DQWG PowerPoint Presentation at NIPWG 7

NGA Comments

1. My main comment concerns horizontal accuracy (HORACC) and vertical accuracy (VERACC) concepts on the slides titled "**Vertical Example—Sounding at 10.6m**" and "**Vertical Warning for Individual Soundings**:"
    a. The charted sounding is 10.6m.
    b. The quality symbol is 4 stars (Category B).
    c. Hydrographic calculations indicate the depth (VERACC) at this point could be as little as 9.4m, with a potential deviation of as much as 50m from the charted position.
    d. I am assuming the VERACC and HORACC calculations would also apply to the charted depths of 9.9m and 10m, with even lesser potential depths than calculated for the 10.6m sounding.
    e. I don't think the proposal for an ECDIS Safety Alert at 1.5 nautical miles is the **complete** solution for this issue. If the depth may be as little as 9.4m, the mariner should learn this information in the voyage planning stage, not 1.5 nautical miles away from the potential danger. For example, at a speed of 10 knots, this would only provide a warning time of 9 minutes, and could be problematic, especially since this example implies a vessel is transiting in a buoyed channel between shoal water.
    f. Alternatives to displaying the 10.6m sounding in conjunction with an ECDIS safety alert could be:
        i. Display a warning in the vicinity of the 10.6m sounding or in conjunction with the buoyed channel stating "Depths of a little as 9.4m may be encountered" or words to that effect.
        ii. Show the sounding as 9.4m.
        iii. Display a warning in conjunction with the buoyed channel with a recommended maximum draft for the channel.
        iv. Display a warning in conjunction with the buoyed channel with a mandated maximum draft for the channel.
        v. Adopt the Finnish procedure of designating channels with a designated depth/draft value. I do not remember if the value represents the minimum depth of the channel or the maximum draft allowed in the channel.

    My big concern is if Hydrographic Offices subject themselves to any sort of liability over this, especially if the difference between the charted depth and the potential least depth is substantial.
2. The rest of these comments are relatively minor and deal with the quality symbols themselves, as follows:
    a. The quality symbols themselves, as well as the number of * within the quality symbol, can be difficult to distinguish.
    b. What is the "anchor point" (pivot point?) of each quality symbol (latitude/longitude?) relative to the chart?

c. Where is the boundary between groups of different quality symbols? Is it an equidistant line between the quality symbols or is the boundary determined in a similar method as determining bathymetric contour lines? How is the difference between two areas of quality symbols visually depicted? Comment number 2a above applies.
d. How useful are the current Zone of Confidence (ZOC) chartlets on hard copy charts to the mariner? Are they used at all?
e. Would the quality symbols be used more than the ZOC chartlets? Would they be more accurate than the ZOC chartlets?
f. What metadata would be available concerning each area of quality symbols, especially concerning when the surveys were conducted, how they were conducted, etc.?