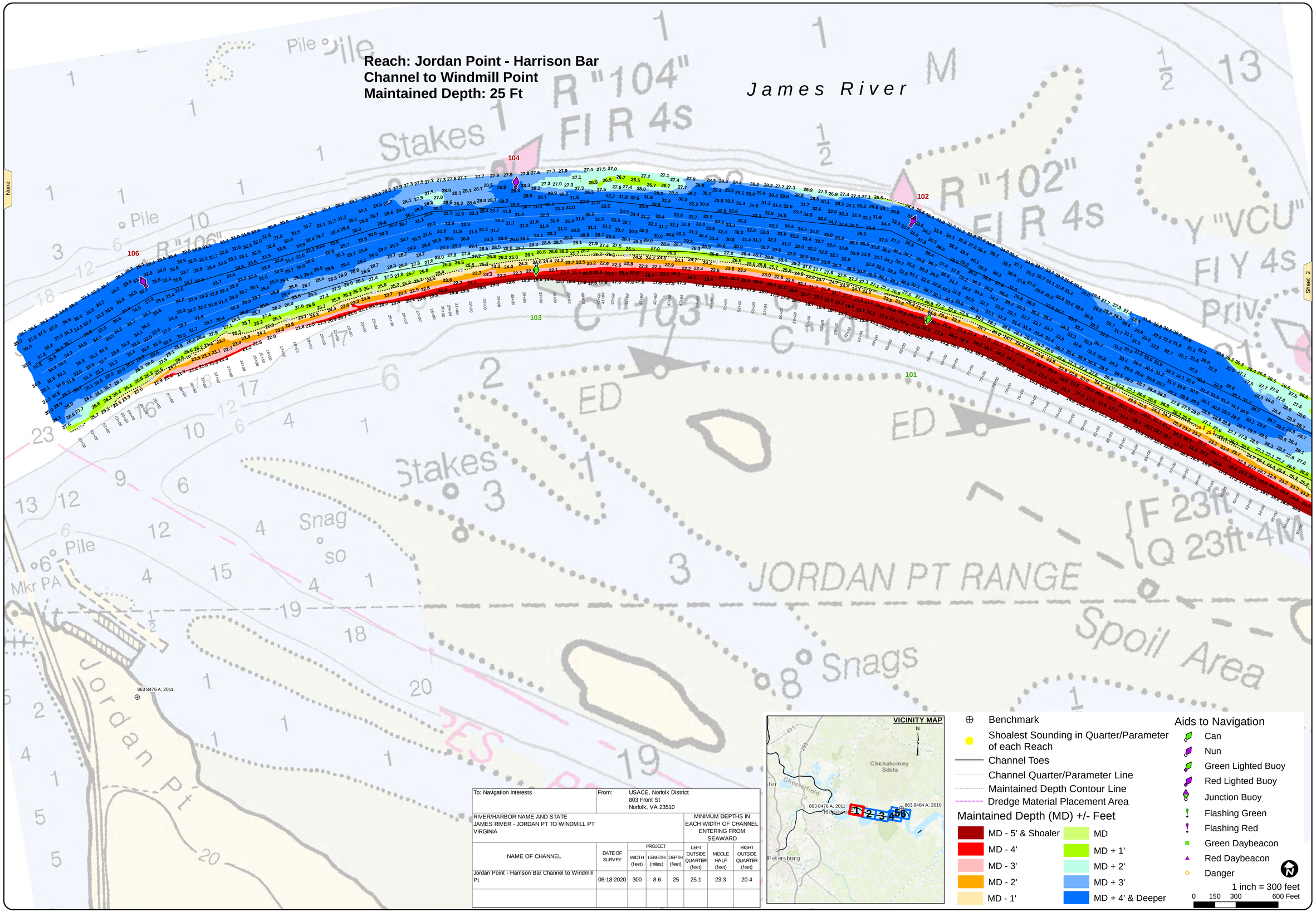


To: Navigation Interests	From: USACE, Norfolk District 803 Front St Norfolk, VA 23510						
RIVER/HARBOR NAME AND STATE JAMES RIVER - JORDAN PT TO WINDMILL PT VIRGINIA					MINIMUM DEPTHS IN EACH WIDTH OF CHANNEL ENTERING FROM SEAWARD		
NAME OF CHANNEL	DATE OF SURVEY	PROJECT WIDTH (feet)	PROJECT LENGTH (miles)	PROJECT DEPTH (feet)	LEFT OUTSIDE QUARTER (feet)	MIDDLE HALF (feet)	RIGHT OUTSIDE QUARTER (feet)
Jordan Point - Harrison Bar Channel to Windmill Pt	06-18-2020	300	8.6	25	25.1	23.3	20.4

US Army Corps of Engineers
Norfolk District

NOTES:

1. PROJECT: A CHANNEL 35 FEET DEEP AND 300 FEET WIDE MAINTAINED UNDER A PREVIOUS PROJECT TO 25 FEET DEEP.
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 RASTER CHART 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.

PROJECTED COORDINATE SYSTEM: STATE PLANE
DATUM NAME: NAD 83
HORIZONTAL ZONE: VIRGINIA SOUTH ZONE
PROJECTED COORDINATE UNITS: US SURVEY FEET
IMPLIED HORIZONTAL ACCURACY: +/- 1 FOOT
HORIZONTAL CONTROL: RTK/LEICA SMART NET

VERTICAL REFERENCE DATUM: NOS MLLW
TIDAL EPOCH: 1983-2001
IMPLIED VERTICAL ACCURACY: +/- 0.5 FEET
VERTICAL CONTROL: RTK/LEICA SMART NET
TIDE APPLICATION: RTK NOAA VDATUM 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
CE "863 8476 A, 2011"	4.48'	2.97'(GEOID18)	2.36'	00+00-228+00
CE "863 8464 A, 2010"	6.96'	5.56'(GEOID18)	2.11'	228+00-456+00

JAMES RIVER
JORDAN POINT-HARRISON BAR TO WINDMILL POINT
PROJECT CONDITION SURVEY

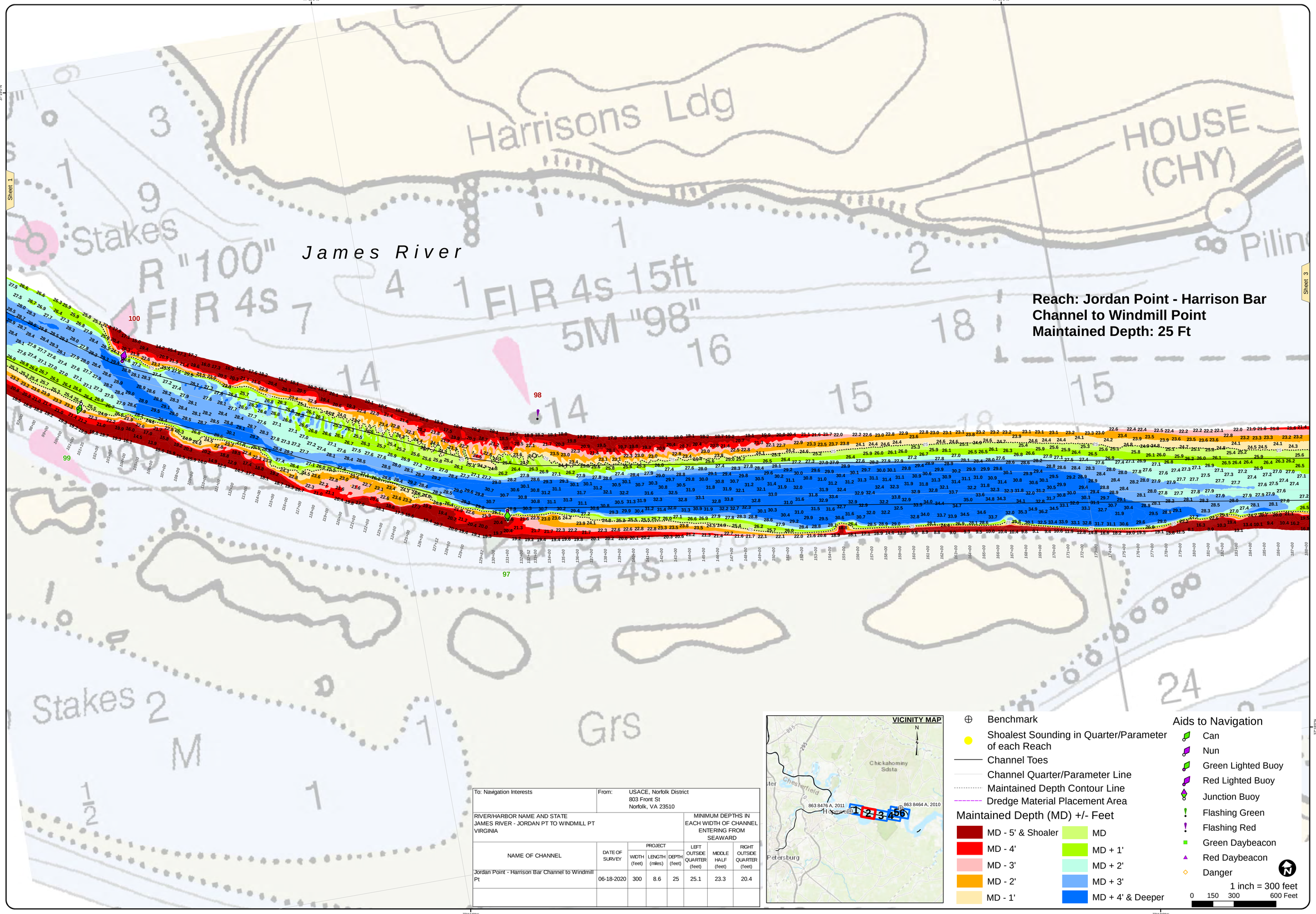
SURVEY DATES:
June 18, 22, 26 & 29, 2020

SURVEY BY: USACE Team Lead: Mike Williams
eHYDRO FILE: JR_06_JPC_20200618_CS

SHEET 1 of 6
Map Produced: 8/3/2020

APPROVED: Jeff Swallow
Digitally signed by Jeff Swallow
Date: 2020.08.05 07:29:23 -04'00'
Chief, Navigation Analysis Section

APPROVED: Eric Legaspi
Digitally signed by Eric Legaspi
Date: 2020.08.12 08:38:42 -04'00'
Chief, Navigation Support and Survey Section



Reach: Jordan Point - Harrison Bar Channel to Windmill Point
Maintained Depth: 25 Ft

To: Navigation Interests	From: USACE, Norfolk District 803 Front St Norfolk, VA 23510						
RIVER/HARBOR NAME AND STATE JAMES RIVER - JORDAN PT TO WINDMILL PT VIRGINIA					MINIMUM DEPTHS IN EACH WIDTH OF CHANNEL ENTERING FROM SEAWARD		
NAME OF CHANNEL	DATE OF SURVEY	PROJECT WIDTH (feet)	PROJECT LENGTH (miles)	PROJECT DEPTH (feet)	LEFT OUTSIDE QUARTER (feet)	MIDDLE HALF (feet)	RIGHT OUTSIDE QUARTER (feet)
Jordan Point - Harrison Bar Channel to Windmill Pt	06-18-2020	300	8.6	25	25.1	23.3	20.4

- Benchmark
- Shoalest Sounding in Quarter/Parameter of each Reach
- Channel Toes
- Channel Quarter/Parameter Line
- Maintained Depth Contour Line
- Dredge Material Placement Area

Maintained Depth (MD) +/- Feet

- MD - 5' & Shoaler
- MD - 4'
- MD - 3'
- MD - 2'
- MD - 1'
- MD
- MD + 1'
- MD + 2'
- MD + 3'
- MD + 4' & Deeper

Aids to Navigation

- Can
- Nun
- Green Lighted Buoy
- Red Lighted Buoy
- Junction Buoy
- Flashing Green
- Flashing Red
- Green Daybeacon
- Red Daybeacon
- Danger

1 inch = 300 feet
0 150 300 600 Feet

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 RASTER CHART 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.

PROJECTED COORDINATE SYSTEM: STATE PLANE
DATUM NAME: NAD 83
HORIZONTAL ZONE: VIRGINIA SOUTH ZONE
PROJECTED COORDINATE UNITS: US SURVEY FEET
IMPLIED HORIZONTAL ACCURACY: +/- 1 FOOT
HORIZONTAL CONTROL: RTK/LEICA SMART NET

VERTICAL REFERENCE DATUM: NOS MLLW
TIDAL EPOCH: 1983-2001
IMPLIED VERTICAL ACCURACY: +/- 0.5 FEET
VERTICAL CONTROL: RTK/LEICA SMART NET
TIDE APPLICATION: RTK NOAA VDATUM 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
CE "863 8476 A, 2011"	4.48'	2.97'(GEOID18)	2.36'	00+00-228+00
CE "863 8464 A, 2010"	6.96'	5.56'(GEOID18)	2.11'	228+00-456+00

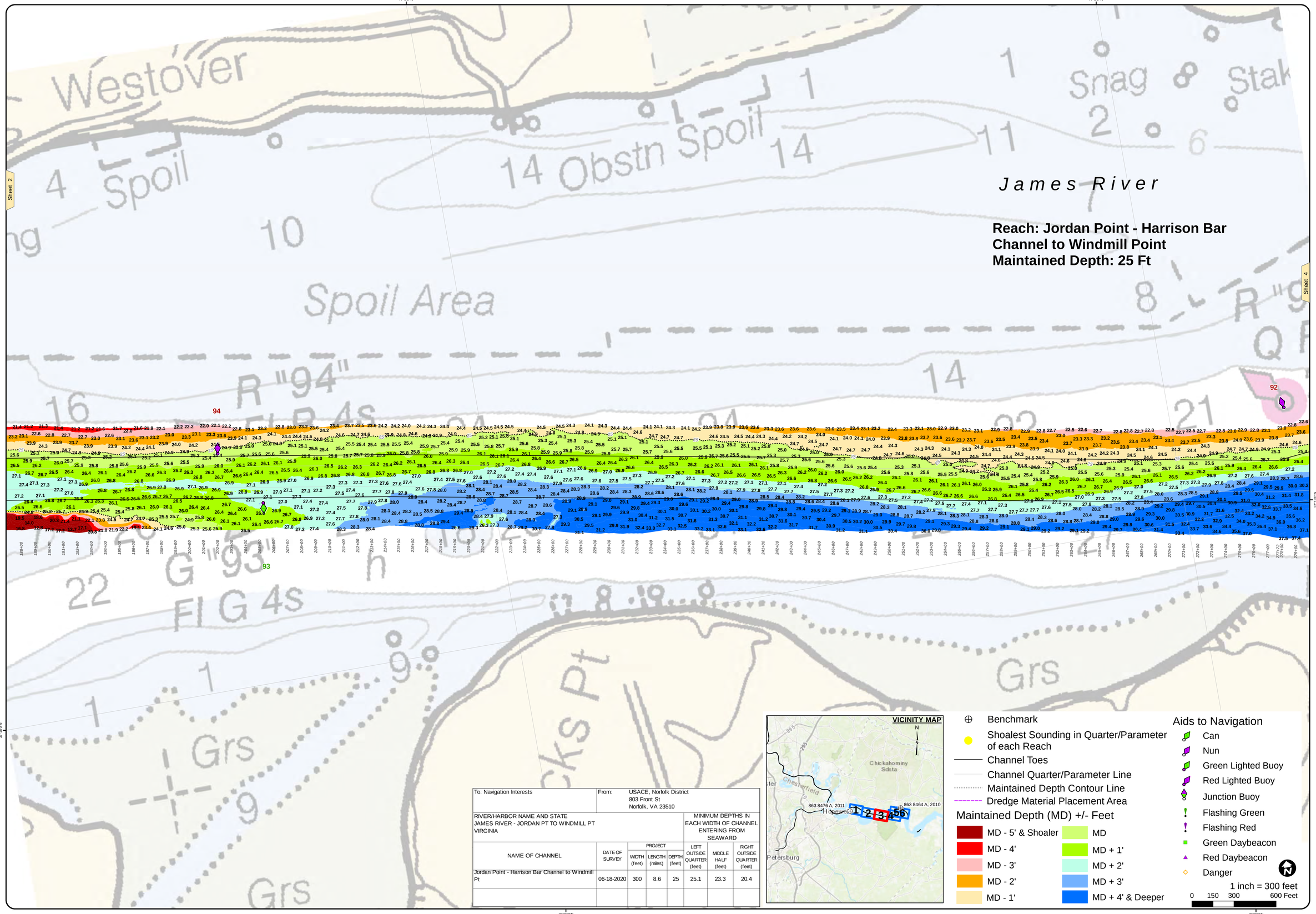
JAMES RIVER
JORDAN POINT-HARRISON BAR TO WINDMILL POINT
PROJECT CONDITION SURVEY
SURVEY DATES:
June 18, 22, 26 & 29, 2020

SURVEY BY: USACE Team Lead: Mike Williams
eHYDRO FILE: JR_06_JPC_20200618_CS

SHEET 2 of 6
Map Produced: 8/3/2020

APPROVED:
Chief, Navigation Analysis Section

APPROVED:
Chief, Navigation Support and Survey Section



To: Navigation Interests	From:	USACE, Norfolk District 803 Front St Norfolk, VA 23510					
RIVER/HARBOR NAME AND STATE JAMES RIVER - JORDAN PT TO WINDMILL PT VIRGINIA					MINIMUM DEPTHS IN EACH WIDTH OF CHANNEL ENTERING FROM SEAWARD		
NAME OF CHANNEL	DATE OF SURVEY	PROJECT			LEFT OUTSIDE QUARTER (feet)	MIDDLE HALF (feet)	RIGHT OUTSIDE QUARTER (feet)
		WIDTH (feet)	LENGTH (miles)	DEPTH (feet)			
Jordan Point - Harrison Bar Channel to Windmill Pt	06-18-2020	300	8.6	25	25.1	23.3	20.4

Benchmark
Shoalest Sounding in Quarter/Parameter of each Reach
Channel Toes
Channel Quarter/Parameter Line
Maintained Depth Contour Line
Dredge Material Placement Area

Maintained Depth (MD) +/- Feet

- MD - 5' & Shoaler
- MD - 4'
- MD - 3'
- MD - 2'
- MD - 1'
- MD
- MD + 1'
- MD + 2'
- MD + 3'
- MD + 4' & Deeper

Aids to Navigation

- Can
- Nun
- Green Lighted Buoy
- Red Lighted Buoy
- Junction Buoy
- Flashing Green
- Flashing Red
- Green Daybeacon
- Red Daybeacon
- Danger

1 inch = 300 feet

0 150 300 600 Feet

US Army Corps of Engineers
Norfolk District

NOTES:

1. PROJECT: A CHANNEL 35 FEET DEEP AND 300 FEET WIDE MAINTAINED UNDER A PREVIOUS PROJECT TO 25 FEET DEEP.
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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 RASTER CHART 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.

PROJECTED COORDINATE SYSTEM: STATE PLANE
HORIZONTAL DATUM: NAD83
HORIZONTAL ZONE: VIRGINIA SOUTH ZONE
PROJECTED COORDINATE UNITS: US SURVEY FEET
IMPLIED VERTICAL DATUM: MLLW
HORIZONTAL CONTROL: RTK/LEICA SMART NET

VERTICAL REFERENCE DATUM: NOS MLLW
TIDAL EPOCH: 1983-2001
IMPLIED VERTICAL ACCURACY: +/- 0.5 FEET
VERTICAL CONTROL: RTK/LEICA SMART NET
TIDE ZONE: ONE, DOMINION MOL
SYSTEM/METHOD: MULTI-BEAM
BIN SIZE: 5'x5'
BIN SELECTION METHOD: AVERAGE CELL CENTER

GEODETIC CONTROL MONUMENTS

MONUMENT	MLLW	NAVD88	MEAN RANGE OF TIDE	AREA
CE 3963 8476 A, 2011"	4.48'	2.97'(GEOID18)	2.36'	00+00-228+00
CE 3963 8464 A, 2010"	6.86'	5.56'(GEOID18)	2.11'	228+00-456+00

JAMES RIVER
JORDAN POINT-HARRISON BAR TO WINDMILL POINT
PROJECT CONDITION SURVEY

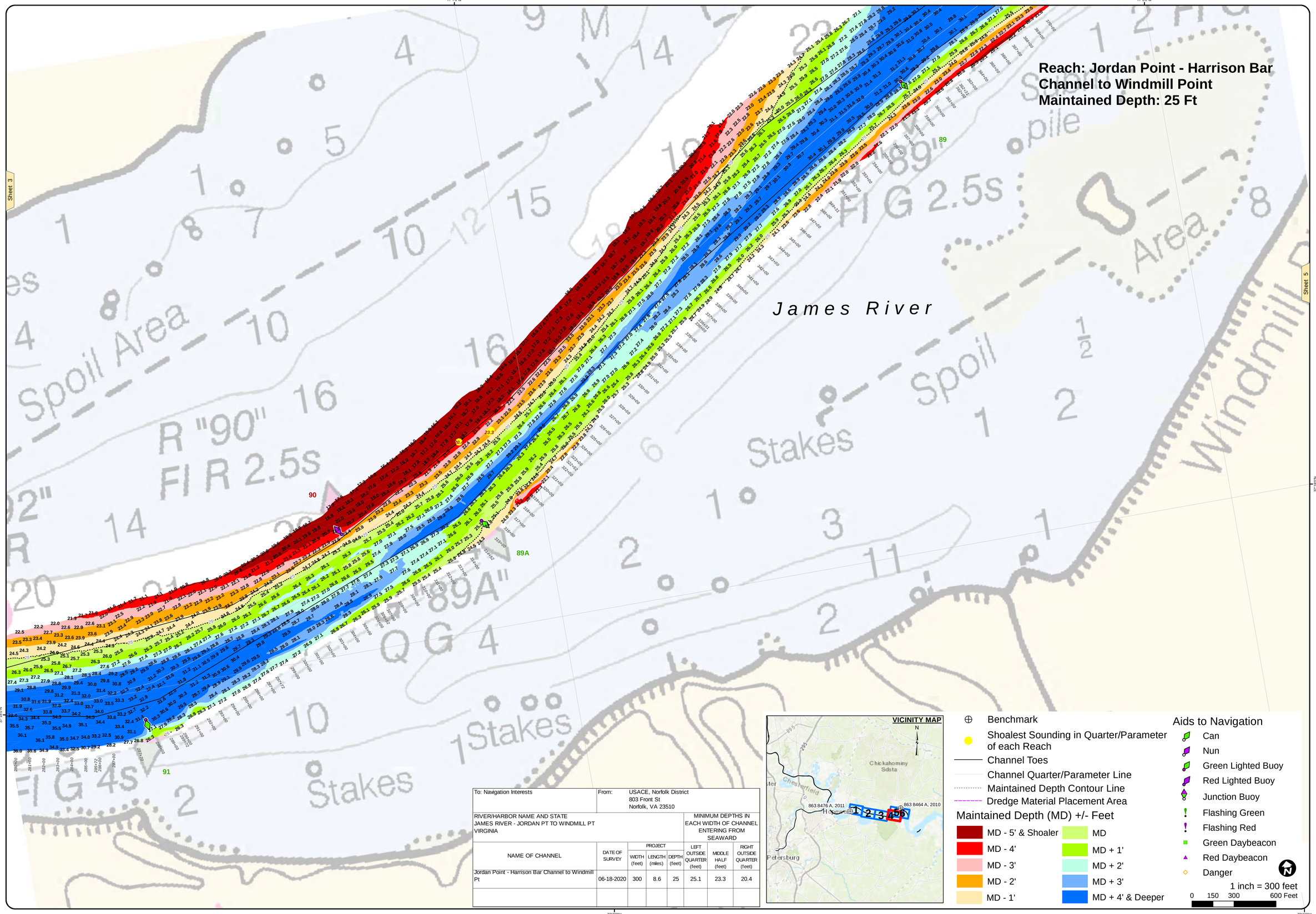
SURVEY DATES:
June 18, 22, 26 & 29, 2020

SURVEY BY: USACE Team Lead: Mike Williams
eHYDRO FILE: JR_06_JPC_20200618_CS

SHEET 3 of 6
Map Produced: 8/3/2020

APPROVED:
Chief, Navigation Analysis Section

APPROVED:
Chief, Navigation Support and Survey Section



To: Navigation Interests		From: USACE, Norfolk District 803 Front St Norfolk, VA 23510					
RIVER/HARBOR NAME AND STATE JAMES RIVER - JORDAN PT TO WINDMILL PT VIRGINIA					MINIMUM DEPTHS IN EACH WIDTH OF CHANNEL ENTERING FROM SEAWARD		
NAME OF CHANNEL	DATE OF SURVEY	PROJECT			LEFT OUTSIDE QUARTER (feet)	MIDDLE HALF (feet)	RIGHT OUTSIDE QUARTER (feet)
		WIDTH (feet)	LENGTH (miles)	DEPTH (feet)			
Jordan Point - Harrison Bar Channel to Windmill Pt	06-18-2020	300	8.6	25	25.1	23.3	20.4

VICINITY MAP

Chickahominy Sdsta
Chesterfield
Hopewell
Petersburg
863 8476 A, 2011
863 8464 A, 2010
1 2 3 4 5 6

- Benchmark
- Shoalest Sounding in Quarter/Parameter of each Reach
- Channel Toes
- Channel Quarter/Parameter Line
- Maintained Depth Contour Line
- Dredge Material Placement Area

Maintained Depth (MD) +/- Feet

- MD - 5' & Shoaler
- MD - 4'
- MD - 3'
- MD - 2'
- MD - 1'
- MD
- MD + 1'
- MD + 2'
- MD + 3'
- MD + 4' & Deeper

Aids to Navigation

- Can
- Nun
- Green Lighted Buoy
- Red Lighted Buoy
- Junction Buoy
- Flashing Green
- Flashing Red
- Green Daybeacon
- Red Daybeacon
- Danger

1 inch = 300 feet

0 150 300 600 Feet

US Army Corps of Engineers
Norfolk District

NOTES:

1. PROJECT: A CHANNEL 35 FEET DEEP AND 300 FEET WIDE MAINTAINED UNDER A PREVIOUS PROJECT TO 25 FEET DEEP.
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4. BACKGROUND: NOAA RASTER CHART 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.

PROJECTED COORDINATE SYSTEM: STATE PLANE
HORIZONTAL ZONE: VIRGINIA SOUTH ZONE
PROJECTED COORDINATE UNITS: US SURVEY FEET
HORIZONTAL DATUM: NAD83 (2011)
HORIZONTAL CONTROL: RTK/LEICA SMART NET

VERTICAL REFERENCE DATUM: NGS MLLW
TIDAL EPOCH: 1983-2001
IMPLIED VERTICAL ACCURACY: +/- 0.5 FEET
VERTICAL CONTROL: RTK/LEICA SMART NET
TIDE NOTE: NO TIDE ZONE
SYSTEM/METHOD: MULTI-BEAM
BIN SIZE: 5X5
BIN SELECTION METHOD: AVERAGE CELL CENTER

GEODETIC CONTROL MONUMENTS

MONUMENT	MLLW	NAVD88	MEAN RANGE OF TIDE	AREA
CE 3953 8476 A, 2011"	4.48'	2.97'(GEOID18)	2.36'	00+00-228+00
CE 3953 8464 A, 2010"	6.86'	5.56'(GEOID18)	2.11'	228+00-456+00

JAMES RIVER
JORDAN POINT-HARRISON BAR TO WINDMILL POINT
PROJECT CONDITION SURVEY

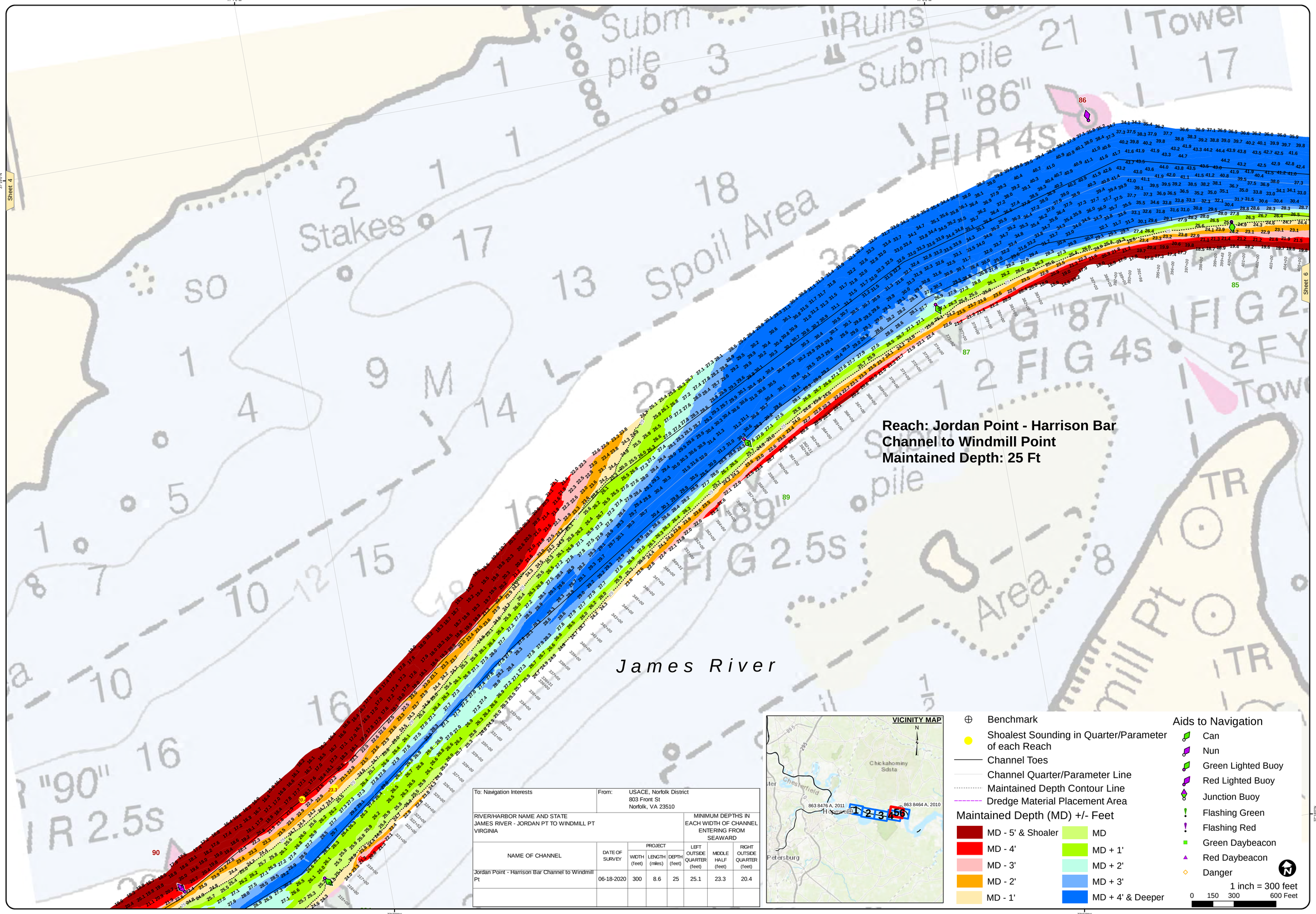
SURVEY DATES:
June 18, 22, 26 & 29, 2020

SURVEY BY: USACE Team Lead: Mike Williams
eHYDRO FILE: JR_06_JPC_20200618_CS

SHEET 4 of 6
Map Produced: 8/3/2020

APPROVED:
Chief, Navigation Analysis Section

APPROVED:
Chief, Navigation Support and Survey Section



To: Navigation Interests	From: USACE, Norfolk District 803 Front St Norfolk, VA 23510						
RIVER/HARBOR NAME AND STATE JAMES RIVER - JORDAN PT TO WINDMILL PT VIRGINIA					MINIMUM DEPTHS IN EACH WIDTH OF CHANNEL ENTERING FROM SEAWARD		
NAME OF CHANNEL	DATE OF SURVEY	PROJECT WIDTH (feet)	PROJECT LENGTH (miles)	PROJECT DEPTH (feet)	LEFT OUTSIDE QUARTER (feet)	MIDDLE HALF (feet)	RIGHT OUTSIDE QUARTER (feet)
Jordan Point - Harrison Bar Channel to Windmill Pt	06-18-2020	300	8.6	25	25.1	23.3	20.4

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 RASTER CHART 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.

PROJECTED COORDINATE SYSTEM: STATE PLANE
DATUM NAME: NAD 83
HORIZONTAL ZONE: VIRGINIA SOUTH ZONE
PROJECTED COORDINATE UNITS: US SURVEY FEET
IMPLIED HORIZONTAL ACCURACY: +/- 1 FOOT
HORIZONTAL CONTROL: RTK/LEICA SMART NET

VERTICAL REFERENCE DATUM: NOS MLLW
TIDAL EPOCH: 1983-2001
IMPLIED VERTICAL ACCURACY: +/- 0.5 FEET
VERTICAL CONTROL: RTK/LEICA SMART NET
TIDE APPLICATION: RTK NOAA VDATUM 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
CE "863 8476 A, 2011"	4.48'	2.97'(GEOID18)	2.36'	00+00-228+00
CE "863 8464 A, 2010"	6.96'	5.56'(GEOID18)	2.11'	228+00-456+00

JAMES RIVER
JORDAN POINT-HARRISON BAR TO WINDMILL POINT
PROJECT CONDITION SURVEY

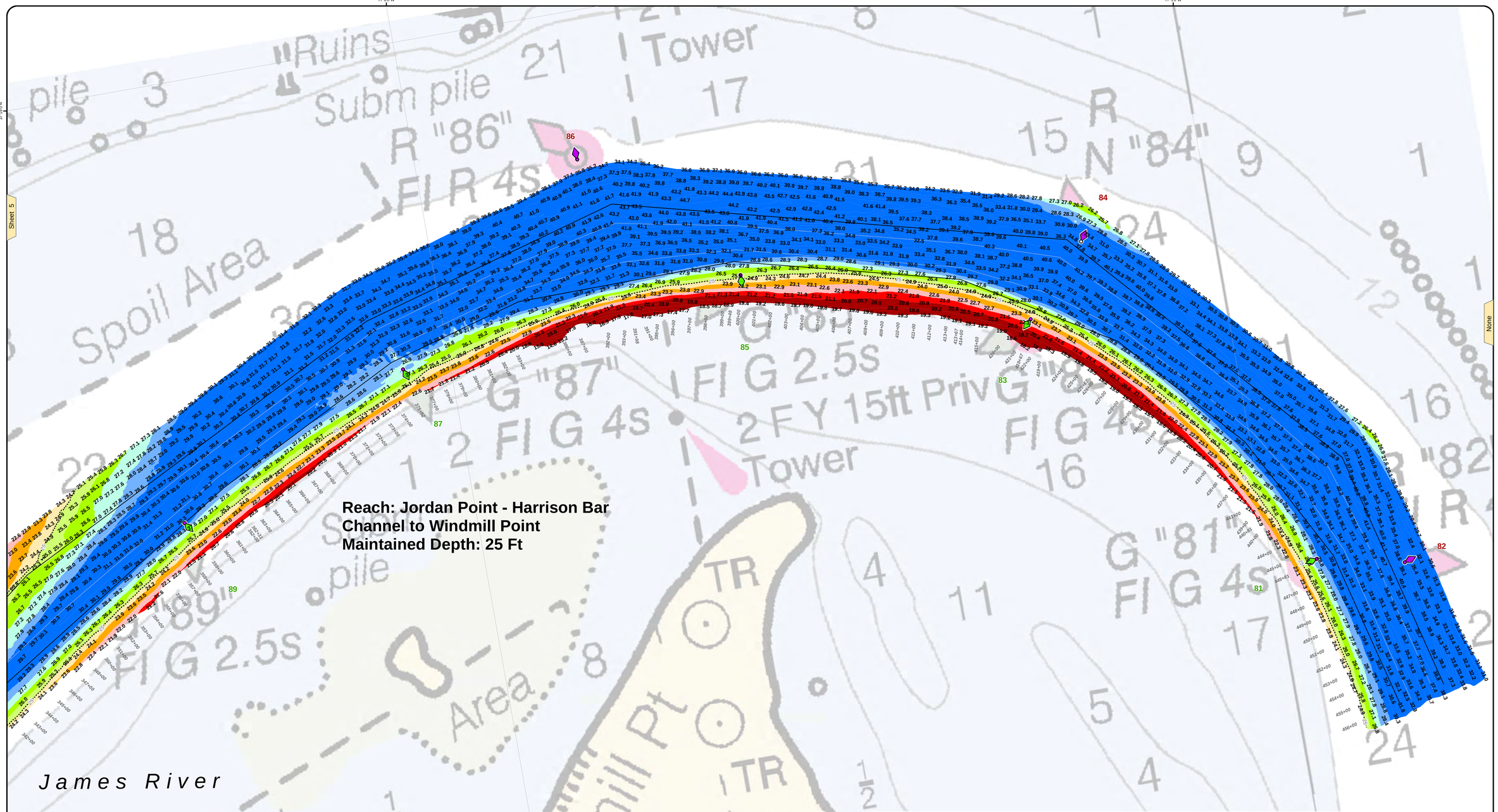
SURVEY DATES:
June 18, 22, 26 & 29, 2020

SURVEY BY: USACE Team Lead: Mike Williams
eHYDRO FILE: JR_06_JPC_20200618_CS

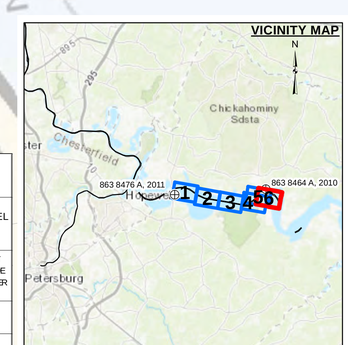
SHEET 5 of 6
Map Produced: 8/3/2020

APPROVED:
Chief, Navigation Analysis Section

APPROVED:
Chief, Navigation Support and Survey Section



To: Navigation Interests		From: USACE, Norfolk District 803 Front St Norfolk, VA 23510					
RIVER/HARBOR NAME AND STATE JAMES RIVER - JORDAN PT TO WINDMILL PT VIRGINIA					MINIMUM DEPTHS IN EACH WIDTH OF CHANNEL ENTERING FROM SEAWARD		
NAME OF CHANNEL	DATE OF SURVEY	PROJECT			LEFT OUTSIDE QUARTER (feet)	MIDDLE HALF (feet)	RIGHT OUTSIDE QUARTER (feet)
		WIDTH (feet)	LENGTH (miles)	DEPTH (feet)			
Jordan Point - Harrison Bar Channel to Windmill Pt	06-18-2020	300	8.6	25	25.1	23.3	20.4



- Benchmark
- Shoalest Sounding in Quarter/Parameter of each Reach
- Channel Toes
- Channel Quarter/Parameter Line
- Maintained Depth Contour Line
- Dredge Material Placement Area

Maintained Depth (MD) +/- Feet

- MD - 5' & Shoaler
- MD - 4'
- MD - 3'
- MD - 2'
- MD - 1'
- MD
- MD + 1'
- MD + 2'
- MD + 3'
- MD + 4' & Deeper

Aids to Navigation

- Can
- Nun
- Green Lighted Buoy
- Red Lighted Buoy
- Junction Buoy
- Flashing Green
- Flashing Red
- Green Daybeacon
- Red Daybeacon
- Danger

1 inch = 300 feet

0 150 300 600 Feet

US Army Corps of Engineers
Norfolk District

NOTES:

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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.

PROJECTED COORDINATE SYSTEM: STATE PLANE
DATUM/ELLIPSOID: NAD83
HORIZONTAL ZONE: VIRGINIA SOUTH ZONE
PROJECTED COORDINATE UNITS: US SURVEY FEET
IMPLIED VERTICAL ACCURACY: +/- 0.5 FEET
HORIZONTAL CONTROL: RTK/LEICA SMART NET

VERTICAL REFERENCE DATUM: MOS MLLW
TIDAL EPOCH: 1983-2001
IMPLIED VERTICAL ACCURACY: +/- 0.5 FEET
VERTICAL CONTROL: RTK/LEICA SMART NET
WATER LEVEL CORRECTION: MOS DATUM MDL
SYSTEM/METHOD: MULTI-BEAM
BIN SIZE: 5x5
BIN SELECTION METHOD: AVERAGE CELL CENTER

GEODETIC CONTROL MONUMENTS

MONUMENT	MLLW	NAVD88	AREA
	MEAN RANGE OF TIDE		
CE 863 8476 A, 2011"	4.48'	2.97'(GEOID18)	00+00-228+00
CE 863 8464 A, 2010"	6.96'	5.58'(GEOID18)	228+00-456+00

JAMES RIVER
JORDAN POINT-HARRISON BAR TO WINDMILL POINT
PROJECT CONDITION SURVEY

SURVEY DATES:
June 18, 22, 26 & 29, 2020

SURVEY BY: USACE Team Lead: Mike Williams
eHYDRO FILE: JR_06_JPC_20200618_CS

SHEET 6 of 6
Map Produced: 8/3/2020

APPROVED:
Chief, Navigation Analysis Section

APPROVED:
Chief, Navigation Support and Survey Section