

Between a Rock and a Foggy Place

Techniques for Low-Visibility Navigation

BY PETER PISCIOTTA

Treacherous rocks are strewn about Stillwater Cove like used confetti. Kelp fronds threaten props as they drift in the wash from the breakers crashing on the jagged cliffs of the rugged northern California coast. Here, some 100 miles south of San Francisco, the fog plays dirty, instantly materializing and casting ghostly apparitions in the damp malaise.



Fog can roll in without warning, especially if you're cruising in Northern California. But rain, snow and darkness all constitute low-vis conditions. Practice is the best way to prepare for it.

The radar is tuned to its closest range, and still you wish for more detail, fearing that the treacherous Pescadero Rocks are dead ahead.

Fogbound as Stillwater Cove is, it's a better option than transiting another 100 miles of open ocean along

the notorious Big Sur coast.

Reduced-visibility conditions, combined with close quarters, can create any manner of dangerous and stressful situations that the skipper must manage. While modern electronics offer recreational boaters

precise navigational data unheard of even a few years ago, the safety of the ship and crew still rests on the captain's shoulders. At times like these, experience and prudent decision making are everything.

What constitutes reduced-

visibility conditions? It depends on the vessel and the operator. Many people would consider night operations to be dangerous.

When you must operate in reduced visibility, the following points may help.

Practice More

It takes time to become comfortable with instrument navigation, so set aside time to practice low-visibility maneuvering. Radar instructors will cover the pilothouse windows to simulate blackout conditions.

Have an experienced observer aboard as a safety monitor while you maneuver. Ten hours of practice spread over five weeks can vastly improve your confidence when conditions deteriorate.

Proceed with Caution

This means more than going slowly; it means doing whatever it takes to be certain of your position, course and safety. You may need to review paper charts, listen for buoy signals or verify navigation lights. If you don't have confidence in your location, stop the boat and review available data until you are certain.

Don't Rely on a Single Data Source

Chart plotters can be mesmerizing. Nothing is more intoxicating in low visibility

than feeling that you have a bird's-eye view of exactly where you are. But plotters have limitations: They reveal only stationary objects present at the last update.

Storms can shift buoy locations and silt-in harbor entrances. And GPS-driven chart plotters derive their accuracy from a complicated chain of technology. Computerized navigation systems rely on satellites, computer hardware, software, sensors and wiring. The failure of any link could lead to a system crash or, worse, erroneous information. A system lockup may not be immediately noticeable.

Verify the chart plotter information with other sources, including radar, depth sounder, paper charts, and experience. Search for ways to corroborate informa-

tion: Verify navigation aids (buoys, range lights, etc.), and know what light and sound patterns to expect.

If something doesn't make sense, don't force a solution. Stop the boat and reconcile your position and course.

Bond with Your Radar

Many yachts have radar, but few recreational boaters use it regularly. Chart plotters tell you what *should* be there; radar tells you what *is* there. Radar images are reliable, but they require interpretation and adjustment, especially in heavy weather conditions that absorb radar waves. The screen may be awash in clutter, and it takes practice to confirm actual targets.

Learn to adjust your radar manually, not just rely on the factory autoadjust settings. New radars have

the ability to track and display targets via GPS (ARPA). But old-fashioned EBL and VBR lines are still useful for quick-glance verification, so practice using all the functions on your radar. Radar/chart overlay is becoming increasingly available and can be useful, though many experienced mariners prefer separate displays to avoid clutter and confusion.

Have a Contingency Plan

Before departure, think about what you will do if the weather changes or a delay forces a nighttime arrival. If you cannot comfortably get to your destination, there may be a nearby anchorage. It may be rocky and uncomfortable, but at least you're safe.

Staying at sea instead of approaching strange harbors

at night is traditional wisdom, and for good reason. If you initiate a close-quarters approach, be aware when you pass the "point of no return," a place where you can no longer abort the maneuver. If a contingency plan is not practical, be extra cautious about departing in the first place. Above all, be patient and take your time.

Plan Your Departure

Coastal cruising on a slow boat like a trawler often means departing at night to ensure a daylight arrival at your destination. Don't rely on your memory to get you out of an anchorage or harbor at night.

Determine a safe steering course, then write it down on a piece of paper and leave it at the helm (many workboats have a white

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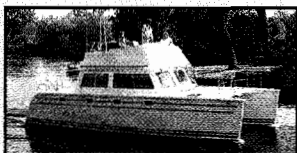
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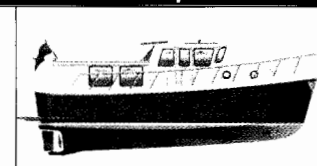
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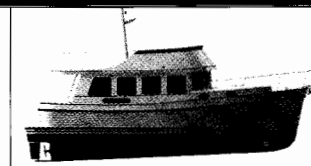
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board near the helm for notes and observations). It's often difficult to steer a straight course at slow speeds in reduced visibility, so engaging the autopilot may be helpful.

Communicate

There are a lot of resources on the other end of the VHF: Coast Guard, Harbor Patrol, Vessel Traffic Service in major shipping ports, and other cruisers.

When entering small ports or very confined waters, commercial traffic often notifies local traffic on VHF channel 16, especially during low-visibility periods: "Security, Security, Security. The tug and tow *Hercules* is inbound to Seabright Harbor. All concerned traffic should contact *Hercules* on channel 16 or 13."

Don't hesitate to make a similar announcement if you feel your situation merits extra consideration.

Shipping lanes are most congested near major ports. Fortunately, ships' traffic is confined to specified lanes (traffic separation schemes), often with Vessel Traffic Service monitoring all commercial movements.

If you don't know what channel VTS monitors (check the appropriate Coast Pilot for your area), hail the Coast Guard on channel 16 for information. You will be able to plot the course and speed of all commercial traffic.

Before crossing a bar (Pacific Coast) or running an inlet (Atlantic Coast), call the Coast Guard on VHF channel 16 to check conditions and visibility. Depend-

ing on location and staff, they may be able to escort you in if requested. Talk to passing vessels to get weather updates. If your radar is inoperable, ask for any traffic they may have seen.

Finally, communicate with the crew. They are probably even less comfortable with the conditions than you are. And you will need their ears and eyes so try to educate them on how you are making your decisions and what information you need. Listen to their feedback: Their heightened awareness may notice variances before you do.

Poor visibility is a leading cause of maritime collisions and will always carry elevated risk. But eventually, all cruisers will encounter heavy fog, torrential rain and nighttime harbor

entrances. Managing these situations will be much less stressful if you have radar and know how to use it.

Luckily, Stillwater Cove is empty, Pescadero Rocks has not moved and the anchor set on the first try. ❁

Peter Pisciotta operates SeaSkills Personal School of Seamanship: 877-SEA-SKILLS or peter@seaskills.com.

RESOURCES

Vessel Traffic Service

www.navcen.uscg.gov/mwv/vts/vts_home.htm

Radar Training

www.starpath.com

(nine hours/three days; Web course; simulator software)

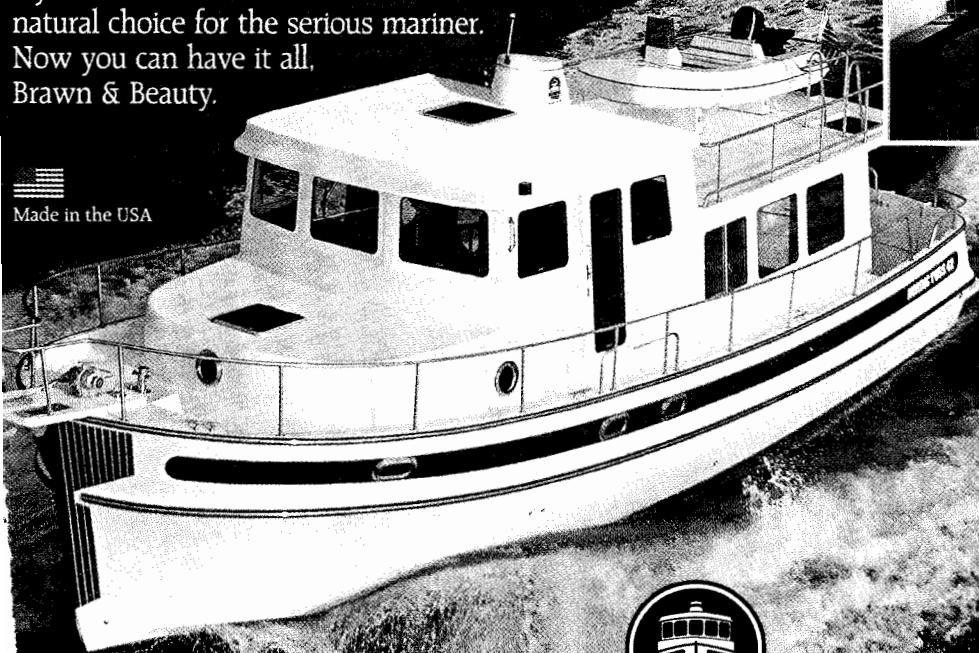
www.trawlerfest.com

(90-minute seminar during events five times a year at various locations)

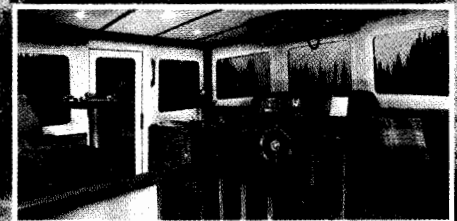
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