



EMSA - Enhanced Maritime Situational Awareness

MEASURING

The tool to measure distances and areas is in the middle of the toolbar, on the right side of the screen



When clicking on the down arrow, you are able to select various measuring distances, areas or angles.





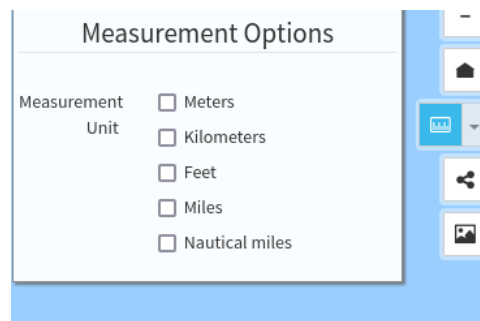
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1. MEASURING LINES

Let's start by measuring distances. Click on the first option "Line", the cursor will switch from an arrow to a blue dot:



In addition, a window with "Measurement Options" is displayed where the following options can be selected:



Measurement Units: Meters, Kilometers, Feet, Miles and Nautical miles.

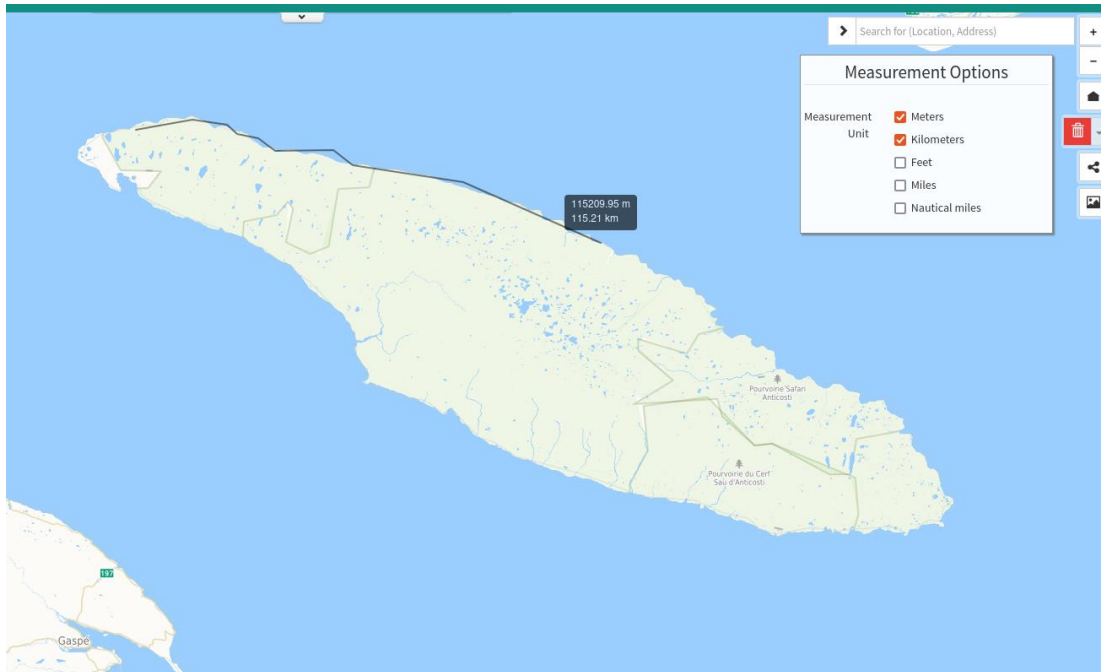
Measure, for example, a part of the perimeter of the Anticosti Island, with Unit of Measurement: Metric.

Just click on the first point and keep clicking on subsequent points until you wish to stop, and then double-click with your mouse.

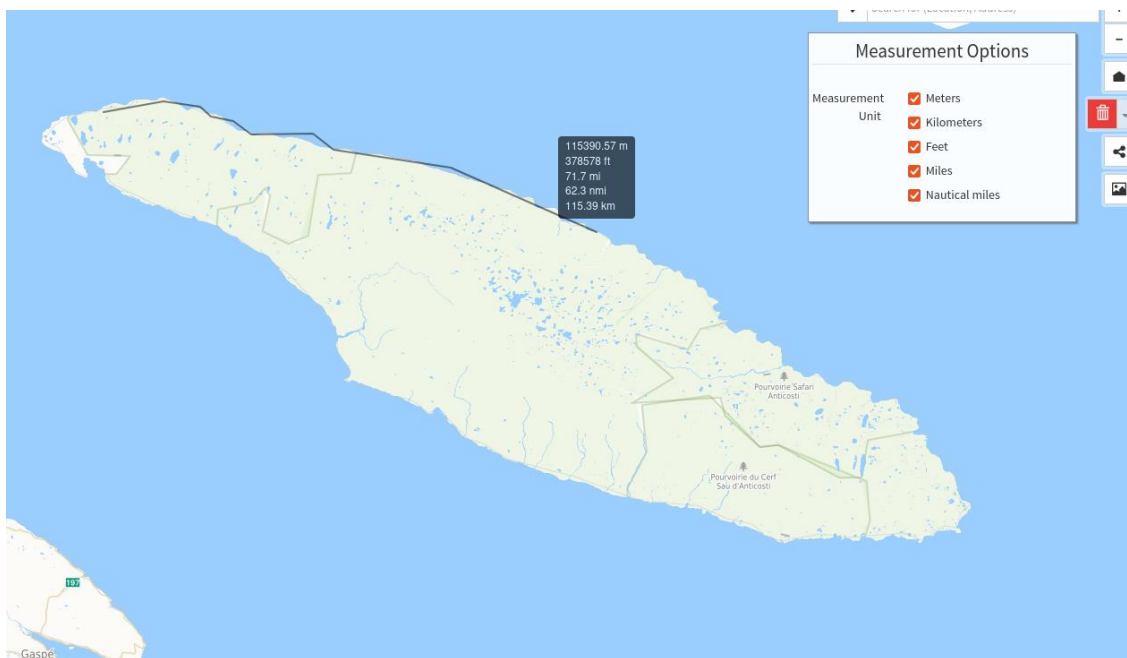
The result will be displayed in the selected measure: 115209.95 m or 115.21 km.



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It is also possible to change or add more units of measurement, select for example all available options.



If during the measuring process you want to zoom in or out, you can use the mouse scroll wheel. To pan (scroll) sideways, you can use the mouse scroll wheel as well, press and hold the scroll wheel and drag the map until the right location.



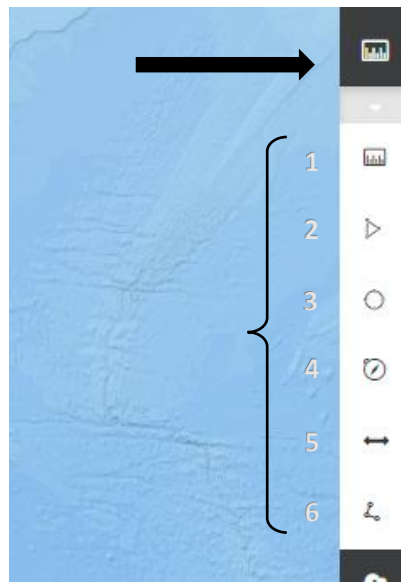
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Note that after measuring, the toolbar icon has changed to a garbage bin. You can click on the blue icon to stop measuring.



2. MEASURING AREAS

To measure areas, the process is similar. Start by clicking on the second option measure area.



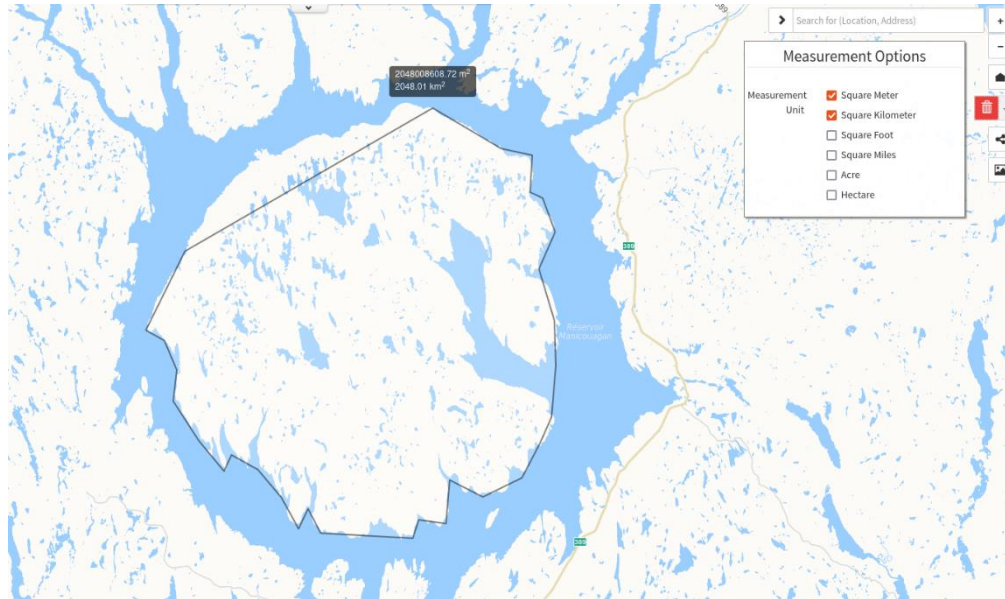
Let's calculate the approximate area of reservoir Manicouagan, in the North of Quebec.

Start clicking on any point and keep clicking until returning to the starting point, then double click to terminate.

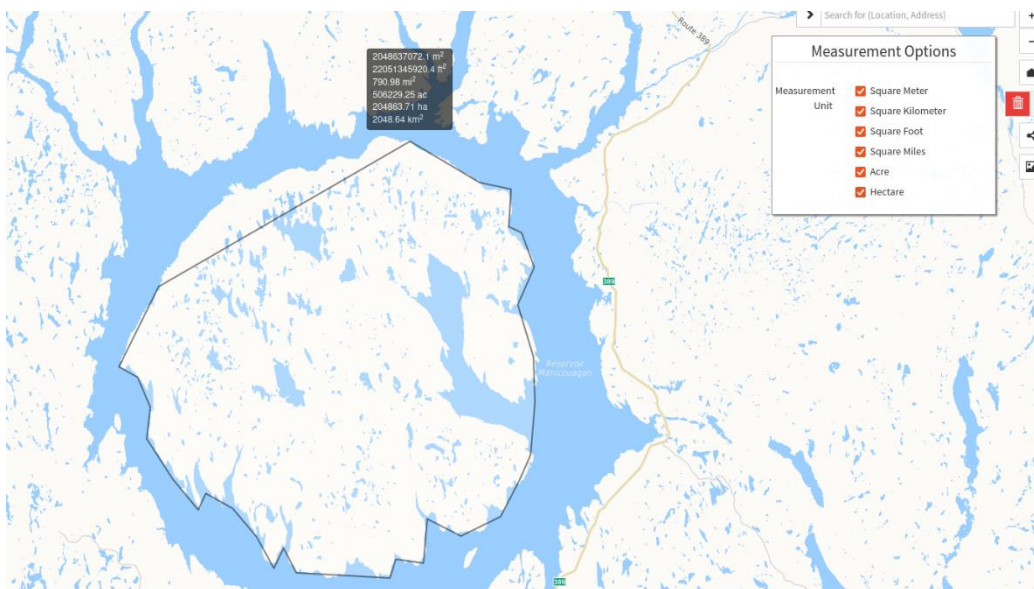
The result will be approximately: 2048.01 Km².



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In the same way you can add or remove more measurement options.



As before, the toolbar icon will change to a trash, allowing you to remove the measurement from the map.

3. CIRCLE

This option draws a circle on the map and gives its area and radius.

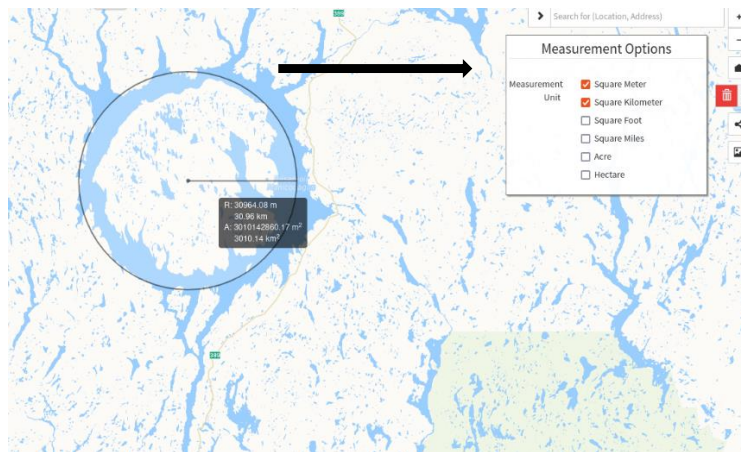


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After selecting the circle option, you will see a blue dot on the mouse pointer which will be the center of the circle.

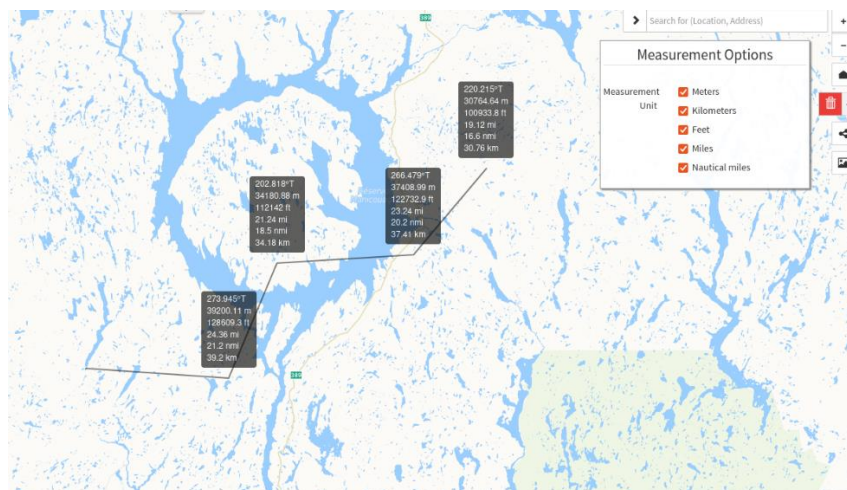
Click on the map, drag the mouse as required, it and then click again to draw the circle. You will have the area and radius according to the measurement option selected.

It is always possible to change the measurement options in the window in the upper right corner.



4. BEARING

The bearing option provides the degree of each line relative to true north. It is possible to draw as many lines as you need, using the selected measurement unit.

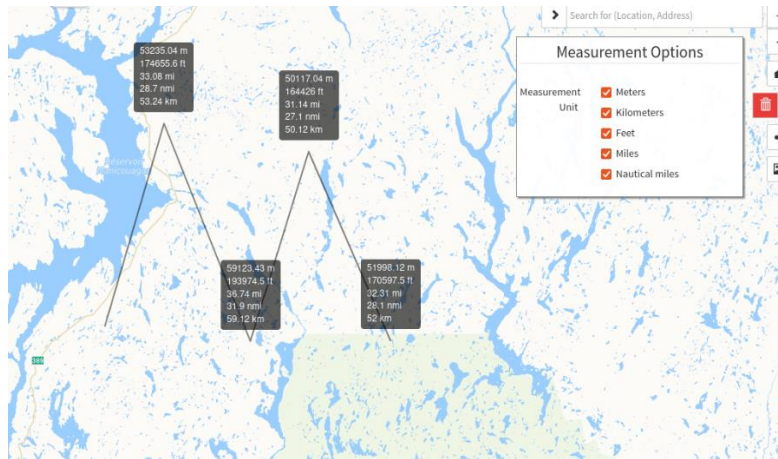


5. EDGE LENGTH

The Edge Length option gives the measurements of an individual segment of a line, it works the same way as the line option, but in this case, the tool will show the length of each vector, not the entire line as in the line option.

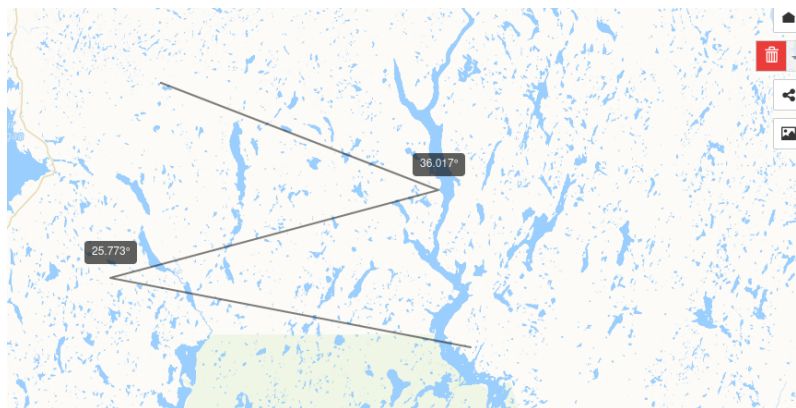


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6. ANGLE

This option measures the angle between two lines in decimal degrees.




Remember that to delete the measurements on the map you must click on the blue trash, this also allows you to select other measurement tools.





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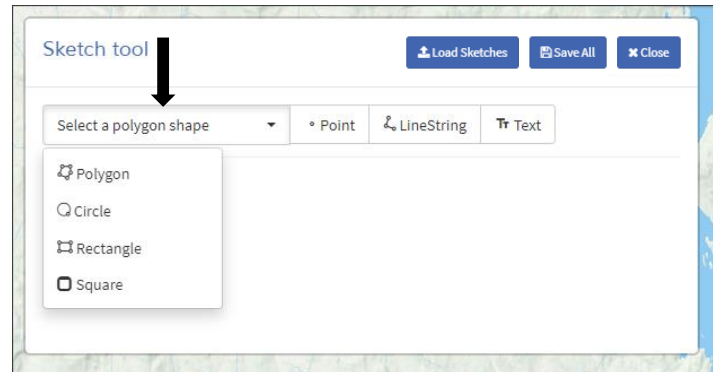
DRAWING

This tool allows you to draw sketches on the map. Click on the sketch tool  button.



The sketch tool panel opens, with polygons shapes, points, lines and texts as options to draw on the map.

For the example, click on “Select a polygon shape” button to draw Polygon, Circle, Rectangle and Square shapes.



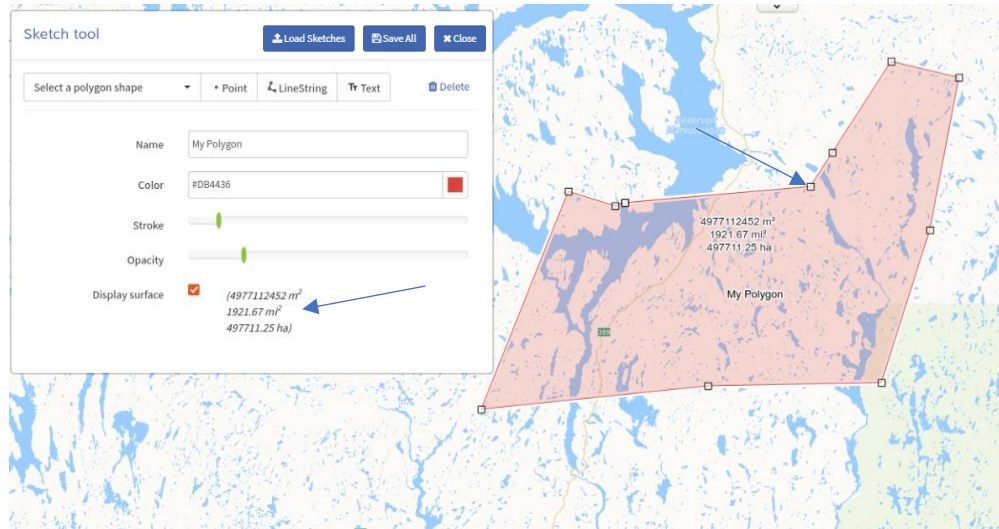
Select Polygon, then click on the map and continue clicking to add vectors until you draw the desired area and when done, double-click to finish.

Let's call this polygon “My Polygon”.

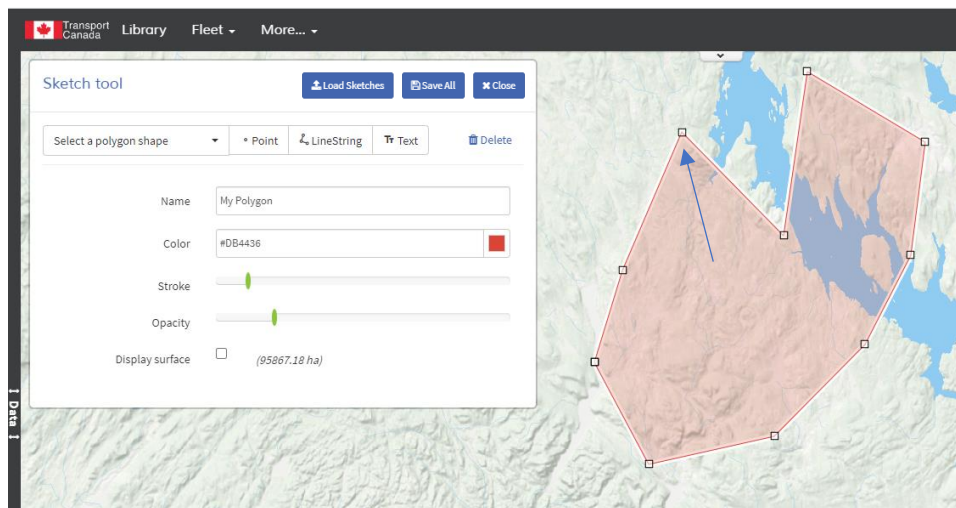
Note that there are other options that help customize the shape, such as Color, Stroke, Opacity, and Display Surface. For this last option, you can edit the measures you want to show on the map in the configuration tools of your application.



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It is possible to see little squares in the vertices, clicking on them allows you to adjust the shapes.

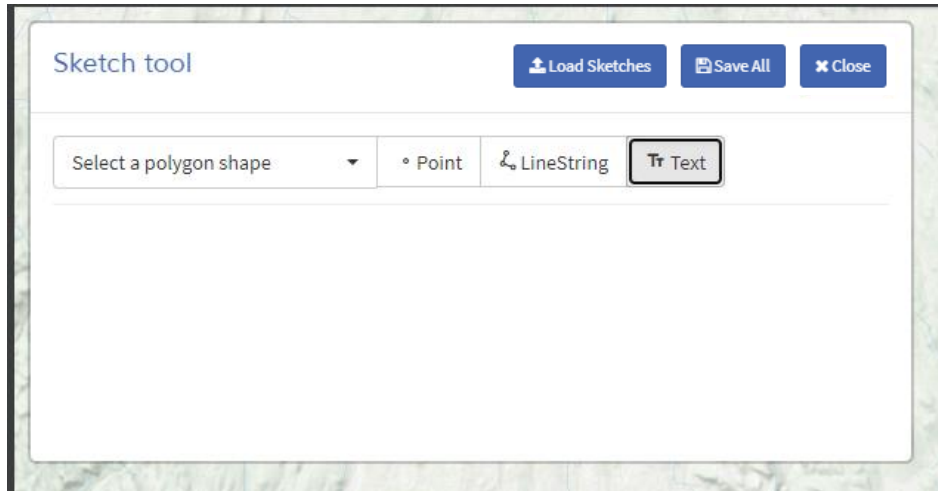


Then click the Close button finish and save the polygon.

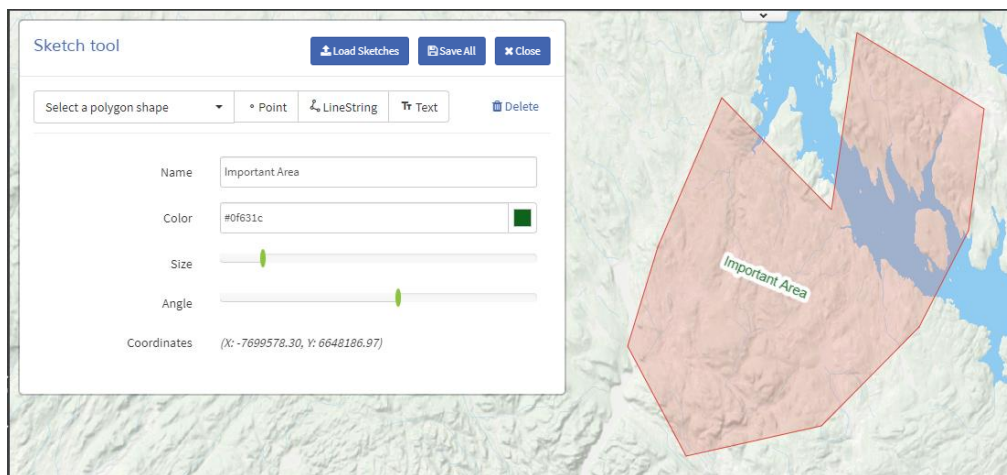
Let's add a text as a label on this polygon by clicking on the Text button.



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Click on the map where the label is needed, and then enter the text you want to display in the Name field.



There are also options to customize the text. Then click the Close button to finish and save the text.

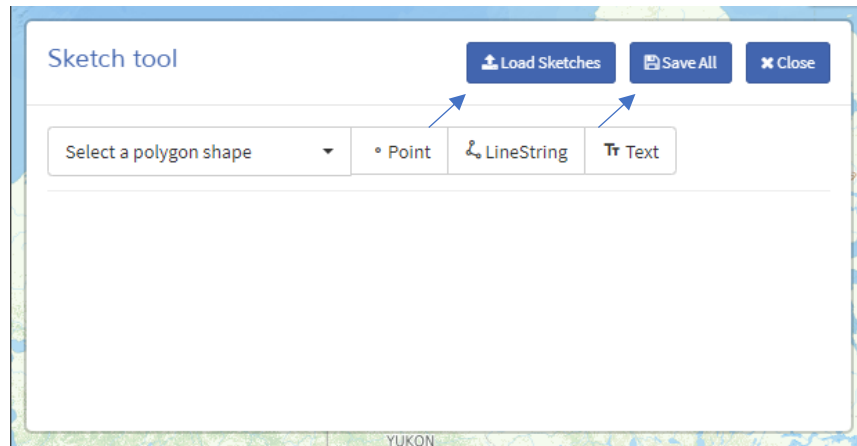
The sketch tool gives the options to save your sketch and also load sketch files.

After you have made your sketch, click on the Save all button, this creates a geojson file that is downloaded to your computer in the downloads folder. You can save all the sketches you need.


To upload a sketch file, click on the Load Sketches button and select the file you need to upload.

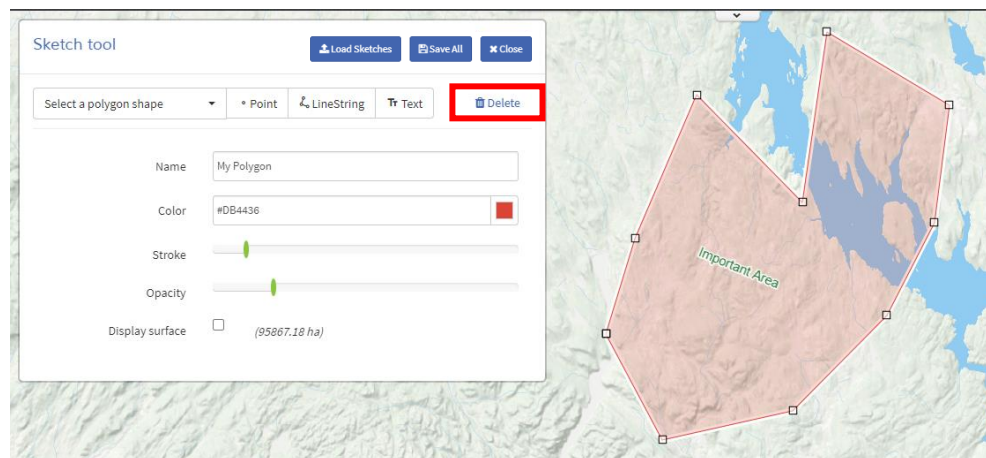


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REMOVE DRAWING

To remove the drawing or text, simply click on the sketch button , select the drawing in the map and click on the “Delete” button.

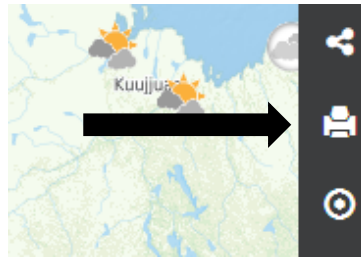


PRINT

This tool creates a file from the current view of the map. Go to the desired area of the map and click on print button.



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A new window will open with “Print options” where you can:

- Add a Title
- Add notes, which will be displayed at the end of the map
- Select a layout: Portrait or Landscape
- Select a scale
- Select whether you want to include a legend on your map or on a separate page
- Add a Graticule
- Select a grid color
- Select a grid size
- Have option to show grid labels

Print options

Title

Notes

Layout: Additional browser settings may need to be changed to print in a different layout

Scale:

Legend:

Graticule

Grid Colour:


Grid Size:

Show Grid Labels

Title

Then click on the "Print" button and a desired view will be displayed. In this window you can select options such as: print, save as pdf, etc.

SHARE

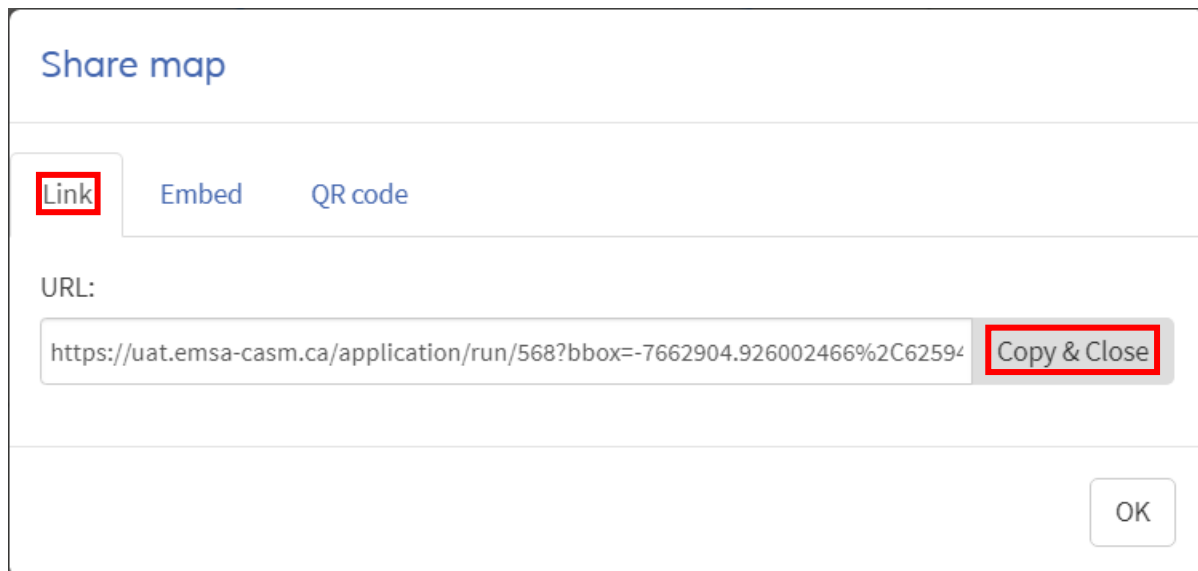
This tool allows you to share a map with another user. Click on the “Share this map”  button.



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This will open the map sharing panel. To share your map with another user, click the “Copy & Close” button.



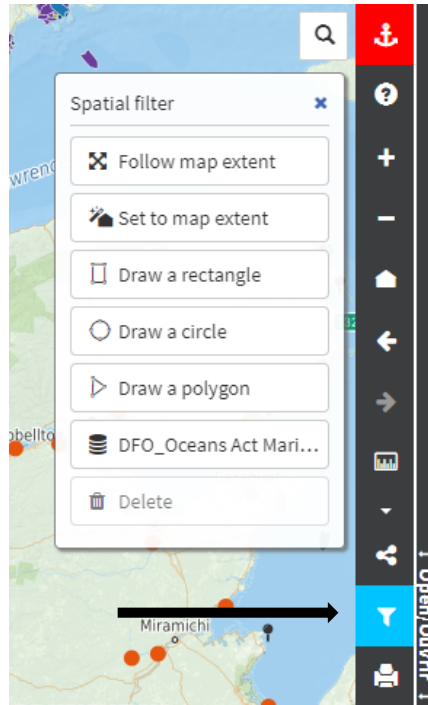
You can now paste this URL into a message and send it to the desired user.

Spatial filters

This tool allows you to filter multiple data sources using a geometry drawn on the map.



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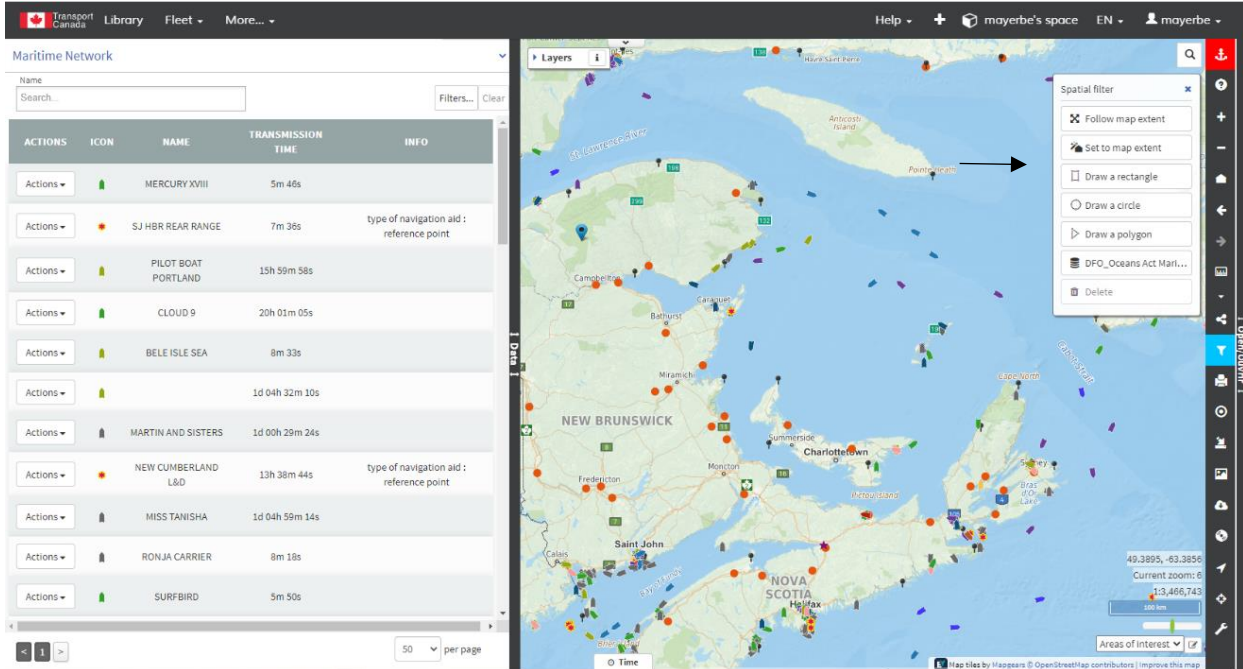


After using any of these options, only filtered features will display on the map and in the data source browser.

The same way geometries are drawn in the sketch tool, you can draw filters as a rectangle, a circle or a polygon.

For this example, you can see all the vessels on the map and in the Data Source Browser. Let's select "Draw a rectangle"

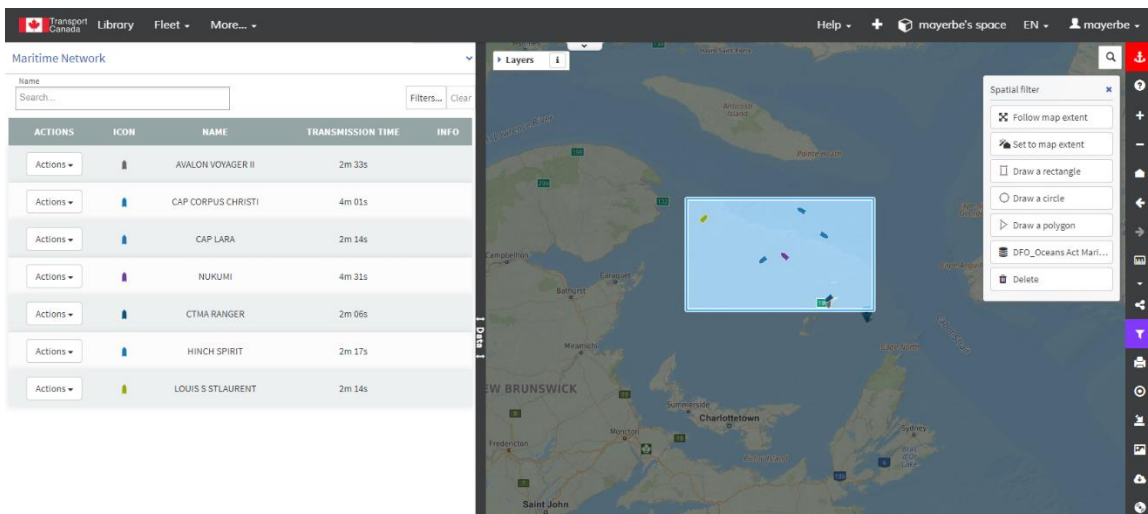
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The screenshot shows the Maritime Network interface. On the left, a table lists vessels with their names, transmission times, and navigation aid types. On the right, a map of the Atlantic coast of Canada shows a spatial filter rectangle overlaid on the water. A 'Spatial filter' panel is open, showing options like 'Follow map extent', 'Set to map extent', 'Draw a rectangle', 'Draw a circle', 'Draw a polygon', 'DFO_Oceans Act Mar...', and 'Delete'.

ACTIONS	ICON	NAME	TRANSMISSION TIME	INFO
Actions		MERCURY XVIII	5m 46s	
Actions		SJ HBR REAR RANGE	7m 36s	type of navigation aid : reference point
Actions		PILOT BOAT PORTLAND	15h 59m 58s	
Actions		CLOUD 9	20h 01m 05s	
Actions		BELE ISLE SEA	8m 33s	
Actions			1d 04h 32m 10s	
Actions		MARTIN AND SISTERS	1d 00h 29m 24s	
Actions		NEW CUMBERLAND L&D	13h 38m 44s	type of navigation aid : reference point
Actions		MISS TANISHA	1d 04h 59m 14s	
Actions		RONJA CARRIER	8m 18s	
Actions		SURFBIRD	5m 50s	

As you can see, in both panels only the vessels inside the filter are shown. Notice that there is a gray color outside the rectangle, which helps us focus on the filter.



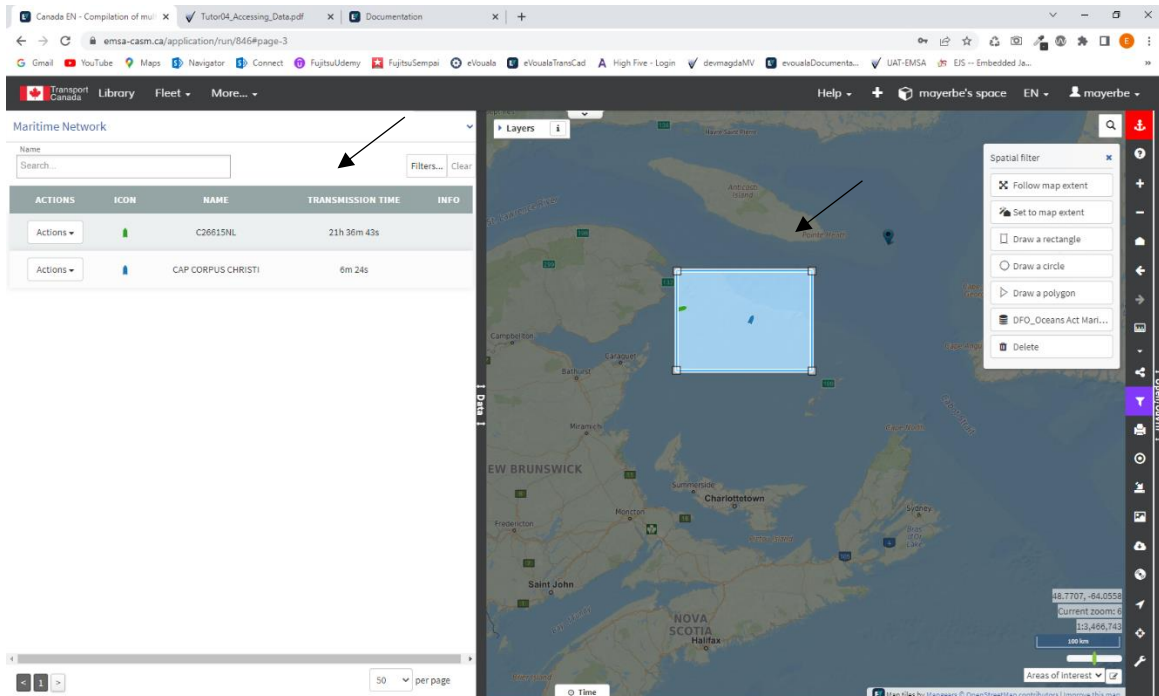
The screenshot shows the Maritime Network interface with a different set of vessels. The 'Spatial filter' panel is still open, and a gray rectangle is visible on the map, indicating the filter's extent.

ACTIONS	ICON	NAME	TRANSMISSION TIME	INFO
Actions		AVALON VOYAGER II	2m 33s	
Actions		CAP CORPUS CHRISTI	4m 01s	
Actions		CAP LARA	2m 14s	
Actions		NUKUMI	4m 31s	
Actions		CTMA RANGER	2m 06s	
Actions		HINCH SPIRIT	2m 17s	
Actions		LOUIS S STLAURENT	2m 14s	

If you mouse over the rectangle, you will see little squares in the corners; these allow you to adjust your filter and the information will be updated in the two panels with the new filters.



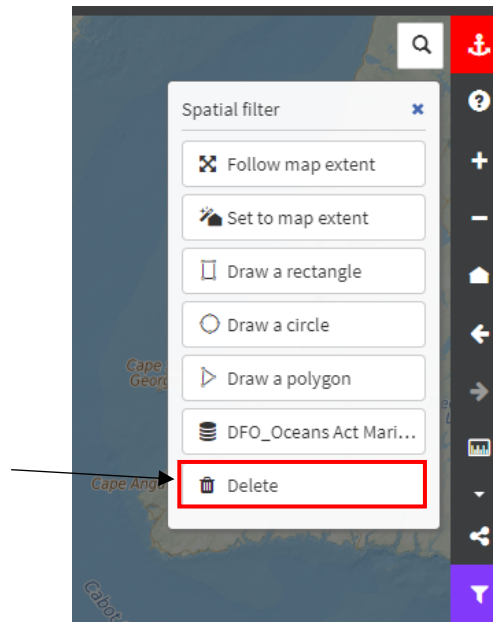
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When you are using any of the spatial filters, the "Delete" button becomes active, allowing you to remove the filter from the map at any time.

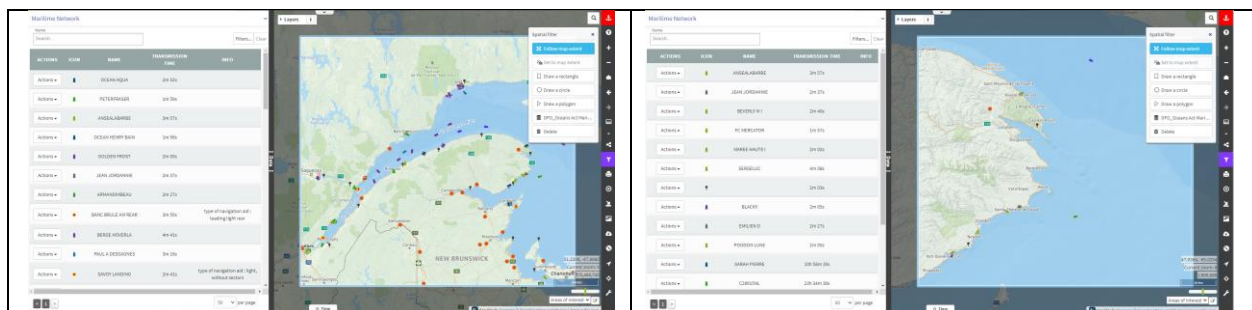


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It is not possible to use two filters at the same time, when you draw another filter on the map, the new one will replace the existing one.

The "Follow map extent" option creates a filter that maintains the map extent when its location or dimensions change. This means that the filter will retain the size of the map panel, but you will be able to adjust the map, either by zooming in or out or by panning the map to fit the information you want to see inside the filter.



Using "Set to Map Extent" will adjust the filter to fit the size of the map, but when you zoom in or out or pan the map, the filter will retain its initial size.



Transport
Canada



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