

# On Calling Marks.

By Tom Collins

Seemingly one of the most basic functions in running a Cruiser Navigation Rally is that of calling “MARK” at a checkpoint so that the time can be recorded by the observer. And, indeed it is, except that there are things the skipper can do to finesse the procedure to improve accuracy (and possibly score) for the recorded time. I’ll review a few that come to mind.

Call the mark as closely as practical. The Rules state, “The call “Mark” shall be at the time at which the checkpoint is first abeam while on course from the previous checkpoint”. The greater the distance the boat is from the mark, the greater the possibility the mark is not called exactly perpendicular to the course thereby introducing a small error. Additionally, if a turn is being made at a mark, such as a buoy or daymark, any error in the predicted vs. actual distance off will be manifest as an error in the actual distance run on the next leg.

From my experience, people invariably underestimate distances on the water. For example, we added a feature to a contest where we offered a special prize for most accurately judging a distance of 100 yards. We did this by asking the skipper to call a special mark 100 yards before reaching a buoy and then to call the regular mark when abeam the buoy. It was a simple matter to compute the distance given the speed and the two times. Remarkably, no-one nailed it. Most called it at 300 yards or more and the winner called it at slightly under 200 yards.

In order to minimize that type of error, try to minimize the distance off of the mark where practical. The Rules state “The passage distances for the checkpoints, as stated in the contest instructions, are maximum distances and contestants shall pass within these limits, safety permitting. If no distance is specified, 50 yards shall be the maximum”. I like to use 15 yards or about a boat length on smaller buoys and 25 yards on larger ocean buoys to maximize accuracy. If the rally instructions specify that a mark is to be visually called at a distance, then try to find something to line up as a range on the mark to minimize the error.

Of course, calling the mark accurately is only half the job. It also needs to be accurately recorded. While the skipper isn’t allowed to look over the observer’s shoulder during the process, he can do certain things to help see that the time is recorded accurately. Begin by providing an easily read digital clock with a large readout and without any buttons that could be inadvertently pushed to alter the displayed time. Then give the observer plenty of warning that you are about to call a mark. A minute or two before

reaching the mark, tell the observer what mark you will be calling and how you intend to pass it, i.e. port or starboard and the planned distance off. About 20 to 30 seconds before reaching the mark say "Prepare to mark" and note that the observer has picked up the clock and pencil and paper. As you reach the mark at about six seconds prior say "Get ready" then at about three seconds say "Get set" and just exactly when the mark is abeam, speaking in a loud voice, call "Mark". I find that the loud voice on "Mark" is important. There is nothing worse than to have the observer ask "When are you going to call mark?" a while after you've already passed it!

In previous years some skippers had printing clocks. These had the advantage of eliminating any possibility of error in reading and recording the time read. I haven't seen them around lately and I'm not sure they're still available. However, I was just made aware of an app for smartphones that does essentially the same thing. For the iPhone it is called Timestamp. When started it synchronizes itself with National Bureau of Standards time and displays time down to 1/10 of a second. Each time the button is pressed it records the time and later the list can be scrolled to view the times recorded. Even though this is a nice program that can potentially provide great accuracy and eliminate mis-reading the time, it still provides buttons which offer the opportunity for inadvertent mistakes. Somehow, from my point of view, there is nothing quite so reliable as the trained observer with a large easily read time display and a pencil!

There is one other way to provide a backup to verify accurate mark calling and time recording. If Coastal Explorer is used as a chart plotter during the rally, the tracking function can be set so that the exact time can be read throughout the course traveled. To do this, first be sure the computer clock is synchronized with WWV then turn on the Coastal Explorer tracking function and in properties set tracking by time interval on and set the time interval to 1 second. Turn off tracking by distance interval and course change. Now, after the rally you can zoom and click anywhere on the track and a popup window will show the exact time the vessel was at that position. This can be used to verify recorded times along the route and has been invaluable in resolving errors discovered during scoring.

One last type of mark I should touch on is the calling of ranges. Sighting a range is fairly basic and can usually be done with good accuracy. However, particularly with ranges that are well off of perpendicular to the course, realize that it is critically important that the boat be on track to avoid the inherent distance error that can result when not on track. Finding a range to maintain your track on course while calling the range can be very helpful in this regard.

Good Luck!