Chart 11512 NM 23/11

SAVANNAH RIVER CHANNEL DEPTHS

TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - REPORT OF MAR 2011

| NAME OF CHANNEL | CONTROLLING DEPTHS FROM SEAWARD IN FEET AT MEAN LOWER LOW WATER (MLLW) | | | | DATE OF SURVEY | PROJECT DIMENSIONS | | |
|---|---|---|---|---|---|---|---|---|
| | LEFT OUTSIDE QUARTER | LEFT INSIDE QUARTER | RIGHT INSIDE QUARTER | RIGHT OUTSIDE QUARTER | | WIDTH (FEET) | LENGTH (MILES) | DEPTH MLLW (FEET) |
| TYBEE RANGE | 43.5 | 43.5 | 44.0 | 42.5 | 2-11 | 600 | 3.79 | 44 |
| BLOODY POINT RANGE | 43.0 | 44.0 | 44.0 | 42.5 | 1, 2-11 | 600 | 3.41 | 44 |
| JONES ISLAND RANGE | 42.0 | 42.0 | 43.5 | 44.0 | 1, 2-11 | 600 | 1.33 | 44 |
| TYBEE KNOLL CUT RANGE | 43.0 | 44.0 | 44.0 | 42.5 | 1, 2-11 | 500 | 2.84 | 42 |
| NEW CHANNEL RANGE (A) | 41.0 | 42.5 | 43.5 | 43.0 | 3-11 | 500 | 1.89 | 42 |
| L. I. CROSSING RANGE | 41.5 | 42.0 | 42.5 | 42.0 | 3-11 | 500 | 3.03 | 42 |
| LOWER FLATS RANGE | 40.5 | 45.0 | 44.5 | 43.5 | 3-11 | 500 | 1.52 | 42 |
| UPPER FLATS RANGE | 43.0 | 45.0 | 45.5 | 43.5 | 3-11 | 500 | 1.33 | 42 |
| THE BIGHT CHANNEL | 44.5 | 46.5 | 47.0 | 48.0 | 3-11 | 500 | 1.7 | 42 |
| FT. JACKSON RANGE | 44.0 | 47.0 | 46.5 | 43.5 | 3-11 | 500 | 0.76 | 42 |
| OGLETHORPE RANGE | 40.5 | 46.0 | 45.5 | 44.5 | 3-11 | 500 | 1.33 | 42 |
| WRECKS CHANNEL (B) | 39.5 | 43.5 | 46.0 | 44.0 | 3-11 | 500 | 1.7 | 42 |
| CITY FRONT CHANNEL | 42.0 | 45.5 | 44.5G | 37.0 | 3-11 | 500 | 1.7 | 42 |
| MARSH ISLAND CHANNEL (C) | 41.5H | 42.0 | 45.0 | 41.0 | 3-11 | 500 | 1.9 | 42 |
| KINGS ISLAND CHANNEL (D) | 40.0 | 40.5 | 42.0 | 42.0I | 3-11 | 500 | 2.46 | 42 |
| WHITEHALL CHANNEL (E) | 28.0 | 28.5 | 29.5 | 31.0 | 3-11 | 400 | 0.66 | 42-36 |
| PORT WENTWORTH CHANNEL (F) | 30.0J | 29.5 | 29.5 | 32.0 | 12-94; 3-11 | 200 | 1.33 | 30 |

A. OYSTER BED I. TURNING BASIN-CONTROLLING DEPTH 44.0 FT, 41.0 FT 100 FT FROM BACKSIDE.
B. FIG ISLAND TURNING BASIN-CONTROLLING DEPTH 38.0 FT, 26.0 FT 100 FT FROM BACKSIDE.
C. MARSH ISLAND TURNING BASIN-CONTROLLING DEPTH 34.0 FT, 27.0 FT 100 FT FROM BACKSIDE.
D. KINGS ISLAND TURNING BASIN-CONTROLLING DEPTH 47.0 FT, 44.0 FT 100 FT FROM BACKSIDE.
E. ARGYLE ISLAND TURNING BASIN-CONTROLLING DEPTH 32.0 FT 100 FT FROM BACKSIDE.
F. PORT WENTWORTH TURNING BASIN-CONTROLLING DEPTH 28.0 FT, 19.0 FT 100 FT FROM BACKSIDE.
G. EXCEPT FOR A 41 FOOT OBSTRUCTION LOCATED BY A NOS SURVEY AT 32°05'00.06"N 81°05'27.07"W
H. EXCEPT FOR A 39 FOOT OBSTRUCTION LOCATED BY A NOS SURVEY AT 32°05'18.29"N 81°05'58.99"W
I. EXCEPT FOR A 38 FOOT OBSTRUCTION LOCATED BY A NOS SURVEY AT 32°07'27.45"N 81°08'02.29"W
J. EXCEPT FOR A 31 FOOT OBSTRUCTION LOCATED BY A NOS SURVEY AT 32°09'15.04"N 81°09'11.46"W

NOTE: AT MEAN HIGH WATER, DEPTHS ARE ABOUT 7 FEET GREATER AT LOWER END OF THE HARBOR AND 7.7 FEET GREATER AT UPPER END OF HARBOR.
NOTE: FOR THE LEFT OUTSIDE AND RIGHT OUTSIDE QUARTERS, DEPTHS GIVEN REPRESENT CONDITIONS 75 FEET INSIDE THE CHANNEL LIMITS.
NOTE- CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION

Chart 11514 (Side A) NM 23/11

SAVANNAH RIVER CHANNEL DEPTHS

TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - REPORT OF MAR 2011

| NAME OF CHANNEL | CONTROLLING DEPTHS FROM SEAWARD IN FEET AT MEAN LOWER LOW WATER (MLLW) | | | | DATE OF SURVEY | PROJECT DIMENSIONS | | |
|---|---|---|---|---|---|---|---|---|
| | LEFT OUTSIDE QUARTER | LEFT INSIDE QUARTER | RIGHT INSIDE QUARTER | RIGHT OUTSIDE QUARTER | | WIDTH (FEET) | LENGTH (MILES) | DEPTH MLLW (FEET) |
| OGLETHORPE RANGE | 40.5 | 46.0 | 45.5 | 44.5 | 3-11 | 500 | 1.33 | 42 |
| WRECKS CHANNEL (A) | 39.5 | 43.5 | 46.0 | 44.0 | 3-11 | 500 | 1.7 | 42 |
| CITY FRONT CHANNEL | 42.0 | 45.5 | 44.5F | 37.0 | 3-11 | 500 | 1.7 | 42 |
| MARSH ISLAND CHANNEL (B) | 41.5G | 42.0 | 45.0 | 41.0 | 3-11 | 500 | 1.9 | 42 |
| KINGS ISLAND CHANNEL (C) | 40.0 | 40.5 | 42.0 | 42.0H | 3-11 | 500 | 2.46 | 42 |
| WHITEHALL CHANNEL (D) | 28.0 | 28.5 | 29.5 | 31.0 | 3-11 | 400 | 0.66 | 42-36 |
| PORT WENTWORTH CHANNEL (E) | 30.0I | 29.5 | 29.5 | 32.0 | 12-94; 3-11 | 200 | 1.33 | 30 |

A. FIG ISLAND TURNING BASIN-CONTROLLING DEPTH 38.0 FT, 26.0 FT 100 FT FROM BACKSIDE.
B. MARSH ISLAND TURNING BASIN-CONTROLLING DEPTH 34.0 FT, 27.0 FT 100 FT FROM BACKSIDE.
C. KINGS ISLAND TURNING BASIN-CONTROLLING DEPTH 47.0 FT, 44.0 FT 100 FT FROM BACKSIDE.
D. ARGYLE ISLAND TURNING BASIN-CONTROLLING DEPTH 32.0 FT 100 FT FROM BACKSIDE.
E. PORT WENTWORTH TURNING BASIN-CONTROLLING DEPTH 28.0 FT, 19.0 FT 100 FT FROM BACKSIDE.
F. EXCEPT FOR A 41 FOOT OBSTRUCTION LOCATED BY A NOS SURVEY AT 32°05'00.06"N 81°05'27.07"W
G. EXCEPT FOR A 39 FOOT OBSTRUCTION LOCATED BY A NOS SURVEY AT 32°05'18.29"N 81°05'58.99"W
H. EXCEPT FOR A 38 FOOT OBSTRUCTION LOCATED BY A NOS SURVEY AT 32°07'27.45"N 81°08'02.29"W
I. EXCEPT FOR A 31 FOOT OBSTRUCTION LOCATED BY A NOS SURVEY AT 32°09'15.04"N 81°09'11.46"W

NOTE: AT MEAN HIGH WATER, DEPTHS ARE ABOUT 7 FEET GREATER AT LOWER END OF THE HARBOR AND 7.7 FEET GREATER AT UPPER END OF HARBOR.
NOTE: FOR THE LEFT OUTSIDE AND RIGHT OUTSIDE QUARTERS, DEPTHS GIVEN REPRESENT CONDITIONS 75 FEET INSIDE THE CHANNEL LIMITS.
NOTE- CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION

Chart 14832 NM 23/11

BUFFALO HARBOR CHANNEL DEPTHS

TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - REPORT OF JAN 2011 AND SURVEYS TO SEP 2010

| NAME OF CHANNEL | CONTROLLING DEPTHS FROM SEAWARD IN FEET AT GREAT LAKES LOW WATER DATUM (LWD) | | | | DATE OF SURVEY | PROJECT DIMENSIONS | | |
|---|---|---|---|---|---|---|---|---|
| | LEFT OUTSIDE QUARTER | LEFT INSIDE QUARTER | RIGHT INSIDE QUARTER | RIGHT OUTSIDE QUARTER | | WIDTH (FEET) | LENGTH (FEET) | DEPTH LWD (FEET) |
| BUFFALO HARBOR: | | | | | | | | |
| SOUTH APPROACH | 27.9 | 28.0 | 27.3 | 11.3 | 5-10 | 1000 | 2000 | 30 |
| SOUTH ENTRANCE | 26.5 | 25.5 | 24.2 | 19.7 | 5-10 | 1200-400 | 1950 | 29 |
| INNER HARBOR SOUTH SECTION | 13.2 | 21.2 | 22.8 | 23.4 | 5-10 | 1100-1600 | 3900 | 28 |
| INNER HARBOR MOORING AREA | 18.0 | 18.5 | 19.5 | 21.4 | 5-10 | 0-900 | 4200 | 23 |
| INNER HARBOR MIDDLE SECTION | 20.5 | 22.6 | 23.0 | 21.7 | 5-10 | 500-1600 | 11150 | 27 |
| NORTH ENTRANCE | 22.4 | 24.4 | 24.7 | 22.8 | 5-10 | 800 | 3000 | 25 |
| INNER HARBOR NORTH SECTION | 17.1 | 19.9 | 20.8 | 20.6 | 5-10 | 1370-1200 | 4800 | 23 |
| BUFFALO RIVER ENTRANCE CHANNEL | 9.9 | 14.3 | 17.4 | 13.2 | 6,7,8,9-10 | 1600-450 | 4100 | 23 |
| BLACK ROCK CANAL: | | | | | | | | |
| ENTRANCE CHANNEL | 19.5 | 19.6 | 18.4 | 9.5 | 5,6,7,8-08 | 1000-450 | 2500 | 21 |
| ENTRANCE TO BLACK ROCK LOCKS | 5.7 | 19.8 | 20.3 | 5.0 | 5,6,7,8-08 | 500-200 | 1840 | 21 |
| THENCE TO BUOY 12 | 10.9 | 18.7 | 19.6 | 10.9 | 5,6,7,8-08 | 200-400 | 1.7 NM | 21 |

NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION

Chart 14833 NM 23/11

BUFFALO HARBOR CHANNEL DEPTHS

TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - REPORT OF JAN 2011 AND SURVEYS TO SEP 2010

| NAME OF CHANNEL | CONTROLLING DEPTHS FROM SEAWARD IN FEET AT GREAT LAKES LOW WATER DATUM (LWD) | | | | DATE OF SURVEY | PROJECT DIMENSIONS | | |
|---|---|---|---|---|---|---|---|---|
| | LEFT OUTSIDE QUARTER | LEFT INSIDE QUARTER | RIGHT INSIDE QUARTER | RIGHT OUTSIDE QUARTER | | WIDTH (FEET) | LENGTH (FEET) | DEPTH LWD (FEET) |
| BUFFALO HARBOR: | | | | | | | | |
| SOUTH APPROACH | 27.9 | 28.0 | 27.3 | 11.3 | 5-10 | 1000 | 2000 | 30 |
| SOUTH ENTRANCE | 26.5 | 25.5 | 24.2 | 19.7 | 5-10 | 1200-400 | 1950 | 29 |
| INNER HARBOR SOUTH SECTION | 13.2 | 21.2 | 22.8 | 23.4 | 5-10 | 1100-1600 | 3900 | 28 |
| INNER HARBOR MOORING AREA | 18.0 | 18.5 | 19.5 | 21.4 | 5-10 | 0-900 | 4200 | 23 |
| INNER HARBOR MIDDLE SECTION | 20.5 | 22.6 | 23.0 | 21.7 | 5-10 | 500-1600 | 11150 | 27 |
| NORTH ENTRANCE | 22.4 | 24.4 | 24.7 | 22.8 | 5-10 | 800 | 3000 | 25 |
| INNER HARBOR NORTH SECTION | 17.1 | 19.9 | 20.8 | 20.6 | 5-10 | 1370-1200 | 4800 | 23 |
| BUFFALO RIVER: | | | | | | | | |
| ENTRANCE CHANNEL | 9.9 | 14.3 | 17.4 | 13.2 | 6,7,8,9-10 | 1600-450 | 4100 | 23 |
| BUFFALO SHIP CANAL | 17.9 | 20.1 | 20.1 | 18.4 | 6,7,8,9-10 | 125 | 5500 | 23 |
| FROM ENTRANCE TO HAMBURG ST | 3.4 | 19.1 | 19.1 | 11.2 | 6,7,8,9-10 | 150-350 | 8700 | 23 |
| FROM HAMBURG ST TO SOUTH PARK STREET BRIDGE | 3.2 | 7.8 | 7.8 | 5.0 | 6,7,8,9-10 | 150-700 | 14000 | 23 |
| FROM SOUTH PARK BRIDGE TO END OF PROJECT | 8.1 | 10.1 | 10.1 | 8.7 | 6,7,8,9-10 | 150-200 | 3000 | 23 |
| BLACK ROCK CANAL: | | | | | | | | |
| ENTRANCE CHANNEL | 19.5 | 19.6 | 18.4 | 9.5 | 5,6,7,8-08 | 1000-450 | 2500 | 21 |
| ENTRANCE TO BLACK ROCK LOCKS | 5.7 | 19.8 | 20.3 | 5.0 | 5,6,7,8-08 | 500-200 | 1840 | 21 |

NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION

Chart 14841 NM 23/11

LORAIN HARBOR CHANNEL DEPTHS

TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - SURVEYS TO AUG 2010 AND REPORTS TO FEB 2011

| CONTROLLING DEPTHS FROM SEAWARD IN FEET AT GREAT LAKES LOW WATER DATUM (LWD) | | | | | | PROJECT DIMENSIONS | | |
|---|---|---|---|---|---|---|---|---|
| NAME OF CHANNEL | LEFT OUTSIDE QUARTER | LEFT INSIDE QUARTER | RIGHT INSIDE QUARTER | RIGHT OUTSIDE QUARTER | DATE OF SURVEY | WIDTH (FEET) | LENGTH (FEET) | DEPTH LWD (FEET) |
| LAKE APPROACH CHANNEL | 26.2 | 26.7 | 29.0 | 26.4 | 6-10 | 800-525 | 2000 (a) | 29 |
| OUTER HARBOR | 25.0 | 26.6 | 27.5 | 23.6 | 6-10 | 800-200 | 2700 (b) | 28 |
| EAST MOORING AREA | 15.9 | 17.3 | 18.5 | 20.9 | 6-10 | 0-580 (c) | 1250 (b) | 25 |
| WEST MOORING AREA | 19.3 | 16.4 | 14.5 | 16.2 | 6-10 | 0-1000 (c) | 1550 (b) | 25 |
| BLACK RIVER CHANNEL : | | | | | | | | |
| FROM EAST PIER LIGHT TO 1000 FEET UPSTREAM (E) | 24.1 | 28.0 | 28.0 | 28.0 | 6-10 | 220 | 1000 | 28 |
| FROM UPSTREAM END OF (E) TO N&W RAILROAD BRIDGE | 18.3 | 26.2 | 26.2 | 22.7 | 6-10 | 200-400 | 4400 | 27 |
| FROM N&W RAILROAD BRIDGE TO THE 21ST STREET BRIDGE | 22.5 | 23.8 | 23.8 | 21.1 | 6-10 | 200-600 | 4100 | 27 |
| FROM 21ST STREET BRIDGE TO WITHIN 400 FEET OF UPSTREAM PROJECT LIMITS | 13.6 | 15.3 | 15.3 | 24.9 | 8-10 | 200-400 | 4800 | 27 |
| LOWER TURNING BASIN | 16.9 | 15.9 | 15.9 | 16.7 | 6-10 | 0-200 | 1000 (b) | 20 |
| UPPER TURNING BASIN (J) | 12.2 | 12.7 | 12.7 | 12.7 | 6-10 | 0-700 | 1200 (b) | 21 |
| UPPER TURNING BASIN (K) | 7.5 | 7.6 | 7.6 | 8.4 | 6,8-10 | 0-400 | 600 (b) | 17 |
| BLACK RIVER CHANNEL, UPSTREAM 400 FEET | 16.4 | 20.6 | 20.6 | 16.3 | 8-10 | 200 | 400 | 24 |

a. LENGTH VARIES DEPENDING ON THE LOCATION OF THE 29 FOOT CONTOUR IN LAKE ERIE.

b. IRREGULARLY SHAPED, WITH THE WIDTH VARYING.

c. NOT FULLY MAINTAINED.

NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION

Chart 14843 NM 23/11

HURON HARBOR CHANNEL DEPTHS

TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - SURVEYS TO NOV 2010 AND REPORTS TO JAN 2011

| CONTROLLING DEPTHS FROM SEAWARD IN FEET AT GREAT LAKES LOW WATER DATUM (LWD) | | | | | PROJECT DIMENSIONS | | |
|---|---|---|---|---|---|---|---|
| NAME OF CHANNEL | LEFT OUTSIDE QUARTER | MIDDLE HALF OF CHANNEL | RIGHT OUTSIDE QUARTER | DATE OF SURVEY | WIDTH (FEET) | LENGTH (FEET) | DEPTH LWD (FEET) |
| LAKE APPROACH CHANNEL | 25.4 | 25.4 | 24.8 | 11-10 | 400 | 8400 A | 29.0 |
| ENTRANCE CHANNEL: | | | | | | | |
| FROM LAKE APPROACH CHANNEL TO END OF THE EAST BREAKWATER | 23.9 | 26.4 | 26.5 | 11-10 | 400-300 | 700 | 29.0 |
| FROM END OF EAST BREAKWATER TO SLIP #1 | 23.0 | 24.4 | 7.5 | 11-10 | 300-150 | 1900 | 28.0 |
| HURON RIVER CHANNEL | 23.6 | 23.9 | 21.8 | 11-10 | 120-350 | 1500 | 27.0 |
| TURNING BASIN | 10.9 | 11.0 | 10.9 | 11-10 | 0-400 | 600 | 21.0 |

A. LENGTH VARIES DEPENDING ON THE LOCATION OF THE 29 FOOT CONTOUR IN LAKE ERIE.

NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION

Chart 95016 NM 23/11

CAUTIONS

1. Area temporarily dangerous to navigation or anchorage and is under the direct control of naval authorites at Vladivostok. For further details, contact the local maritime authority.
2. Area No. 9 is a former mined area which has been swept and is now considered safe for navigation. For further details, see Sailing Directions.
3. Anchoring, fishing, underwater and dredging operations, trawling and underwater explosions also proceeding with anchor and chain walked out are prohibited.
4. Coastal waters of Korea are mined. Mariners must not enter these waters without obtaining route instructions from the authorities of the Democratic Peoples Republic of Korea.
5. Lights on the coast of North Korea are unreliable, being frequently extinguished.
6. Mariners are warned of many set nets that have been placed along the coast of Korea.
7. This chart is intended for offshore navigation only. Detailed navigational information has been omitted within the 20 meter depth curve contiguous to land areas. Notice to Mariners affecting this chart will only be issued for corrections to wrecks, obstructions, offshore hydrography, principal navigational aids and electronic navigational information.
8. Only the principal lights are shown on this chart. For details of these and other lights, the larger scale charts and List of Lights should be consulted.

Chart 97021 NM 23/11

CAUTIONS

1. This chart is intended for offshore navigation only. Detailed navigational information has been omitted within the 20 meter depth curve contiguous to land areas. Notice to Mariners affecting this chart will only be issued for corrections to wrecks, obstructions, offshore hydrography, principal navigational aids and electronic navigational information.
2. Only the principal lights are shown on this chart. For details of these and other lights, the larger scale charts and List of Lights should be consulted.