AISAP Lesson 2: Site Orientation, Data Library, Organization Before Starting: You need an AISAP account with a username and password.

Exercise Goal: Learn how to create a project, search the AISAP library for existing data, add data to a project, and filter your data to display only the results of interest.

	Create a Project in AISAP	M	AISAP	Data Requests ▼ Help ▼ marin.m.kress ▼			
1.	Log on to AISAP https://ais-portal.usace.army.mil or AISAP-Cloud https://aisap.usacegis.us/aisap_portal/home.html	•	Proj	jects Organize			
2.	The left side of the homepage will look like $ ightarrow$	Folde	er	Select a Folder 🗸			
3.	From the drop-down menu select My Projects, the screen will update.	[🖬 AISA	AP Data Requests ▼ Help ▼ marin.m.kress ▼			
			Pr	Organize Organize			
		F	older	My Projects 🗸			
4.	Once in the My Projects folder you will see a drop down menu with a list	М	lame	My Projects			
	of all your projects.	A a T	AISAP pro accessible	ojects are owned by the user who creates them. They are not by other users, unless the owner chooses to <i>share</i> them. Source for each project is any number of AISAP requests selected			
5.	Click on the green button to create a new project.	L (oy the us AOIs).	er. Each project may contain any number of areas of interest			
6.	A Project Details section will appear.	P	Project	Select a Project			
7.	Under the Project Details section, edit the Name and Notes fields.		Proje	ct Details			
	For Name , type in AISAP Training	Name Notes	-	New Project Project Notes			
	For Notes , type in today's date and any other info you want to add.	Source	Ν	lone			
8.	After you started typing the SAVE icon turned blue, this is a reminder to save your work!		-				
	Source None	Area	Areas of Interest				
	R C	Edit AOIs Edit Vectors Analysis Vessel Tracks To draw an AOI: 1) Click the Add button. 2) On the map, click and release to set the first vertex.					
		3) Click 4) Doub New AC	and rele le-click)I.	ase to set each additional vertex. to close the polygon and create the			
9.	After you finish typing, click on the blue SAVE icon to save the		Name	⊠AOI			
	changes to your Project Details. You can edit these details again later \perp						

10. Congratulations! You've just created your first project. You will be able to create as many projects as you want in AISAP. Next we need to add data to the project, continue to Step 11 to find a data source.

if needed.

AISAP Lesson 2: Site Orientation, Data Library, Organization Add data to your Project from the AISAP library

- 11. Look for the **PENCIL icon**, when you hover over it with your mouse it says 'Edit data source'.
- 12. Click on the Edit/Pencil icon.

A new screen will appear with the title **Find Previous Requests**.

- 13. In the top of screen click on the **Base Map** drop-down menu, and select 'gray', this will make it easier to see the areas where data already exists.
- 14. There are multipe ways to search through the AISAP library of previous data requests, for example:
 - Draw a polygon around the around the area of interest, and be generous. Because of the way data requests work you can often use a request that doesn't exactly overlap your study area.
 - Leave all fields blank and click on the Retrieve Data button. This will show all the previous requests, BUT it will take a few minutes to load because the library is getting quite large.

Tip: Piggybacking on previous work by using requests already in the library saves you time!

Proj	ect Details	AISAP Training
Name	AISAP Training	
Notes	[Today's Date]	
Source	None	
	_	



you submit, broaden your search or select t data from the NAIS archive.	the Query Tool link from t	he Data Requests menu above to retrieve
	Clear Map	Draw Area
Request ID		
MMSI		
Start Time		
End Time		
Email		
Description		
Maximum Number of Records		
		Retrieve Data
Requests		
Current Project: AISAP Training		
Current Source:		
This project has no data source. Select th and click Add.	e desired requests	Add
		Clear All
		Done

 Example of the AISAP-USACE library (left) and the AISAP-Cloud library (right). The AISAP-USACE library has a longer history, and many boxes have multiple years of requests 'stacked' on top of each other.





AISAP Lesson 2: Site Orientation, Data Library, Organization

- 16. For this exercsie please click on **Draw Area**, then draw a large polygon with St. Louis in the middle, stretching from Peoria in the north to Paducah in the south. (Double click the mouse to close your polygon.
- 17. Click on Retrieve Data.

18. AISAP-USACE results are at left, AISAP-Cloud results on the far right. $\rightarrow \rightarrow$

You see the request polygon and each of the data request boxes. Areas with overlapping requests look darker.

19. Click on any one of the black boxes near St. Louis to see the data request that covered that spatial area. Example \rightarrow

The popup box includes the **Request ID #** at the top, requestor email, start/end date, coordinates, and whatever **Request Description** the user included.

- 20. **QUESTION**: Can you find out who requested data in one of these boxes?_____
- 21. What were the dates covered in that request?

POC: Marin.M.Kress@usace.army.mil

- 22. Is there any information about AIS signal sampling rate (ping rate) used in the Request Description field?
- 23. Are there any overlapping requests for this location?
- 24. Let's pull up a specific request that was submitted previously by entering its Request ID. Click on Clear Map.



39.199964140676 Upper Left Longitude: -90.785473981907

Lower Right Latitude: 38.375741446229 Lower Right Longitude:

-90.0493899975318

Zoom to

Num Recs/Vessel: 288





In the AISAP-Usace site use request 105476, on the AISAP-Cloud site use 78554. These should be similar requests that

cover the St. Louis-Upper Miss-Illinois River June 1-5 2017, with 5-min sampling rate.



- 25. Type the appropriate **Request ID** into the Request ID box, then click **Retrieve Data** button in the bottom right section.
- 26. Your screen will update, now the map will show only the area of this request and the one grey box associated with this request number.



Search for completed requests that are available for use in AISAP. If no requests are found based on the criteria you submit, broaden your

search or select the Query Tool link from the Data Requests menu

Clear Map

×

105476

above to retrieve data from the NAIS archive

Request ID

MM5I Start Time

- 27. Scroll down on the left side of the screen to see the list of requests returned. There should be only one result, which matches the Request ID you told AISAP to retrieve.
- 28. Check the box next to this request ID
- 29. Click the **Add** button. You will be taken back to your Project screen.
- 30. Under the **Project Details** section, find the word **SOURCE**. The number next to it is the data you just added. You can add multiple data sources to your project.
- 31. Congratulations! You now know how to create a project and add data from the AISAP library to your project.
- 32. You've got data in your project, now what? Tell AISAP the spatial extent, or area of interest (AOI), and the time subset we want to analyze.

AISAP Lesson 2: Site Orientation, Data Library, Organization Draw an Area of Interest for your AISAP Project

- 33. To draw an AOI, look in the bottom left quadrant of your screen under the section **Areas of Interest**. There are tabs: Edit AOIs, Edit Vectors, Analysis, Vessel Tracks.
- 34. Make sure you are in the **Edit AOIs** tab, then click on the **green plus button** at right.
- 35. Click on the map to set the vertices of your polygon. It does not have to be a square! Close your polygon by double clicking.
- 36. For this exercise let's pretend you are interesting in seeing how vessels move above the city of Quincy. Draw a your AOI from Quincy upriver a ways, your final polygon should look something like this →
 If you don't like your AOI polygon click the red X-box to delete it and draw a new one.
- 37. Name your polygon "Quincy-1 day" because I intend to filter this area for only 1 day's worth of data. You can create multiple AOIs within any project, and you can change AOI later.
- 38. Save your AOI by clicking the blue floppy disc SAVE icon.
- 39. Click on the Analysis tab.

You should see a screen like the example at right \rightarrow

The yellow highlighting means that you have an AOI but AISAP has not yet processed the data for that specific AOI.

Areas of Interest											
Edit AOIs	Edit Vectors	Analysis	Vessel Tracks								
To draw an AOI:											
1) Click the Ac	1) Click the Add button.										
2) On the map	2) On the map, click and release to set the first vertex.										
3) Click and release to set each additional vertex.											
4) Double-clic	 4) Double-click to close the polygon and create the New AOI. 										
Na	me		⊠AOI								



	Nama						
	Name				MAUI		
Q	Quincy_1 day						×
Areas of	Interest						
Edit AOIs	Edit Vectors	Analysis	Vessel Track	s			
A yellow row indicates that the AOI is new or modified and requires processing. When ready, click the Process data button.							
Nar	ne						
Qui	ncy_1 day	Y	∞ ►	чµ.	* -	•	₽₽

For this exercise we only want 1 day of data out of the entire requested timespan. We need to tell AISAP which day we want to look at (filter), otherwise it would process the entire length of data included in this data request. For data requests that only span a few days this would be quick, but some data requests span a whole year and processing those would take a few hours. If you need an entire year of data for a project please talk to the instructor so they can put in a special data request for you.

AISAP Lesson 2: Site Orientation, Data Library, Organization Filter your data within an AOI – to get more precise results

40. To filter the data, click on the FUNNEL icon



41. A popup window will appear. \rightarrow

Settings Filters M	IMSI							
Transit Time Gap	6		minutes	^				
Please enter dates between	2017-01-01T00:00:00 and 2018-01-01T00:00:00.						Dalk	ns Cit
Start Time	2017-06-01T00:00:00							
End Time	2018-06-02000:00		×	y		_	~	S
1			>		Jur	ne 20	18	_
`				Su I	Vlo lu	We	Th	Fr
				27	28 29	30	31	1
		Apply Changes	Cance	27 3	28 29 4 5	30 6	31 7	1 8

There are three tabs: Settings, Filters, MMSI

- 42. Set the **Start Time** field to 2017-06-01T00:00:00, change the **End Time** field to 2017-06-02T00:00:00. You can either use the popup calendar on the bottom right or type directly into the time fields.
- 43. Click on Apply Changes button.
- 44. If you are satisfied with your AOI shape, and your time filters you are ready, you're ready to tell AISAP to get to work!
- 45. Click on the **PLAY** button to tell AISAP to process this data in preparation for your analysis. \rightarrow

AISAP should send you an email when this AOI is finished processing (function being tested). Shorter time requests in smaller AOIs will process faster!

46. While AISAP is processing your data for an AOI the line will turn gray. →
During this time you can work in other AOIs or in other projects.



- 47. You should receive an auto-generated email from AISAP when your AOI has finished processing. However, depending on the speed of email services your AOI might be finished before the email actually arrives.
- 48. To refresh the AISAP page, click on the double circular arrow icon next to the Analysis tab. If the AOI changes from gray to white, it has finished processing. →



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49. Your screen with the processed AOI should look like the image below. Click on the **Analysis** tab and you will see that your AOI is no longer highlighted with yellow or grey.

Provide the second s	oject Details		
Name	AISAP Training - add data to project		-
Notes	[Today's Date] 105476 = St. Louis, RM 166-184; June 1-5 2017; 5-min data, 1 batch, for training.	•	
Source	105476		
Edit AO	Is Edit Vectors Analysis Vessel Tracks		Quincy
A yellow r modified ready, clic	row indicates that the AOI is new or and requires processing. When the Process data button.		
N	lame		
Q da	ay	✓ 20km	

50. Congratulations! You now know how to:

- create a project
- add data from the AISAP library to your project
- create an AOI within a project
- filter data within an AOI to isolate a time subset from the larger dataset.

End of Exercise.

In the next exercise we will start analyzing the data and making visualizations.