



SEAMANSHIP

By Capt. Don Fleming

Night Plight

Running at night can be harrowing.

Here's how you can keep your blood pressure down.

Running a boat at night can either be incredibly serene or a nightmare. Even experts can become disoriented and unsure of their position in the dark, increasing the potential for collision. Finding landmarks like a light-house or buoy can be difficult at night, and paradoxically, the abundance of background light from shore can make matters worse.

However, with a little preparation, nighttime passages can not only be safe, they can be downright enjoyable. Here are some tips to remember when you're planning your next voyage after dark.

Whenever possible, make notes on daylight runs so you can refer to them when you make the same passage at night. Get to know your harbor inside and out, and pay particular attention to landmarks (buildings, church steeples, shore lights) that will help guide you in.



Night-vision equipment lets you see and avoid obstacles and other vessels without the use of a searchlight.

Running Lights. At night, you must be certain other boats can see you, for your safety as well as theirs. Just one bad running light can make you invisible, so before heading out on a night passage, check all your lights, and check them occasionally while you're underway. And always carry spare bulbs. Coast Guard personnel can and will terminate the voyage of any vessel with faulty running lights. If you're stopped for a running-light violation that could mean personnel will escort you to a dock that's convenient for them where you can make repairs or wait for daylight.

Interior Lights. It takes a few minutes for your pupils to dilate enough for good night vision, yet when they're exposed to bright light it takes only a second or two for them to contract. To preserve your night vision, dim all light sources including electronic displays. Red has the least effect on night vision, and combination white/red lights are a good idea for the helm because the white light is readily available when you need maximum visibility. For the same reason, use caution when using your searchlight. Keep the beam off the foredeck, and remember, Navigation Rules forbids you to aim your searchlight into the pilothouse or helm station of another vessel.

Night Lights. Lights on navigation aids, particularly on buoys, can be deceiving at night. Many are designed to blink at different

intensities to conserve power. You may want to use a stopwatch to accurately time the frequency of the flashes so you can positively identify a buoy. If you can't find the light of the buoy you think you should be near, stop and look around. You may have passed it or be on the wrong side of it. Once you locate a buoy, shine your light on it, then identify it positively by comparing the numbers or letters on it with those on your chart.

The Lookout. The best crew arrangement for night running consists of a helmsman, navigator, and one or more lookouts. However, there are often only two people aboard and occasionally just one, so focus on the jobs rather than the personnel. By law, a lookout(s) must listen as well as look. He or she should continuously sweep the horizon, looking for other vessels, and remember to look aft occasionally, too. Lookouts must know the light configurations of common vessels such as other powerboats, sailboats, and especially tug/barge combinations. They also need to understand how these lights appear to change as a vessel's angle of approach changes.

High-quality binoculars with a built-in bearing compass will allow the lookout to quickly determine target bearings, which can be compared to radar images (if they're available). Usually an "eyeball fix" is all you need to find a radar target, but for more accuracy you can activate the radar's electric bearing lines (EBL) and variable range markers (VRM).

Of course, today's high-tech lookout package also includes night-vision equipment (see "Night Watchmen," November 1994), which not only helps you avoid obstructions but also helps preserve your night vision.

The Helm. The helmsman is busier at night, especially in a short-handed situation. Steering an accurate course, dodging everything from lobster pots to ships, and often serving as primary lookout are all more demanding in the dark. An autopilot can help, but it can be a potential hazard if you become distracted by other duties. Always keep your eyes on the water first, and don't be afraid to stop the boat to check things out. In fact, Navigation Rules directs you to slow down or stop whenever you need time to assess a situation.

The Captain/Navigator. The captain/navigator is ultimately responsible for the safe passage of the boat, and at night that means knowing Navigation Rules. You are required to carry a copy of this publication onboard if your boat is more than 12 meters long; I advise everyone to keep a copy at hand. For nighttime navigation, your best navigational tool is a traditional chart. With a course plotted on it. On all but the largest yachts, a plotting board with built-in pantographic ruler (like the BB,A Chart Kit board) is more convenient than parallel rulers. Electronic charts and plotters are great but should not replace a paper chart or the skills you need to use one. In any case, because their position accuracy depends on the accuracy of the GPS or Loran system, electronic fixes should be at least occasionally plotted on a paper chart. Unplotted GPS or Loran fixes may lead the boat into danger since not all electronic chart displays provide complete information on rocks, shoals, and other hazards.

The Radar. Besides assisting in collision avoidance, radar can also be used to fix positions. To do this, first stop the boat. Turn your paper chart so your plotted course faces forward. This way both the radar's heading marker and your course line are pointing the same way. Once you adjust the radar's range scale to that of the chart, use the screen and the chart together to coastal features. Pick a feature on the radar screen—say a bluff or prominent pier—and sweep the EBL on top of it to determine its bearing and the \R.14 to determine its range. You should have enough information to plot a line of position on the chart based on the feature's position. Repeat this procedure with two other features and you'll have an accurate position fix on the chart.

The Harbor Entrance. You must use caution entering a harbor after a night passage. Fatigue, exhilaration, and overconfidence can lead to potentially disastrous mistakes. Be sure to change to the harbor chart and have your course plotted before you enter. Also set the radar screen scales to match those of the chart as much as possible. Work your way in slowly and cautiously using all your navigational tools, especially if the entrance is tricky—say with unlighted buoys marking a complex channel. Be aware that background shore light may obscure the lights of an outbound vessel.

In spite of all these cautions, don't be intimidated by a night passage. Start with the basics and practice under low-light conditions in familiar waters to build your skill and confidence. The tranquility of a pleasant summer night cruise can be yours if you prepare for it.

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For more information or a copy of Navigation Rules, International-Inland, contact U.S. Department of Transportation, Dept. PMY, United States Coast Guard, 2100 2nd St. S.W., Washington, DC20593-0001 (202) 267-0406.