

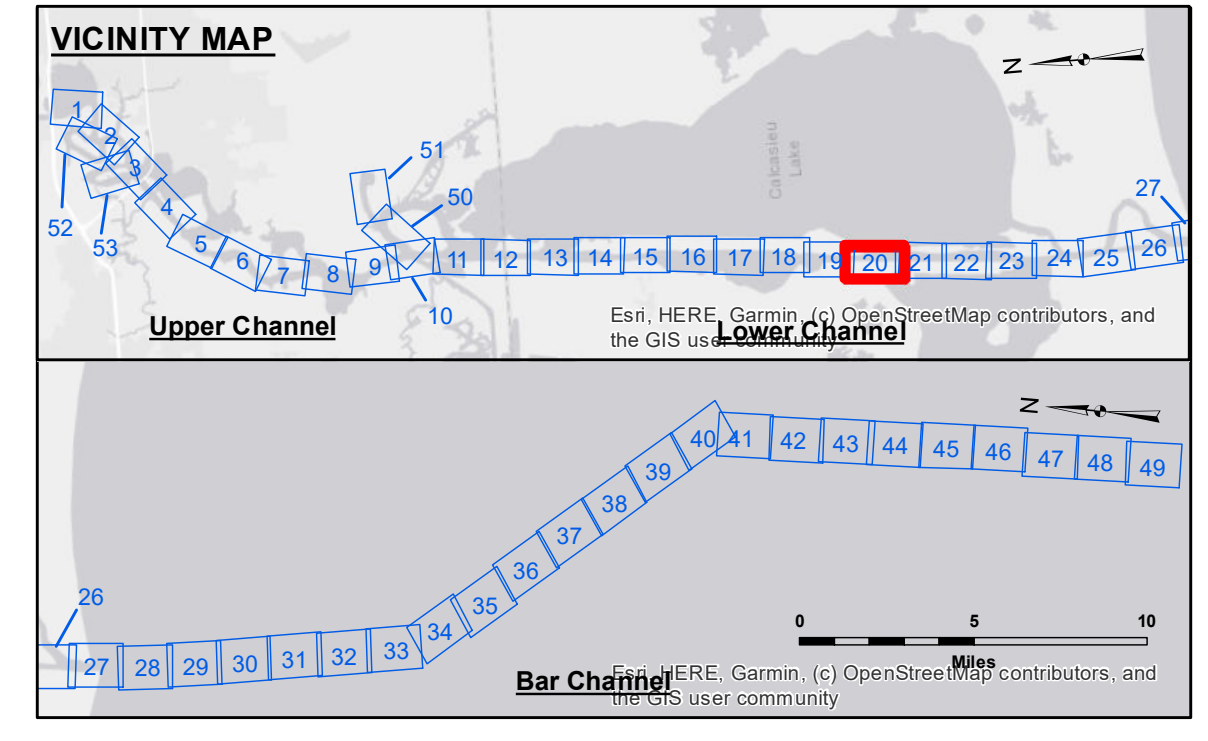
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 Distribution Liability: The data represents the results of data collection for a specific US Army Corps of Engineers project. It is only valid for its intended use, control, time and accuracy specifications. The user is responsible for the results of any use of the data for other than its intended purpose.  
 Data Constraints: Hydrographic survey data is subject to change rapidly due to several factors including but not limited to dredging, sedimentation, and changes in channel conditions. The user is responsible for the results of any use of the data for other than its intended purpose.  
 The information depicted on this map represents the results of a survey conducted on the date shown. It is not intended to represent the general condition existing at that time.

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 These data are based on the Coast and Geodetic Survey's Hydrographic Survey of the Calcasieu River, Louisiana, 1919-1921. The data are not to be used for any purpose other than that for which they were provided.  
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Submitted:	Surveyed By:	JDH/LJA
Recommended:	Plotted By:	BD
Checked:	Chief, Survey Section	AC
Approved:	Chief, Waterways Maintenance Section	AC

**CALCASIEU SHIP CHANNEL**  
**LOWER SHEET 20**  
**CR\_20\_LWR\_20190919\_CS**  
**19 September 2019**

**Sheet Reference Number**  
**20 of 53**



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
★ Beacon, General	◆ Green Navigation Buoy

Gage Reading: DM 72: 2.52 MLLW AVG.  
 Sea Conditions: CALM  
 Vessel Name: M/V VALENTOUR  
 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 73615 as of December 2013: 0.0' NAVD83 (2009.55) = 1.1' MLLW = 2.1' 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 base on and provided by the U.S. Coast Guard and USACE survey crews.  
 2015 Aerial Photography data source: NAIP  
 Reference is N.O.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.