## **REPORT OF CHANNEL CONDITIONS** (FOR CHANNELS 400 FEET WIDE OR GREATER)

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**DATE** 10 March 2021

TO: FROM: U.S. Army Corps of Engineers The Record

26 Federal Plaza, ATTN: CENAN-OP-ST

New York, NY 10278-0090

RIVER/HARBOR NAME AND STATE: New York and New Jersey Channels;

Arthur Kill, NY & NJ

MINIMUM DEPTHS IN EACH 1/4 WIDTH OF **CHANNEL ENTERING FROM SEAWARD** 

	DATE OF SURVEY	AUTHORIZED PROJECT				MID-CHANNEL		
NAME OF CHANNEL		WIDTH (feet)	LENGTH (n miles)	<b>DEPTH</b> (feet)	LEFT OUTSIDE QUARTER (feet)	LEFT INSIDE QUARTER (feet)	RIGHT INSIDE QUARTER (feet)	RIGHT OUTSIDE QUARTER (feet)
Reach D: Begins at the approximate location of RED #18 W/LIGHT FLOOD and continues to approximately 830 feet landward of RED #24 EBB.	File No. 5017/D/N1/N3, Pg. 20-22 of 22; 18,21,22,28,29, 31 Dec 2020; 4-7,15,19 Jan 2021	550 – 1200	1.07	50	43.5	46.3	49.1	46.6
Reach F: Begins approximately 830 feet landward of RED #24 EBB and continues to approximately 240 feet seaward of the STATEN ISLAND R.R./CONRAIL BRIDGE.	File No. 5017/D/N1/N3, Pg. 18-20 of 22; 18,21,22,28,29, 31 Dec 2020; 4-7,15,19 Jan 2021	500 – 700	0.93	50	46.2	51.2	49.6	47.1
Reach G: Begins approximately 240 feet seaward of the STATEN ISLAND R.R./CONRAIL BRIDGE and continues to for approximately 4,360 feet.	File No. 5017/D/N1/N3, Pg. 17-18 of 22; 18,21,22,28,29, 31 Dec 2020; 4-7,15,19 Jan 2021	500 – 600	0.74	40	27.1	41.4	42.8	41.5
SEAWARD is oriented	towards New Yor	rk Harbor in t	he preceding	reaches ar	ıd to Raritan Ba	y in the followir	ng reaches.	
Reach H: Begins at the approximate location of RED #36 W/LIGHT FLOOD and continues to approximately 1,555 feet landward of GREEN #43 W/LIGHT EBB.	File No. 5017/D/N1/N3, Pg. 14-17 of 22; 18,21,22,28,29, 31 Dec 2020; 4-7,15,19 Jan 2021	500 – 770	1.67	35	26.4	33.5	35.6	27.8
Reach I: Begins at the approximate location of RED #30 W/LIGHT EBB and continues to the approximate location of RED #36 W/LIGHT FLOOD.	File No. 5017/D/N1/N3, Pg. 12-14 of 22; 18,21,22,28,29, 31 Dec 2020; 4-7,15,19 Jan 2021	500 – 600	0.85	35	28.2	36.2	36.0	32.3
Reach J: Begins approximately 60 feet landward of GREEN #21 W/LIGHT FLOOD and continues to the approximate location of RED #30 W/LIGHT EBB.	File No. 5017/D/N1/N3, Pg. 9-12 of 22; 18,21,22,28,29, 31 Dec 2020; 4-7,15,19 Jan 2021	500	1.66	35	30.6	34.0	35.7	31.8
Reach K: Begins approximately 70 feet landward of GREEN #11 W/LIGHT EBB and continues to approximately 60 feet landward of GREEN #21 W/LIGHT FLOOD.	File No. 5017/D/N1/N3, Pg. 5-9 of 22; 18,21,22,28,29, 31 Dec 2020; 4-7,15,19 Jan 2021	500 – 850	1.82	35	27.2	33.4	34.1	23.7

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Reach L: Begins approximately 85 feet landward of GREEN #5 W/LIGHT EBB and continues to approximately 70 feet landward of GREEN #11 W/LIGHT EBB.	File No. 5017/D/N1/N3, Pg. 4-5 of 22; 18,21,22,28,29, 31 Dec 2020; 4-7,15,19 Jan 2021	600 – 800	0.80	35	30.0	33.5	33.8	30.9
Partial Reach M: Survey coverage begins approximately 625 feet seaward of RED #2 W/LIGHT EBB and continues to approximately 85 feet landward of GREEN BOUY #5 W/LIGHT FLOOD.	File No. 5017/D/N1/N3, Pg. 2-4 of 22; 18,21,22,28,29, 31 Dec 2020; 4-7,15,19 Jan 2021	600-850	0.96	35	33.9	35.3	36.3	31.0

## **REMARKS:**

- All reported depths are relative to Mean Lower Low Water (MLLW) datum.
- Channel reach lengths are in nautical miles.
- Landward is oriented towards the intersection of Reaches G and H, where authorized project depth changes from 40 to 35 feet.

## **ARTHUR KILL:**

- **REACH D**: Shoaling exists in the Right Outside Quarter extending into the Right Inside Quarter and in the Left Outside Quarter extending into the Left Inside Quarter.—The controlling depth of -43.5 feet MLLW exists near the toe of the channel in Left Outside Quarter, approximately 1,465 feet seaward of GREEN/RED JUNCTION "A" FLOOD.
- **REACH F**: Shoaling exists in the Right Outside and Left Outside Quarters. Shoaling also exists at the border between Reach F and Reach G. The controlling depth of -46.2 feet MLLW exists near the toe of the channel in the Left Outside Quarter, approximately 1,750 feet landward from the beginning of this reach.
- **REACH G**: Shoaling exists in the Left Outside Quarter around the GOETHALS BRIDGE abutment. The controlling depth of -27.1 feet MLLW exists near the toe of the channel in the Left Outside Quarter, approximately 845 feet landward of the beginning of this reach.
- REACH H: Sporadic shoaling exists along the channel's toe in the Left Outside and Right Outside Quarter and in the Left
  Outside Quarter. The controlling depth of -26.4 feet MLLW exists near the toe of the channel in the Left Outside Quarter,
  approximately 1,535 feet seaward of GREEN BOUY #43 W/LIGHT EBB.
- **REACH I**: Sporadic shoaling exists along the channel's toe in the Left Outside and Right Outside Quarter.-The controlling depth of -28.2 feet MLLW exists near the toe of the channel in the Left Outside Quarter, approximately 1,345 feet landward of RED #32 W/LIGHT EBB.
- **REACH J**: Sporadic shoaling exists in the Left Inside Quarter. Edge shoaling exists in the Left Outside Quarter and the Right Outside Quarter.-The controlling depth of -30.6 feet MLLW exists near the toe of the channel in the Left Outside Quarter, approximately 1,000 feet landward of the beginning of this reach.
- **REACH K**: Sporadic shoaling exists in the Left Inside Quarter. Shoaling exists in the Left Outside Quarter and the Right Outside Quarter extending into the Right Inside Quarter of this reach.-The controlling depth of -23.7 feet MLLW exists near the toe of the channel in the Right Outside Quarter, approximately 1020 feet seaward of RED #20 W/LIGHT EBB.
- **REACH L**: The majority of shoaling exists in the Left Outside Quarter and the Right Outside Quarter. Sporadic shoaling exists throughout all four quarters of this reach.-The controlling depth of -30.0 feet MLLW exists near the toe of the channel in the Left Outside Quarter, approximately 1,515 feet seaward of GREEN #11 W/LIGHT EBB.
- PARTIAL REACH M: Shoaling exists in the Right Outside Quarter of this channel. The controlling depth of -31.0 feet exists along
  the toe of the channel in the Right Outside Quarter approximately 300 seaward of the end of the reach.