

Creating New SeaDisplay Combine Site Map

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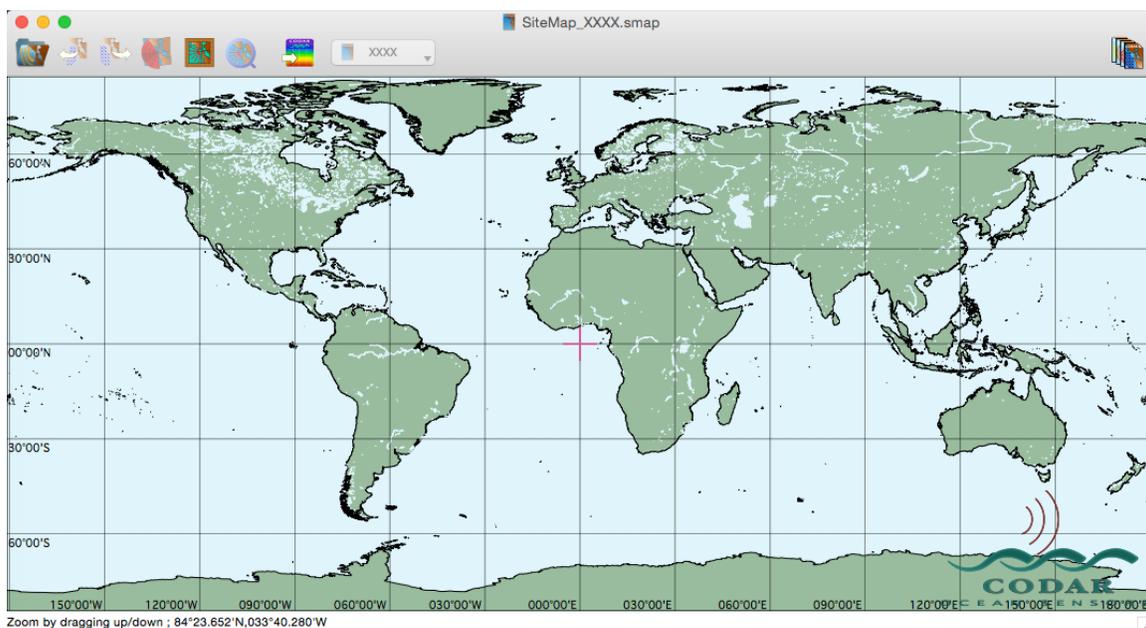


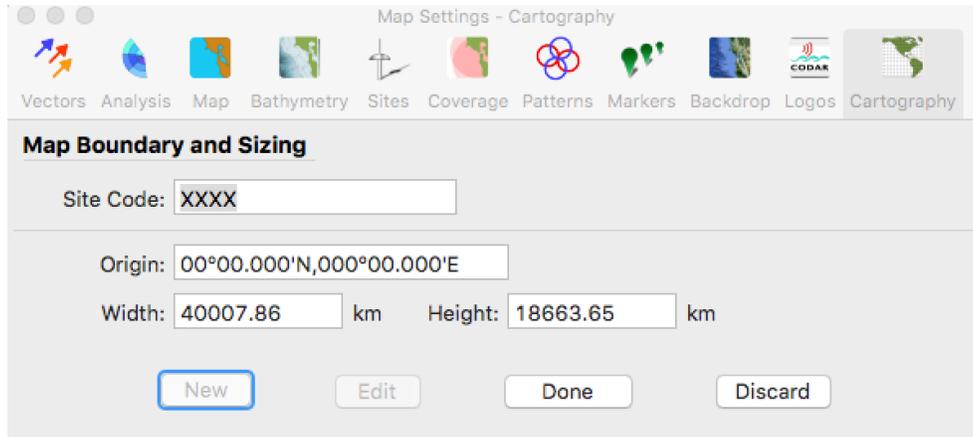
Creating a New SeaDisplay Combine Site Map

SeaDisplay 8 allows you to create customized site maps.

The task is simpler if you have a radial file from each site in the network on hand, or at a minimum the lat, lon location of each radial site. If you don't have all the sites, they can be added later on. If you have an existing total vector file, it's even easier to use that as it will add all sites in the total vector.

Start by opening SeaDisplay. Under the File menu select Create New Map. After a short pause you will see two windows. One is a starter map of the world and the other is the Map Settings window with the Cartography panel showing.



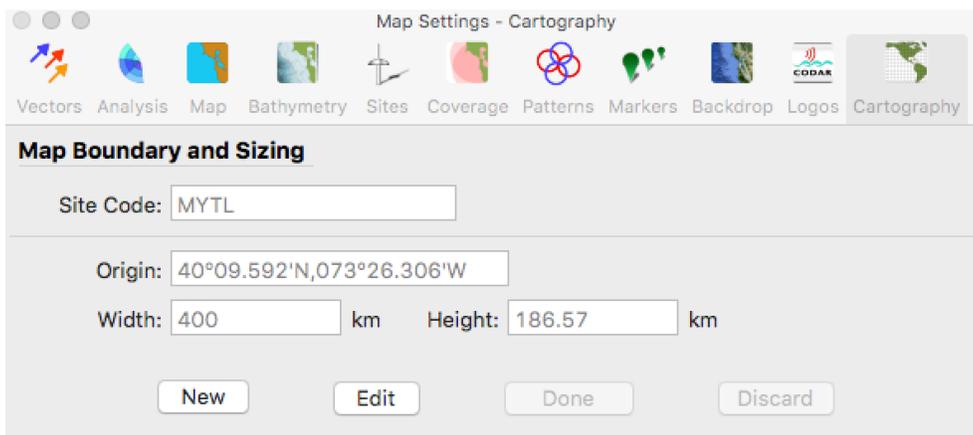


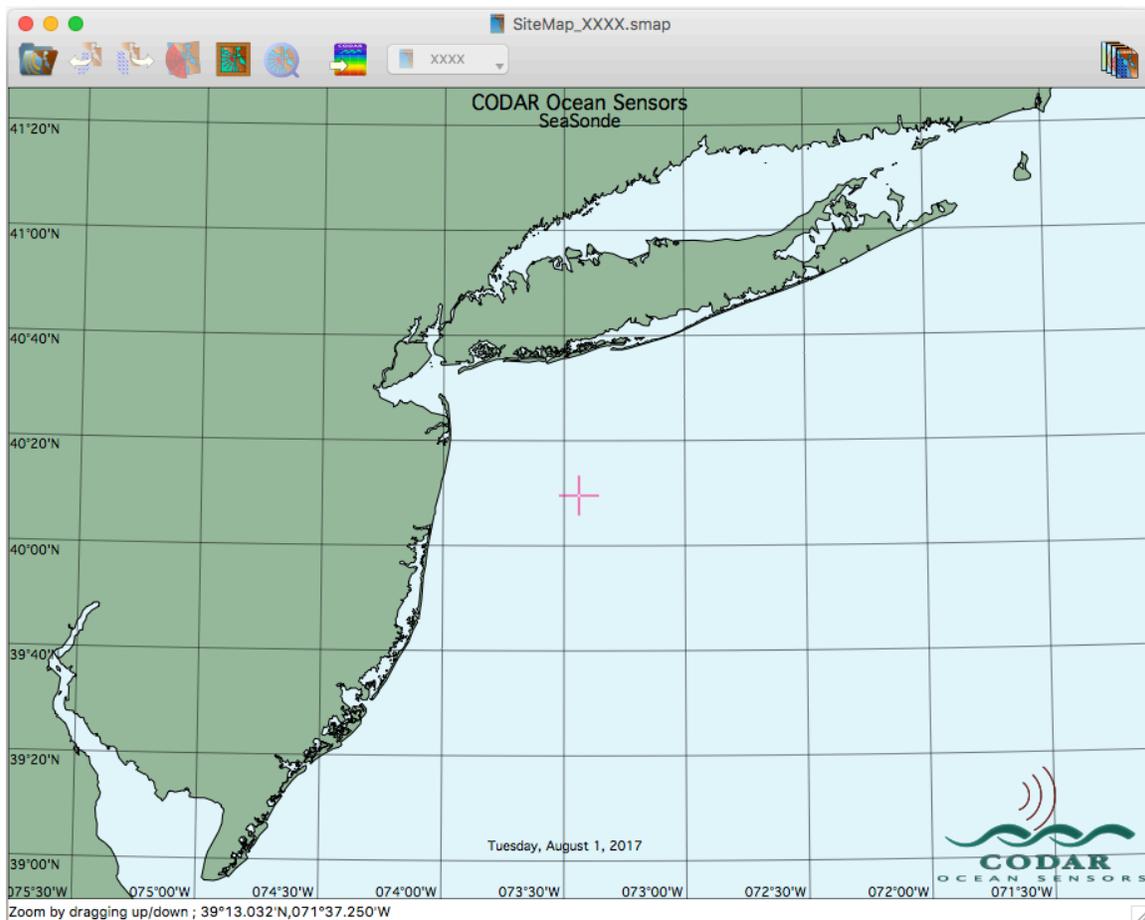
Enter in a four character site code which you plan to use for your total vector files. You can also have alternate maps by adding a “_” followed by more text. SeaDisplay will use the first four characters and the map’s defined sites in order to figure out which map to present. [Note, because this site code is used by the combine processing and total vector output files, be sure this is the code you wan to use as changing it later can be difficult.]

At this point, you can drop any total, radial or elliptical vector file onto the Cartography window. This will set the origin and coverage to fit the file. This makes for a good starting point. [Note, when dragging the file onto Cartography window, SeaDisplay application has to be selected first otherwise the window disappears. Which means locate your file in Finder so that it’s visible, then click on SeaDisplay icon in dock or window to select and then drag vector file onto Cartography window.]

If you don’t have a radial file but do have its lat, lon, you can enter it here and then enter an appropriate distance that covers your sites into the Width or Height entries. (Or you can just drag the map around and zoom into you area of interest; see zoom instructions below.)

For our example, let’s use a theoretical network near New York and New Jersey.





You'll notice that the gray graticule lines are now curved because SeaDisplay has switched to use Lambert's Conic Conformal mapping which has distances mostly square. SeaDisplay will try to keep using LCC unless you end up too near the north or south pole where this mapping can no longer work.

You also notice there's a pink cross hair mark in the exact center for reference while in the map edit mode.

You can adjust viewing size of the map by resizing the window; this will be the default size the map window will always be displayed as when opening a total vector file.

Next, adjust the origin and coverage by dragging the map and zooming in or out. The origin should be some what centered over ocean coverage area. When you create a grid later on, it start with this origin which is where the view is perceived to be squarest in terms of relative distance.

You can zoom in either by:

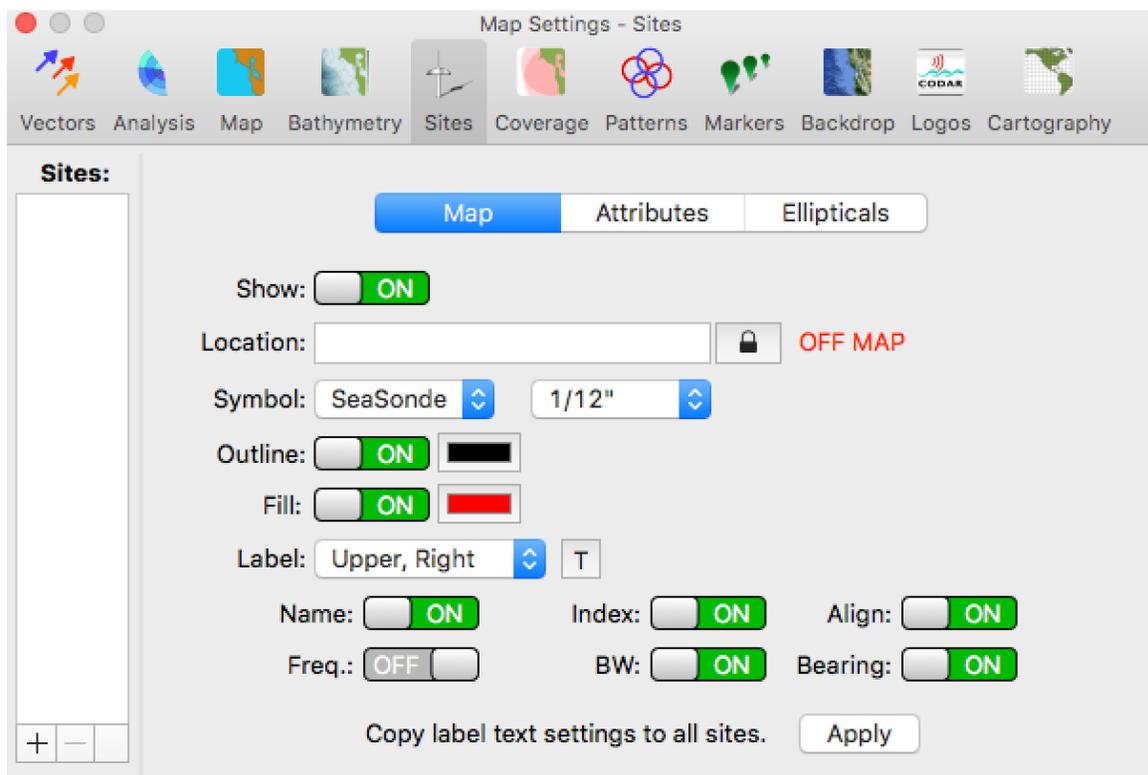
- using the gestures scroll up (mouse scroll or track pad two fingers.)
- or by holding down the <shift> key and click drag the mouse upwards
- or by holding down the <shift> <up arrow> key.
- or by holding down the <option> key and click drag the mouse starting from an upper/left location on the map to a lower/right to select an area to zoom into. As you drag a dash outline shows the area you're selecting. When you let go the mouse button, the map will zoom to that area and the window size will change to match.

Holding <shift> and <option> will keep the aspect ratio of the window.

To zoom out, either use gestures scroll down (mouse scroll or track pad two fingers) or hold down the <shift> key and click drag the mouse downwards or use the <shift> <down arrow> key.

To re-center the map, click and drag the map in any direction or use the arrow keys.

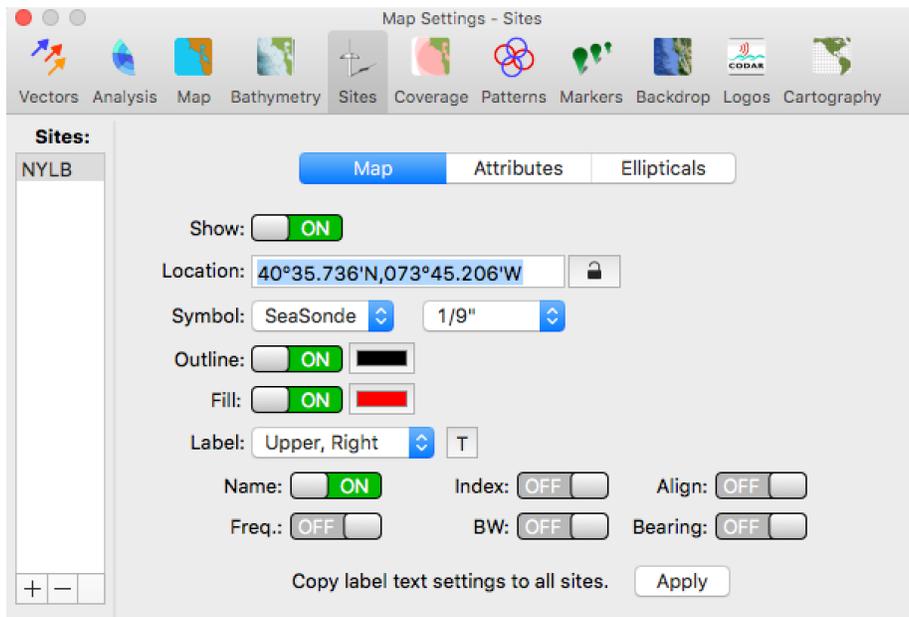
Getting the best area of interest can be a little tricky. To make it easier, you can enter your sites and enable the site coverage display. Click on Map Settings -> Sites. This will temporarily take you out of the Cartography mode. You can go back at anytime by clicking on Map Settings -> Cartography.



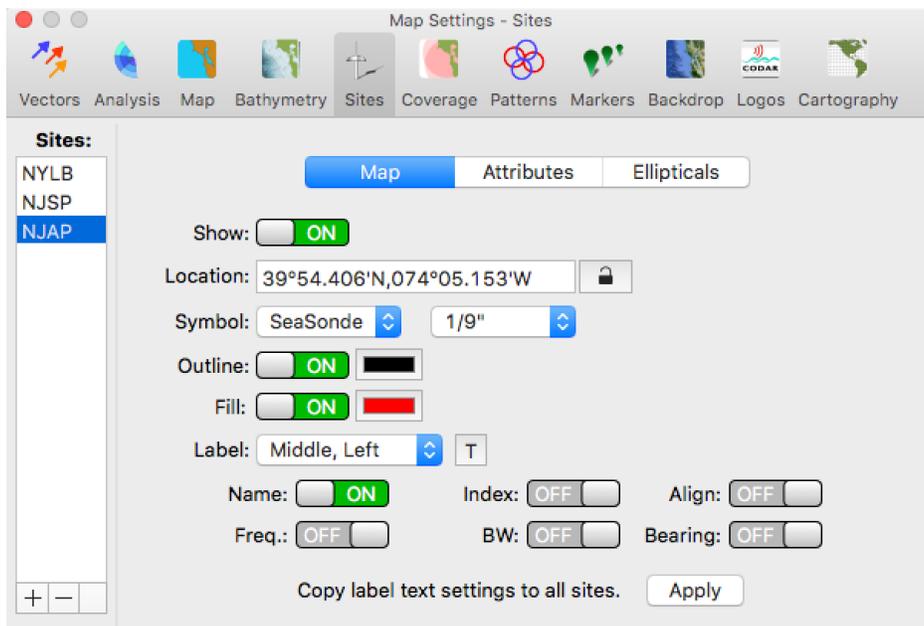
In Map Settings -> Sites, add a new site(s) either by dragging a previous total file onto the window or by dragging each different site radial/elliptical file onto the window which will automatically add that site to the map.

Or you can add a site manually, by clicking the “+” button below the site box. It will add a “XXXX” site with the location set to the center of the map. you’ll want to enter the actual location or drag the site icon on the map to your desired location. Then double click on the XXXX to rename it to your site.

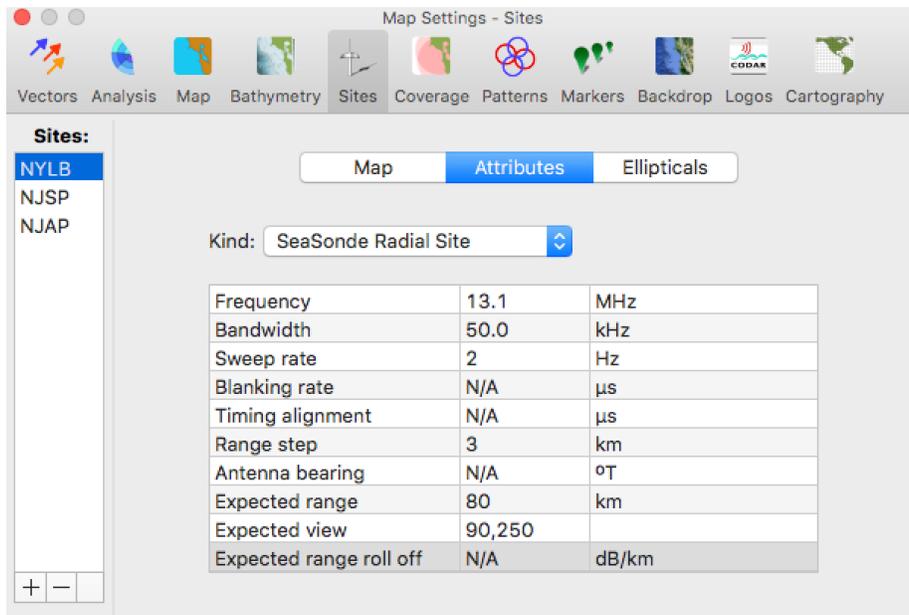
[Note, if you switch to another site or panel, the position will be locked and un-editable to prevent accidental movement. If you need to edit the location, click the lock icon.]



Add all the sites in your network.

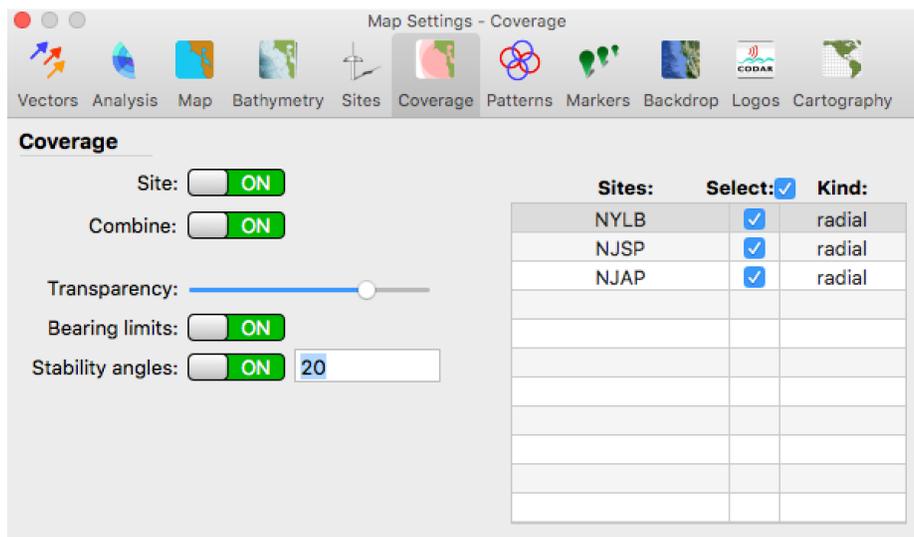


Next click on the “Attributes” button between “Map” and “Ellipticals”. Select each site by clicking on it and locate where it shows “N/A” between “**Expected Range**”, and “**km**”, then double click on the N/A. You should now be able to edit the N/A and enter a reasonable range for your site. Use 160km for 5MHz, 80km for 12MHz, 40km for 25MHz and 20km for 42MHz.



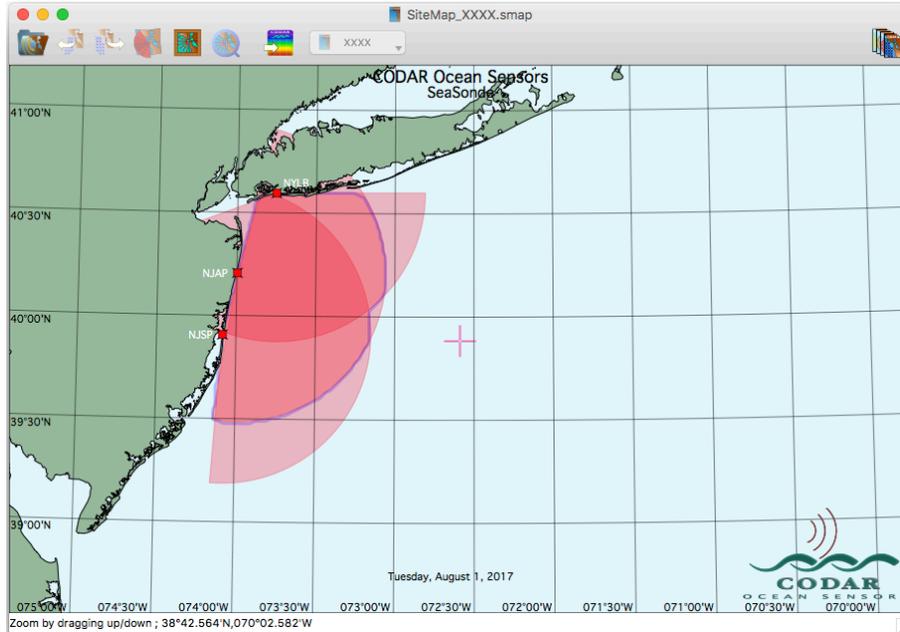
If desired, you can also set the **Expected view** angular coverage by double clicking on the **0,360** and entering a start and stop sector. You can measure these on the map by dragging the cursor starting at the site to the coastline bearing on the left hand side for the start and go clockwise to get the right hand side for the stop bearing.

Next, click Map Settings -> Coverage.



On the right, make sure the checkbox is check marked next to the site name, then click on **Site:** slider and **Combine** sliders to turn them from OFF to ON

The map will show a expected coverage area for the site as a pinkish overlay and the blue line is the combine coverage area.

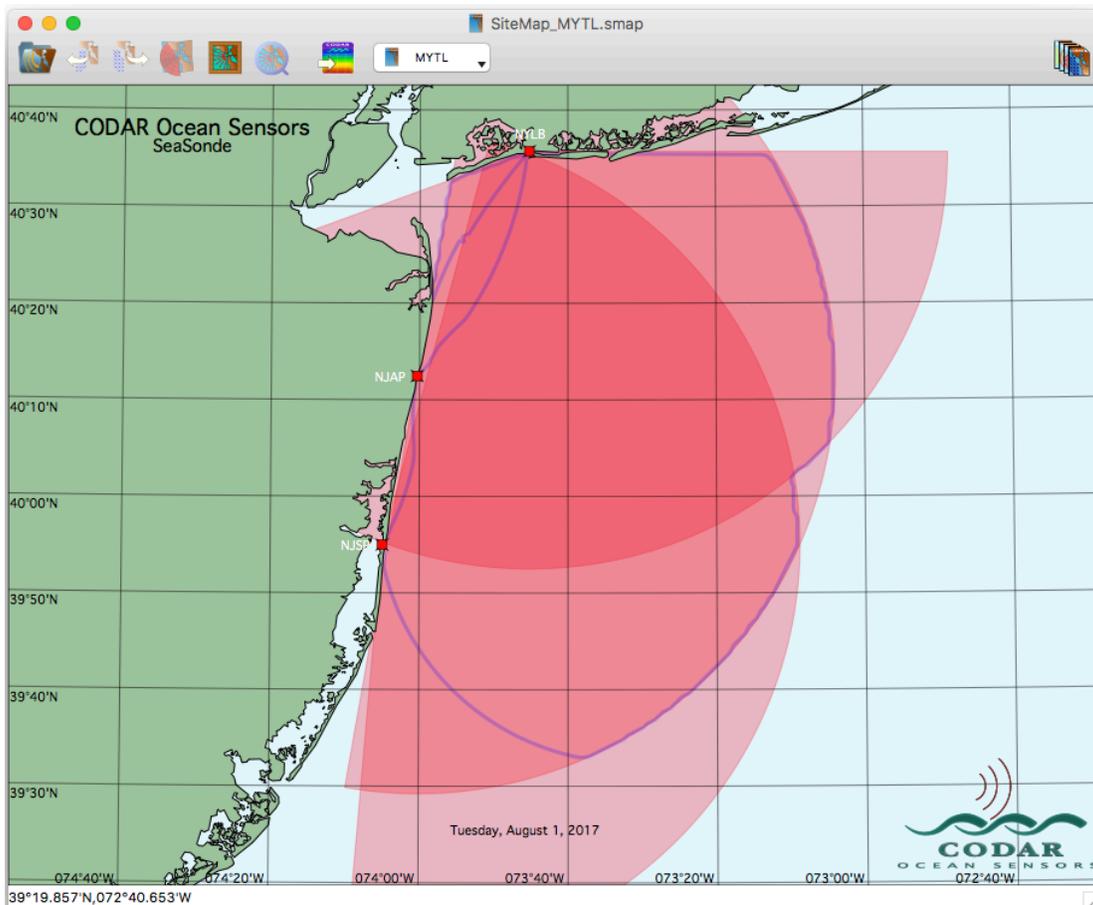


Click Map Settings -> Cartography so that you can now zoom in until the coverage area fills the window.

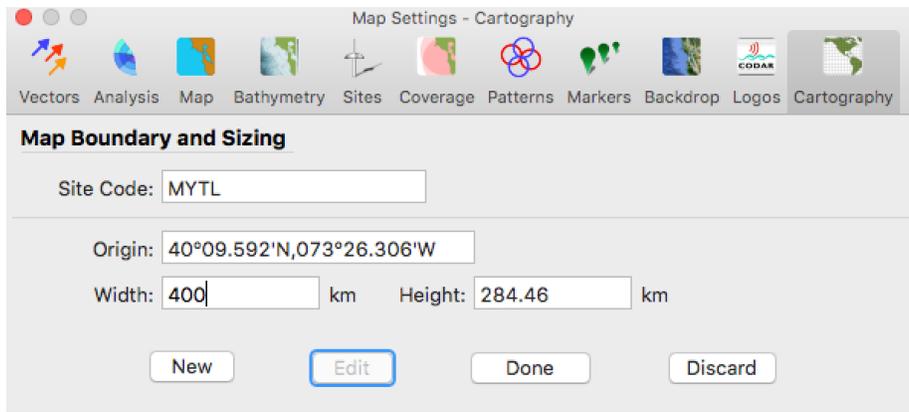
The screenshot shows the "Map Settings - Cartography" dialog box. At the top, there is a row of icons for different map settings: Vectors, Analysis, Map, Bathymetry, Sites, Coverage, Patterns, Markers, Backdrop, Logos, and Cartography. The "Cartography" icon is selected. Below the icons, the "Map Boundary and Sizing" section contains the following fields and buttons:

- Site Code:
- Origin:
- Width: km
- Height: km
- Buttons:

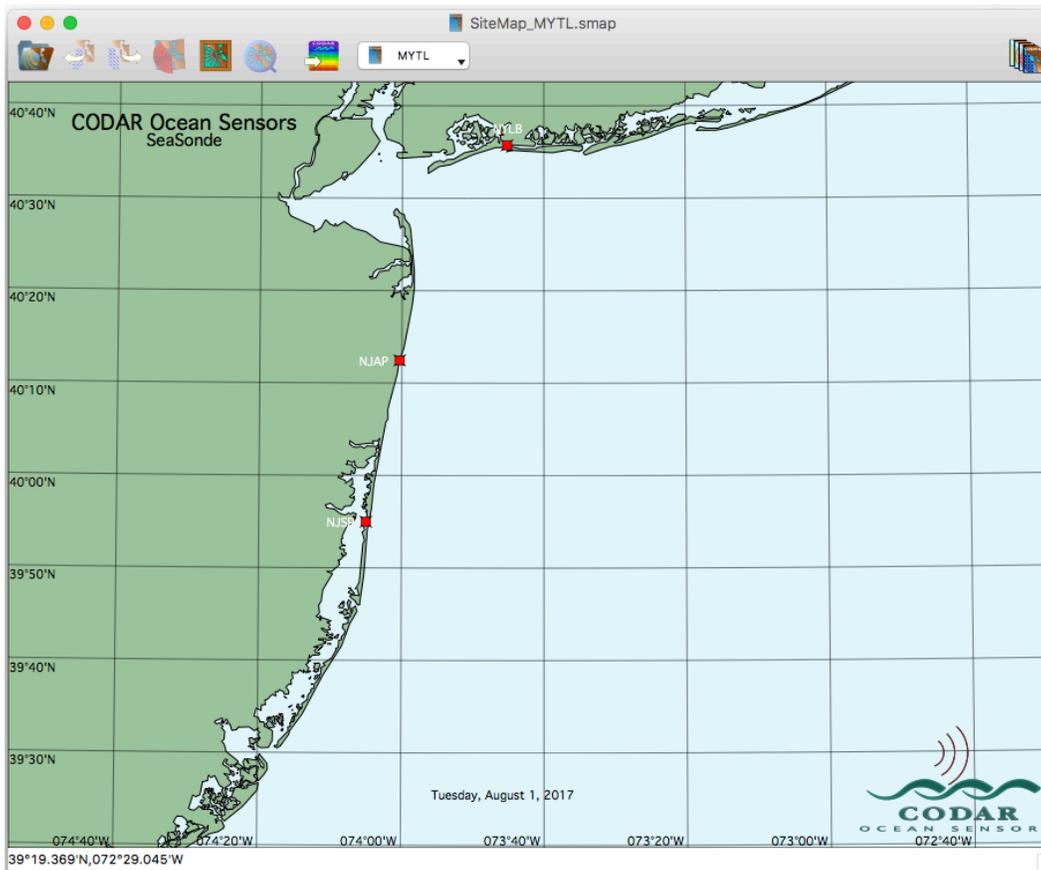
Use the zoom in methods previously mentioned to fill the map with the coverage area. Also, re-size the window by dragging any window edge to the preferred size. The now-difficult-to-see pink cross hair should be somewhere near the center of your coverage.



Once you've got the map view and window size to where you like them, go back to Map Settings -> Coverage and turn **OFF** the **Site:** switch, because typically you won't want to plot coverage with your current vectors. Go back to Map Settings -> Cartography and click the **Save** button. This will save the map as SiteMap_LOBO.smap in the SiteDefinitions folder and exit the Cartography mode. If there's already a site map with this name there, it will ask to replace it and move the existing one to the Previous folder.



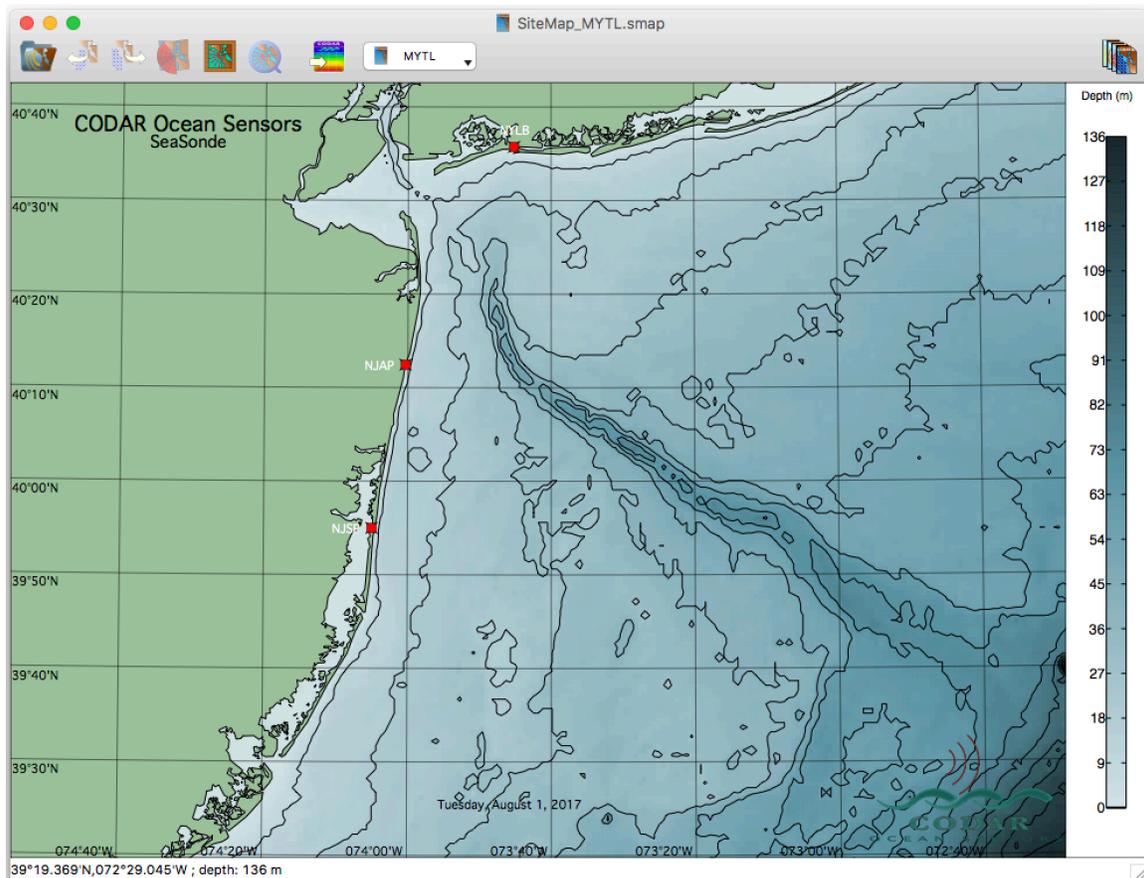
If you want revise your map's view after saving, you can edit it again by going to the File menu Modify Map item or to the Cartography panel, where you can click the **Edit** button. If you change the site code name, the **Save** button will change to a **Save As**.



The Cartography mode is only for adjusting the map coastline view. At anytime you can edit all the other map elements including coverage and bathymetry. Click on the Map Settings -> Map, where you can hide or show any element. You can also adjust the map land, water, coastline colors as well as all text

fonts and colors (“T” buttons). Note, that you can also enter unicode into the title and subtitle using cut/paste or the emoji & symbols window under the Edit menu. To edit other map elements like coverage and bathymetry, Select Map -> Coverage and Map Settings -> Bathymetry, respectively.

If you have the GEBCO database installed, it’s simple to add bathymetry, if desired.



You now have a new site map named “SiteMap_XXXX.smap” where XXXX is the site code you entered, The site maps are located in “/ Codar/SeaSonde/Configs/SiteDefinitions” folder.

The next step would be to use this site map with SeaDisplay to create a grid for combine processing; see next document “New_Site_Grid”

Revision History

Final Aug 1, 2017

First Revision Oct 9, 2017 – Cartography replaces Map Editing

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