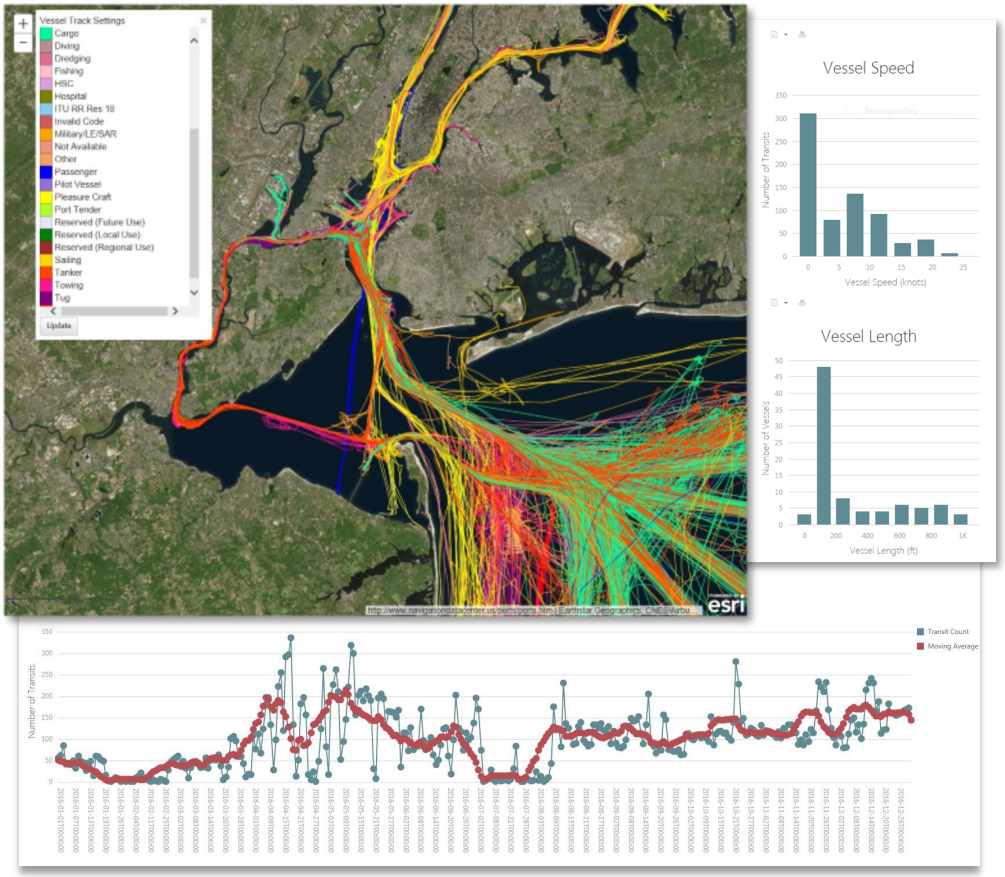
Automatic Identification System Analysis Package

US Army Corps of Engineers (R)

https://ais-portal.usace.army.mil

The Automatic Identification System Analysis Package (AISAP) is a web-based tool for acquiring, analyzing, and visualizing near-real-time and archival data from the U.S. Coast Guard. Through AISAP, USACE personnel can search for any/all vessels in a area during a specific time, or limit their search to specific vessels during a given time range. Archived AIS data include time, speed over ground, direction, vessel draft, beam, length and vessel type information. This tool allows unprecedented access to quantitative, statistically robust measures of navigation project performance through time as reflected in vessel records.

Data can be visualized in multiple ways



Support for a system-wide level of understanding

By allowing users to visualize areas as part of a larger navigation network, and navigation as part of a national and international freight system, the AISAP supports informed decision making and optimized prioritization of freight system maintenance resources. The AISAP can be used to investigate questions of historical travel time, capacity limitations, and the effects of weather or accidents on the flow of freight through waterways.

The AIS-Analysis Package was developed with input from:

- *USACE Engineer Research and Development Center (ERDC)*
  Coastal and Hydraulics Laboratory (Navigation Systems Program)
  Information Technology Laboratory; Spatial Data Center at Mobile
- *U.S. Coast Guard*

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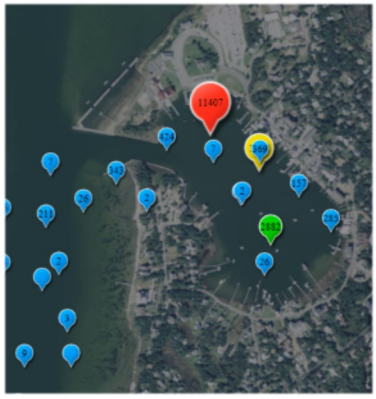


AISAP output: AIS signal point cluster.

AISAP Features

Web-accessible (USACE only)

No software download

Utilizes public AIS data
- *6-second level of detail*

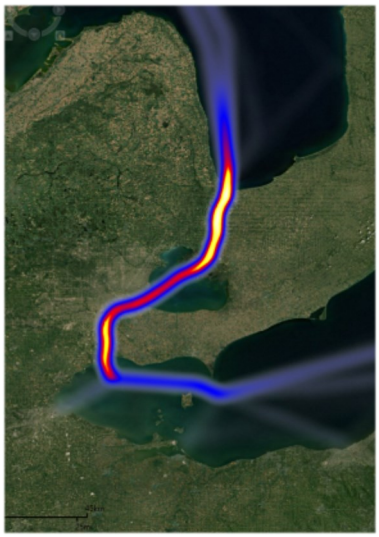
User collaboration capability

User-defined search filters
- *Area*
- *Time range*
- *Vessel speed*
- *Vessel MMSI #*

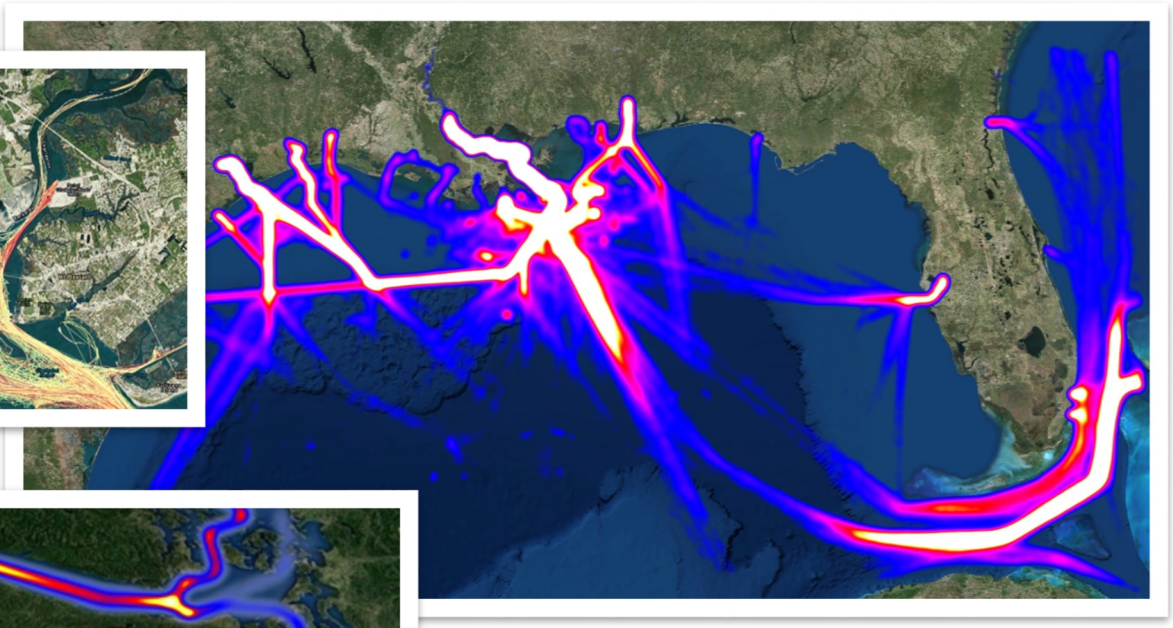
File outputs
- *KML*
- *CSV*

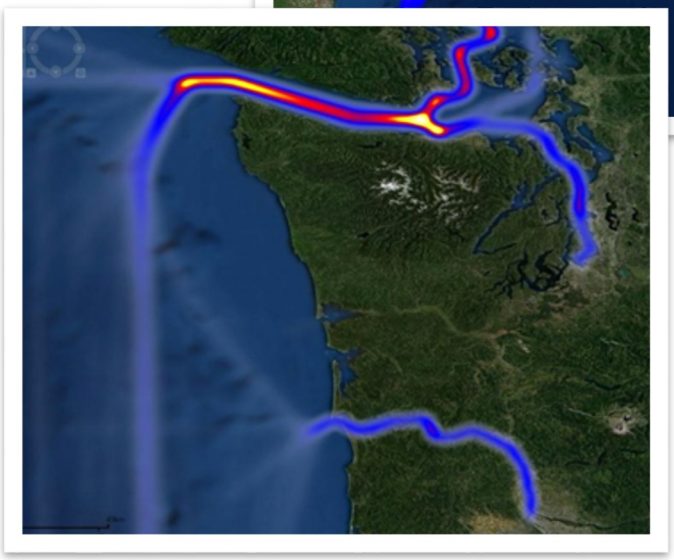
Transit statistics

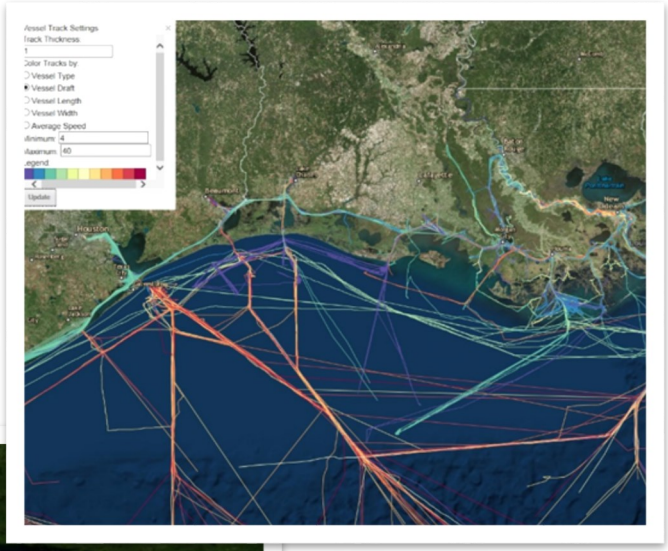
Visualizations
- *AIS signal heat maps*
- *AIS signal cluster maps*
- *Vessel Track Lines*
  - *Draft*
  - *Speed*
  - *Vessel type*

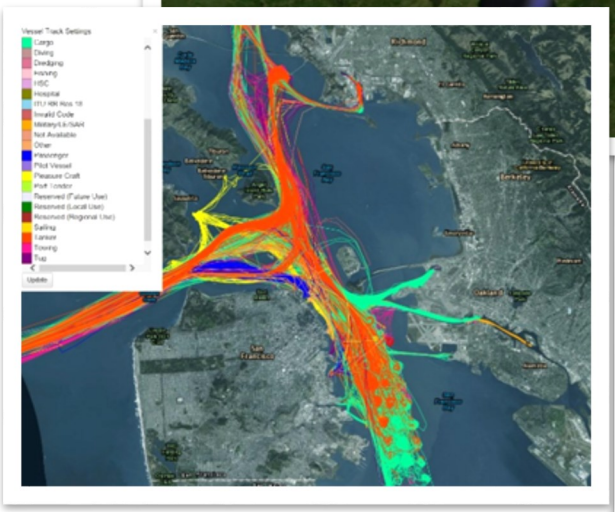


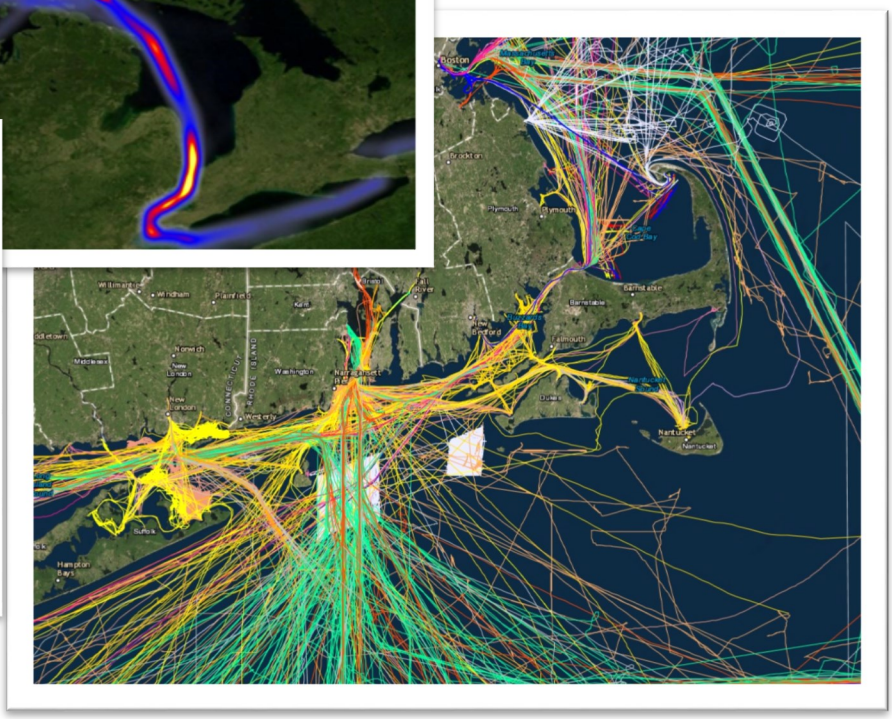
AISAP Output: Vessels moving between Lakes Huron & Erie via St. Clair River






Vessel Track Settings
Track Thickness
1
Color Tracks by:
Vessel Type
Vessel Draft
Vessel Length
Vessel Width
Average Speed
Minimum: 4
Maximum: 40
Legend
Update


Vessel Track Settings
Cargo
Diving
Dredging
Fishing
HSC
Hospital
Invalid Code
Not Available
Other
Pilot Vessel
Pleasure Craft
Reserved (Future Use)
Reserved (Local Use)
Reserved (Regional Use)
Sailing
Tanker
Towing
Tug
Update


Boston
Plymouth
Barnstable
Falmouth
Nantucket
Hampton