



# Optimizing AIS Data Collection for the MVS District

## ERDC Dredging Operations Technical Support Program (DOTS)

U.S. ARMY CORPS OF ENGINEERS

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### Response Summary:

The purpose of this study was to potential installation locations for LOMA systems that would optimize the collection of vessel operational data via AIS. This testing would be completed utilizing the LOMA trailer system.

### Period of Performance:

Sunday March 31<sup>st</sup> 2019 – April 6<sup>th</sup> 2019

### Benefits of the Response to the USACE Dredging/Navigation Program:

AIS data is utilized by MVS for detailed traffic analysis. This analysis can reveal the existence of areas of navigation that are forcing operational changes by vessel operators. These changes in operational patterns allow the identification of potential problem areas quickly and precisely. Resources can be focused directly on the area in question saving both time and funding.

### Deliverable:

The field work was completed in the designated time period. These are the primary tasks completed:

- Relocation of the Brickey's System: An existing LOMA install located at the Brickey's Quarry was relocated to a different location. Coverage was greatly improved as was cellular data reception. The resulting increase in data collection is approximately 180%.
- Identification of an installation location at Pittsfield IL: This location is located on a large ridge located between the upper Mississippi and the Illinois rivers. This location will provide increased coverage on both rivers from one location.
- An error in the design of the original LOMA systems that were built by MVS that resulted in repeated power issues at their solar powered sites. These issues were rectified at all (BRICKEYS, THEBES, GRAND TOWER) but one of the existing field sites. The one site that was skipped (PRICES) not accessible due to severe flooding in the area.
- The LOMA site located at the MVS River Engineering Center was upgraded to current specification.



Providing environmental and engineering technical support to the U.S. Army Corps of Engineers  
Operations and Maintenance navigation and dredging missions

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