

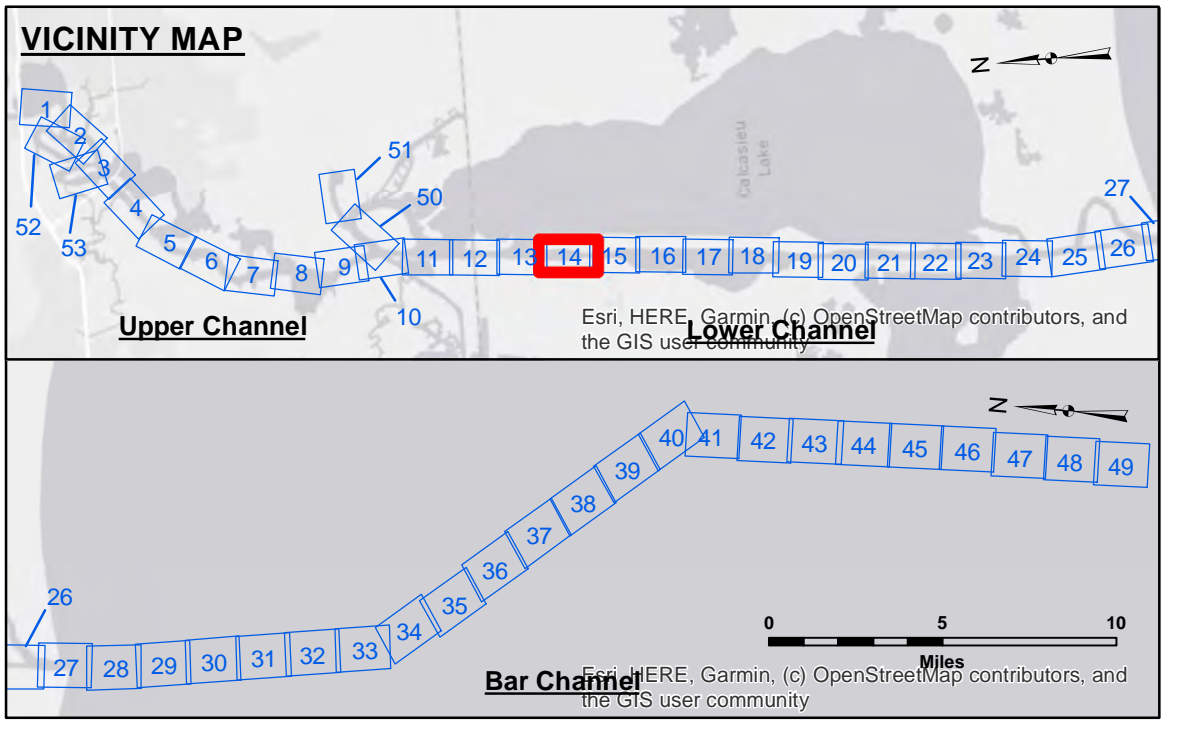
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**Data Constraints:** Hydrographic survey data is subject to change rapidly due to several factors including but not limited to changing hydrological conditions which develop after the date of the survey. The user is responsible for the results of any use of the data for other than its intended purpose.

**Disclaimer:** The information depicted on this map represents the results of a survey conducted under contract to the US Army Corps of Engineers. The Corps of Engineers does not warrant the accuracy of the information depicted on this map. The Corps of Engineers is not responsible for any errors or omissions in this map. The Corps of Engineers is not responsible for any damage or injury resulting from the use of this map. The Corps of Engineers is not responsible for any loss of data or information resulting from the use of this map. The Corps of Engineers is not responsible for any other consequences resulting from the use of this map.

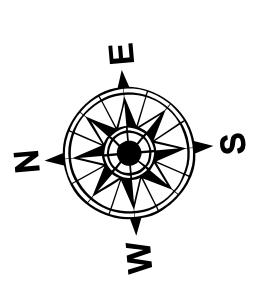
Submitted:	Surveyed By: SPM
Recommended: Chart, Survey Section	Plotted By: BD
Approved: Chart, Waterways Maintenance Section	Checked By: AOC

**CALCASIEU SHIP CHANNEL  
LOWER SHEET 14  
CR\_14\_LWR\_20200123\_CS  
23 January 2020**



**LEGEND**

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



Gage Reading: HACKBERRY: 1.9 MLLW  
 Sea Conditions: CALM  
 Vessel Name: OB-167  
 Survey Type: CONDITION  
 Sounding Frequency\*\*\*: LOW

Vertical Datum:  
 Soundings are shown in feet and indicate depths below Mean Lower Low Water Datum (MLLW).  
 Datum Relationships for gage 73600 as of December 2013:  
 0.0 NAVD88 (OPUS 2010) = 1.0' MLLW = 2.0' 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.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.

**Sheet Reference Number  
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