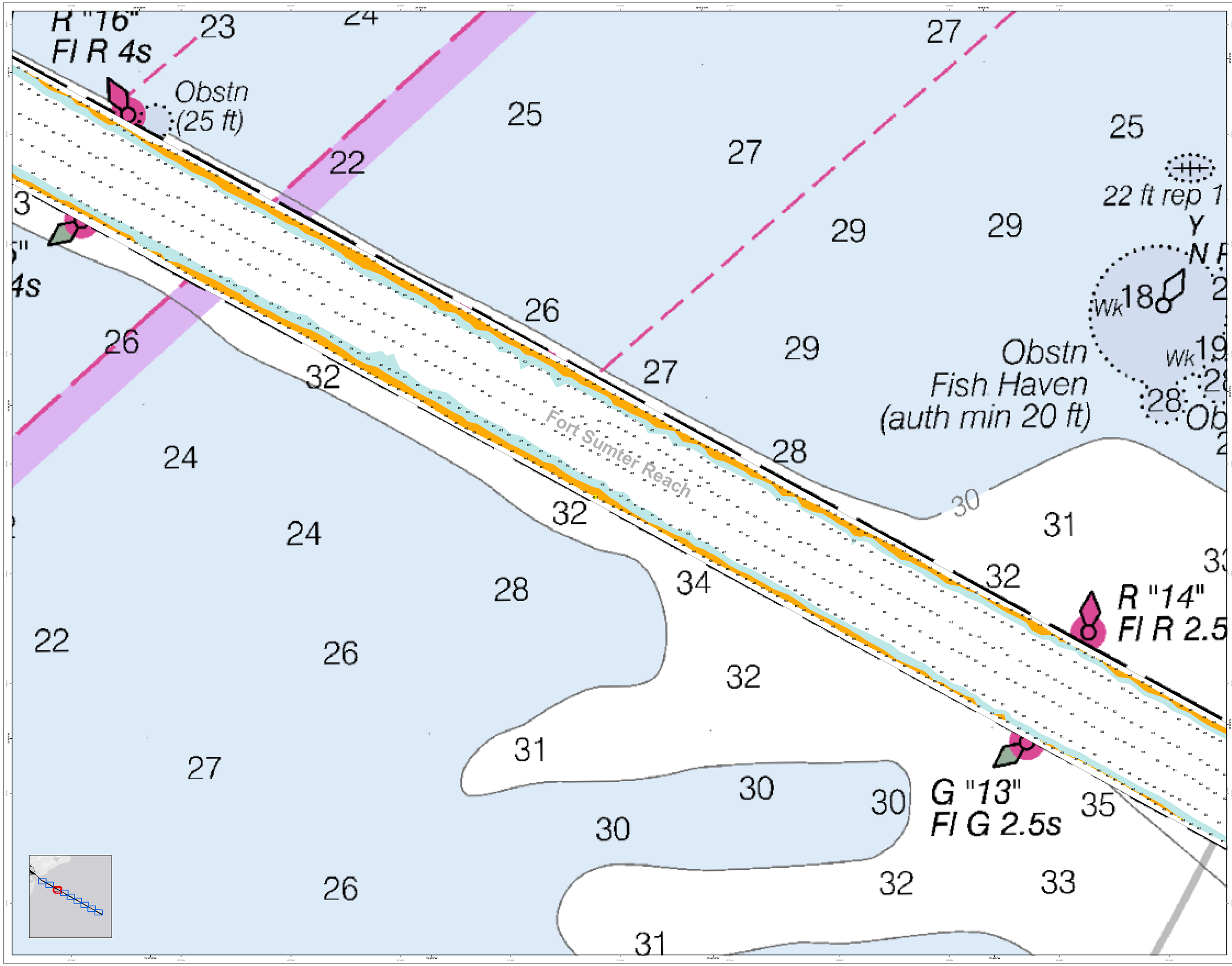
Concluded on: **19 JUL 2016**

Charleston, South Carolina

SHEET REFERENCE NUMBER

C002

SHEET 6 OF 9



U.S. Army Corps of Engineers
Charleston District

Production Notes:

In no event shall the U.S. Army Corps of Engineers, Charleston District Office, Charleston Branch be liable for direct, indirect, special, incidental, or consequential damages arising out of or in connection with the use of the data provided herein, including but not limited to, loss of anticipated profits or benefits arising out of the use of or reliance on the data.

These data sets have been developed from the best available source data at the time of publication. No warranty is made that the datasets are accurate and reliable, errors and variable conditions may exist in the source data. Mariners should not navigate using these datasets without the chart approved for navigation.

This product is not intended to be used for navigation.

Mariners are encouraged to use all prudent safety measures.

1. Soundings are in feet and tenths.
2. Datum: Mean Lower Low Water (MLLW).
3. Soundings are corrected for the tide.

Datum: Mean Lower Low Water
Prop set-on: 11521 and 11523

N

0 125 250 500 750 1000 Feet

Depth Test
- Less than 30.0
- 30.1 to 40.0
- 40.1 to 45.0
- 45.1 to 47.0
- Greater than 47.0

USCG Beacon
- Green
- Red
- White

Fedas Navigation Channel
- Right TOC Line
- Left TOC Line
- True Centerline

USCG Buoy
- Green
- Red
- White
- Yellow

USCG Light
- Green
- Red
- White
- Yellow

Coast Guard Route

Legend

Bathymetric Sounding
- Sounding
- Soundings may not cover entire area of survey, but are shown in all areas of each quarter area

Obstruction Point
- Obstruction
- Wreck-Submerged

Designed By: Hydro Software v3.82
Reviewed By: JAS
Absolute Scale: 1:3,000
Survey Date: 19 JUL 2016
Project Reference Number: CESAC-2016-0010
Production Date: 19 JUL 2016
Reference Scale: 1 inch = 250 feet
Survey Type: CONDITION
Projection: NAD 1983 StatePlane South Carolina FIPS 3900 Feet Intl

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
CHARLESTON, SOUTH CAROLINA

SPATIAL DATA BRANCH
69A HAGOOD AVE
CHARLESTON, SC 29403

CESAC-GIS@USACE.ARMY.MIL

Charleston Entrance Channel Survey

The information depicted on this map represents the results of surveys made on the dates indicated and can only be considered as accurate for general conditions existing at that time.

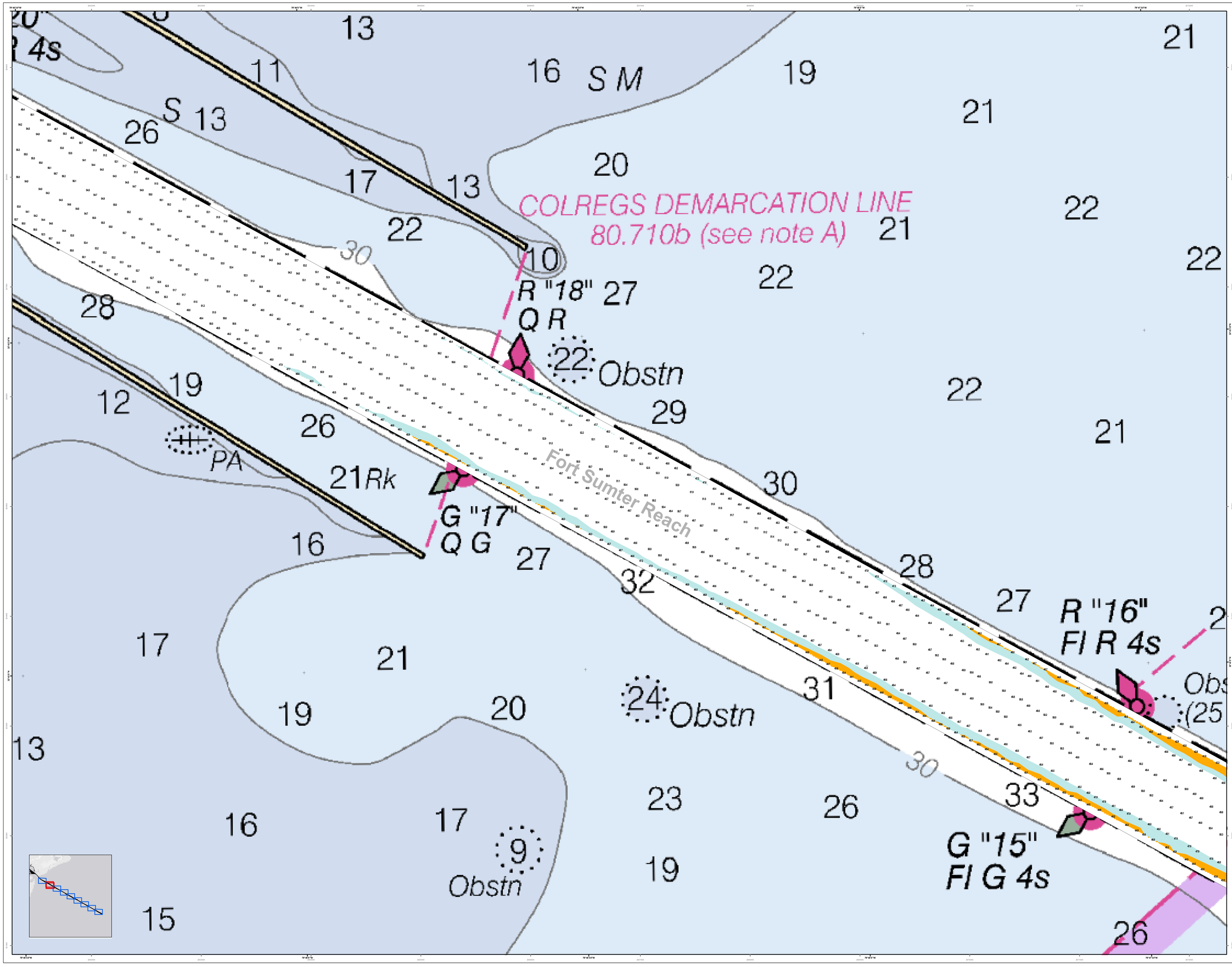
Concluded on: **19 JUL 2016**

Charleston, South Carolina

SHEET REFERENCE NUMBER

C002

SHEET 7 OF 9



U.S. Army Corps of Engineers
Charleston District

Legend

Seabed Sounding

Soundings may not cover entire area, but are shown at least 50 feet apart in areas of interest

Operation Area

Operation Area

Where Authorized

Data Quality

Data Quality

Data Quality

USCG Buoys

Green

Red

White

Fixed Navigation Channel

Right TOC Line

Left TOC Line

Toe Centerline

USCG Daily

Green

Red

White

Yellow

USCG Light

Cold Guard Buoys

Production Notes:

1. Data was collected using Track ma by Fathom Hydrographic Services and processed using Hydrovision software conducted by the Charleston District Survey Section.
2. Soundings are in feet and tenths.
3. Soundings are referenced to MLLW.

Datum: Tide Datum: MHW=4.7 MLLW
Prep date: 11/21 and 11/23

N

0 125 250 500 750 1000 Feet

Depth Set

Depth Set

0.0 to 3.0

3.1 to 4.0

4.1 to 5.0

5.1 to 6.0

6.1 to 8.0

Greater than 8.0

In no event shall the U.S. Army Corps of Engineers, Charleston District Office, Charleston Data Branch be liable for direct, indirect, incidental, special, exemplary, or consequential damages arising out of or in any way connected with the use of these data, including, but not limited to, loss of anticipated profits or benefits arising out of the use of these data.

These data sets have been developed from the best available sources. We make no warranties, expressed or implied, as to the accuracy, adequacy, or completeness of the data provided. Users are cautioned to independently verify the accuracy of these data before using them.

These data are not intended to be used for navigation.

Mariners are encouraged to use all prudent safety measures.

U.S. ARMY ENGINEER DISTRICT CORPS OF ENGINEERS CHARLESTON, SOUTH CAROLINA	Designed By: eHydro Software v.0.82	Survey Date: 19 JUL 2016
	Reviewed By: CESAC	Project Reference Number: CESAC-2016-0010
SPATIAL DATA BRANCH 69A HAGOOD AVE CHARLESTON, SC 29403	Reviewed By: CESAC	Survey Type: CONDITION
CESAC-GIS@USACE.ARMY.MIL	Reference Scale: 1 inch = 250 feet	Projection: NAD 1983 StatePlane South Carolina FIPS 3900 Feet Intl
	Reference Scale: 1:3,000	

Production Date: 19 JUL 2016

Charleston Entrance Channel Survey

The information depicted on this map represents the results of surveys made on the dates indicated and can only be considered as accurate under general conditions existing at that time.

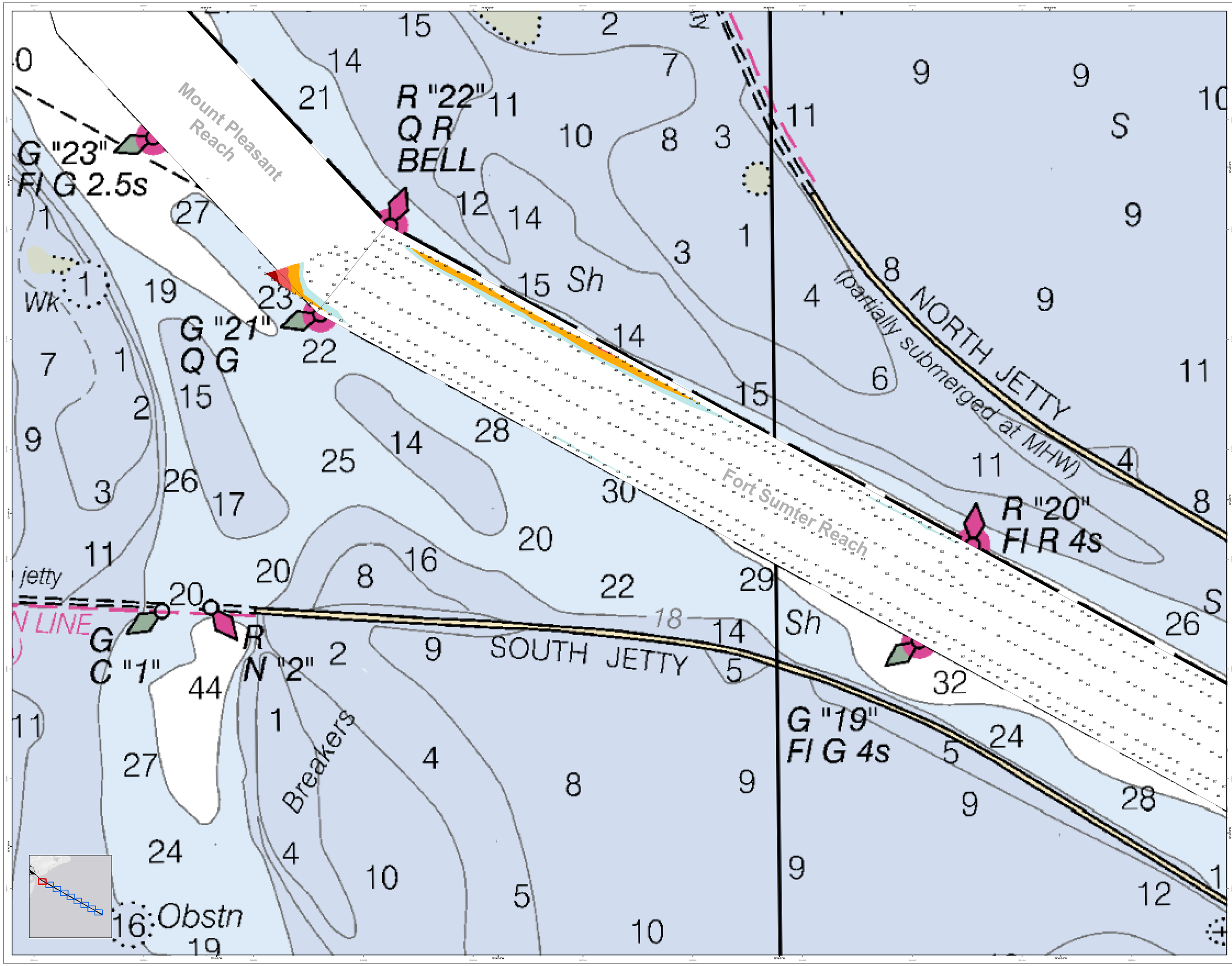
Concluded on: **19 JUL 2016**

Charleston, South Carolina

SHEET REFERENCE NUMBER

C002

SHEET 8 OF 9



U.S. Army Corps of Engineers

Charleston District

Production Notes:

1. Depths are referenced to mean low low water (MLLW) and are based on the most current hydrographic survey available. Some surveys conducted by the Corps of Engineers are referenced to a local datum. Soundings are in feet and tenths.
2. Horizontal control is referenced to NAD83 (NSRS 2007) and projected in State Plane Coordinates, South Carolina FIPS 3900 Feet Intl Lambert Conformal Conic.

N

0 125 250 500 750 1000 FEET

Depth(s) feet

	less than 3.0
	3.1 to 4.0
	4.1 to 5.0
	greater than 5.0

Legend

Bathymetric Sounding

- Sounding (may not be present on the survey if the area is part of a wider survey area)

Obstruction Marks

- Obstruction
- Wreck-Submerged

USCG Buoys

- Green
- Red
- White

USCG Beacon

- Green
- Red
- White

Fixed Navigation Channel

- Left TOC Line
- Right TOC Line
- Toe Centerline

USCG Buoy

- Green
- Red
- White
- Yellow

USCG Beacon

- Green
- Red
- White
- Yellow

USCG Light

- Coast Guard Recon

Designed By: HydroSoft Software v3.82	Survey Date: 19 JUL 2016
Reviewed By:	Absolute Scale: 1:10,000
Reference Scale: 1 inch = 250 feet	Survey Type: CONDITION
Projection: NAD 1983 StatePlane South Carolina FIPS 3900 Feet Intl	Production Date: 19 JUL 2016

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
CHARLESTON, SOUTH CAROLINA

SP-NAL-DATA BRANCH
69A HAGOOD AVE
CHARLESTON, SC 29403

CESAC-GIS@USACE.ARMY.MIL

Charleston Entrance Channel Survey

The information depicted on this map represents the results of surveys made on the dates indicated and can only be considered as accurate for general conditions existing at that time.

Concluded on: **19 JUL 2016**

Charleston, South Carolina

SHEET REFERENCE NUMBER

C002

SHEET 9 OF 9