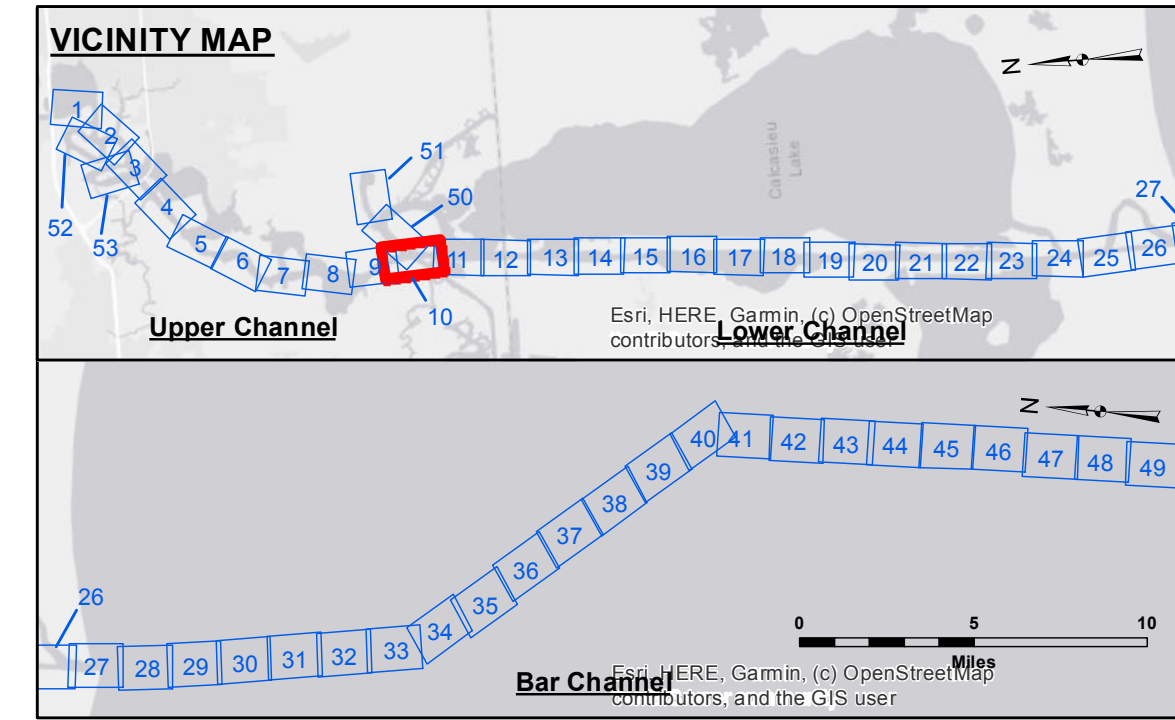


DISCLAIMER: The United States Government furnishes these data and the recipient accepts and uses them with the express understanding that the United States Government makes no warranty, expressed or implied, concerning the accuracy, completeness, reliability, usability or suitability for any particular purpose of the data. The user is responsible for the results of any use of the data. The application of the data for other than its intended purpose is at the user's risk. The user is responsible for the results of any use of the data. The application of the data for other than its intended purpose is at the user's risk. The user is responsible for the results of any use of the data. The application of the data for other than its intended purpose is at the user's risk.

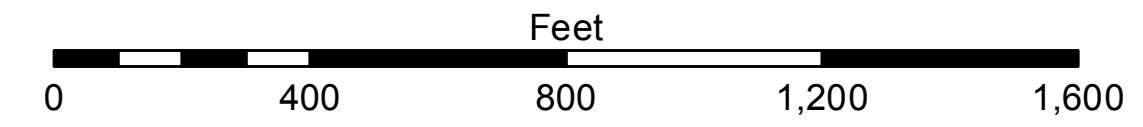
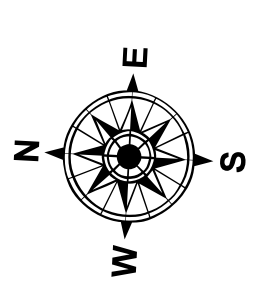
Submitted:	Surveyed By: SPPM
Recommended:	Plotted By: BD
Approved:	Checked By: AC

U.S. ARMY CORPS OF ENGINEERS
NEW ORLEANS DISTRICT

**CALCASIEU SHIP CHANNEL
UPPER SHEET 10
CR_10_UPR_20210204_CS
04 February 2021**



LEGEND	
--- Federal Navigation Channel	○ Cable Area
— Federal Navigation Center Line	□ Placement Area
— As-built Pipeline/Cable	□ Anchorage Area
..... Unconfirmed Pipeline/Cable	⊗ Obstruction Point
— Project Depth Contour	⚓ Wrecks-Submerged
3 Fluff Thickness (feet)*	★ Beacon, General
● Shoalest Sounding**	◆ Red Navigation Buoy
○ -16' and above	◆ Green Navigation Buoy
○ -16' to -21'	
○ -21' to -26'	
○ -26' to -33'	
○ -33' to -39'	
○ -39' to -41'	
○ -41' to -43'	
○ -43' and below	



Gage Reading: RANGE VRS RTK: 1.43 MLLW
 Sea Conditions: CHOPPY
 Vessel Name: OB-167
 Survey Type: CONDITION
 Sounding Frequency***: LOW

NOTES:
 Horizontal Coordinate System: North American Datum of 1983 (NAD83), projected to the State Plane Coordinate System (SPCS), Louisiana South Zone. Distance units in U.S. Survey Feet.
 Vertical Datum: Soundings are shown in feet and indicate depths below Mean Lower Low Water Datum (MLLW). Datum Relationships for gage 73585 as of December 2013: 0.0' NAVD88 (OPUS 2013) = 0.8' MLLW = 1.8' MLG or 0.0' MLLW = 1.0' MLG
 Distances on the Calcasieu River are shown at 1 mile intervals.
 The location of navigation aids are based on and provided by the U.S. Coast Guard and USACE survey crews.
 2015 Aerial Photography data source: NAIP
 Reference is N.O.A.A. Navigation Chart No. 11339.
 * Difference between high and low frequency elevations where greater than 1.0'.
 ** Shoalest Sounding per Quarter per Reach.
 *** High frequency (200 kHz) survey data represents the first signal return at a sounding location and will include suspended solids, known as "fluff", if present. Low frequency (20 kHz) survey data normally penetrates through this "fluff" layer to depict elevations of consolidated bottom material. Low frequency accuracies may vary depending on channel conditions and fathometer settings.

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