

# BOUY BASICS

## Understanding What Buoys Are Trying to Tell Us

*Clarifying some confusion about some buoys frequently found in Northwest waters.*

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By  
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Based on what I have seen and the questions many students ask, there seems to be some confusion around navigational buoys. For example, on the first day of class we frequently go past a buoy just off Pt. Francis (see Figure 1). It is a red nun marking a sand bar which we need to keep to our starboard. The students often ask, "Why are we keeping it to starboard since we are leaving port? Isn't it supposed to be 'Red Right Returning'?" Good question, read on for the answer.

Before we get started I would like to set some limits as room is limited. This discussion will cover only the buoys frequently seen here in Northwest waters. The second limit is day-time use only (lights are not covered). The intent is to share some tips and information that are not obvious. If you want more detailed information about buoys and their lights do some reading in something like Chapman's.

Most of the buoys used by the Coast Guard in our local waters fall into the four categories discussed below:

**Channel Buoys:** These are the most common and are used to mark channel boundaries, harbor entrances and rocks. There are two flavors, day marks and buoys. Day marks are firmly attached to land while buoys float, but their meanings are identical.

Nun buoys and respective day marks are red and have even numbers painted on them. Nun buoys are conical and day marks are triangular. Can buoys and respective day marks are green and have odd numbers assigned to them. Can buoys

are cylindrical while their day marks are square.

Over the years, I have noticed several misunderstood things about channel buoys. First, the "Red Right Returning" rule only applies when you are actually entering or leaving a harbor. And I mean truly entering, not a mile away.

And even this rule has exceptions to it. Petersburg, Alaska is a good example (see Figure 2). Note the buoys are reversed from normal. This is because Petersburg can also be entered from the west on the same channel. And it could be confusing and dangerous to have the buoys change sides part way through a channel. Apparently someone decided it would be better to have one entrance be backwards. But just to show things are not consistent, the buoys do reverse in the middle of one of our local waterways, the

Swinomish Channel. And this does not happen at a port, it appears to happen at a random location.

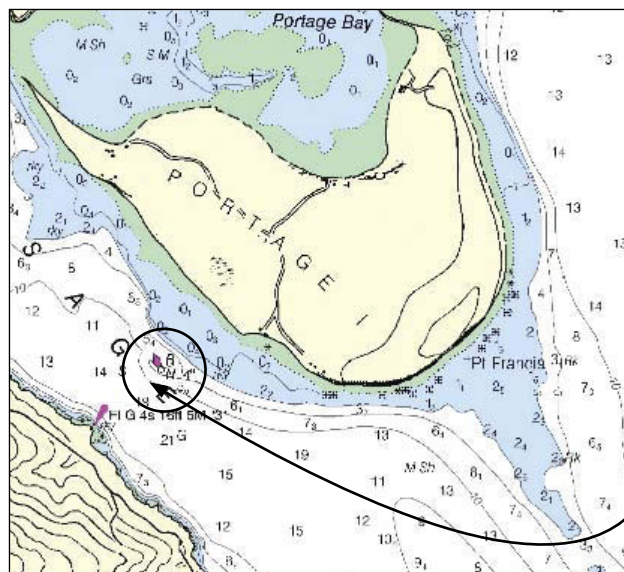
The next bit of information is the answer to the question my students ask about the buoy in Figure 1. Generally, buoys not in the entrance of a harbor are placed to keep nuns to your right when you are traveling north. Please note this is reversed on the East Coast. The intent of this rule is to have dangers on the starboard side of a boat leaving Maine and traveling south around Florida, west through the Gulf of Mexico and north up the West Coast all marked with a nun buoy. Again, there are exceptions to this one also.

And, if you really want a brain twister try boating elsewhere in the world. Most other regions of the world reverse the nuns and cans. In other words, it becomes "Red Right Going". Read the travel guides or other pertinent documents to be sure which system is being used. We are in Region B, most other countries are in Region A of the IALA Maritime Buoyage System.

While knowing the above information might help one understand most buoy placements, there are too many to exceptions to depend on these rules. Instead, know where you are and *read the charts!* By knowing your position in relation to the buoy, and where the danger is in relation to the buoy, you can safely steer around both.

**Junction Buoys:** These buoys are used to mark a split or danger in a channel. The main difference between a junction buoy and a channel buoy is that channel buoys should always be passed on one side, whereas junction buoys can be passed on either side. Basically, they are telling you "There is something dangerous behind me. You can go around it either way, but go around it."

These buoys are marked with three colored horizontal stripes – either Red-Green-Red or Green-Red-Green. On charts they are denoted as RG or GR. If you want to use the primary channel, treat the buoy as if it were the color of the top stripe. For example, if you came to a GR buoy and wanted to use



*Figure 1: Arrow shows route from Bellingham into Hale Passage. Note red nun on right side of channel by arrowhead.*

the primary channel treat it as a green can.

The trick to these buoys is to understand they are directional. If you are going up the main channel toward one of these buoys you have the choice to go either side of it. However, should you head toward it from the side, going around it one direction will be safe while the other direction likely take you right over the danger. This is again a situation where it is really important to understand the danger being marked, where the buoy is relative to it and where you are relative to both. Therefore, it is imperative with junction buoys to read your charts.

Figure 3 shows the junction buoy off Point Migley at the north end of Lummi Island. The dashed lines show the two possible routes around the obstruction, which is Lummi Island. The placement of this buoy brings up another interesting point, buoys around shipping lanes are placed more conservatively. The junction buoy in Figure 3 is placed on a small sea mount with a depth of 2 fathoms 3 feet (15 ft.). If you look close at Figure 1 you will find places where these same depths are not marked. The difference is the type of traffic frequenting the waters. Oil tankers use the waters off Lummi Island, while small vessels are the only traffic traversing the area in Figure 1.

The solid curved arrow in Figure 3 is the route we take when going by Pt. Migley. Yes I know, we are breaking the

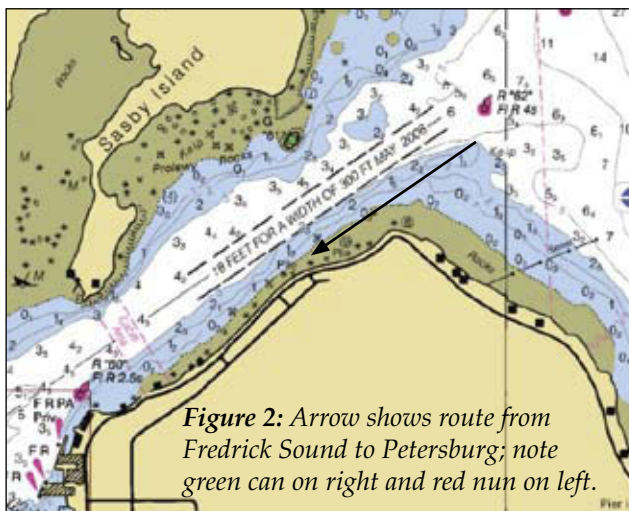


Figure 2: Arrow shows route from Fredrick Sound to Petersburg; note green can on right and red nun on left.

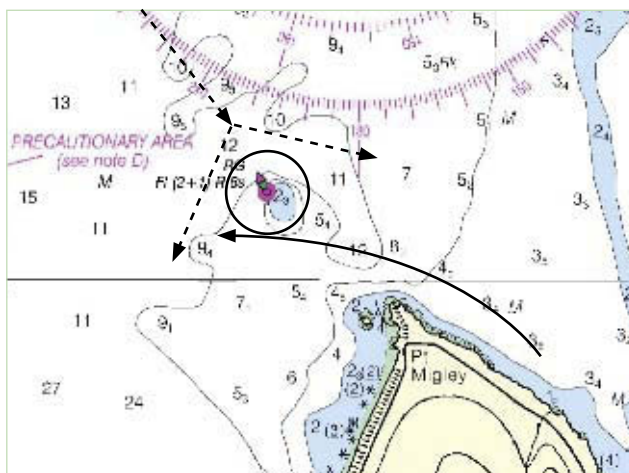


Figure 3: Dashed lines show both routes around a junction buoy.

rule of going between a junction buoy and its obstruction. But if the small sea mount were not there this buoy would be right next to the point and the waters between the mount and the island are clear. This again boils down to reading the chart.

**Precautionary Buoys:** These buoys mark either the entrance to, or a change in direction of shipping lanes. They are always in relatively deep

water since they are in the middle of traffic lanes and they are yellow in color. I have seen boats almost hit them; I assume this was because people did not expect to find a buoy out in deep water. Also, if you are around one of these buoys you are in or near shipping lanes. Remember, the ships in these lanes have the right of way (even over boats under sail) so stay well clear.

**Cautionary Buoys:** These buoys are used to indicate areas of danger (reefs, kelp beds, etc.), no wake zones, speed limits and the like. These are the white cylindrical buoys with an orange diamond on them. Inside the diamond is a message, such as 'No Wake'. There are no real guide lines or rules around placement of these buoys. However, those marking a danger are usually placed between the danger and the most commonly used routes. Those marking no wake zones and speed limits are usually placed near the entrance to harbors and narrow/sensitive areas.

You may have noticed reading charts is the common theme of this article. There is no better way to understand what a buoy is trying to tell you. Be safe and have a great fall season.

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