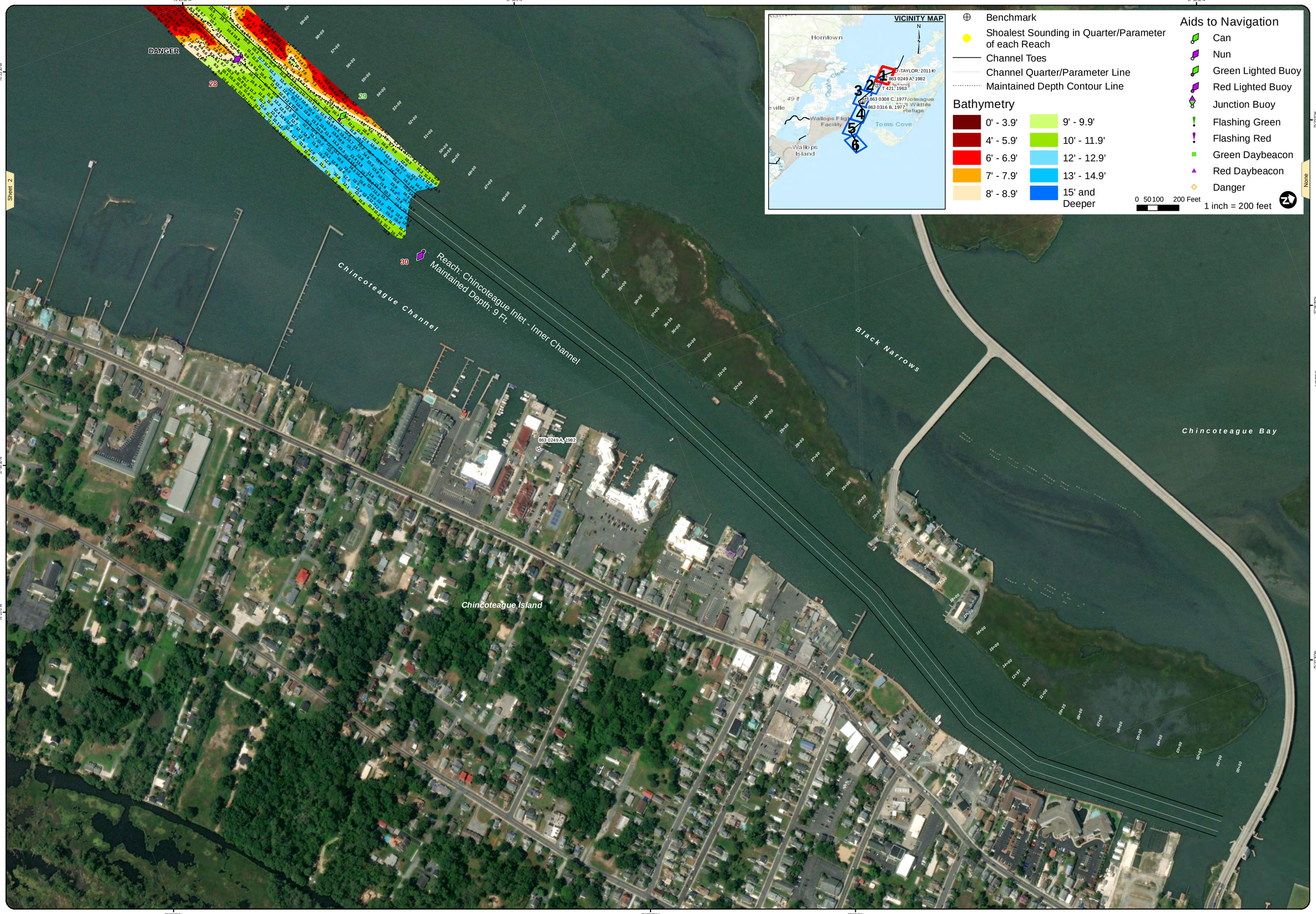



US Army Corps of Engineers
Norfolk District

NOTES:

1. PROJECT: AN INNER CHANNEL 9 FEET DEEP AND 100 FEET WIDE AND AN ENTRANCE CHANNEL 12 FEET DEEP AND WIDTH OF 200 FT.
2. NOT FOR NAVIGATION USE. THE INFORMATION DEPICTED ON THIS MAP REPRESENTS THE RESULTS OF SURVEYS MADE ON THE DATE(S) INDICATED & CAN ONLY BE CONSIDERED AS INDICATING THE GENERAL CONDITIONS EXISTING AT THAT TIME.
3. SOUNDINGS: SHOWN IN FEET CENTERED ON POINT OF SHOALEST DEPTH IN 25 FT RADIUS.
4. BACKGROUND:ESRI WORLD IMAGERY GIS WEB SERVICE.
5. AIDS TO NAVIGATION LOCATED WITH SURVEY VESSEL +/- 10 FEET ON DATE OF SURVEY.
6. SURVEY XYZ (*.XYZ) AND METADATA * MET) FILE NAME REFERENCED BY FILE NO.
7. NOAA ZONING FROM STATIONS 216+11 - 290+00, 290+00 - 347+88, AND (WALLOPS ISLAND PLACEMENT SITE) 0+00 - 64+02

PROJECTED COORDINATE SYSTEM: STATE PLANE
DATUM: NAD83
HORIZONTAL ZONE: VIRGINIA SOUTH ZONE
PROJECTED COORDINATE UNITS: US SURVEY FEET
IMPLIED HORIZONTAL ACCURACY: +/- 1.5FEET
HORIZONTAL CONTROL: RTK/LEICA SMARTNET

VERTICAL REFERENCE DATUM: NOS MLLW
TIDAL DATUM: 1983-2001
IMPLIED VERTICAL ACCURACY: +/- 0.5FEET
VERTICAL CONTROL: RTK/LEICA SMARTNET
TIDE GAGES USED: NOS 8631044 WACHAPREAGUE
SYSTEM/METHOD: MULTI-BEAM
BIN SIZE: 5x5'
BIN SELECTION METHOD: AVERAGE CELL CENTER

GEODETIC CONTROL MONUMENTS

| MONUMENT | MLLW NAVD88 | MEAN RANGE OF TIDE |
|---|---|---|
| CHINCOTEAGUE 2011 | 2.74'(GEOID12B) | 1.37' |
| NOS 863 0249 A, 1982 | 3.19' 2.14'(GEOID12B) | 1.56' |
| USCG T 421, 1963 | 3.56' 2.42'(GEOID12B) | 1.74' |
| NOS 863 0308 C, 1977 | 3.45' 2.27'(GEOID12B) | 1.70' |
| NOS 863 0316 B, 1977 | 5.70' 4.22'(GEOID12B) | 2.38' |

| AREA | |
|---|---|
| 0+00-20+49 | 1.20 |
| 20+49-63+57 | 1.56 |
| 63+57-109+43 | 1.74 |
| 109+43-173+64 | 1.70 |
| 173+64-216+11 | 2.38 |

# CHINCOTEAGUE INLET PROJECT CONDITION SURVEY (AFTER DREDGING)

SURVEY DATE:
March 30, 2020

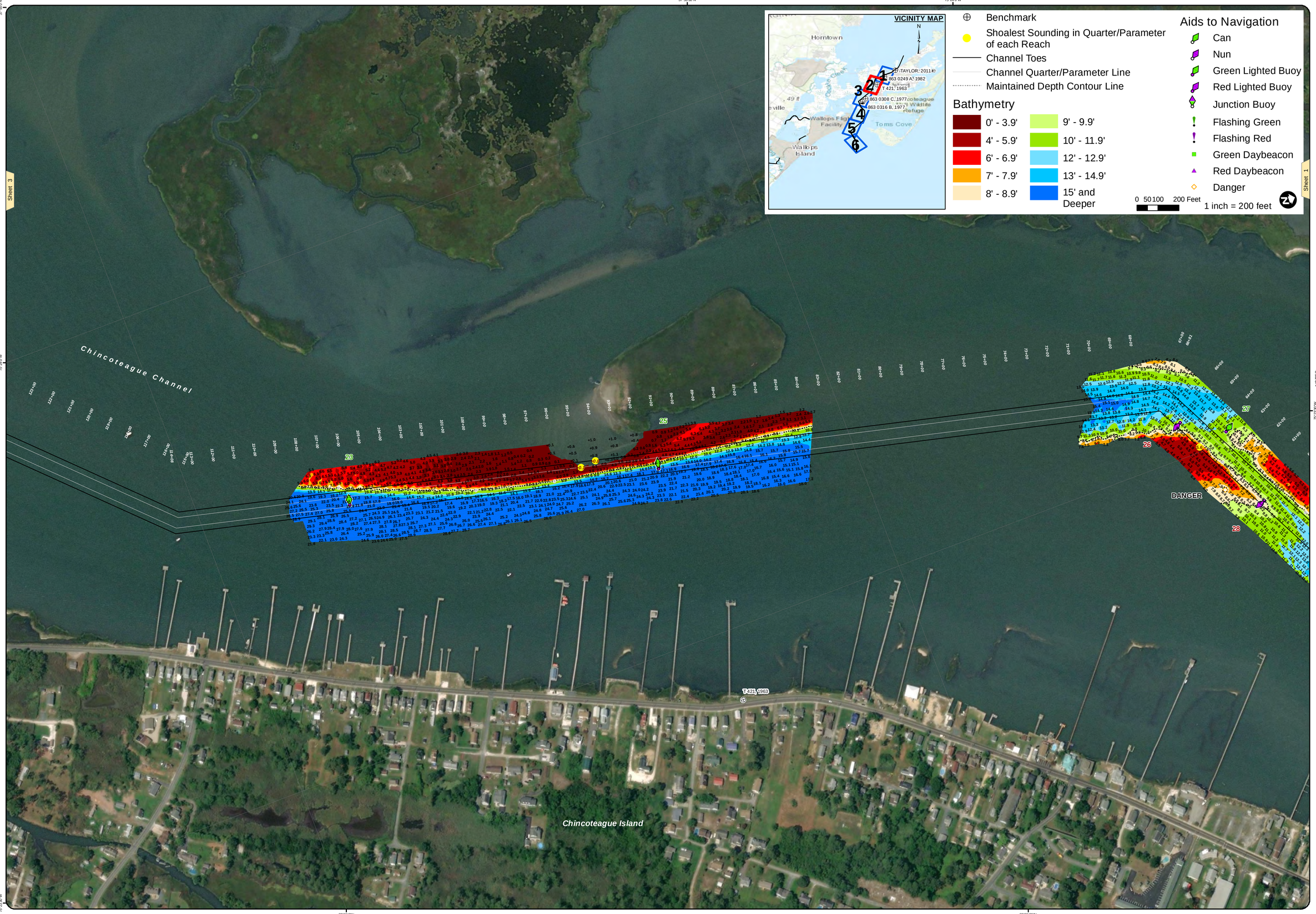
SURVEY BY: USACE Team Lead: Dustin Brooke

eHYDRO FILE: CH_01_CHI_20200330_AD

**SHEET 1 of 6**
**Map Produced: 4/9/2020**

APPROVED:
Jeff Swallow
Digitally signed by Jeff Swallow
Date: 2020.04.09 13:26:31 -04'00'
Chief, Navigation Analysis Section

APPROVED:
Eric Legaspi
Digitally signed by Eric Legaspi
Date: 2020.04.17 13:58:22 -04'00'
Chief, Navigation Support and Survey Section




US Army Corps of Engineers
Norfolk District

NOTES:

1. PROJECT: AN INNER CHANNEL 9 FEET DEEP AND 100 FEET WIDE AND AN ENTRANCE CHANNEL 12 FEET DEEP AND WIDTH OF 200 FT.
2. NOT FOR NAVIGATION USE. THE INFORMATION DEPICTED ON THIS MAP REPRESENTS THE RESULTS OF SURVEYS MADE ON THE DATE(S) INDICATED & CAN ONLY BE CONSIDERED AS INDICATING THE GENERAL CONDITIONS EXISTING AT THAT TIME.
3. SOUNDINGS: SHOWN IN FEET CENTERED ON POINT OF SHOALEST DEPTH IN 25 FT RADIUS.
4. BACKGROUND:ESRI WORLD IMAGERY GIS WEB SERVICE.
5. AIDS TO NAVIGATION LOCATED WITH SURVEY VESSEL +/- 10 FEET ON DATE OF SURVEY.
6. SURVEY XYZ (*.XYZ) AND METADATA * MET) FILE NAME REFERENCED BY FILE NO.
7. NOAA ZONING FROM STATIONS 216+11 - 290+00, 290+00 - 347+88, AND (WALLOPS ISLAND PLACEMENT SITE) 0+00 - 64+02

PROJECTED COORDINATE SYSTEM: STATE PLANE
DATUM: NAD83
HORIZONTAL ZONE: VIRGINIA SOUTH ZONE
PROJECTED COORDINATE UNITS: US SURVEY FEET
INPUTED HORIZONTAL ACCURACY: +/- 1.5 FEET
HORIZONTAL CONTROL: RTK/LEICA SMARTNET

VERTICAL REFERENCE DATUM: NGS MLLW
TIDAL DATUM: MEAN LOW WATER
IMPLIED VERTICAL ACCURACY: +/- 0.5 FEET
VERTICAL CONTROL: RTK/LEICA SMARTNET
VERTICAL DATUM: NGS GEOID12B MDL
SYSTEM/METHOD: MULTI-BEAM
BIN SIZE: 5X5
BIN SELECTION METHOD: AVERAGE CELL CENTER

**GEODETIC CONTROL MONUMENTS**

| MONUMENT | NAVD88 | MLLW | MEAN RANGE OF TIDE |
|---|---|---|---|
| CHINCOTEAGUE, 2011 | 2.74' | 3.37' | 1.56' |
| NOS 863 0249 A, 1982 | 2.90' | 3.19' | 1.74' |
| USCG T 421, 1963 | 2.14' | 2.42' | 1.74' |
| NOS 863 0308 C, 1977 | 2.42' | 3.56' | 2.30' |
| NOS 863 0316 B, 1977 | 4.22' | 5.70' | 2.38' |

# CHINCOTEAGUE INLET
# PROJECT CONDITION SURVEY
# (AFTER DREDGING)

**SURVEY DATE:**
**March 30, 2020**

SURVEY BY: USACE Team Lead: Dustin Brooke

eHYDRO FILE: CH_01_CH_20200330_AD

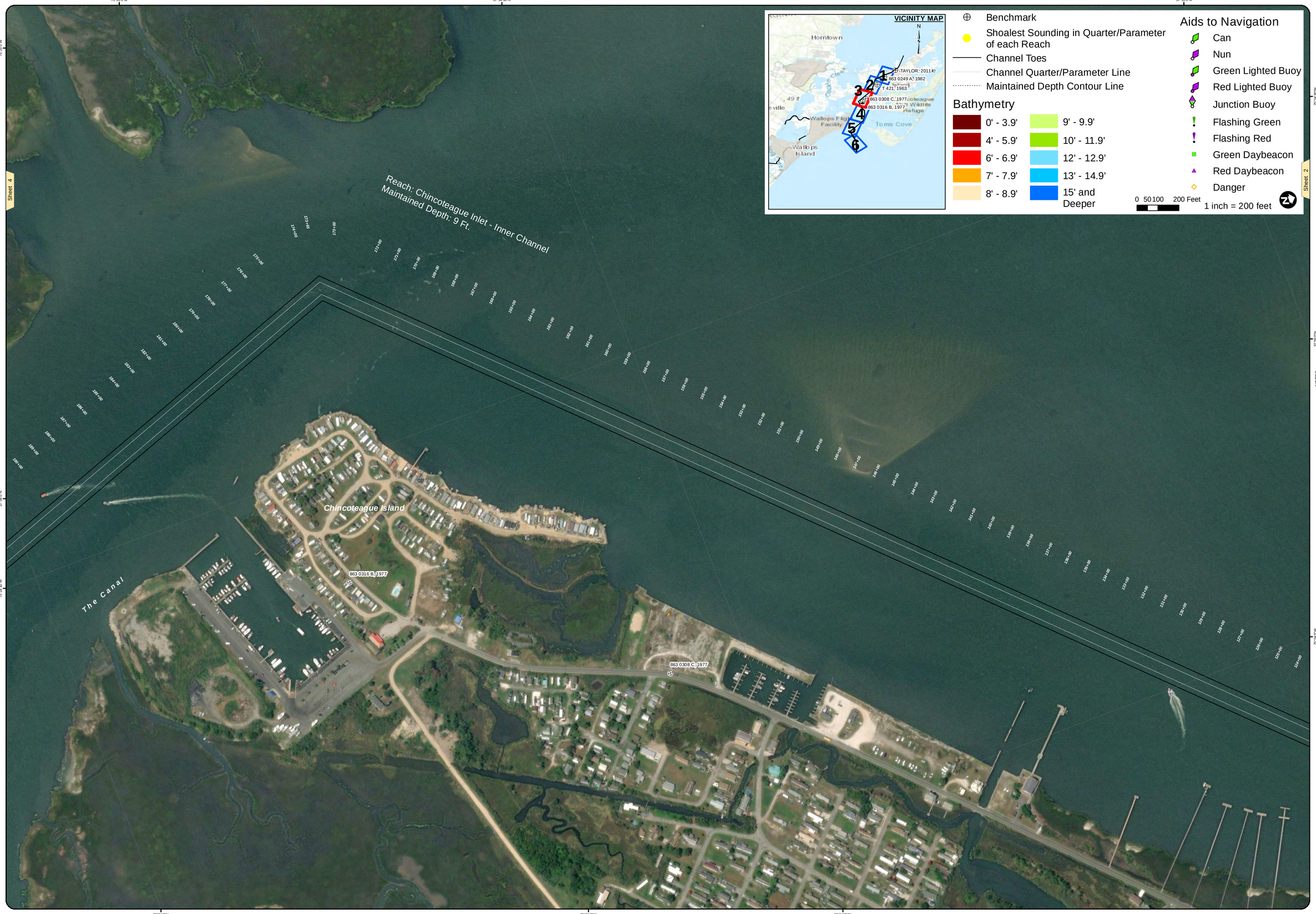
**SHEET 2 of 6**
**Map Produced: 4/9/2020**

APPROVED:

Chief, Navigation Analysis Section

APPROVED:

Chief, Navigation Support and Survey Section




US Army Corps of Engineers
Norfolk District

NOTES:

1. PROJECT: AN INNER CHANNEL 9 FEET DEEP AND 100 FEET WIDE AND AN ENTRANCE CHANNEL 12 FEET DEEP AND WIDTH OF 200 FT.
2. NOT FOR NAVIGATION USE. THE INFORMATION DEPICTED ON THIS MAP REPRESENTS THE RESULTS OF SURVEYS MADE ON THE DATE(S) INDICATED & CAN ONLY BE CONSIDERED AS INDICATING THE GENERAL CONDITIONS EXISTING AT THAT TIME.
3. SOUNDINGS: SHOWN IN FEET CENTERED ON POINT OF SHOALEST DEPTH IN 25 FT RADIUS.
4. BACKGROUND:ESRI WORLD IMAGERY GIS WEB SERVICE.
5. AIDS TO NAVIGATION LOCATED WITH SURVEY VESSEL +/- 10 FEET ON DATE OF SURVEY.
6. SURVEY XYZ (*.XYZ) AND METADATA (*.MET) FILE NAME REFERENCED BY FILE NO.
7. NOAA ZONING FROM STATIONS 216+11 - 290+00, 290+00 - 347+88, AND (WALLOPS ISLAND PLACEMENT SITE) 0+00 - 64+02

PROJECTED COORDINATE SYSTEM: STATE PLANE
DATUM NAME: NAD83(2011)
HORIZONTAL ZONE: VIRGINIA SOUTH ZONE
PROJECTED COORDINATE UNITS: US SURVEY FEET
IMPLIED HORIZONTAL ACCURACY: +/- 1.5FEET
HORIZONTAL CONTROL: RTK/LEICA SMARTNET

VERTICAL REFERENCE DATUM: NOS MLLW
TIDAL EPOCH: 1983-2001
IMPLIED VERTICAL ACCURACY: +/- 0.5 FEET
VERTICAL CONTROL: RTK/LEICA SMARTNET
VERTICAL ACCURACY: RTK/NAVD88 +/- 0.07(GEOID12B)
SYSTEM/METHOD: MULTI-BEAM
BIN SIZE: 5x5
BIN SELECTION METHOD: AVERAGE CELL CENTER

**GEODETIC CONTROL MONUMENTS**

| MONUMENT | MLLW | NAVD88 | MEAN RANGE OF TIDE |
|---|---|---|---|
| CHINCOTEAGUE 2011" | 3.37' | 2.17(GEOID12B) | 1.57' |
| NOS 863 0249 A, 1982" | 3.13' | 2.14(GEOID12B) | 1.56' |
| USCGS "T 421, 1963" | 3.56' | 2.42(GEOID12B) | 1.74' |
| NOS 863 0308 C, 1977" | 3.07' | 2.09(GEOID12B) | 1.70' |
| NOS 863 0316 B, 1977" | 5.70' | 4.22(GEOID12B) | 2.38' |

**AREA**

| | |
|---|---|
| 0+00-20+49 | 20+49-63+57 |
| 63+57-109+43 | 109+43-173+44 |
| 173+44-216+11 | |

# CHINCOTEAGUE INLET PROJECT CONDITION SURVEY (AFTER DREDGING)

**SURVEY DATE: March 30, 2020**

SURVEY BY: USACE Team Lead: Dustin Brooke

eHYDRO FILE: CH_01_CH_20200330_AD

**SHEET 3 of 6**
**Map Produced: 4/9/2020**

APPROVED:

Chief, Navigation Analysis Section

APPROVED:

Chief, Navigation Support and Survey Section

US Army Corps of Engineers
Norfolk District

NOTES:

1. PROJECT: AN INNER CHANNEL 9 FEET DEEP AND 100 FEET WIDE AND AN ENTRANCE CHANNEL 12 FEET DEEP AND WIDTH OF 200 FT.
2. NOT FOR NAVIGATION USE. THE INFORMATION DEPICTED ON THIS MAP REPRESENTS THE RESULTS OF SURVEYS MADE ON THE DATE(S) INDICATED & CAN ONLY BE CONSIDERED AS INDICATING THE GENERAL CONDITIONS EXISTING AT THAT TIME.
3. SOUNDINGS: SHOWN IN FEET CENTERED ON POINT OF SHOALEST DEPTH IN 25 FT RADIUS.
4. BACKGROUND:ESRI WORLD IMAGERY GIS WEB SERVICE.
5. AIDS TO NAVIGATION LOCATED WITH SURVEY VESSEL +/- 10 FEET ON DATE OF SURVEY.
6. SURVEY XYZ (*.XYZ) AND METADATA (*.MET) FILE NAME REFERENCED BY FILE NO.
7. NOAA ZONING FROM STATIONS 216+11 - 290+00, 290+00 - 347+88, AND (WALLOPS ISLAND PLACEMENT SITE) 0+00 - 64+02

PROJECTED COORDINATE SYSTEM: STATE PLANE
DATUM/ELLIPSOID: NAD83 / GRS80
HORIZONTAL ZONE: VIRGINIA SOUTH ZONE
PROJECTED COORDINATE UNITS: US SURVEY FEET
MAPPED HORIZONTAL ACCURACY: +/- 1.0 FEET
HORIZONTAL CONTROL: RTK/LEICA SMARTNET

VERTICAL REFERENCE DATUM: NGS MLLW
TIDAL MODEL: 1983-2001
IMPLIED VERTICAL ACCURACY: +/- 0.5 FEET
VERTICAL CONTROL: RTK/LEICA SMARTNET
VERTICAL ACCURACY: RETHINKING DATUM MDL
SYSTEM/METHOD: MULTI-BEAM
BIN SIZE: 5x5
BIN SELECTION METHOD: AVERAGE CELL CENTER

**GEODETIC CONTROL MONUMENTS**

| MONUMENT | MLLW | NAVD88 |
|---|---|---|
| CE TAYLOR, 2011 | 3.37' | 2.74'(GEOID12B) |
| NOS 3863 0249 A, 1982 | 3.19' | 2.14'(GEOID12B) |
| USCG T 421, 1963 | 3.56' | 2.42'(GEOID12B) |
| NOS 3863 0308 C, 1977 | 5.01' | 2.68'(GEOID12B) |
| NOS 3863 0316 B, 1977 | 5.70' | 4.22'(GEOID12B) |

**MEAN RANGE OF TIDE**

| AREA | |
|---|---|
| 0+00-29+49 | 1.56' |
| 29+49-63+57 | 1.74' |
| 63+57-109+43 | 2.30' |
| 109+43-173+64 | 2.38' |
| 173+64-216+11 | |

# CHINCOTEAGUE INLET PROJECT CONDITION SURVEY (AFTER DREDGING)

**SURVEY DATE: March 30, 2020**

SURVEY BY: USACE Team Lead: Dustin Brooke

eHYDRO FILE: CH_91_CHI_20200330_AD

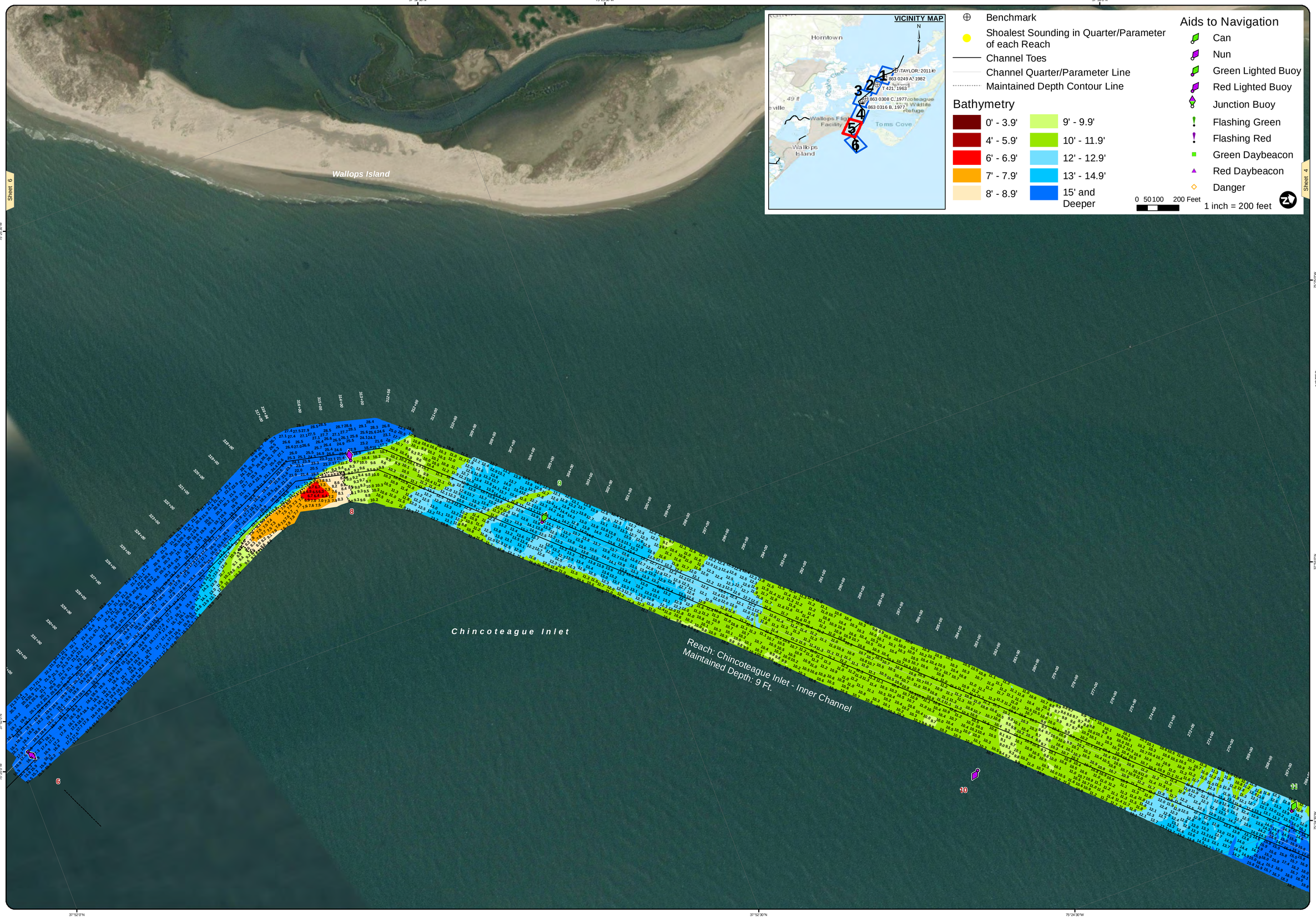
**SHEET 4 of 6**
**Map Produced: 4/9/2020**

APPROVED:

Chief, Navigation Analysis Section

APPROVED:

Chief, Navigation Support and Survey Section




US Army Corps of Engineers
Norfolk District

NOTES:

1. PROJECT: AN INNER CHANNEL 9 FEET DEEP AND 100 FEET WIDE AND AN ENTRANCE CHANNEL 12 FEET DEEP AND WIDTH OF 200 FT.
2. NOT FOR NAVIGATION USE. THE INFORMATION DEPICTED ON THIS MAP REPRESENTS THE RESULTS OF SURVEYS MADE ON THE DATE(S) INDICATED & CAN ONLY BE CONSIDERED AS INDICATING THE GENERAL CONDITIONS EXISTING AT THAT TIME.
3. SOUNDINGS: SHOWN IN FEET CENTERED ON POINT OF SHOALEST DEPTH IN 25 FT RADIUS.
4. BACKGROUND:ESRI WORLD IMAGERY GIS WEB SERVICE.
5. AIDS TO NAVIGATION LOCATED WITH SURVEY VESSEL +/- 10 FEET ON DATE OF SURVEY.
6. SURVEY XYZ (*.XYZ) AND METADATA (*.MET) FILE NAME REFERENCED BY FILE NO.
7. NOAA ZONING FROM STATIONS 216+11 - 290+00, 290+00 - 347+88, AND (WALLOPS ISLAND PLACEMENT SITE) 0+00 - 64+02

PROJECTED COORDINATE SYSTEM: STATE PLANE
NAD 83 (2011)
HORIZONTAL ZONE: VIRGINIA SOUTH ZONE
PROJECTED COORDINATE UNITS: US SURVEY FEET
MAPPED HORIZONTAL ACCURACY: +/- 1.5 FEET
HORIZONTAL CONTROL: RTK/LEICA SMARTNET

VERTICAL REFERENCE DATUM: NOS MLLW
TIDE EPOCH: 1983-2001
IMPLIED VERTICAL ACCURACY: +/- 0.5 FEET
VERTICAL CONTROL: RTK/LEICA SMARTNET
VERTICAL DATUM: NAVD88 / GEOID12B
SYSTEM/METHOD: MULTI-BEAM
BIN SIZE: 5x5
BIN SELECTION METHOD: AVERAGE CELL CENTER

GEODETIC CONTROL MONUMENTS

| MONUMENT | MLLW | NAVD88 |
|---|---|---|
| CHINCOTEAGUE, 2011" | 2.74' | 2.12' (GEOID12B) |
| NOS "863 0249 A, 1982" | 3.13' | 2.14' (GEOID12B) |
| USCG "T 421, 1963" | 3.56' | 2.42' (GEOID12B) |
| NOS "863 0308 C, 1977" | 4.17' | 2.70' (GEOID12B) |
| NOS "863 0316 B, 1977" | 5.70' | 4.22' (GEOID12B) |

AREA
0+00-20+49
20+49-63+57
63+57-109+43
109+43-173+64
173+64-216+11

# CHINCOTEAGUE INLET
# PROJECT CONDITION SURVEY
# (AFTER DREDGING)

SURVEY DATE:
March 30, 2020

SURVEY BY: USACE Team Lead: Dustin Brooke

eHYDRO FILE CH_01_CHI_20200330_AD

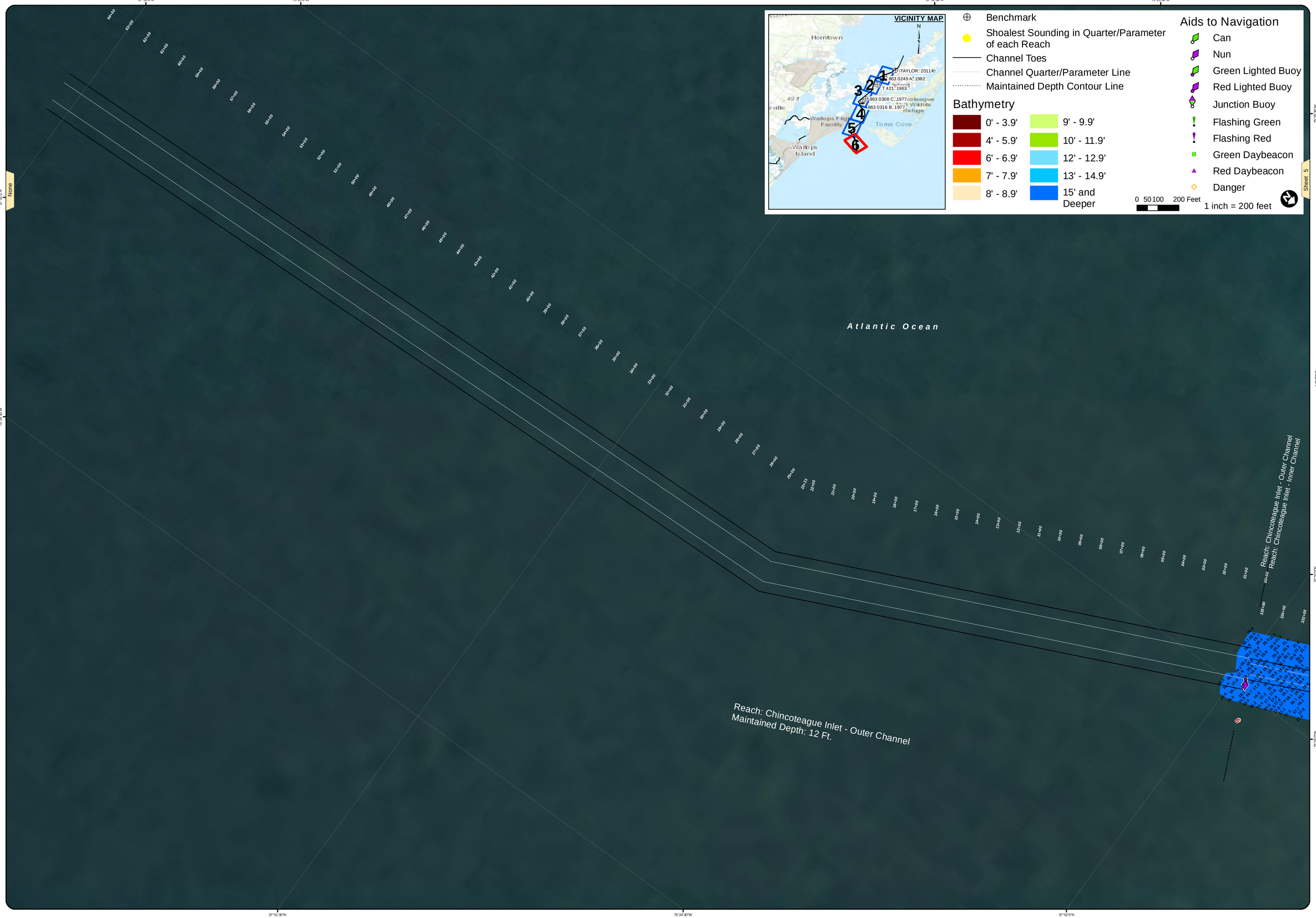
**SHEET 5 of 6**
**Map Produced: 4/9/2020**

APPROVED:

Chief, Navigation Analysis Section

APPROVED:

Chief, Navigation Support and Survey Section




US Army Corps of Engineers
Norfolk District

NOTES:

1. PROJECT: AN INNER CHANNEL 9 FEET DEEP AND 100 FEET WIDE AND AN ENTRANCE CHANNEL 12 FEET DEEP AND WIDTH OF 200 FT.
2. NOT FOR NAVIGATION USE. THE INFORMATION DEPICTED ON THIS MAP REPRESENTS THE RESULTS OF SURVEYS MADE ON THE DATE(S) INDICATED & CAN ONLY BE CONSIDERED AS INDICATING THE GENERAL CONDITIONS EXISTING AT THAT TIME.
3. SOUNDINGS: SHOWN IN FEET CENTERED ON POINT OF SHOALEST DEPTH IN 25 FT RADIUS.
4. BACKGROUND:ESRI WORLD IMAGERY GIS WEB SERVICE.
5. AIDS TO NAVIGATION LOCATED WITH SURVEY VESSEL +/- 10 FEET ON DATE OF SURVEY.
6. SURVEY XYZ (*.XYZ) AND METADATA (*.MET) FILE NAME REFERENCED BY FILE NO.
7. NOAA ZONING FROM STATIONS 216+11 - 290+00, 290+00 - 347+88, AND (WALLOPS ISLAND PLACEMENT SITE) 0+00 - 64+02

PROJECTED COORDINATE SYSTEM: STATE PLANE
DATUM NAME: NAD83
HORIZONTAL ZONE: VIRGINIA SOUTH ZONE
PROJECTED COORDINATE UNITS: US SURVEY FEET
MARITIME BOUNDARY ACCURACY: +/- 1.5 FEET
HORIZONTAL CONTROL: RTK/LEICA SMARTNET

VERTICAL REFERENCE DATUM: NOS MLLW
TIDE EPOCH: 1983-2001
IMPLIED VERTICAL ACCURACY: +/- 0.5 FEET
VERTICAL CONTROL: RTK/LEICA SMARTNET
TIDE ZONE: NOAA VORTEX MDL
SYSTEM/METHOD: MULTI-BEAM
BIN SIZE: 5x5
BIN SELECTION METHOD: AVERAGE CELL CENTER

**GEODETIC CONTROL MONUMENTS**

| MONUMENT | MLLW | NAVD88 |
|---|---|---|
| CHINCOTEAGUE, 2011 | 3.07' | 2.70(GEOID12B) |
| NOS 863 0249 A, 1982 | 3.13' | 2.14(GEOID12B) |
| USCG T 421, 1963 | 3.56' | 2.42(GEOID12B) |
| NOS 863 0308 C, 1977 | 5.43' | 3.18(GEOID12B) |
| NOS 863 0316 B, 1977 | 5.70' | 4.22(GEOID12B) |

**MEAN RANGE OF TIDE**

| AREA | |
|---|---|
| 0+00-20+49 | 1.5' |
| 20+49-63+57 | 1.5' |
| 63+57-109+43 | 1.7' |
| 109+43-173+44 | 2.0' |
| 173+44-216+11 | 2.3' |

# CHINCOTEAGUE INLET
# PROJECT CONDITION SURVEY
# (AFTER DREDGING)

**SURVEY DATE:**
**March 30, 2020**

**SURVEY BY: USACE Team Lead: Dustin Brooke**

**eHYDRO FILE: CH_01_CH_20200330_AD**

**SHEET 6 of 6**
**Map Produced: 4/9/2020**

APPROVED:

Chief, Navigation Analysis Section

APPROVED:

Chief, Navigation Support and Survey Section