



Technical writing assistance for PATHFINDER AIS receive results in St. Louis District.

ERDC Dredging Operations Technical Support Program (DOTS)

U.S. ARMY CORPS OF ENGINEERS

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Response Summary:

For the Dredging Operations Technical Support (DOTS) response, Dr. Marin Kress provided technical assistance to navigation staff from the Applied River Engineering Center (AREC) in USACE St. Louis District (MVS). MVS-AREC staff requested assistance in writing up the results from a study where the USACE vessel PATHFINDER was recording a specific part of the Automatic Identification System (AIS) message being broadcast from shore sites in the area. The AIS message of interest was “message 21.” MVS staff had collected the data and performed geospatial analysis, but required assistance in translating this into a technical publication and then getting the work published in a place where it would be discoverable and accessible to others. The result of this DOTS response was a ERDC Technical Note, *Reception of Automatic Identification System (AIS) Message 21 from US Army Corps of Engineer AIS Sites along the Upper Mississippi River, Mile 0 to 301*, published in March 2023 (available at <http://dx.doi.org/10.21079/11681/46629>).



Figure 1. The US Army Corps of Engineers (USACE) vessel Pathfinder. (Photograph by J. Vest, USACE St. Louis District.)

Period of Performance:

This DOTS request was initiated in November 2022, and the final product was released in March 2023.

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

The benefit of this technical response was the publication of a first-of-a-kind analysis that mapped the extent of where vessels transiting USACE St. Louis District would be receiving AIS-broadcasts from the existing network of shore sites. These AIS-broadcasts are regularly used to transmit geo-referenced safety information such as virtual Aids to Navigation (VAtoNs).

Deliverable:

The product generated from this request was an ERDC Technical Note, *Reception of Automatic Identification System (AIS) Message 21 from US Army Corps of Engineer AIS Sites along the Upper Mississippi River, Mile 0 to 301*, published in March 2023 (available at <http://dx.doi.org/10.21079/11681/46629>).

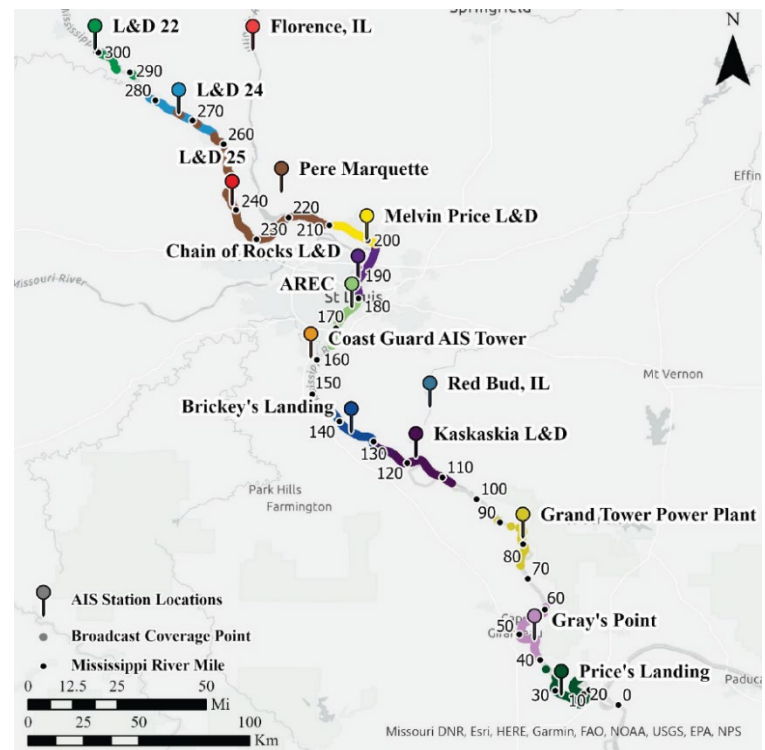


Figure 2. AIS message 21 reception, color coded by AIS broadcast sites, as recorded by the Pathfinder while on patrol cruises on the UMR, river mile 0 to 301.2.



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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