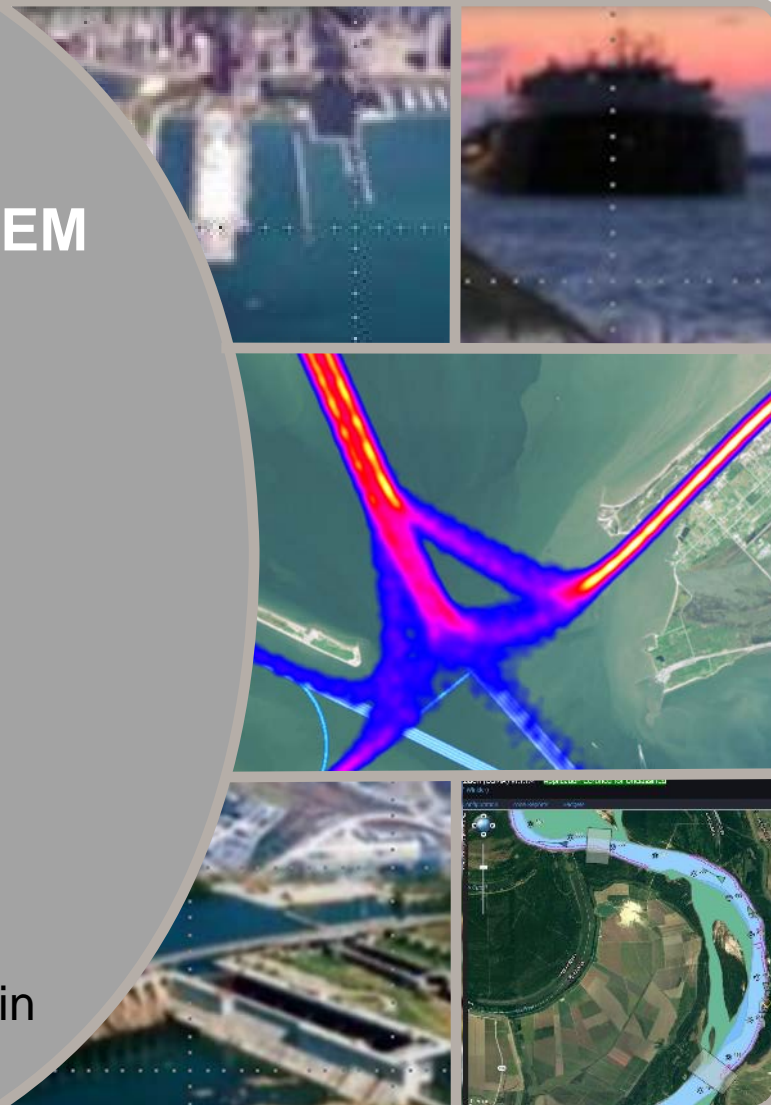**AUTOMATIC IDENTIFICATION SYSTEM ANALYSIS PACKAGE**

AISAP LESSON 8: TRAVEL TIMES

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AISAP Training Class

9 January 2019

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US Army Corps of Engineers.

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WHY VESSEL TRAVEL TIMES

- Waterway performance monitoring

- Informed operations & maintenance decisions

- Voyage planning capabilities for stakeholders

- Example applications:

  - How long will it take a dredge to travel to the next location?

  - Have vessel travel times improved after an O&M action?

 - What does the transit cost, in terms of travel time, for vessels?

# ANALYZING TRAVEL TIMES TIMES IN AISAP

1. Create a new project.
2. Add data (source) to the project.
3. Create an Area of Interest (AOI).
4. Add any additional filters to the AOI.
5. Process the AOI.
6. Once you receive an email saying the AOI has been processed, refresh the screen.
7. Go to Analysis tab → Travel Times between AOIs → Time Spent in Area.
8. Check the boxes next to the AOI names.
9. Click Update.
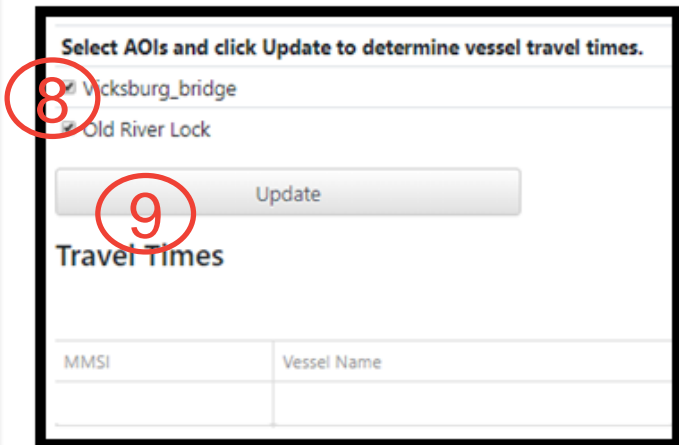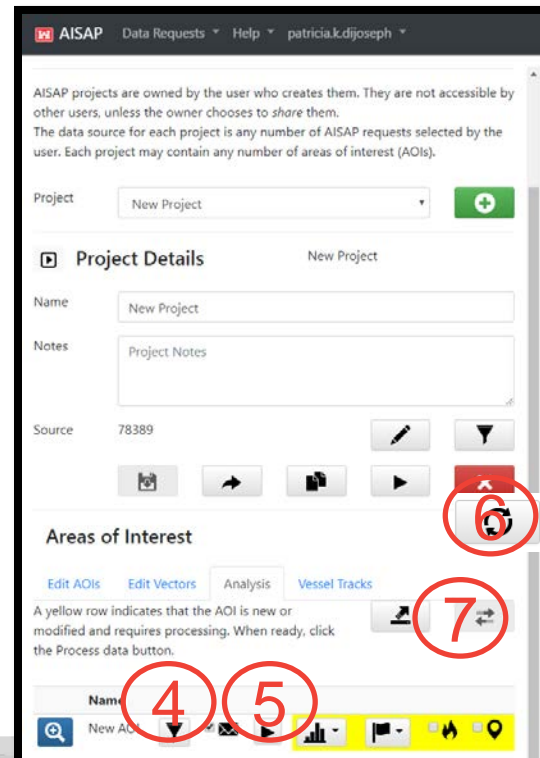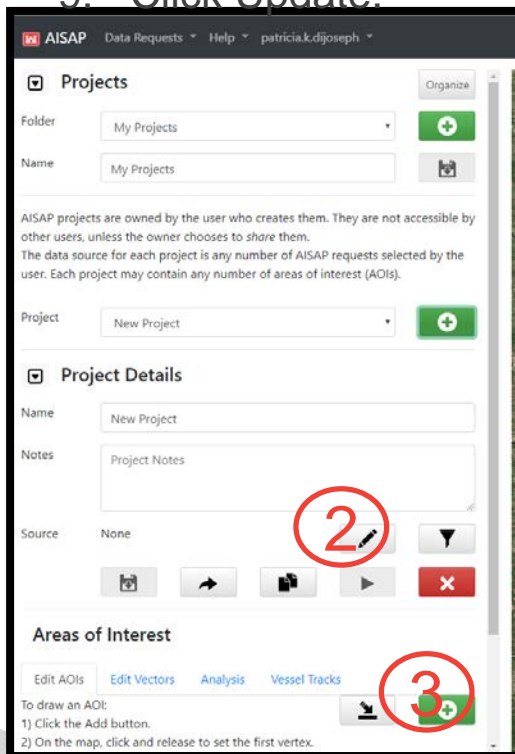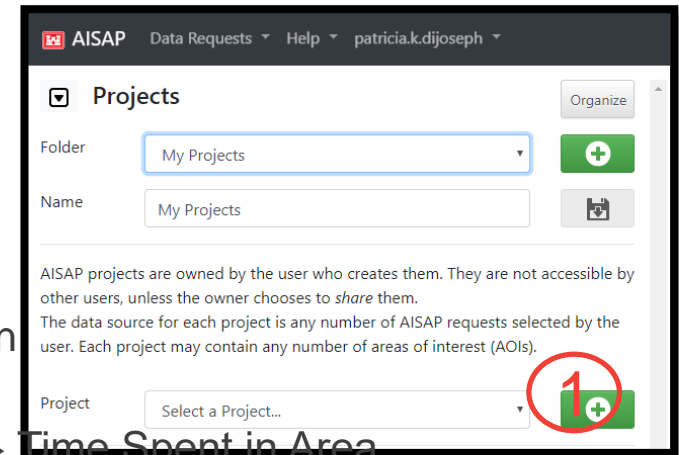
TRAVEL TIMES BETWEEN AREAS OF INTEREST

Bayonne, NJ
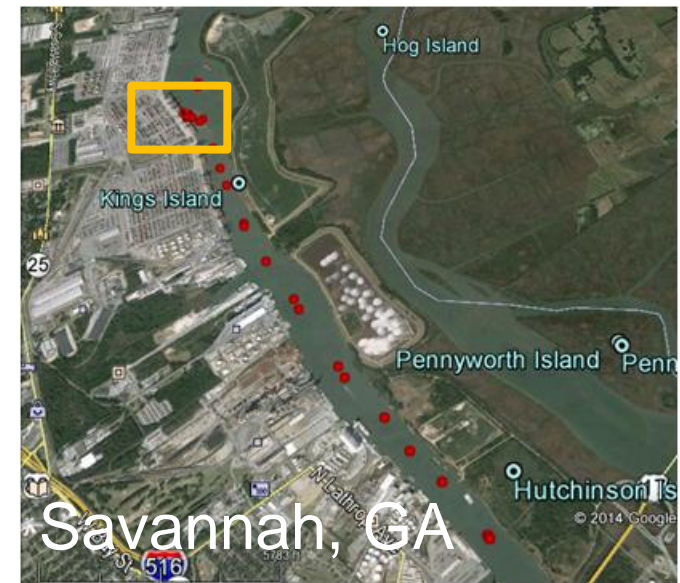
Savannah, GA

TX_DTTM	LAT	LON	AOI
12/28/2014 19:30	40.6701	-74.0783	Bayonne
⋮	⋮	⋮	Bayonne
12/31/2014 3:50	40.6679	-74.0750	Bayonne
1/2/2015 5:15	32.1295	-81.1391	Savannah
1/2/2015 5:20	32.1295	-81.1391	Savannah
⋮	⋮	⋮	Savannah
1/4/2015 15:45	32.1294	-81.1389	Savannah

Consecutive entries with different AOI flags indicate an inferred transit between respective locations

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OUTLIER IDENTIFICATION

- Be aware of outliers
- Causes of outliers:
  - Missed AIS broadcasts
- Vessels not transiting directly between locations
  - Vessels leave the waterway at a confluence
  - Vessels stop along the way (e.g., at terminals)
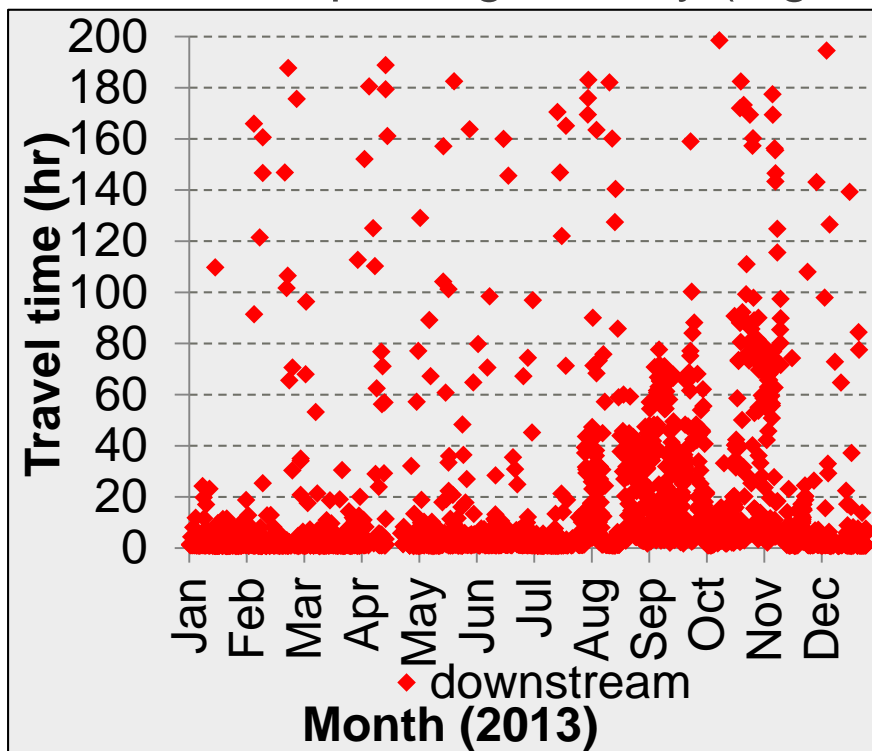
2013 Travel Time Estimate for a 10 Mile Link Centered at L&D 52 – No Outliers Removed

AIS derived vessel paths (red and green) versus the river course (blue) due to missed AIS broadcasts

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THANK YOU

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http://cirp.usace.army.mil/techtransfer/workshops/AIS2019/AIS-Workshop.php