



AIS data for the Snake River in Walla Walla District, Northwestern Division

ERDC Dredging Operations Technical Support Program (DOTS)

U.S. ARMY CORPS OF ENGINEERS

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Response Summary:

Navigation staff at USACE Northwestern Division requested historic vessel position information for the area of the Snake River in USACE Walla Walla District near Clarkston, WA and Lewiston, ID. There is a nearby AIS shore site at the nearby Lower Granite Lock & Dam, with associated hardware managed by the USACE Lock Operations Management Application (LOMA) program. However, reception at this site is limited to an area near the dam due to the low antenna and the canyon in which the equipment sites (see Figure 1). At present the only AIS data available for the area near Lewiston, ID is from satellites, this data has a very low temporal resolution and as a result can only be used for coarse historical trackline reconstruction (see Figure 2) and to get a general snapshot of local commercial traffic. This information was provided by Dr. Marin Kress.

Additional support was provided via a visit of dredging subject matter expert Mr. Ben Emery to participate in a navigation channel meeting in Walla Walla District.

Period of Performance:

This DOTS response occurred during December 2022 and January 2023 (FY23).

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

This DOTS response provided benefits to the USACE dredging/navigation program by highlighting a data gap in existing AIS coverage along the Snake River in Walla Walla District. Additional benefits were provided by the participation of a subject matter expert in planning discussions regarding the future of the Snake River navigation channel near Clarkston, WA.

Deliverable:

Deliverables included deliver of files (maps, data files), in-person meeting participation, and follow-up phone calls to discuss additional AIS coverage in the area.

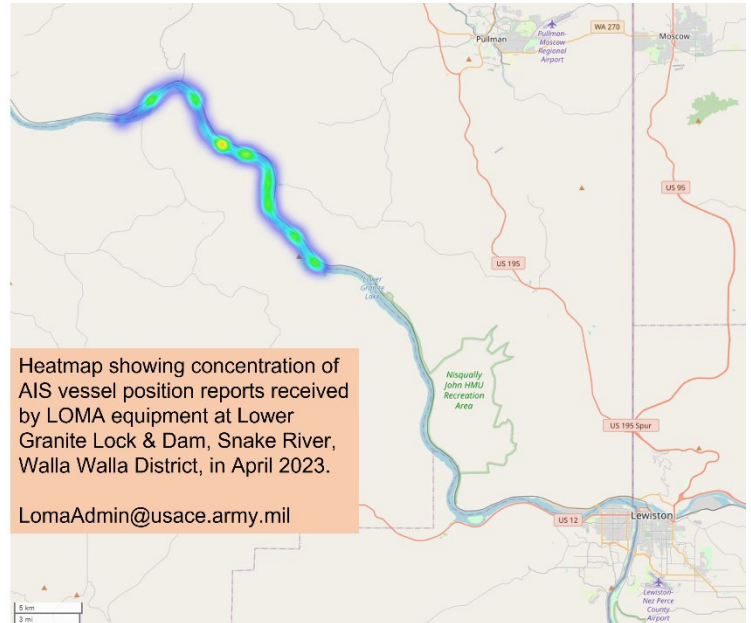


Figure 1. Heatmap (signal density map) of AIS position reports received at Lower Granite site on the Snake River, April 2023.

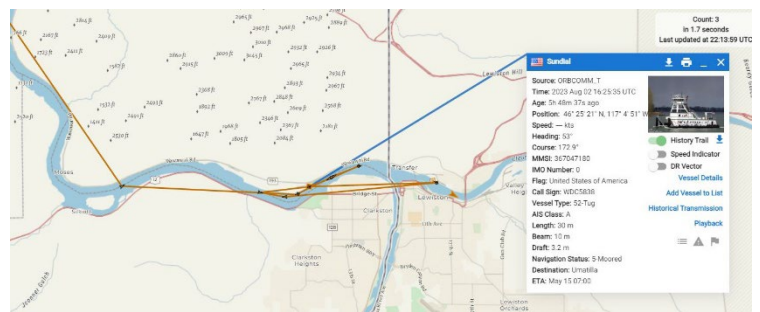


Figure 2. Example of coarsely re-created vessel trackline for a commercial vessel operating on the Snake River near Clarkston, WA. Note the trackline erroneously crossing land due to large time gap between position reports.



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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DOTS ID: DOTS-23-R22