

Lab: Nautical Charts

(online version)

A nautical chart is a graphical representation of a maritime area and adjacent coastal areas. Think of it as a topographical map of marine, estuarine and freshwater areas for use by boaters and researchers. Answer the following questions based on the nautical chart found at www.charts.noaa.gov/OnLineViewer/11520.shtml. You'll need the zoom control in the upper left corner to navigate the chart. (navigate the chart? get it? lol)

1. This chart was created and provided by what government organization?
2. When was this chart last updated? (bottom left corner)
3. Describe the general location of your chart within the state of North Carolina.
4. Name the ocean depicted on your chart.
5. Name a dominant river depicted on your chart.
6. What is the closest major city to the area depicted?
7. What is the range of latitude shown? (given in degrees (°) and minutes (′) along the sides)
8. What is the range of longitude shown? (given in degrees (°) and minutes (′) along the top and bottom)
9. In the upper right and lower left there are two concentric circles. The inner circle of the compass says “magnetic”. What does this indicate and why does it not line up with the outer circle?
10. Towards the top there is a scale. What is the scale used? What are the two units of measurement?
11. “Note F” to the right of the scale mentions the habitat of what endangered species?
12. The numbers throughout the water are depths, given in feet at “mean lower low water”. What do you think “mean lower low water” might be referencing?
13. What is the largest depth you can find on this chart?
14. What is the smallest depth you can find on this chart?
15. Identify and describe an underwater area with a steep slope. (depths changing rapidly over a small distance)
16. Identify and describe an underwater area with a gentle slope. (depths changing slowly over a large distance)
17. Why is depth important information on a nautical chart?
18. There are several locations off-shore that are designated “Obstn Fish Haven”. What do you think this means and why might it be important to note on a nautical chart?
19. Shipwrecks are identified by a picture of a tipping ship or a ship frame.  Find a shipwreck and describe its general location and water depth. With that in mind, why might that ship have sunk?
20. Name three inlets on the map. Why are inlets important?
21. Where are marshes generally found on your chart?
22. Several areas are marked as “no discharge zones”. What does this mean? (see note Z) Under what legislation are these areas protected?
23. What do you feel would be the three biggest human impacts on this area?