

LEGEND

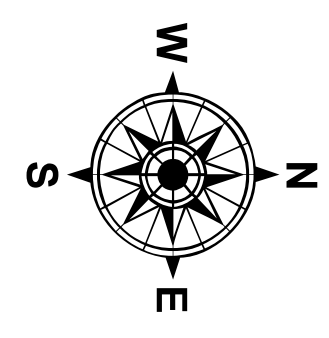
--- Federal Navigation Channel	✳ Fixed Navigation Aids
..... Cable or Pipe Areas	🚩 Red Navigation Buoy
--- Channel Center Line	🟢 Green Navigation Buoy
— Contour Line	🔴 Shoaling Area
— Marine Infrastructure*	🟡 Shoalest Sounding**
⊗ Obstruction Point	

** Shoalest Sounding per Quarter per Reach
* Present at time of Survey

GRAPHIC SCALE

1" = 100'

0 100 0 100 200 Feet



Notes:
 Horizontal Datum: Mass Mainland, MA-2001 NAD 83
 Distance Units: U.S. Survey Feet
 Vertical Datum: MLLW
 Depth Units: U.S. Survey Feet
 Vessel Name: POPHAM BEACH
 Sonar System: Reson TS0 (Multibeam Sonar)
 Sounding Frequency: 200 kHz
 Survey Method: RTK GPS TIDES
 GPS System: Trimble SPS 855 (RTK)
 RTK Base Station: Station Power (2007)
 Software Used: Hypack
 Sounding Sort Distance: 20'
 Field Books: R&H 5116
 Survey No.: MA_14_WTH_20211221_CS_070
 Reference NOAA Chart No.: 13272

The information depicted on these charts represents the results of surveys made on the dates indicated, and can only be considered as indicating the conditions existing at that time.

General Notes
 The sounding information shown on this map represents the SHOALEST soundings of those obtained from hydrographic surveys conducted during December 2021. The sounding information depicted on this map represents the results of surveys made on the dates indicated and can only be considered as indicating the conditions existing at that time. The positions of aids to navigation were located during survey operations, are provided for information only and should not be used for navigation. Orthimagery is from a variety of sources and dates and is intended to portray general characteristics of the shoreline and other features. Temporal changes may have occurred since this dataset was collected and some parts may no longer be an accurate representation of the conditions. The information depicted on this map should NOT be used to determine volumes as volumes are determined from more sounding information than shown.

Project Remarks
 Marine infrastructure within federal navigation project limits.

Water Level Information
 Tides were recorded using RTK GPS. The MLLW to NAVD88 correction for this project is 5.51 feet. This correction is published by NOAA for bench marks at Boston, Boston Harbor, Massachusetts (Station ID 8443970, 04/21/2003) in the vicinity of Winthrop Harbor, Winthrop, Massachusetts. The reference point established for the correction is Station Power (2007). NAVD88 is above MLLW; therefore the correction should be added to NAVD88 to convert to MLLW. No tide gauges were used on this project. The mean range of tide is 9.3 feet.



DISCLAIMER: The United States Government furnishes these data and the recipient accepts and uses them with the express understanding that the United States Government makes no warranty, expressed or implied, concerning the accuracy, completeness, reliability, usability or suitability for any particular purpose of the data. The recipient agrees to indemnify and hold the United States Government harmless from any and all claims, damages, costs, and expenses, including reasonable attorneys' fees, that may be incurred by the United States Government as a result of the recipient's use of the data. The recipient may not transfer these data to others without also transferring the Disclaimer.

SURVEYED BY: MJO		CHECKED BY: ZSM		ISSUE DATE: 12/30/2021
SUBMITTED BY: Zachary McAvoy		APPROVED BY: NAE Survey		MAP DOCUMENT: MA_14_WTH_20211221_CS_070
U.S. ARMY CORPS OF ENGINEERS NEW ENGLAND DISTRICT		SIZE: ANSI D		

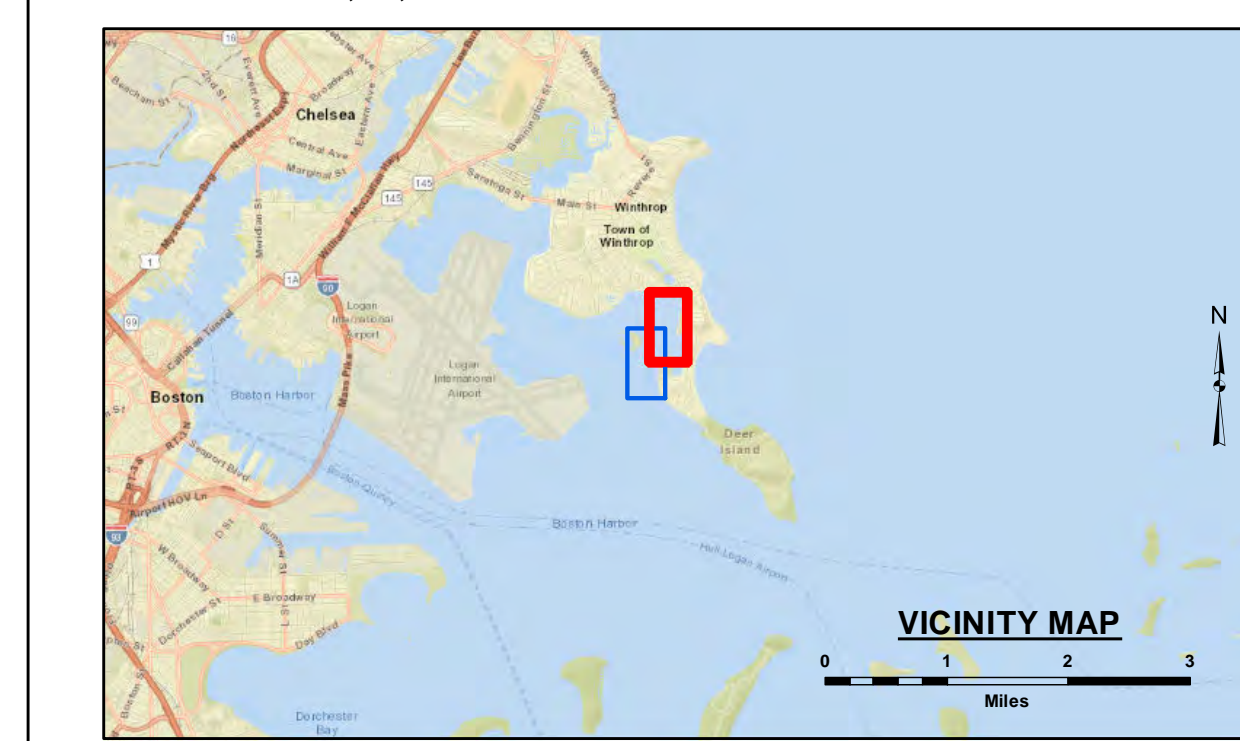
**WINTHROP HARBOR
 MASSACHUSETTS
 CONDITION SURVEY**

6-FOOT CHANNELS

File Name: MA_14_WTH_20211221_CS_070

SHEET IDENTIFICATION
 Winthrop Harbor

Sheet 1 of 2



LEGEND

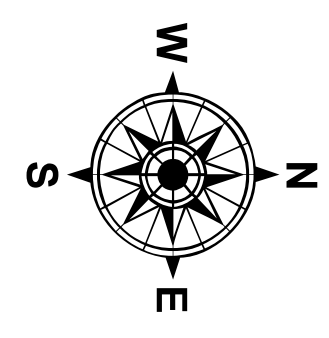
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U.S. ARMY CORPS OF ENGINEERS NEW ENGLAND DISTRICT	
SUBMITTED BY: Zachary McAvoy	CHECKED BY: ZSM
APPROVED BY: NAE Survey	ISSUE DATE: 12/30/2021
MAP DOCUMENT: MA_14_WTH_20211221_CS_070	SIZE: A3SID

**WINTHROP HARBOR
 WINTHROP, MASSACHUSETTS
 CONDITION SURVEY**

6-FOOT CHANNELS

File Name: MA_14_WTH_20211221_CS_070

SHEET IDENTIFICATION
 Winthrop Harbor

Sheet 2 of 2