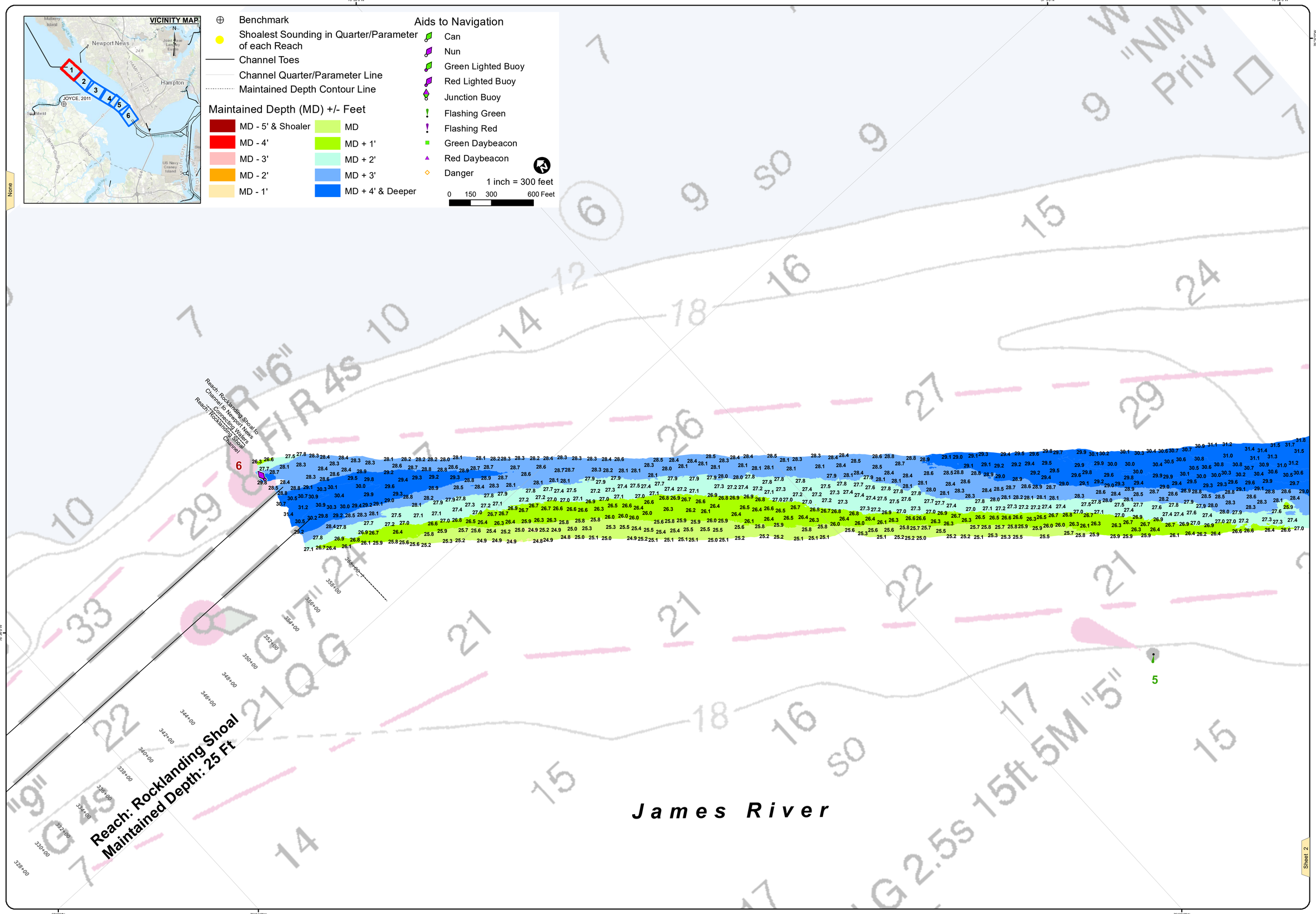


US Army Corps of Engineers
Norfolk District

NOTES:

1. PROJECT: A CHANNEL 300 FEET WIDE AND 35 FEET DEEP, MAINTAINED AT A DEPTH OF 25 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 75 FT RADIUS GENERATED FROM HYDROSURVEY DATA
4. BACKGROUND: NOAA RNC 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 eHYDRO FILE NAME.

PROJECTED COORDINATE SYSTEM: STATE PLANE
DATUM NAE:
HORIZONTAL ZONE: VIRGINIA SOUTH ZONE
PROJECTED COORDINATE UNITS: US SURVEY FEET
IMPLIED HORIZONTAL ACCURACY: +/- 1 FOOT
HORIZONTAL CONTROL: LEICA SMART NET

VERTICAL REFERENCE DATUM: NOS MLLW
VERTICAL EPOCH: 1983-2001
IMPLIED VERTICAL ACCURACY: +/- 0.5 FEET
VERTICAL CONTROL: RTK/LEICA SMART NET
NAVIGATION METHOD: RTK/LEICA SMART NET
SYSTEM/METHOD: MULTI-BEAM
BIN SIZE: 5X5
BIN SELECTION METHOD: AVERAGE CELL CENTER

GEODETIC CONTROL MONUMENTS

MONUMENT	MLLW	NAVD88	MEAN RANGE OF TIDE	AREA
N/A	N/A	N/A	N/A	N/A

JAMES RIVER ROCKLANDING SHOAL TO CHANNEL TO NEWPORT NEWS CONNECTING WATERS PROJECT CONDITION SURVEY

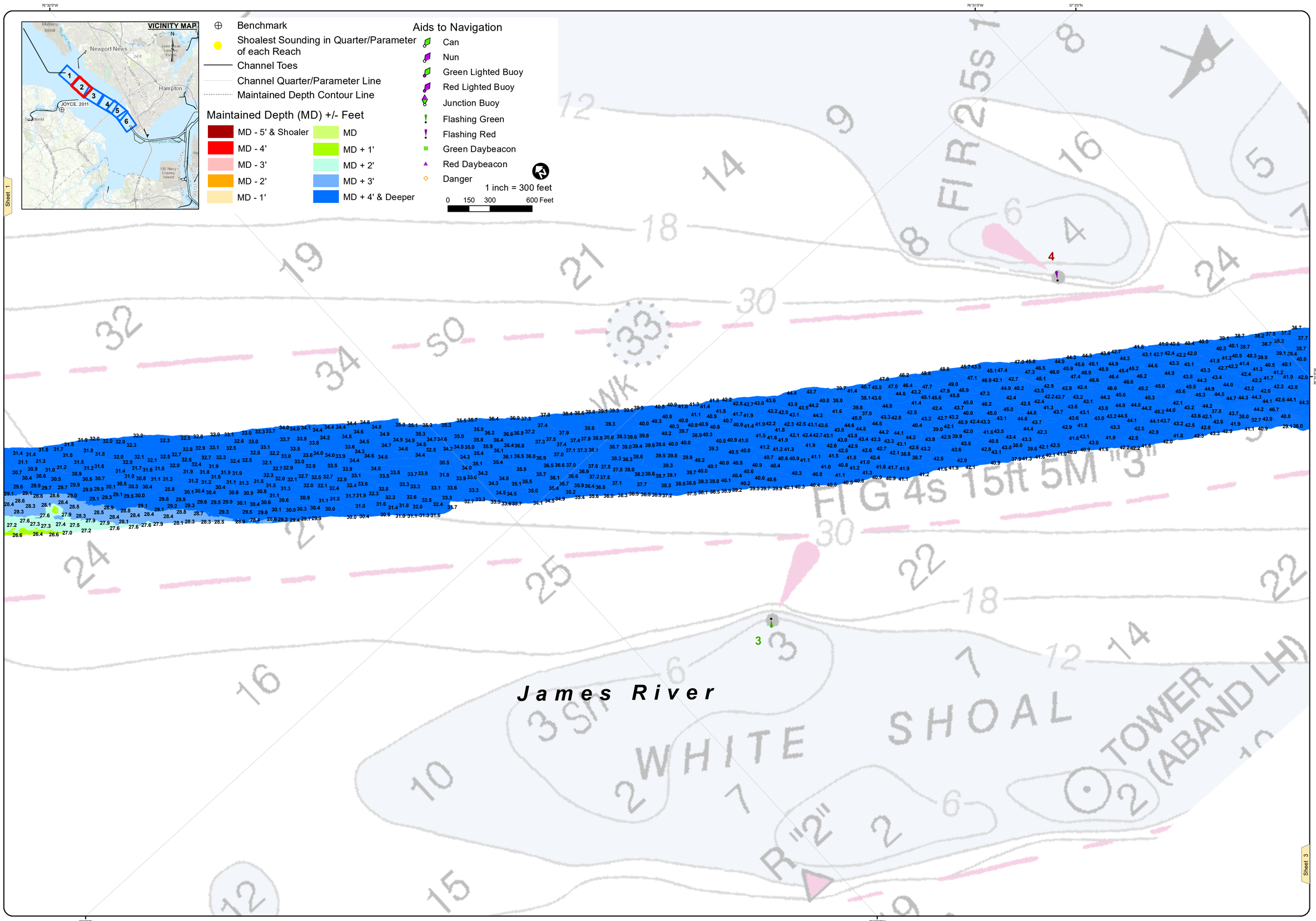
SURVEY DATES:
May 1, 4 & 18, 2020

SURVEY BY: USACE Team Lead: Mike Williams
eHYDRO FILE: JR_00_R2N_20200501_CS

SHEET 1 of 6
Map Produced: 6/5/2020

APPROVED:
Jeff Swallow
Digitally signed by Jeff Swallow
Date: 2020.06.05 11:44:00 -04'00'
Chief, Navigation Analysis Section

APPROVED:
Eric Legaspi
Digitally signed by Eric Legaspi
Date: 2020.06.09 06:58:15 -04'00'
Chief, Navigation Support and Survey Section



US Army Corps of Engineers
Norfolk District

NOTES:

1. PROJECT: A CHANNEL 300 FEET WIDE AND 35 FEET DEEP, MAINTAINED AT A DEPTH OF 29 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 75 FT RADIUS GENERATED FROM HYDROSURVEY DATA
4. BACKGROUND: NOAA RNC 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 eHYDRO FILE NAME.

PROJECTED COORDINATE SYSTEM: STATE PLANE
TEXT VALUE: NAD83
HORIZONTAL ZONE: VIRGINIA SOUTH ZONE
PROJECTED COORDINATE UNITS: US SURVEY FEET
IMPLIED HORIZONTAL ACCURACY: +/- 1.5FOOT
HORIZONTAL CONTROL: LEICA SMART NET

VERTICAL REFERENCE DATUM: NOS MLLW
TEXT VALUE: NOS MLLW
IMPLIED VERTICAL ACCURACY: +/- 0.5 FEET
VERTICAL CONTROL: RTK/LEICA SMART NET
TIDE ZONE: ELEVATION MEASURED FROM MLLW
SYSTEM/METHOD: MULTI-BEAM
BIN SIZE: 5x5
BIN SELECTION METHOD: AVERAGE CELL CENTER

GEODETIC CONTROL MONUMENTS

MONUMENT	MLLW	NAVD88	MEAN RANGE OF TIDE
N/A	N/A	N/A	N/A

AREA
N/A

JAMES RIVER ROCKLANDING SHOAL TO CHANNEL TO NEWPORT NEWS CONNECTING WATERS PROJECT CONDITION SURVEY

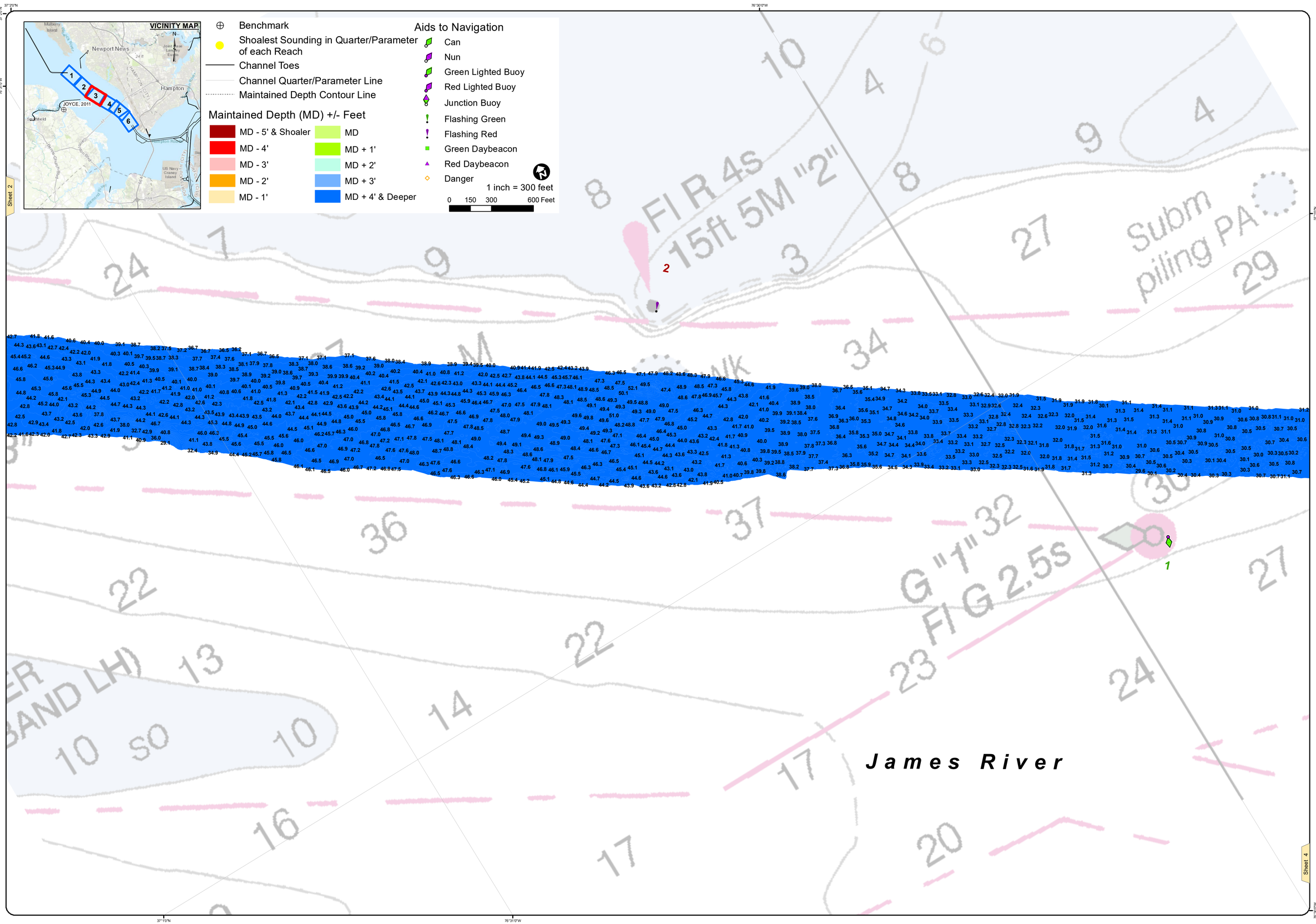
SURVEY DATES:
May 1, 4 & 18, 2020

SURVEY BY: USACE Team Lead: Mike Williams
eHYDRO FILE: JR_50_R2N_20200501_CS

SHEET 2 of 6
Map Produced: 6/5/2020

APPROVED:
Chief, Navigation Analysis Section

APPROVED:
Chief, Navigation Support and Survey Section



US Army Corps of Engineers
Norfolk District

NOTES:

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3. SOUNDINGS: SHOWN IN FEET CENTERED ON POINT OF SHOALEST DEPTH IN 75 FT RADIUS GENERATED FROM HYDROSURVEY DATA
4. BACKGROUND: NOAA RNC 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 eHYDRO FILE NAME.

PROJECTED COORDINATE SYSTEM:	STATE PLANE
DATUM/ELLIPSOID:	NAD83 / GRS80
HORIZONTAL ZONE:	VIRGINIA SOUTH ZONE
PROJECTED COORDINATE UNITS:	US SURVEY FEET
IMPLIED HORIZONTAL ACCURACY:	+/- 5.00 FEET
HORIZONTAL CONTROL:	LEICA SMART NET
VERTICAL REFERENCE DATUM:	NO5 MLLW
TIDAL DATUM:	NO5
IMPLIED VERTICAL ACCURACY:	+/- 0.5 FEET
VERTICAL CONTROL:	RTK/LEICA SMART NET
TIDE ZONE:	NO5 - NEWPORT NEWS
SYSTEM/METHOD:	MULTI-BEAM
BIN SIZE:	5x5
BIN SELECTION METHOD:	AVERAGE CELL CENTER

GEODETIC CONTROL MONUMENTS

MONUMENT	MLLW	NAVD88	MEAN RANGE OF TIDE	AREA
N/A	N/A	N/A	N/A	N/A

JAMES RIVER
ROCKLANDING SHOAL TO CHANNEL TO NEWPORT NEWS CONNECTING WATERS PROJECT CONDITION SURVEY

SURVEY DATES:
May 1, 4 & 18, 2020

SURVEY BY: USACE Team Lead: Mike Williams
eHYDRO FILE: JR_50_K2N_20200001_CS

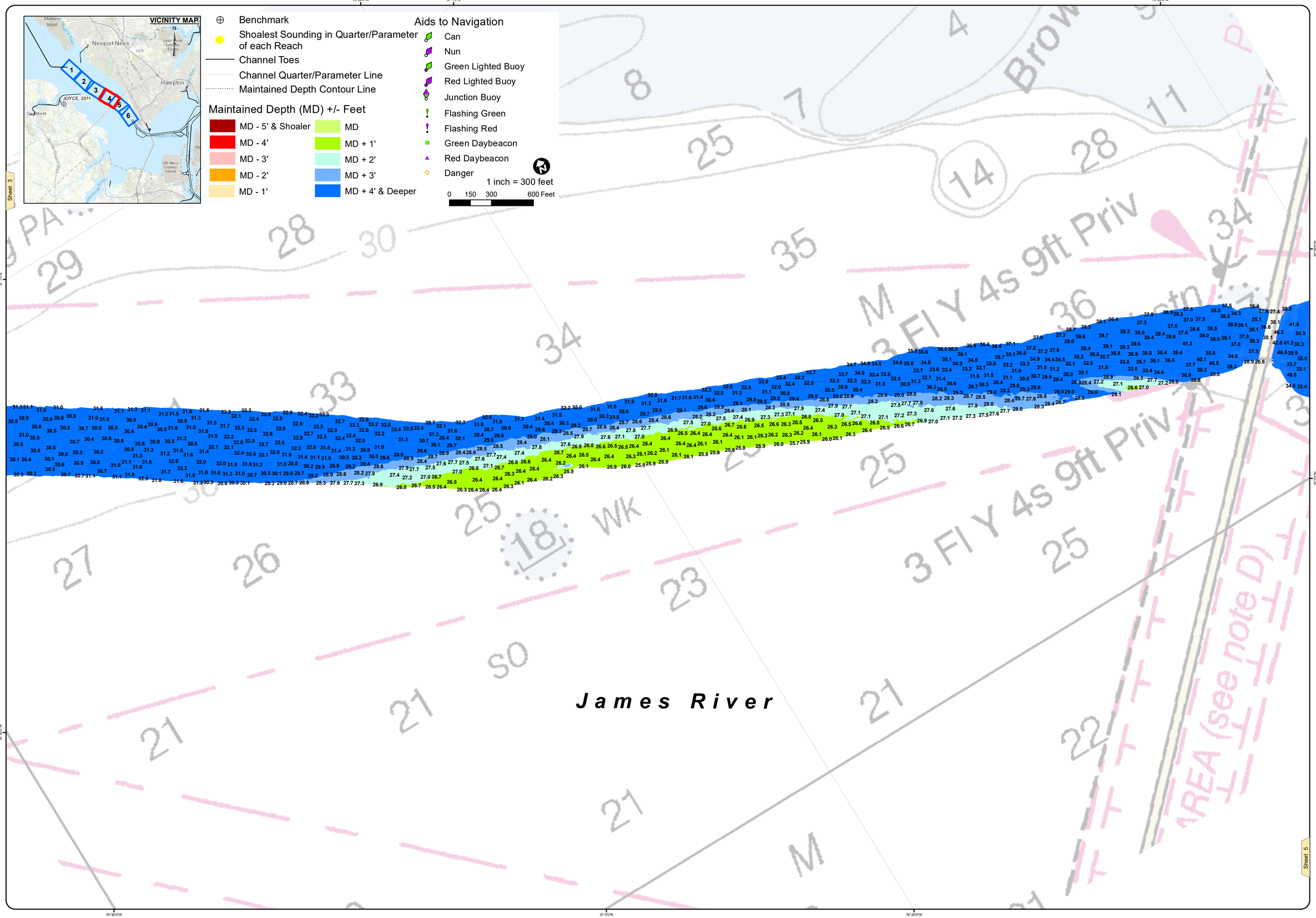
SHEET 3 of 6
Map Produced: 6/5/2020

APPROVED:

Chief, Navigation Analysis Section

APPROVED:

Chief, Navigation Support and Survey Section



US Army Corps of Engineers
Norfolk District

NOTES:

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3. SOUNDINGS: SHOWN IN FEET CENTERED ON POINT OF SHOALEST DEPTH IN 75 FT RADIUS GENERATED FROM HYDROSURVEY DATA
4. BACKGROUND: NOAA RNC 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 eHYDRO FILE NAME.

PROJECTED COORDINATE SYSTEM:	STATE PLANE
DATUM/ZONE:	NAD83
HORIZONTAL ZONE:	VIRGINIA SOUTH ZONE
PROJECTED COORDINATE UNITS:	US SURVEY FEET
IMPLIED HORIZONTAL ACCURACY:	+/- 1.0 FOOT
HORIZONTAL CONTROL:	LEICA SMART NET
VERTICAL REFERENCE DATUM:	NOS MLLW
TIDAL EPOCH:	NA
IMPLIED VERTICAL ACCURACY:	+/- 0.5 FEET
VERTICAL CONTROL:	RTK/LEICA SMART NET
VERTICAL DATUM:	ELLIPSOID TO DATUM MDL
SYSTEM/METHOD:	MULTI-BEAM
BIN SIZE:	5x5
BIN SELECTION METHOD:	AVERAGE CELL CENTER

GEODETIC CONTROL MONUMENTS

MONUMENT	MLLW	NAVD88	MEAN RANGE OF TIDE	AREA
N/A	N/A	N/A	N/A	N/A

JAMES RIVER ROCKLANDING SHOAL TO CHANNEL TO NEWPORT NEWS CONNECTING WATERS PROJECT CONDITION SURVEY

SURVEY DATES:
May 1, 4 & 18, 2020

SURVEY BY: USACE Team Lead: Mike Williams
eHYDRO FILE: JR_50_R2N_20200501_CS

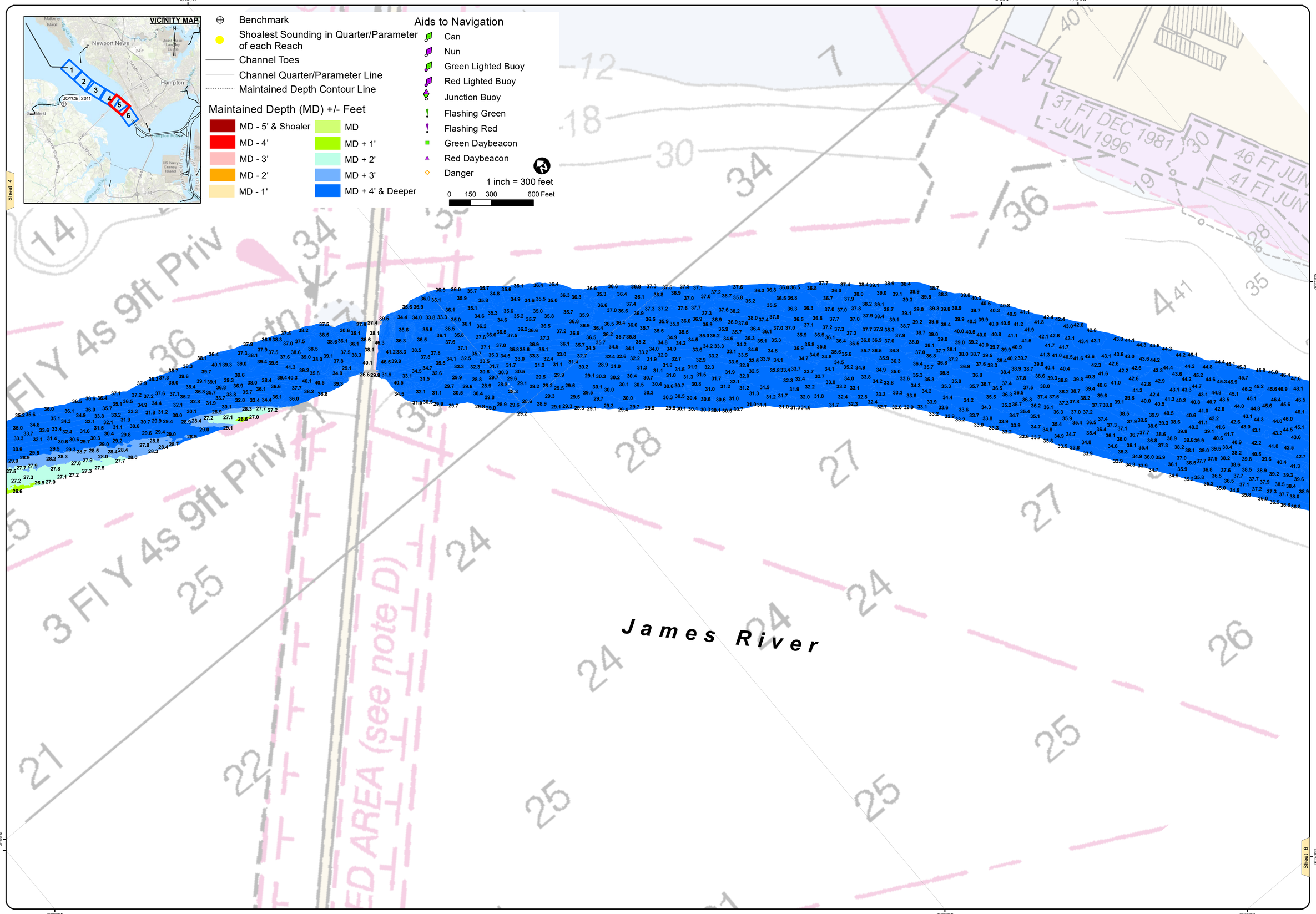
SHEET 4 of 6
Map Produced: 6/5/2020

APPROVED:

Chief, Navigation Analysis Section

APPROVED:

Chief, Navigation Support and Survey Section



US Army Corps of Engineers
Norfolk District

NOTES:

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3. SOUNDINGS: SHOWN IN FEET CENTERED ON POINT OF SHOALEST DEPTH IN 75 FT RADIUS GENERATED FROM HYDROSURVEY DATA

4. BACKGROUND: NOAA RNC 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 eHYDRO FILE NAME.

PROJECTED COORDINATE SYSTEM:	STATE PLANE
DATUM/ZONE:	NAD 83
HORIZONTAL ZONE:	VIRGINIA SOUTH ZONE
PROJECTED COORDINATE UNITS:	US SURVEY FEET
IMPLIED HORIZONTAL ACCURACY:	+/- 1.0 FEET
HORIZONTAL CONTROL:	LEICA SMART NET
VERTICAL REFERENCE DATUM:	NOS MLLW
TIDAL DATUM:	LPC-DOD
IMPLIED VERTICAL ACCURACY:	+/- 0.5 FEET
VERTICAL CONTROL:	RTK/LEICA SMART NET
TIDE ZONE:	PORTSMOUTH MDL
SYSTEM/METHOD:	MULTI-BEAM
BIN SIZE:	5x5
BIN SELECTION METHOD:	AVERAGE CELL CENTER

GEODETIC CONTROL MONUMENTS

MONUMENT	MLLW	NAVD88	MEAN RANGE OF TIDE	AREA
N/A	N/A	N/A	N/A	N/A

JAMES RIVER ROCKLANDING SHOAL TO CHANNEL TO NEWPORT NEWS CONNECTING WATERS PROJECT CONDITION SURVEY

SURVEY DATES:
May 1, 4 & 18, 2020

SURVEY BY: USACE Team Lead: Mike Williams
eHYDRO FILE: JR_90_R2R_20200601_CS

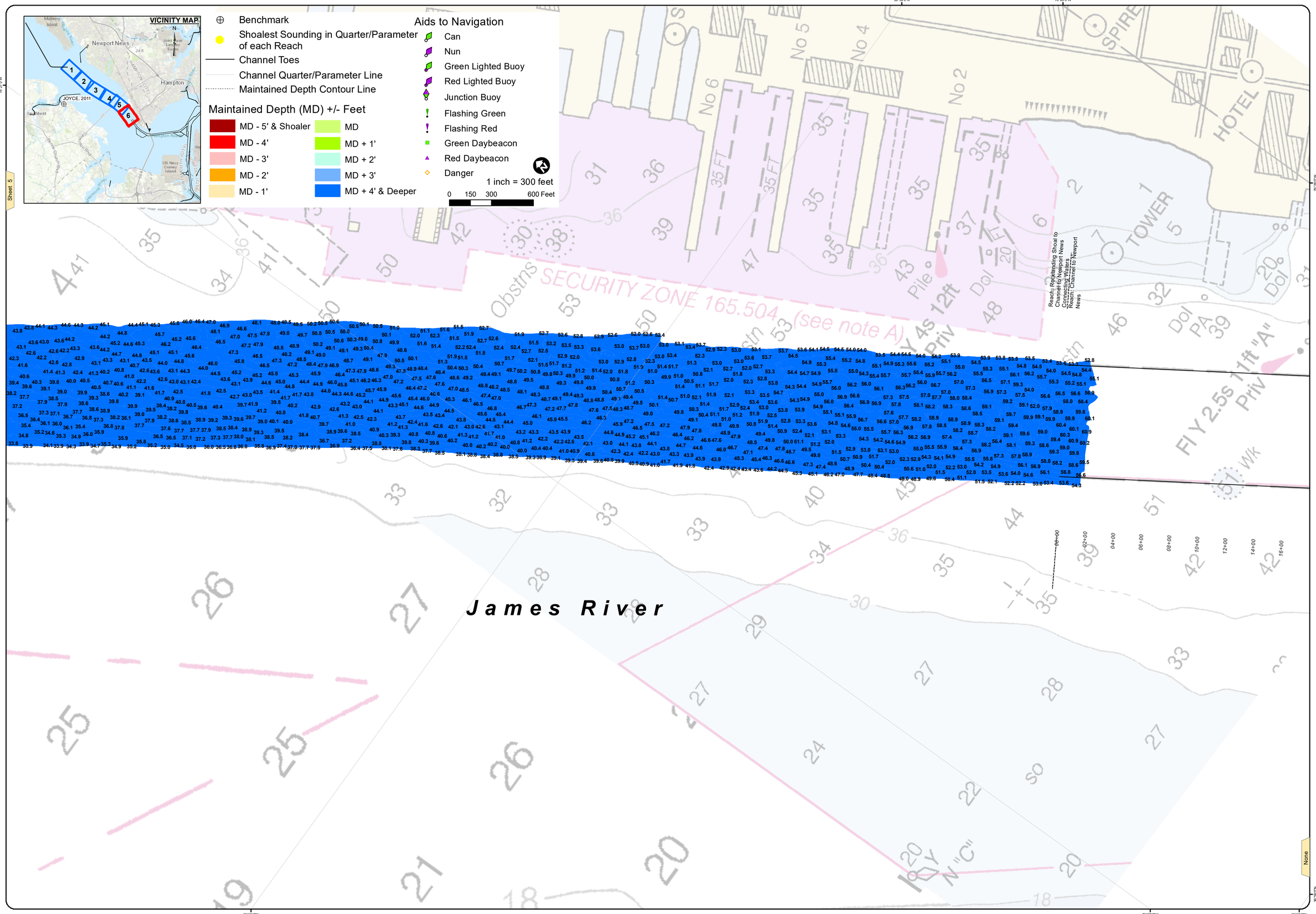
SHEET 5 of 6
Map Produced: 6/5/2020

APPROVED:

Chief, Navigation Analysis Section

APPROVED:

Chief, Navigation Support and Survey Section



US Army Corps of Engineers
Norfolk District

NOTES:

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4. BACKGROUND: NOAA RNC 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 eHYDRO FILE NAME.

PROJECTED COORDINATE SYSTEM:	STATE PLANE
DATUM/ WAVE:	NAD83 (NSRS2007)
HORIZONTAL ZONE:	VIRGINIA SOUTH ZONE
PROJECTED COORDINATE UNITS:	US SURVEY FEET
INVERSE VERTICAL ACCURACY:	+/- 0.01 FEET
HORIZONTAL CONTROL:	LEICA SMART NET
VERTICAL REFERENCE DATUM:	NOS MLLW
TIDAL DATUM:	MLLW
IMPLIED VERTICAL ACCURACY:	+/- 0.5 FEET
VERTICAL CONTROL:	RTK/LEICA SMART NET
TIDE ZONE:	VIRGINIA SOUTH MDL
SYSTEM/METHOD:	MULTI-BEAM
BIN SIZE:	5x5
BIN SELECTION METHOD:	AVERAGE CELL CENTER

GEODETIC CONTROL MONUMENTS

MONUMENT	MLLW	NAVD88	MEAN RANGE OF TIDE	AREA
N/A	N/A	N/A	N/A	N/A

JAMES RIVER ROCKLANDING SHOAL TO CHANNEL TO NEWPORT NEWS CONNECTING WATERS PROJECT CONDITION SURVEY

SURVEY DATES:
May 1, 4 & 18, 2020

SURVEY BY: USACE Team Lead: Mike Williams
eHYDRO FILE: JR_90_R2R_20200001_CS

SHEET 6 of 6
Map Produced: 6/5/2020

APPROVED:

Chief, Navigation Analysis Section

APPROVED:

Chief, Navigation Support and Survey Section