Material for Workshop on NOAA Custom Charts

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I suggest reading the article in CPA's Chesapeake Paddler newsletter, even though it is version 1.2 vs. 3.0, at

https://www.cpakayaker.com/wp-content/uploads/2023/03/An-Update-on-NOAA-ENC-Files.pdf

Step by Step instructions with Navigation

1. Go to NOAA Custom Chart at https://devgis.charttools.noaa.gov/pod/
2. Place the "hand" on the area of interest, in this case the Chesapeake Bay Region of the U.S.and click to zoom into the area of interest, in this case, the Kent Narrows.
3. In the upper left hand corner, put your mouse on the "layers" icon (a stack of layers) and click. Choose the the level of detail you want on your chart (I usually use "All Datasets".
4. Still in the upper left hand corner, put your mouse on the "chart settings" icon (a grid) and choose the **scale, paper size**, and **orientation** you want to print on. Smaller **scale** numbers (e.g., 5000) cover less area, while larger scale numbers (e.g., 150,000) cover larger areas. I usually choose something in the neighborhood of 20,000. Choose the **paper size** you will print, I usually choose letter size (8.5 x 11) because it is the easiest to print and to carry and use in your kayak. Some printers can print larger sizes in a "poster" setting, but it is usually easier to just create multiple charts to cover the area you want to paddle in on any given trip, overlapping them slightly to see the transition. For example, if this was a trip to Eastern Neck, I might also print additional charts at this scale out to the island and around the shoreline, and an "overview chart at a larger scale number (e.g., 200,000) to get a synoptic view of the whole area. These would constitute a "chart book" for the trip. The **orientation** you use depends on the area you are trying to capture. Mostly you are interested in getting a shoreline or strait. In this case, we are focused on Kent Narrows, so I chose "portrait" to get both sides and the connecting narrows.
5. Click on "Create Chart" and move the mouse to approximately the area you want to capture on the chart. You can then use the "Move Chart" button to fine-tune the placement of your chart on the area you want to capture.
6. Still in the upper left hand corner, click on the "Compass Rose" icon (an upward arrow) to place a compass rose on your chart. You select which chart area you want to deal with (you can have several open at a time), and can then place up to three roses on the chart. I usually just want one on these 8.5 x 11 charts. You move the mouse to the area you want to locate the rose, and click to place it. You can then click "Move Compass Rose" to fine-tune the location. You can also delete a rose if you think it won't work too well for your chart. Try to locate roses in areas you won't want to examine closely for features, like open water or land. In this example, I place it in the upper right corner of the chart area.
7. Still in the upper left hand corner, click on the "Export Functions" icon (a chart with a downward pointing arrow). You will see two boxes: A Chart Catalog box and a Queue. The Chart Catalog gives you access to any personal chart catalogs you might have created. I personally don't use

this function since I store my completed charts on my desktop computer for quick access. The Queue shows the active charts you just created in the previous step. Choose one and it will zoom to the extent of that chart. You can then choose between 3 actions: export, save to chart catalog, or delete. Let's export the chart we've created to a .pdf file. This process takes a while as indicated by the greenish progress bar. When finished, the bar changes to an "Open" button. Click to open the .pdf file.

8. Your .pdf file will open in a separate tab of your browser. The first page is the chart, and the 4 subsequent pages are qualifiers and legal notes that are worth reading at least once. You can then download your chart to a file on your computer for printing and future use. You can of course print directly from this tab and NOT SAVE the file, but I don't see why you would want to either a) save it on the NOAA site which could disappear at any time or b) go through the process of recreating the chart again, so I save them locally for future use. I also have a .pdf editor, so I usually delete the 4 pages of bumpf and just save the chart itself, just to minimize the storage space and potential to print 4 extra pages of mostly legalize. When you save the chart, give it a meaningful name like "Kent Narrows" and maybe the scale. Once you get a library of charts saved, the default "Custom Chart ##" name is very unhelpful.

9. Examine the resulting chart.
    * It has a generic title of "Custom Chart" at the top, which I usually edit in my .pdf editing software to a more useful title like "Kent Narrows" to aid in figuring out where it is once printed and in my files.
    * The scale is printed at the bottom right of the chart.
    * Note the scale line on the right hand margin which can be used to check for distortions when you print the chart. Some printers DO NOT print true to scale. For example, my Canon Laser printer printed this chart at a scale of 5 11/16" compared to the 6" it was supposed to be, so all distances on the resulting printed chart are actually 95% of the actual distance. Not too much of an issue in usual coastal piloting, but something to bear in mind.
    * A grid of Lat-Long coordinates is printed in the margins which can be useful in describing your position (as long as you know roughly where you are) if you have to communicate with the Coast Guard or others.
    * Finally, the compass rose we placed on the chart is useful in converting true bearings to magnetic which are much more useful in communicating to others in your group or in taking positioning cross bearings using a hand-held compass to determine where you are on the chart. As an example, plot where you would be on this chart if the southern tip of the small island at the mouth of Goodhands Creek bore 280 deg M, the Fl G 4s 18 m "1K" light bore 150 deg M, and the Fl R "4" bore 70 deg M?

10. I print my charts on Terraslate waterproof paper (a kind of plastic paper available 25 sheets for $25 on Amazon) with a laser printer in color. This allows me to use the charts on deck without a map case. Given the cost, I retain printed charts for reuse, filed by State and in folders by general area (e.g., Kent Narrows or Eastern Neck, etc.). Beware that if you print using an inkjet printer, the ink is NOT waterproof and will wash off Terraslate paper. Cheap waterproof chart

cases for 8.5 x 11 charts are available on Amazon, 3 for $13 (see https://www.amazon.com/dp/B08C4HV99G/ref=sspa_dk_detail_1?pd_rd_i=B08C4HV99G&pd_rd_w=oFGdS&content-id=amzn1.sym.386c274b-4bfe-4421-9052-a1a56db557ab&pf_rd_p=386c274b-4bfe-4421-9052-a1a56db557ab&pf_rd_r=GM1SPMJ23PPG4T8QT487&pd_rd_wg=g2Qp9&pd_rd_r=7138e1a9-f304-4ce6-abf1-99f59ba1098f&s=sporting-goods&sp_csd=d2lkZ2V0TmFtZT1zcF9kZXRhaWxfdGhlbWF0aWM&th=1