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CCWEB Nautical Reports: How I learned to love raster charts and kick the scanner habit

by

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Summary

CCWEB Nautical reports normally include a “support file” that shows the effected portion of the chart. This can be done through the use of physical cut and paste, pen and ink labeling followed by the use of a scanner. I have found it more convenient, to use standard Microsoft Windows XP Home Edition tools to do this all with software and avoid most use of a scanner with my CCWEB reports

Finding the chart you need

The availability of the latest edition of NOS charts in raster form from Maptech allows one to electronically “cut” a portion of these charts, paste them into a support file and then label them with the items you will refer to in your report.

This can be done with the charts that are available on the Maptech web site (www.maptech.com) or directly from a Maptech chart CD. You use either your web browser or navigation software that supports Maptech charts. For this example we’ll use a web browser to visit the Maptech site (see figure 1).

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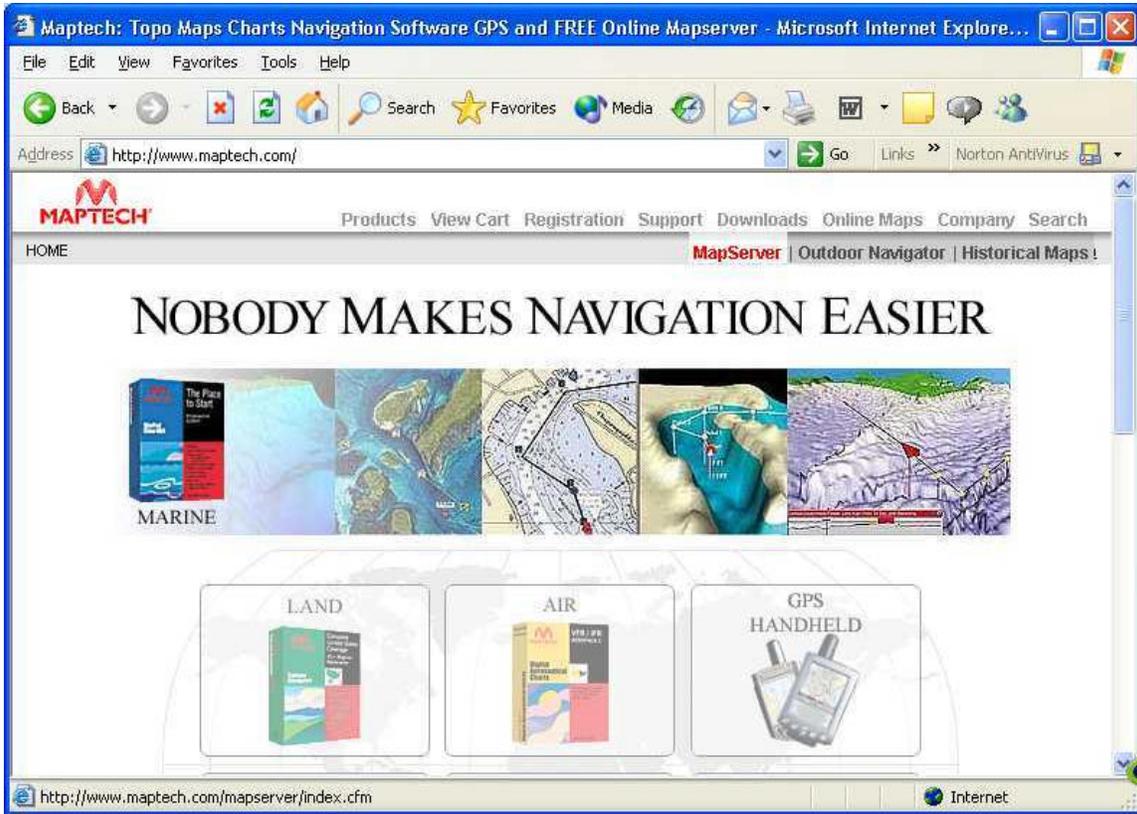


Figure 1. Maptech home page.

From the home page, go to the MapServer portion of the site and search by city/state or zip code for the particular nautical charts you need. See figure 2.

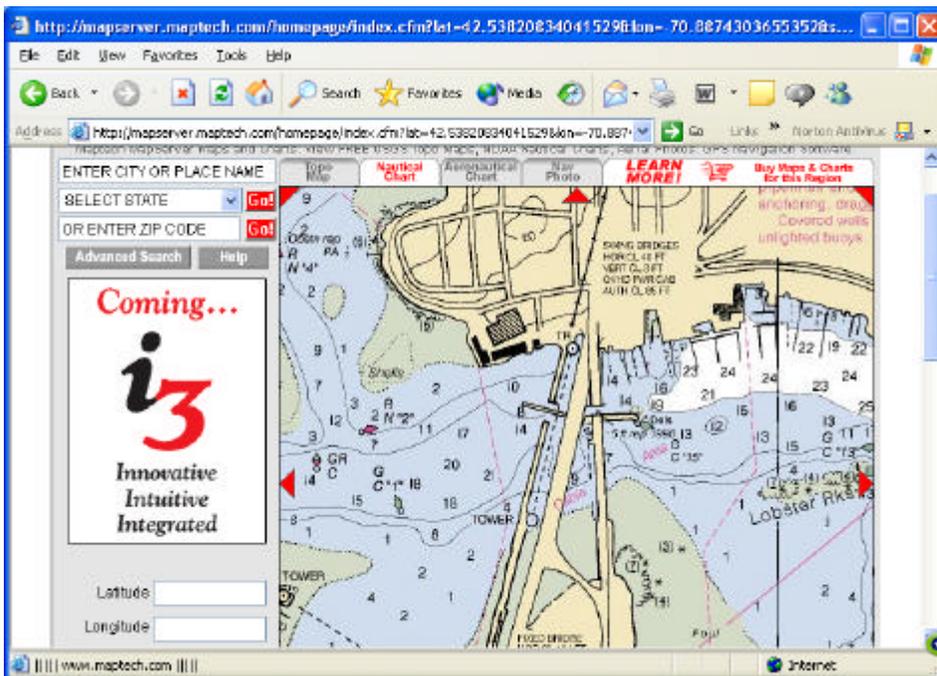


Figure 2. Maptech MapServer display of nautical chart.

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Capturing the chart image with “alt - print screen”

Once you locate the appropriate chart, you can pan and zoom in/out to display the charted area your CCWEB report will be referencing. Once you're satisfied with the displayed area, you can “capture” the entire active window image by simultaneously pressing the “alt” key and “print screen” key on your keyboard.

It's usually best to have your browser “maximized” to fill the screen before you do this. You may also want to remove some of the tool bars, status bars, and explorer areas of your browser. This is done by using the “view” pull down menu for Internet Explorer and un-checking the various bars you want to temporarily eliminate. This will maximize the amount of chart you can see on the screen and thus capture.

Copying a selected part of the chart image using Photo Editor

Once you capture the image, you now have to paste it into a blank image file for further editing. You can use almost simple photo editor program. I use Microsoft Photo Editor, which comes with Windows XP as “Microsoft Office Tool”. I first use the “file” pull down and “new” to create a blank file and then use “edit, paste” (or “ctrl-v”) to paste the image captured with “alt-print screen” onto the blank file. I then use the “select” feature of the tool bar to identify the particular part of the chart I want to copy. See figure 3.

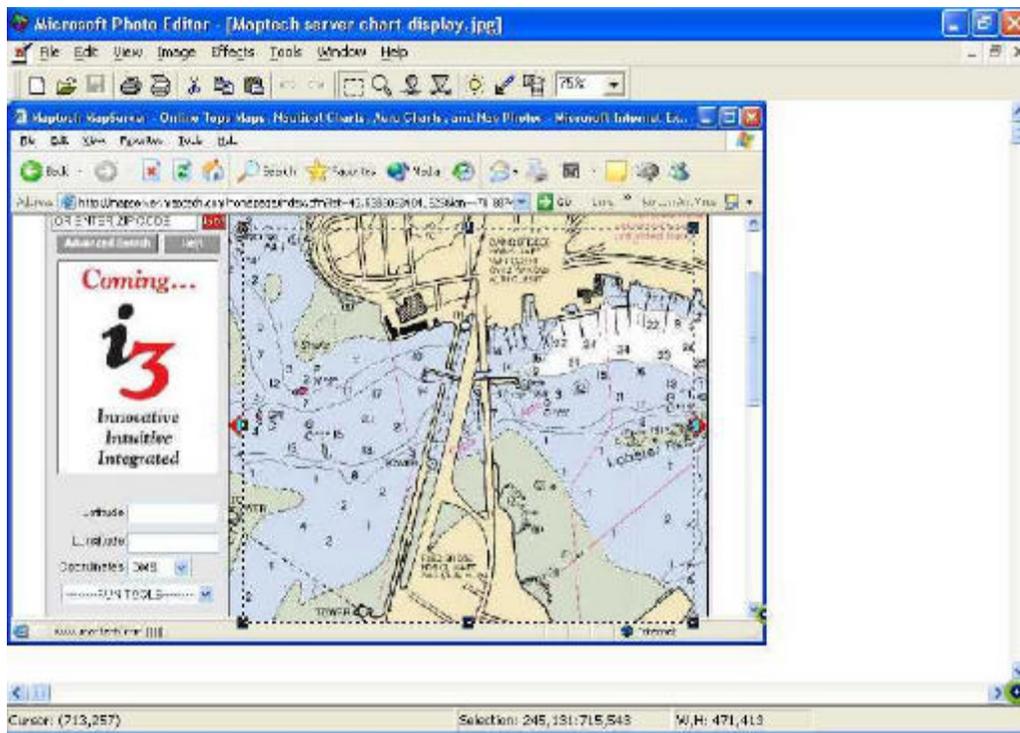


Figure 3. Selecting the area of the chart to “copy”.

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I then use “edit-copy” or “ctrl-c” to copy the selected area of the chart, create another blank file, and paste the “chartlet” onto the blank file. I then name and save this file as a .jpg type, which will become the future CCWEB Support file. This file now appears to be a blank page with a chart extract in the upper left corner. See figure 4.

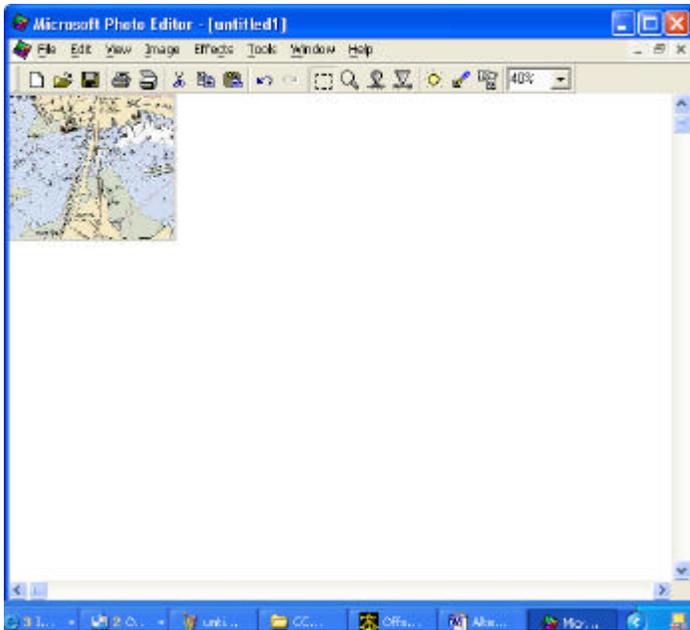


Figure 4. The blank support file with the chart extract pasted in.

Cropping the Support file

I then use Photo Editor to select the chart plus some white area to the bottom and right, where I can put in my labels. I then use the “image” pull down and “crop” to remove all the other area. The support file is now ready to be labeled. See figures 5. I save the support file again and close Photo Editor.

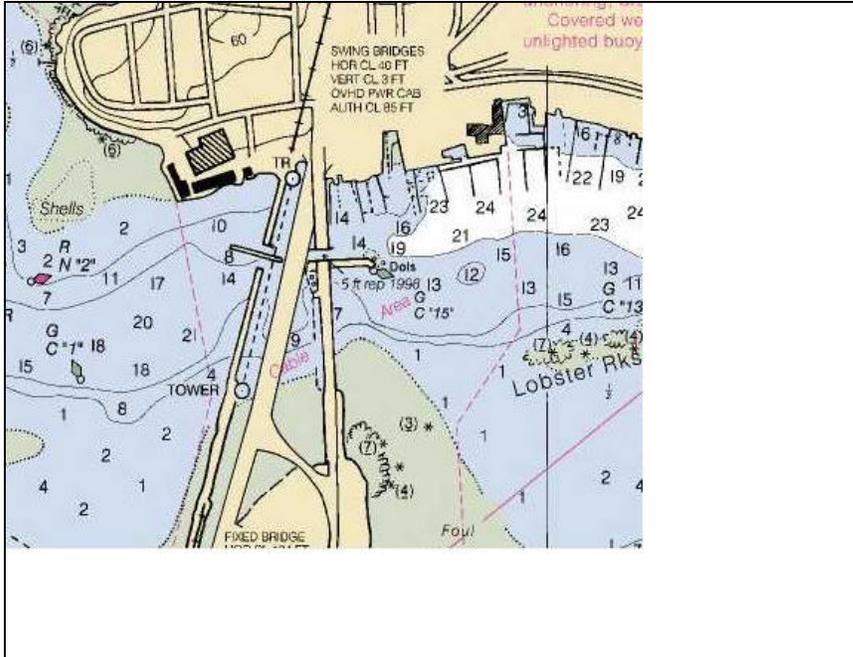


Figure 5. Chart extract in cropped support file.

Creating the labeled chart with Paint

I now launch the Paint program, which is included in XP as an “Accessory”. I then use it to open the saved support file, and then add the necessary labels. I can use Paint to create text boxes, draw lines, and choose colors and fonts. Following CCWEB conventions, I always include a text box label which identifies which support file it is by using a capital letter (e.g., “Support file A”). I usually label latitude and/or longitude lines that are in the chart, and then I label the “items” in the chart that will be referred to in the actual CCWEB nautical report. (“Support file items”). I also draw lines from the labels to the specific area of the chart being discussed. See figure 6 for an example of support file for Chart NOS 13276 which has an old bridge structure over the Danvers River which should be removed from the chart. The support file is then saved again, so it can eventually be uploaded the the CCWEB site, when completing the Nautical report.

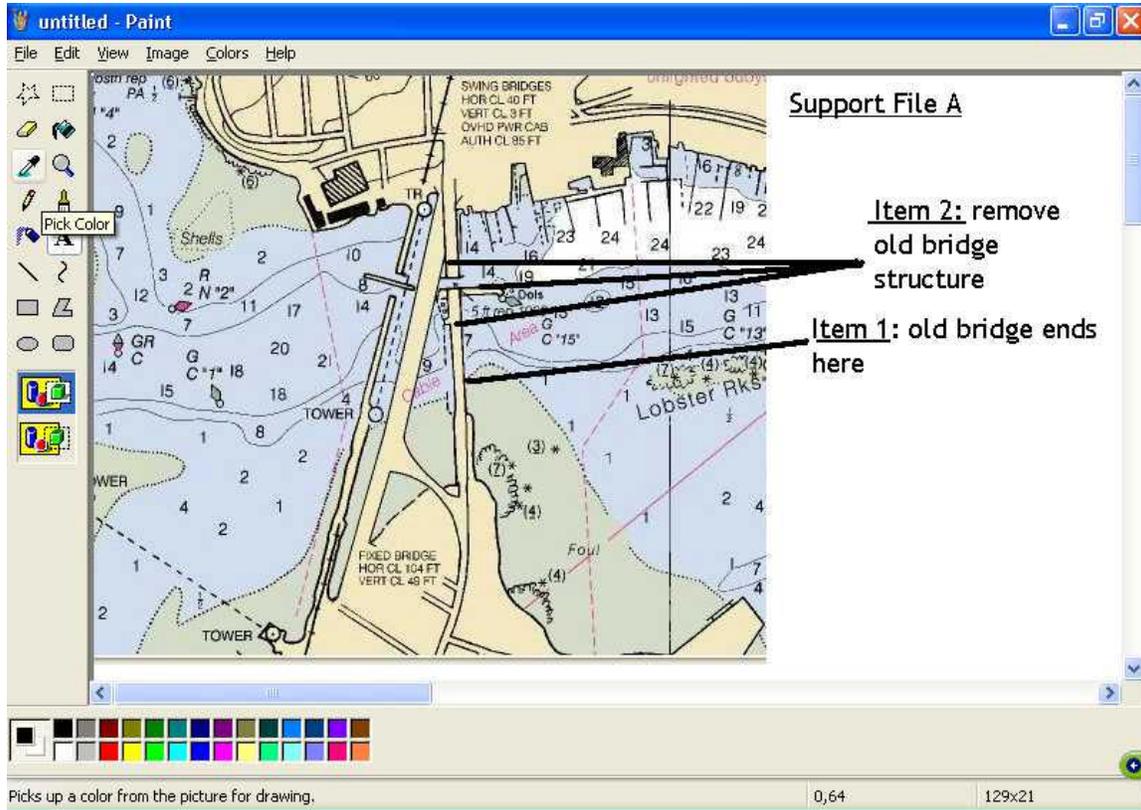


Figure 6. Using Paint to label a Support file and its items.

Conclusion

I'm really a novice with photo editing tools and am confident that with a full featured editing tool, there are faster ways to capture, copy, paste, crop and label a support file. The method I described, however, works for me and has the advantage that I only need the "standard" Microsoft photo/image tools I received with the home computer I purchased in late 2001. The basic approach should work with other tools as well.

I encourage CCWEB users to consider electronic cut and paste approaches as a faster alternative to the using a conventional scanner. The images and labels can be clearer and neater, compared to manually scanned paper images. This makes the reports easier to use by NOAA.