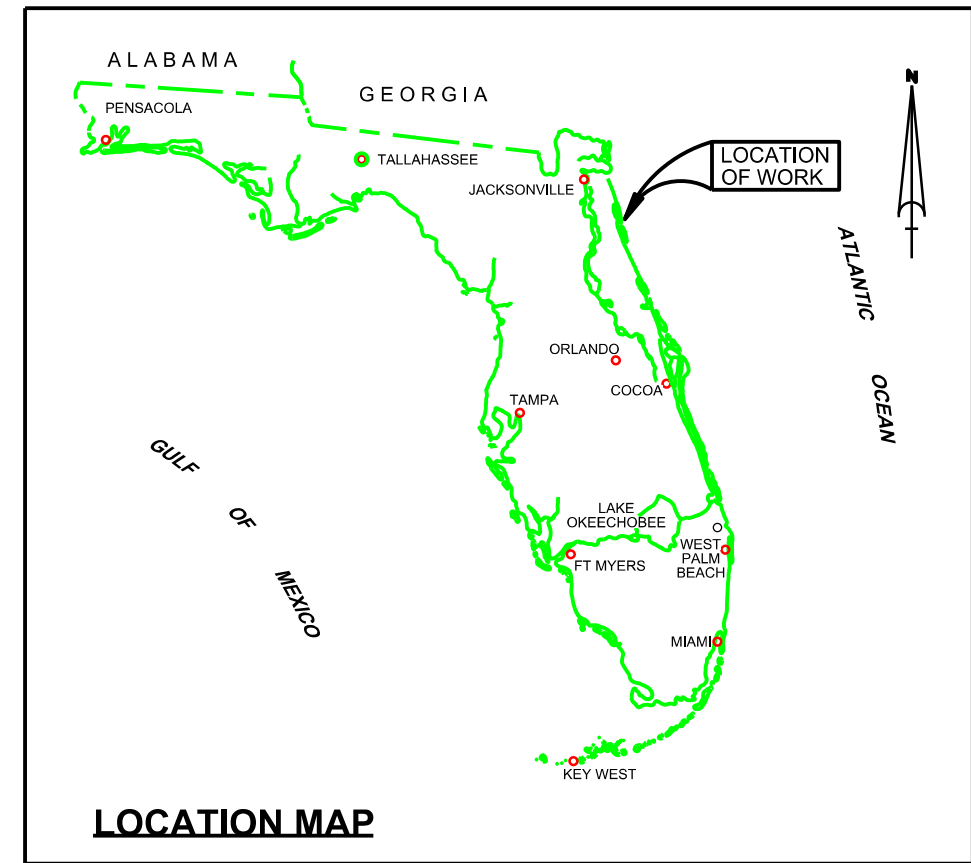


# ST. AUGUSTINE INLET ST. JOHNS COUNTY, FLORIDA EBB AND FLOOD SHOALS EXAMINATION SURVEY FY17 16-FOOT PROJECT



### SURVEY NOTES

- REFER TO SURVEY NO. 17-072.
- DEPTHS DEPICTED BY THIS SURVEY ARE REFERENCED TO MEAN LOWER LOW WATER (MLLW), TIDAL EPOCH 1983-2001, AS REPORTED BY THE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION (NOAA). NOAA'S VDATUM MODEL WAS USED AND CALIBRATED TO THE PUBLISHED MLLW HEIGHTS OF THE BENCH MARKS ASSOCIATED WITH THE TIDE GAGE SITE SPECIFIED BELOW:  
  
NOAA TIDAL STATION 872-0554, VILANO BEACH (ICWW) (PID: DL5712)
- TIDAL REDUCTIONS WERE OBTAINED UTILIZING A REAL-TIME KINEMATIC (RTK) GPS AND REFERENCED TO MLLW UTILIZING A HYPACK KINEMATIC TIDE DATUM (KTD) MODEL PRODUCED USING NOAA VDATUM. KTD FILE NAME IS: CAMDENGA-NASSAU-DUVAL-STJOHNS-FLAGLER\_01FEB2011.KTD.
- ALL ELEVATIONS ARE BELOW THE CHART DATUM UNLESS PRECEDED BY A (+) SIGN.
- PLANE COORDINATES ARE BASED ON THE TRANSVERSE MERCATOR PROJECTION FOR THE EAST ZONE OF FLORIDA AND REFERENCED TO NORTH AMERICAN DATUM OF 1983 (NAD83).
- ALL STATIONING REFERS TO THE CENTERLINE OF THE CHANNEL.
- THIS SURVEY WAS PERFORMED USING REAL-TIME KINEMATIC (RTK) GPS POSITIONING WITH THE FOLLOWING REFERENCE BASE LOCATIONS:  
  
REFERENCE BASE LOCATED AT "78 79 A40" (PID: BBBY64)  
  
TIDE STAFF LOCATED AT "872 0554B" (PID: DL5712)
- VERTICAL MEASUREMENTS WERE MADE USING A ROSS MODEL 835B SMART SOUNDER WITH A DUAL-FREQUENCY 28/200 KHZ SINGLE-BEAM TRANSDUCER. ALL DEPTHS SHOWN ARE IN HIGH FREQUENCY.  
  

| VESSEL | DATE OF SURVEY         | CUT                  |
|--------|------------------------|----------------------|
| SB-48  | 18-19, 23, 25 JAN 2017 | EBB AND FLOOD SHOALS |
| SB-40  | 01 FEB 2017            | FLOOD SHOAL          |
- AIDS TO NAVIGATION WERE COLLECTED DURING THIS SURVEY.
- THE INFORMATION DEPICTED ON THIS MAP REPRESENTS THE RESULTS OF SURVEYS MADE ON THE DATES INDICATED ABOVE AND CAN ONLY BE CONSIDERED AS INDICATING THE GENERAL CONDITIONS AT THAT TIME. THIS CHART IS SOLELY FOR THE DISTRIBUTION OF AVAILABLE DEPTHS AT THE TIME OF THE SURVEY.
- SURVEY ACCURACY PERFORMANCE STANDARDS, QUALITY CONTROL, AND QUALITY ASSURANCE REQUIREMENTS WERE FOLLOWED DURING THIS SURVEY IN ACCORDANCE WITH USACE EM 1110-2-1003, HYDROGRAPHIC SURVEYING, 30 NOV 13.

| LEGEND |                    |
|--------|--------------------|
|        | MONUMENT           |
|        | LIGHTED BEACON     |
|        | GREEN DAYBEACON    |
|        | RED DAYBEACON      |
|        | RED LIGHTED BUOY   |
|        | GREEN LIGHTED BUOY |
|        | CAN BUOY           |
|        | NUN BUOY           |
|        | TIDE STAFF         |
| 8      | PROJECT DEPTH      |

US Army Corps of Engineers  
Jacksonville District  
SAFETY ON THIS JOB  
DEPENDS ON YOU

---

DESIGNED BY: WRM  
CHECKED BY: GHR  
DRAWN BY: WRM  
FILE NO: WSP25P-000-0000  
DATE: FEB 2017

---

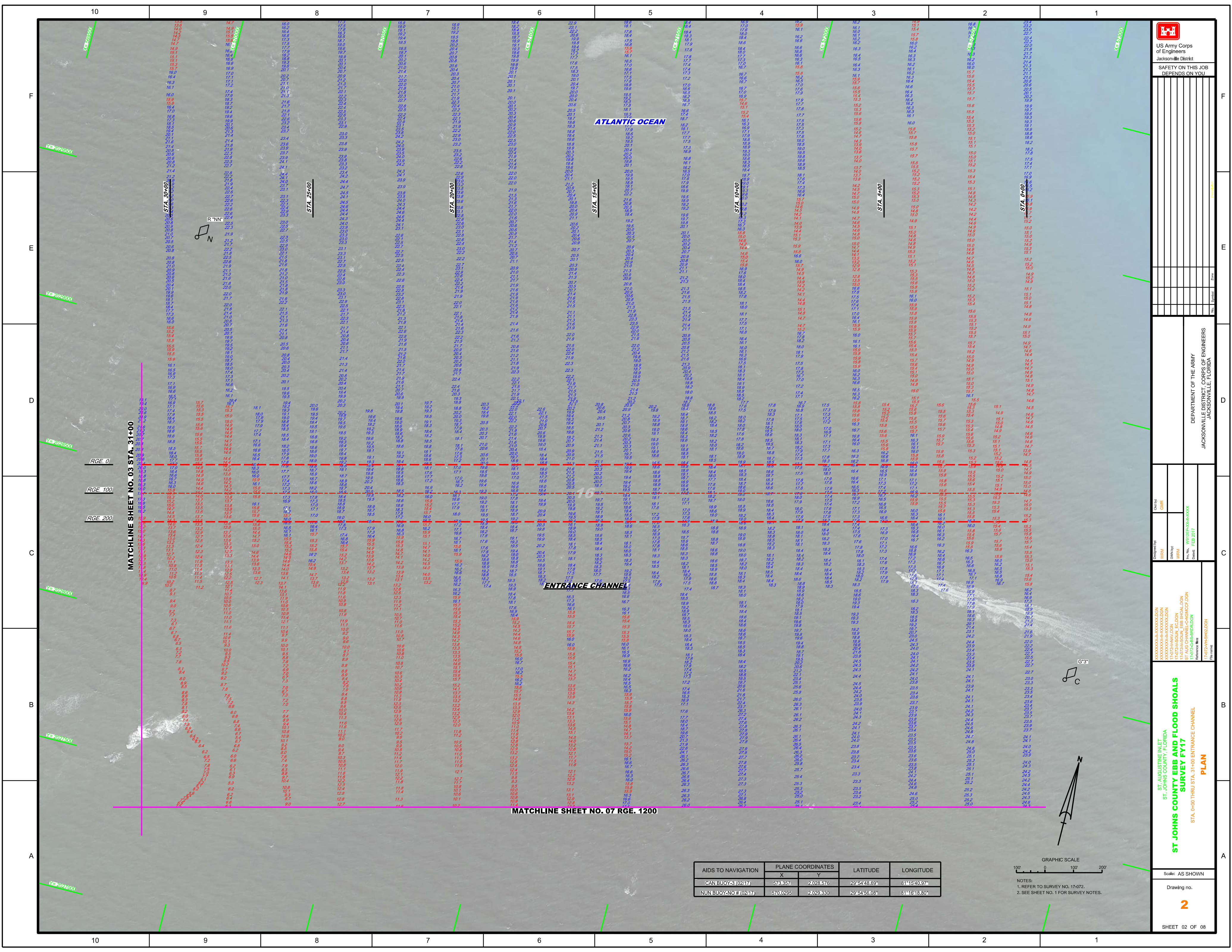
ST. AUGUSTINE INLET  
ST. JOHNS COUNTY, FLORIDA  
**ST. JOHNS COUNTY EBB AND FLOOD SHOALS  
SURVEY FY17**  
INDEX, LOCATION AND VICINITY  
MAP

---

Scale: AS SHOWN  
Drawing no.  
**1**

---

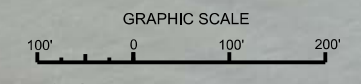
SHEET 01 OF 08



MATCHLINE SHEET NO. 03 STA. 31-00

MATCHLINE SHEET NO. 07 RGE. 1200

| AIDS TO NAVIGATION   | PLANE COORDINATES |           | LATITUDE     | LONGITUDE    |
|----------------------|-------------------|-----------|--------------|--------------|
|                      | X                 | Y         |              |              |
| CAN BUOY-3 (0217)    | 573.357           | 2,028.576 | 29°54'48.69" | 81°15'40.97" |
| NUN BUOY-NO # (0217) | 570.0295          | 2,029.830 | 29°54'56.08" | 81°16'18.80" |



NOTES:  
1. REFER TO SURVEY NO. 17-072.  
2. SEE SHEET NO. 1 FOR SURVEY NOTES.

US Army Corps of Engineers  
Jacksonville District

**SAFETY ON THIS JOB  
DEPENDS ON YOU**

---

DEPARTMENT OF THE ARMY  
JACKSONVILLE DISTRICT, CORPS OF ENGINEERS  
JACKSONVILLE, FLORIDA

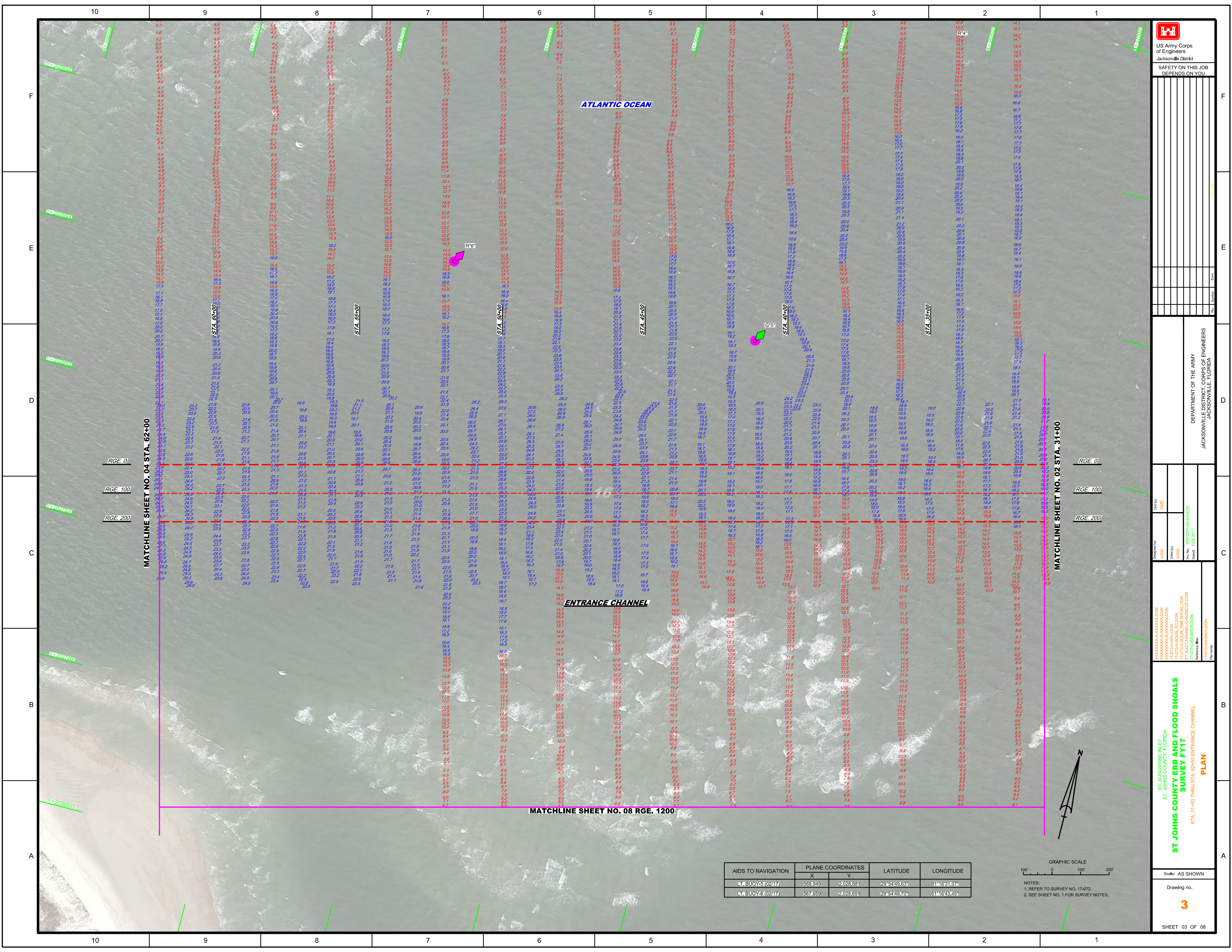
---

ST AUGUSTINE INLET  
ST. JOHNS COUNTY, FLORIDA  
**ST JOHNS COUNTY EBB AND FLOOD SHOALS  
SURVEY FY17**  
STA. 0+00 THRU STA. 31+00 ENTRANCE CHANNEL

Scale: AS SHOWN

Drawing no. **2**

SHEET 02 OF 08



US Army Corps of Engineers  
Jacksonville District  
SAFETY ON THIS JOB  
DEPENDS ON YOU

DEPARTMENT OF THE ARMY  
JACKSONVILLE DISTRICT CORPS OF ENGINEERS  
JACKSONVILLE, FLORIDA

ST AUGUSTINE INLET  
ST. JOHNS COUNTY, FLORIDA  
**ST JOHNS COUNTY EBB AND FLOOD SHOALS SURVEY FY17**  
STA. 31+00 THRU STA. 02+00 ENTRANCE CHANNEL  
**PLAN**

Scale: AS SHOWN  
Drawing no. **3**  
SHEET 03 OF 08

ATLANTIC OCEAN

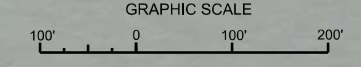
ENTRANCE CHANNEL

MATCHLINE SHEET NO. 04 STA. 62+00

MATCHLINE SHEET NO. 08 RGE. 1200

MATCHLINE SHEET NO. 02 STA. 31+00

| AIDS TO NAVIGATION | PLANE COORDINATES |           | LATITUDE     | LONGITUDE    |
|--------------------|-------------------|-----------|--------------|--------------|
|                    | X                 | Y         |              |              |
| LT BUOY-5 (02/17)  | 568,949           | 2,028,681 | 29°54'49.63" | 81°16'31.07" |
| LT BUOY-6 (02/17)  | 567,859           | 2,028,691 | 29°54'49.70" | 81°16'43.45" |



NOTES:  
1. REFER TO SURVEY NO. 17-072.  
2. SEE SHEET NO. 1 FOR SURVEY NOTES.

RGE. 0  
RGE. 100  
RGE. 200

RGE. 0  
RGE. 100  
RGE. 200

STA. 55+00

STA. 40+00

STA. 45+00

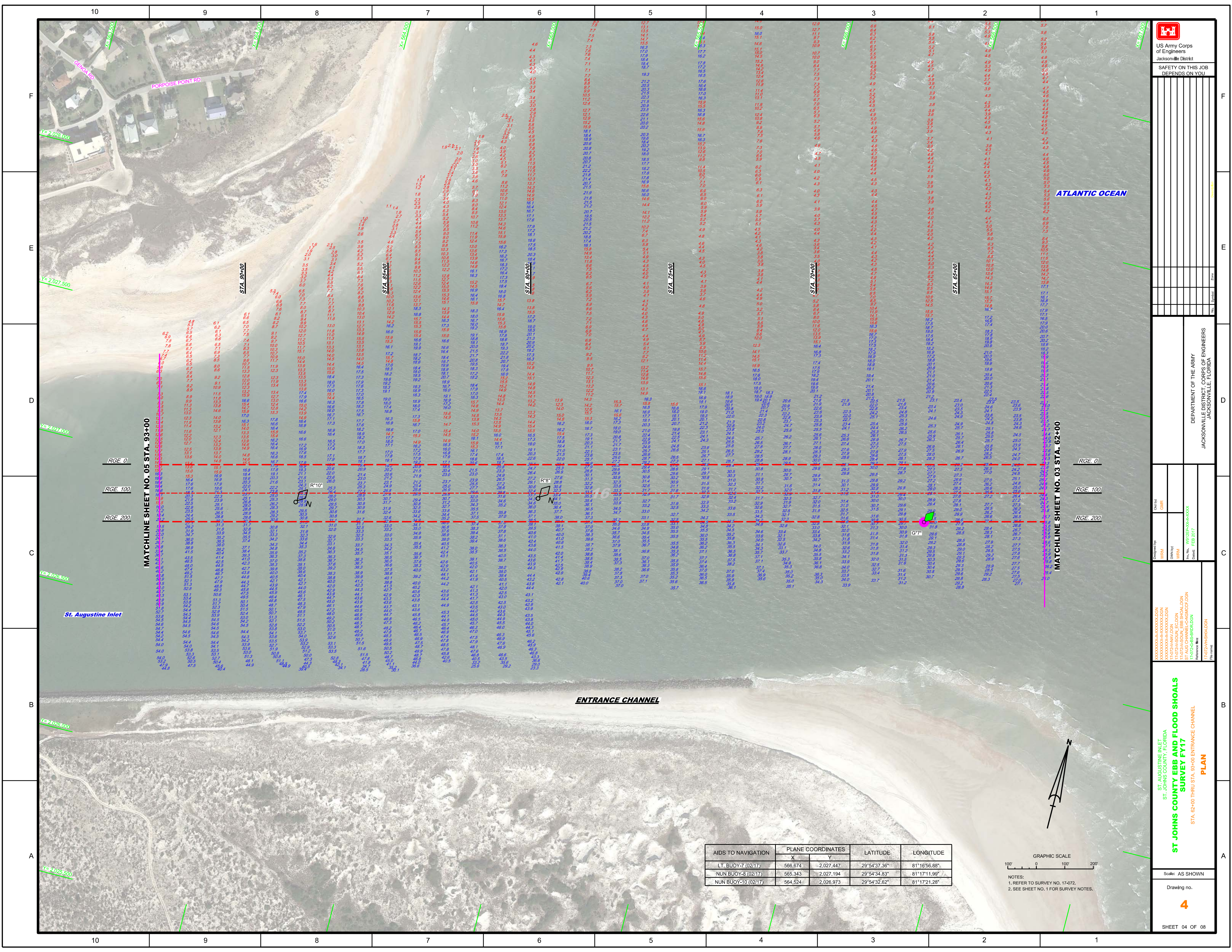
STA. 35+00

STA. 35+00

R'6"

G'5"





**US Army Corps of Engineers**  
Jacksonville District

**SAFETY ON THIS JOB**  
DEPENDS ON YOU

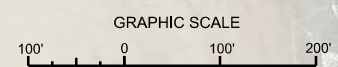
DEPARTMENT OF THE ARMY  
JACKSONVILLE DISTRICT, CORPS OF ENGINEERS  
JACKSONVILLE, FLORIDA

MATCHLINE SHEET NO. 05 STA. 93+00

MATCHLINE SHEET NO. 03 STA. 62+00

| STA.     | 93+00 | 92+00 | 91+00 | 90+00 | 89+00 | 88+00 | 87+00 | 86+00 | 85+00 | 84+00 | 83+00 | 82+00 | 81+00 | 80+00 | 79+00 | 78+00 | 77+00 | 76+00 | 75+00 | 74+00 | 73+00 | 72+00 | 71+00 | 70+00 | 69+00 | 68+00 | 67+00 | 66+00 | 65+00 |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |       |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-------|
| RGE. 0   | 13.0  | 13.5  | 14.0  | 14.5  | 15.0  | 15.5  | 16.0  | 16.5  | 17.0  | 17.5  | 18.0  | 18.5  | 19.0  | 19.5  | 20.0  | 20.5  | 21.0  | 21.5  | 22.0  | 22.5  | 23.0  | 23.5  | 24.0  | 24.5  | 25.0  | 25.5  | 26.0  | 26.5  | 27.0  | 27.5 | 28.0 | 28.5 | 29.0 | 29.5 | 30.0 | 30.5 | 31.0 | 31.5 | 32.0 | 32.5 | 33.0 | 33.5 | 34.0 | 34.5 | 35.0 | 35.5 | 36.0 | 36.5 | 37.0 | 37.5 | 38.0 | 38.5 | 39.0 | 39.5 | 40.0 | 40.5 | 41.0 | 41.5 | 42.0 | 42.5 | 43.0 | 43.5 | 44.0 | 44.5 | 45.0 | 45.5 | 46.0 | 46.5 | 47.0 | 47.5 | 48.0 | 48.5 | 49.0 | 49.5 | 50.0 | 50.5 | 51.0 | 51.5 | 52.0 | 52.5 | 53.0 | 53.5 | 54.0 | 54.5 | 55.0 | 55.5 | 56.0 | 56.5 | 57.0 | 57.5 | 58.0 | 58.5 | 59.0 | 59.5 | 60.0 | 60.5 | 61.0 | 61.5 | 62.0 | 62.5 | 63.0 | 63.5 | 64.0 | 64.5 | 65.0 | 65.5 | 66.0 | 66.5 | 67.0 | 67.5 | 68.0 | 68.5 | 69.0 | 69.5 | 70.0 | 70.5 | 71.0 | 71.5 | 72.0 | 72.5 | 73.0 | 73.5 | 74.0 | 74.5 | 75.0 | 75.5 | 76.0 | 76.5 | 77.0 | 77.5 | 78.0 | 78.5 | 79.0 | 79.5 | 80.0 | 80.5 | 81.0 | 81.5 | 82.0 | 82.5 | 83.0 | 83.5 | 84.0 | 84.5 | 85.0 | 85.5 | 86.0 | 86.5 | 87.0 | 87.5 | 88.0 | 88.5 | 89.0 | 89.5 | 90.0 | 90.5 | 91.0 | 91.5 | 92.0 | 92.5 | 93.0 | 93.5 | 94.0 | 94.5 | 95.0 | 95.5 | 96.0 | 96.5 | 97.0 | 97.5 | 98.0 | 98.5 | 99.0 | 99.5 | 100.0 |
| RGE. 100 | 13.0  | 13.5  | 14.0  | 14.5  | 15.0  | 15.5  | 16.0  | 16.5  | 17.0  | 17.5  | 18.0  | 18.5  | 19.0  | 19.5  | 20.0  | 20.5  | 21.0  | 21.5  | 22.0  | 22.5  | 23.0  | 23.5  | 24.0  | 24.5  | 25.0  | 25.5  | 26.0  | 26.5  | 27.0  | 27.5 | 28.0 | 28.5 | 29.0 | 29.5 | 30.0 | 30.5 | 31.0 | 31.5 | 32.0 | 32.5 | 33.0 | 33.5 | 34.0 | 34.5 | 35.0 | 35.5 | 36.0 | 36.5 | 37.0 | 37.5 | 38.0 | 38.5 | 39.0 | 39.5 | 40.0 | 40.5 | 41.0 | 41.5 | 42.0 | 42.5 | 43.0 | 43.5 | 44.0 | 44.5 | 45.0 | 45.5 | 46.0 | 46.5 | 47.0 | 47.5 | 48.0 | 48.5 | 49.0 | 49.5 | 50.0 | 50.5 | 51.0 | 51.5 | 52.0 | 52.5 | 53.0 | 53.5 | 54.0 | 54.5 | 55.0 | 55.5 | 56.0 | 56.5 | 57.0 | 57.5 | 58.0 | 58.5 | 59.0 | 59.5 | 60.0 | 60.5 | 61.0 | 61.5 | 62.0 | 62.5 | 63.0 | 63.5 | 64.0 | 64.5 | 65.0 | 65.5 | 66.0 | 66.5 | 67.0 | 67.5 | 68.0 | 68.5 | 69.0 | 69.5 | 70.0 | 70.5 | 71.0 | 71.5 | 72.0 | 72.5 | 73.0 | 73.5 | 74.0 | 74.5 | 75.0 | 75.5 | 76.0 | 76.5 | 77.0 | 77.5 | 78.0 | 78.5 | 79.0 | 79.5 | 80.0 | 80.5 | 81.0 | 81.5 | 82.0 | 82.5 | 83.0 | 83.5 | 84.0 | 84.5 | 85.0 | 85.5 | 86.0 | 86.5 | 87.0 | 87.5 | 88.0 | 88.5 | 89.0 | 89.5 | 90.0 | 90.5 | 91.0 | 91.5 | 92.0 | 92.5 | 93.0 | 93.5 | 94.0 | 94.5 | 95.0 | 95.5 | 96.0 | 96.5 | 97.0 | 97.5 | 98.0 | 98.5 | 99.0 | 99.5 | 100.0 |
| RGE. 200 | 13.0  | 13.5  | 14.0  | 14.5  | 15.0  | 15.5  | 16.0  | 16.5  | 17.0  | 17.5  | 18.0  | 18.5  | 19.0  | 19.5  | 20.0  | 20.5  | 21.0  | 21.5  | 22.0  | 22.5  | 23.0  | 23.5  | 24.0  | 24.5  | 25.0  | 25.5  | 26.0  | 26.5  | 27.0  | 27.5 | 28.0 | 28.5 | 29.0 | 29.5 | 30.0 | 30.5 | 31.0 | 31.5 | 32.0 | 32.5 | 33.0 | 33.5 | 34.0 | 34.5 | 35.0 | 35.5 | 36.0 | 36.5 | 37.0 | 37.5 | 38.0 | 38.5 | 39.0 | 39.5 | 40.0 | 40.5 | 41.0 | 41.5 | 42.0 | 42.5 | 43.0 | 43.5 | 44.0 | 44.5 | 45.0 | 45.5 | 46.0 | 46.5 | 47.0 | 47.5 | 48.0 | 48.5 | 49.0 | 49.5 | 50.0 | 50.5 | 51.0 | 51.5 | 52.0 | 52.5 | 53.0 | 53.5 | 54.0 | 54.5 | 55.0 | 55.5 | 56.0 | 56.5 | 57.0 | 57.5 | 58.0 | 58.5 | 59.0 | 59.5 | 60.0 | 60.5 | 61.0 | 61.5 | 62.0 | 62.5 | 63.0 | 63.5 | 64.0 | 64.5 | 65.0 | 65.5 | 66.0 | 66.5 | 67.0 | 67.5 | 68.0 | 68.5 | 69.0 | 69.5 | 70.0 | 70.5 | 71.0 | 71.5 | 72.0 | 72.5 | 73.0 | 73.5 | 74.0 | 74.5 | 75.0 | 75.5 | 76.0 | 76.5 | 77.0 | 77.5 | 78.0 | 78.5 | 79.0 | 79.5 | 80.0 | 80.5 | 81.0 | 81.5 | 82.0 | 82.5 | 83.0 | 83.5 | 84.0 | 84.5 | 85.0 | 85.5 | 86.0 | 86.5 | 87.0 | 87.5 | 88.0 | 88.5 | 89.0 | 89.5 | 90.0 | 90.5 | 91.0 | 91.5 | 92.0 | 92.5 | 93.0 | 93.5 | 94.0 | 94.5 | 95.0 | 95.5 | 96.0 | 96.5 | 97.0 | 97.5 | 98.0 | 98.5 | 99.0 | 99.5 | 100.0 |

| AIDS TO NAVIGATION  | PLANE COORDINATES | LATITUDE  | LONGITUDE    |              |
|---------------------|-------------------|-----------|--------------|--------------|
|                     | X                 | Y         |              |              |
| LT. BUOY-7 (02/17)  | 566.674           | 2,027.447 | 29°54'37.36" | 81°16'56.88" |
| NUN BUOY-8 (02/17)  | 565.343           | 2,027.194 | 29°54'34.83" | 81°17'11.99" |
| NUN BUOY-10 (02/17) | 564.524           | 2,026.973 | 29°54'32.62" | 81°17'21.28" |



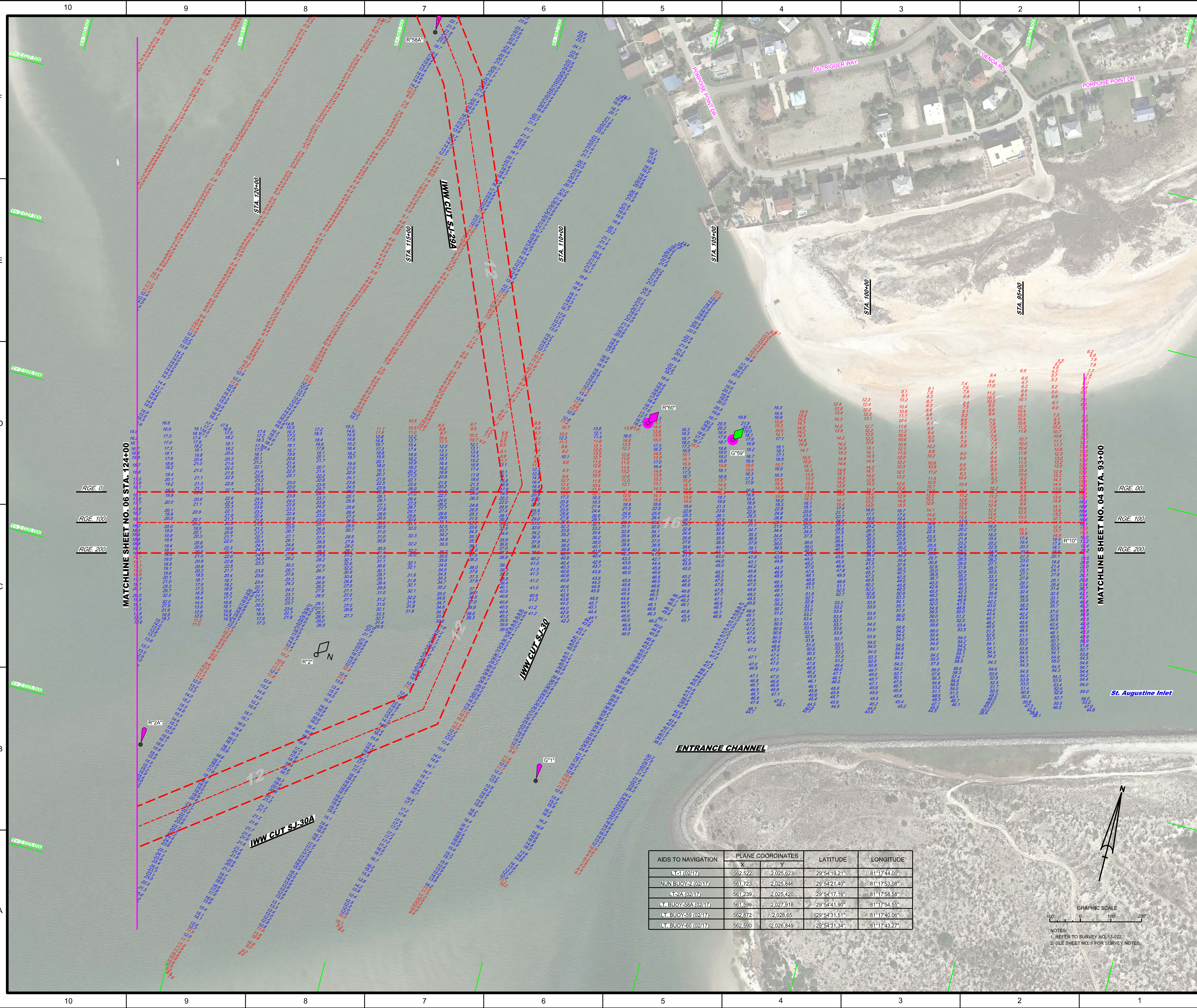
NOTES:  
1. REFER TO SURVEY NO. 17-072.  
2. SEE SHEET NO. 1 FOR SURVEY NOTES.

ST AUGUSTINE INLET  
ST. JOHNS COUNTY, FLORIDA  
**ST JOHNS COUNTY EBB AND FLOOD SHOALS SURVEY FY17**  
STA. 62+00 THRU STA. 93+00 ENTRANCE CHANNEL  
**PLAN**

Scale: AS SHOWN

Drawing no. **4**

SHEET 04 OF 08



| AIDS TO NAVIGATION  | PLANE COORDINATES |           | LATITUDE     | LONGITUDE    |
|---------------------|-------------------|-----------|--------------|--------------|
|                     | X                 | Y         |              |              |
| LT-1 (02/17)        | 562,522           | 2,025,623 | 29°54'19.21" | 81°17'44.00" |
| NUN BUOY-2 (02/17)  | 561,723           | 2,025,846 | 29°54'21.40" | 81°17'53.08" |
| LT-2A (02/17)       | 561,239           | 2,025,420 | 29°54'17.16" | 81°17'58.58" |
| LT BUOY-58A (02/17) | 561,599           | 2,027,918 | 29°54'41.90" | 81°17'54.55" |
| LT BUOY-59 (02/17)  | 562,872           | 2,028,65  | 29°54'31.51" | 81°17'40.06" |
| LT BUOY-50 (02/17)  | 562,550           | 2,026,849 | 29°54'31.34" | 81°17'43.27" |

GRAPHIC SCALE  
0 100 200  
NOTES:  
1. REFER TO SURVEY NO. 17-072.  
2. SEE SHEET NO. 1 FOR SURVEY NOTES.







**US Army Corps of Engineers**  
Jacksonville District

**SAFETY ON THIS JOB DEPENDS ON YOU**

---

**ST. AUGUSTINE INLET, ST. JOHNS COUNTY, FLORIDA**  
**ST. JOHNS COUNTY EBB AND FLOOD SHOALS SURVEY FY17**  
**PLAN**  
STA. 31+00 THRU STA. 53+00 ENTRANCE CHANNEL

Scale: AS SHOWN

Drawing no. **8**

SHEET 08 OF 08

---

Checked by: GHR  
Designed by: WRM  
Drawn by: WRM  
File No: 17072-68-BB-000000  
Date: FEB 2017

Reference File: 17072-68-BB-000000  
File Name: 17072-68-BB-000000.DGN

---

DEPARTMENT OF THE ARMY  
JACKSONVILLE DISTRICT CORPS OF ENGINEERS  
JACKSONVILLE, FLORIDA

