



# SEAWORTHY

The BoatU.S. Marine Insurance and Damage Avoidance Report\*

## Boat Wakes & Bad Tempers



**T**his past summer, the Coast Guard cutter *Vise* was resetting day marker #20 on an especially busy day on Florida's Blackburn Bay along the ICW north of Venice. Allan Horton, a BoatU.S. Member

in Nokomis, Florida, noted that boats of all descriptions kept passing *Vise* with, at best, a token reduction in speed. As the Coast Guard crew worked to install the new marker, they were continually being tossed around by the passing boats' wakes. The *Vise's* captain responded by sounding the five-beat emergency signal several times. Remarkably, very few skippers seemed to slow down or even notice.

himself, even while his boat was in no wake zones. It doesn't make him angry, however, because he says most people don't realize their boats are creating a large wake. Olson is a patient man; he says he turns on his blue light and "educates" them. Depending on the county in Florida, a lesson in how to reduce the size of your wake costs \$90 to \$140.

Horton, who describes himself as a frequent fist shaker whenever his boat is rocked, says he understands the Coast Guard captain's frustration. So do a lot of other skippers; wakes make people angry. Lt. Scott Olson of the Florida Marine Patrol says he's been rocked quite a few times

### What About Your Boat's Wake?

You can save a lot of money and avoid being the recipient of rude

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\*The BoatU.S. Damage Avoidance Program is dedicated to helping you enjoy accident-free boating. *Seaworthy* looks at real claims and how they might have been avoided. Material in *Seaworthy* may be reprinted with credit to "Seaworthy, the BoatU.S. Marine Insurance and Damage Avoidance Report."



### Electronic Navigation

I feel I must comment on the aforementioned article regarding GPS. To state that "LORAN's current accuracy" is about a quarter of a mile is a remark of someone not qualified to author any article of this nature.

LORAN even in the 70's was and is now a navigational tool used by countless able sailors with remarkable accuracy and success. It is now, even with the upgrades provided by eLORAN approaching GPS accuracy, in danger of being discontinued by politics of the current administration.

It must be understood that GPS can be emasculated if necessary by a concerned military in crisis and revert back to its initial error rating, leaving LORAN as a reliable backup to those who understand and utilize it.

P.J. DiGiovanni  
Stonington, Connecticut

*The USCG, which operates the LORAN-C system, claims that its accuracy is around a quarter of a mile, although that figure can go up or down depending on conditions.*

*While nothing involving government funding is ever cast in stone, it now seems likely that the current and recently improved LORAN-C system will remain in service and transition to eLORAN as soon as the internationally coordinated specifications are finalized. For updates on the status of eLORAN funding, go to Chuck Husick's report: [www.boatus.com/gov/LoranUpdate09](http://www.boatus.com/gov/LoranUpdate09).*

### Autopilots and GPS

I teach a one-day GPS workshop and a 16-hour Coastal Navigation Course at Mystic Seaport and at local adult education venues around southeastern Connecticut. I also work as a consultant and youth leader to a local Sea Scout "ship" sponsored by the Submarine Veterans, Groton (Connecticut) Chapter. All this is in addition to my yacht management and delivery business in which I deliver pleasure boats up and down the East Coast and to/from the Caribbean.

In all my instruction about and professional employment of GPS technology, I place heavy emphasis on prior voyage planning and stress that all waypoints used in the

"buoy-hopping" mode of coastal navigation should include a safety offset of 1/4- to 1/2-mile from the actual buoy coordinates.

Several years ago, as a Corps of Engineers observer of the "Big Dig" project, I was in the galley of a 65-foot, 8,000-hp tug taking a scow load of dredged material out to sea for dumping. My paperwork at the galley table was interrupted by a full-sized red channel buoy crashing down the port side of the tug and passing astern. A quick-sprint up to the pilothouse revealed a sheepish mate and chief engineer who had been engaged swapping sea stories and had neglected to look out the window occasionally. Fortunately we had the buoy overmatched in gross tonnage so no damage was done.

I have been a BoatU.S. member for many years and continue to find lots of illustrative material for instruction in safe boating in the pages of *Seaworthy*.

Capt. Alan Donn  
Groton, Connecticut

### Dealing with Flares

I read with interest in the April issue of *Seaworthy* the article and letters regarding use and misuse of flares. I wanted to share an educational way our club deals with the discharge and hands-on use of flares.

Every year or two, we schedule a weekend cruise called Survival Weekend. Club members and guests sail to a local island for an evening of camaraderie and fun. After dinner and a bonfire on an uninhabited beach, we have all the participants bring their expired flares for discharge. This typically includes hand-held flares and aerial flares. It is amazing to watch the quick learning curve for people lighting off flares for the first time. I think this is a tremendously valuable experience.

As mentioned in the *Seaworthy* article, we always first get permission from the local harbor master and also notify the Coast Guard. We make certain that the experienced sailors help the more novice when handling the flares.

Robert Bartosh  
Warwick, Rhode Island

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We seem to forget that hand-held flares


are the same as road flares, just shorter. In this day and age, most people don't get involved or use the silly plastic reflectors for emergencies. I use my old boat flares for road emergencies. They don't last as long, but you can crisscross them as the highway patrol does. I used a bunch of them recently; I was towing my boat and some kids swerved around me, lost control and hit the car in front. The flares all worked fine and burned until the police got there. Drivers will run over a plastic reflector, but I have not seen any that would drive over a burning flare.

I also use the flares to start fires to burn the brush piles in my backyard (after I get my burn permit from the fire department). This gives you practice holding the flare and having hot stuff in your hand.

These are a great way to recycle the flares. It also provides good practice in lighting flares. I would bet that most have never tried to light a flare.

Philip Gilbert  
Valley Center, California

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I'm surprised that your boating-savvy editors let Ben Stavis (Mailboat, April 2009) get away with such inaccurate statements as "USCG requirement that boats carry *pyrotechnic* visual distress signals" and "As long as *pyrotechnic* devices remain required by the Coast Guard ...". There is no requirement that signaling devices have to be *pyrotechnic*. The U.S. Coast Guard Office of Boating Safety publication "Federal Requirements & Safety Tips for Recreational Boats" specifically states that *non-pyrotechnic* devices meet the requirements for carriage as long as they are marked by the manufacturer as meeting Coast Guard requirements. These include an orange distress flag for day use and an automatic electric distress light that flashes SOS (...-...-...) for night.

Stephen Klein  
Clarksville, Maryland

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I was very happy to see *Seaworthy* mention that there are alternatives to pyrotechnics for distress signals. I have carried an SOS light and distress flag for several years after I got tired of trying to dispose of expired signals and investigated the alternatives. After finding the SOS light, I realized how much better it was as a signal device than three six-second flares.

When I worked for West Marine and was helping a new boat owner, I would ask if they wanted to be "legal" or "safe." If they said safe I would show them the SOS light and distress flag and explain what I thought were the advantages. This might work to their disadvantage if they were checked by a law enforcement officer who did not know about the optional signals. At a recent nautical flea market I got into a "discussion" with a USCG Aux boat inspector who said he would never OK a boat that did not have flares. I even showed him a Florida Wildlife Commission brochure and a USCG brochure, which listed the light and flag. He still was not convinced.

Ray Rhode  
Niceville, Florida

## Educating the Crew

Re- "Educating the Crew for an Emergency"—a great article. Before we

go cruising with guests, I give a similar safety talk but also ask if there are any health-related issues with guests. While some may think this invades their privacy, the safety of the entire "crew" is important. Diabetes, allergies, minor handicaps (ie. color blindness, pacemaker, etc.), can affect one or more of the crew.

John Simpson  
Delta, British Columbia

## Bronze and Zinc

I enjoy reading *Seaworthy*, which I usually find accurate and informative; however, there was a rare but serious error in "Avoiding Metal Fitting Failures" in the April 2009 issue. On page 11, this article refers to bronze fittings being susceptible to dezincification. This is misleading.

Brass, and only brass, suffers from dezincification. Brass is copper alloyed with zinc. The zinc forms a galvanic couple with the copper, when in contact with seawater, and the zinc corrodes away (dezincification) leaving a brittle spongy mass.

Bronze is copper alloyed with lead (or silicon, phosphorus, or nickel and aluminum). It can't dezincify; there's only trace amounts of zinc—under 5% or 6%. Trace zinc is usually added in cast-bronze fittings to facilitate the casting and subsequent machining process. At these low zinc percentages, such alloys are bronzes, not brasses, and will not dezincify. Many other marine bronze alloys have no zinc at all, such as Everdur (silicon bronze) or aluminum bronze, which are frequently used to fabricate machined fittings from plate or rod, or for fastenings (screws and bolts).

The change of color to green is never an indicator of corrosion. The green is called verdigris. Verdigris is a green patina or crust of copper sulfate or copper chloride formed on copper, brass, and bronze exposed to air or seawater for long periods of time. It does not affect the strength of the copper alloys at all. Some boat owners don't bother to polish their copper-alloy fittings and let them "go green." Others prefer to keep their fittings polished to a high yellow gloss. Either way, this is a cosmetic issue only, never one of strength or durability.

Boat owners should be keenly aware of the difference between brass and bronze.

Brass should be avoided for structural applications on boats, and never used under any circumstances for seacocks or through-hull fittings. Bronze, in contrast, is one of the strongest and most corrosion resistant of marine metals, and is preferable to stainless steels in most uses on fiberglass and wooden boats. Real bronze fittings on a boat are an indicator of high quality, long life, and low maintenance requirements.

Dave Gerr, Director  
Westlawn Institute of  
Marine Technology

## Speeding Trailers?

Regarding the April issue of Small Stuff and towing trailers, If I'm towing a trailer at 50 mph, should I see the trailer's 12-inch wheels pass me doing 60 mph? It would be better to say that regardless of their size, the trailer wheels will be traveling at 50 mph but 12-inch wheels are rotating at 1,400 rpm, 10-inch wheels at 1,682 rpm, and eight-inch wheels at 2,104 rpm.

Michael Davis  
Clifton, Virginia

## Boating with Birdies

Small Stuff, April 2009 issue: Please don't feed the gulls! Like any wildlife, they should not be fed. Gulls become a nuisance to boaters and also drive out less aggressive shore birds. Although gulls are a part of the boating experience and an essential part of any marine painting (sitting on a piling), many sailors classify them as flying rats.

At one stopover on Beaver Island in Lake Michigan, we had dock neighbors feeding several gulls. When the neighbors went ashore to BBQ their dinner, the gulls followed. The boaters only looked away for a brief moment and the gulls swooped down and grabbed the chicken bits off the grille. Later when I was grilling steaks, I had to constantly fight off the gulls who hovered just out of reach above my head. We could not eat out in the cockpit because of the aggressive birds. Our neighbors didn't get any dinner at all.

Thanks for the most useful boating publication ever.

Dieter Giese  
Dearborn, Michigan

*Continued on page 7*

## Overloading Big Boats

In the front-page article, “Boat Wakes and Bad Tempers” there are a few paragraphs about the dangers of having too many people aboard a small boat. It’s certainly no secret that small boats are tippy, but most people don’t realize the same rules of stability that affect a dinghy also apply to much larger boats. All it takes to make a larger boat unstable is more people.

The 50-foot trawler on the right had just undergone an extensive refit. To celebrate, the owner invited some friends—28 friends—out for the afternoon. Over a dozen were on the flybridge when a wake from a passing boat rolled the trawler over maybe 70 degrees, which allowed water to pour over the rail. It didn’t take long, maybe a few seconds, before it reached the point of no return; the hull filled with water and the trawler settled to the bottom (Claim #0601022). Miraculously, everyone survived.

Jack Hornor, the naval architect who investigated the accident, said that the boat’s ultimate stability had likely been compromised by a combination of too much weight (people) up high and too little weight down low; the trawler’s fuel and water tanks were almost empty.



Incidents of larger boats rolling over are rare, but they do happen. To be safe, owners of these boats should restrict the number of passengers aboard, especially on the flybridge. Unlike smaller boats (under 20 feet); larger boats aren’t required to have a capacity plate. But a good rule of thumb is to restrict the number of people on the flybridge to the number of seats.

## Extra Eyes and Water-Skiers

Pulling a skier requires the boat’s driver to keep his attention focused on where the boat is headed, which is why many states have a law requiring a second person aboard—a dedicated spotter—to watch the skier. Last summer, an 11-year-old boy was struck by a boat pulling a skier on a small lake; there was no dedicated spotter on board. While the boat was approaching a beach, the driver kept looking back at the skier and failed to notice three boys floating on an inflatable tube.

Two of the boys dove when they saw the oncoming boat, but the other remained on the tube. His leg was struck by the boat’s fins and had to be amputated (Claim #0802368).

Even if a spotter is not required by law, it’s good practice to have one aboard. And it goes without saying that any boat should always keep well clear of areas where people are likely to be in the water.

## Avoiding Untimely Breakdowns

Wheel bearing problems account for 21 percent of the service calls in the BoatU.S. Trailer Assist and Tow program. While statistics don’t always grab your attention, consider what happened to an insured member on San Francisco’s Golden Gate Bridge during afternoon rush hour: The wheel bearings on his trailer caught fire, which brought the trailer to a screeching halt. Remember, this was during *afternoon* rush hour when everyone was eager to get home (Claim #0567365).

No doubt the hapless boat owner got a lot of “helpful advice” from hundreds of frustrated commuters as they inched past his smoldering trailer. Here’s a little more: Whenever you use your trailer, even if you’re only going a



few miles, make sure the wheel bearings have plenty of grease. This inset photo shows what a wheel bearing looks like when the grease is past due (way past due) for renewal. The larger photo gives you an idea of what could happen if you ignore the inset photo.

Note that bearing protectors avoid launching hassles and can help grease last longer. If hubs don’t have bearing protectors, they’ll have to be kept out of the water until they are completely cooled before the boat is launched, or cold water will be drawn into the hubs, displacing the grease. Installing bearing protectors allows the hubs to be dunked while they’re still warm.

## Consequences of a Freak Leak

One of the first things you should do after running aground or hitting something in the water is to check for leaks. The impact may have penetrated the hull or jarred a hose loose. But leaking water, if you were to find it, may not be nearly as serious as something else you might find leaking: gasoline. Last summer, a 20-year-old powerboat hit a rock and was able to limp back to the dock, where the owner said he had planned to inspect for damage. As the boat was pulling up to the launch ramp, an explosion blew off the engine cover (Claim #0806933). A later investigation revealed that the boat's aging gasoline tank had been ruptured, most likely by the impact with the rock. A few minutes snooping around in the bilge *immediately* after the collision with the rock could have prevented the explosion.



## Not-So-Mellow Bellows



*Seaworthy* has written about drive bellows numerous times and the message has always been to inspect them regularly (at least once or twice a season).

As bellows age, cracks tend to form between the folds, allowing water into the boat. Even a slight leak, if it's ignored, can sink a boat. A study done by *Seaworthy* and published in the October 2006 edition found that 44% of inboard/outboard-powered boat sinkings were due to leaking bellows. One point mentioned in the article that is worth repeating is that if one bellows starts leaking, other bellows and exhaust hoses, if any, should also be replaced. With the boat shown here, the bellows had been replaced recently, but the exhaust hose was not. The hose began leaking and the boat sank overnight (Claim #0801597).

## Watching Your Water line: Does Your Boat's Transom Look Too Small

As they age, boats (like their owners) have a tendency to gain weight; gear piles up, parts are added (including heavier engines) and the boats themselves tend to soak up water. Eventually, all of this additional weight may make it harder for a boat to get on plane, which wastes fuel and can be hard on the engines. But even at the dock, excess weight can be a problem. Over the years, this boat's hull settled deeper and deeper into the water until the cockpit scuppers disappeared underwater.

Rather than investigate the problem and lighten the boat, as he should have, the owner took the ultimate shortcut—he grabbed a can of bottom paint and raised the waterline. The result was predictable; during an especially heavy thunderstorm, rainwater accumulated and the stern was pushed farther and farther down. Seawater then gurgled up through the drains, sinking the boat (Claim #0805184).



## BOAT WAKES, from page 1

gestures from other skippers by using a little common sense and courtesy. This means coming *completely* off plane when you enter a no wake zone or *anywhere* your wake could compromise the safety of other boats. All too often the skippers react to a no-wake sign by slowing the boat slightly and then plowing through with the boat's bow way up in the air and the stern dug down in the water. Instead of reducing the size of the boat's wake, this token reduction in speed—not quite on plane—increases the size of the wake.

No wake means no wake. The first rule is to slow down so that the boat is *level* (without using trim tabs) and the size of your wake is negligible. Look back at the wake you're creating. You can help to reduce the size of your boat's wake by positioning passengers toward the center of the boat to keep it level. Too much weight aft lowers the stern and increases the size of the wake. Finally, keep an eye on your depth sounder; shallow water increases the impact of your boat's wake.

Damaging wakes can also be caused when a skipper waits too long to pull back on the throttle. A good example is the young skipper in New Jersey who was tying up at a marina gas dock when he encountered someone who was "cursing and accusing me of not having any respect." Words were exchanged and gestures were made. The young skipper's cruiser, it seems, had created a large wake that bashed several boats at the marina against pilings and finger piers (Claim #053321A). Since he had "slowed" just before reaching the gas dock, he reasoned that the damage must have been caused by some other boat's wake.

Even a small boat in the stern-down position can throw up a huge wake. A center console off the coast of San Diego, California, to cite one example, inched past a 34-foot trawler then crossed its bow and ran down the other side. "Having experienced this type of 'courtesy' before, I called to my wife to hang on because we were about to get rocked from three sides. She grabbed the bimini but couldn't hold on. She landed on the steering console, knocking out three of her front teeth." The boat that caused the dangerous wake was only 22-feet long.

## Overtaking Boats

Wakes lose power the farther they travel. If you're overtaking a boat in open water, give it a lot of room. Passing as far away as possible reduces the wake's impact (not

to mention ill feelings). In a narrow channel, overtaking a boat without regard for your boat's wake can have serious consequences. The skipper of a 42-foot motoryacht in North Carolina, for example, slowed down only slightly and sent a 25-foot sailboat surfing wildly onto a sandbar (Claim #0122432A).

When you're the overtaking boat, use VHF (1 watt) and/or your horn to signal your intentions (one short blast if you're overtaking the other boat on its starboard side, two blasts if you're planning to pass on its port side). Cross the wake quickly (don't ride the waves), but be aware of your own boat's wake. If you're being overtaken, come completely off plane so that your stern is level. Slowing your boat will allow the overtaking skipper to slow his boat as well.

**"No wake means no wake. The first rule is to slow down so that the boat is level (without using trim tabs) and the size of your wake is negligible."**

## Coping with Other Boats' Wakes

Alas, not every skipper reads *Seaworthy* and not every skipper is as courteous as you are. There will be times when you will encounter a wake that has the potential to do serious damage to your nervous system and maybe to passengers as well as the boat itself. The larger the other boat's wake (and the smaller your boat), the more important it is to lessen the impact.

First, if your boat is underway, don't wait until it's flying through the air to pull back on the throttle—slow the boat well before reaching the wake. Bringing the boat to a complete stop, however, is counterproductive; boats are far more stable when they're moving and you must also be careful not to lose steerage.

Avoid taking the wake on your beam. Especially in small boats, it is better to turn toward the wake briefly and then come back on course when you're in smooth water. Rather than plow directly into the wake at a 90-degree angle, bear off a few

degrees so that you cross at a slight angle. This helps your boat's hull grip the waves and reduces the chances your boat (and passengers) will be thrown into the air. The most common type of personal injury in the claim files involves passengers (typically over the age of 50, but anyone can be injured) who were seated near the bow and their boat went airborne after slamming into a wake. Passengers, especially older passengers, should be seated amidships where there is less motion.

Finally, always warn the crew. A simple "Hold on—boat wake!" should suffice. Waiting until the boat is into the wake is too late. A 40-year-old woman in Ohio was seriously injured on a 22-foot powerboat because the skipper waited until the boat was only a scant second or two away from slamming into the wake to warn passengers down below (Claim #0483921A).

## Overloaded Boats

Two men, the owner and a passenger, were drowned on Florida's Lake Okeechobee when their 15' boat was swamped by the wake from a 72-foot trawler. Two other passengers managed to swim to shore (Claim #9901674).

Keeping people aft to raise the bow may have prevented the mishap, but a far better solution would have been to limit the number of people aboard.

According to the police investigation, the weight of the four people alone exceeded the boat's rated capacity. In addition to the passengers, there was also a five-gallon can of gasoline, two large batteries, a trolling motor, tackle boxes, an anchor, and other personal effects. The boat, the investigation concluded, had been dangerously overloaded.

By law, the boat's capacity (both number of persons and total weight) must be posted on all boats 20-feet and under. If the boat doesn't have a capacity plate, the best rule of thumb is to limit the number of passengers to the number of seats onboard. Never let anyone sit on the side of the boat.

One other note: While only mandatory in most states for children, wearing a PFD at all times is advisable for non-swimmers and passengers in small, tippy boats.

## Bow Riders and Wake Injuries

A woman in New Jersey seated on the bow of a 20-foot boat was thrown up into the air, came down hard and suffered a compres-




## How Angry?

How angry do people get when their boats are rocked by another boat's wake? A skipper working on his boat in Florida got so irked at the owner of a passing boat that he jumped in his car, drove to the next bridge and parked in the center of the span. He refused to move until the startled bridge tender agreed to call the

marine police (Claim #9832172A).

In another claim, an elderly gentleman in Alabama, a retired minister, became a local "celebrity," according to the claim file (Claim #9332984), when he had the skipper of a transient motoryacht arrested for swamping his small boat while he was quietly fishing in a no-wake zone.

sion fracture (Claim #0218811). In a similar accident, a passenger seated in the bow of an 18-foot boat in Florida was thrown into the air when the boat slammed into a wake. He landed at an awkward angle on the edge of the seat and severely sprained his back (Claim #0339321). Passengers have also lost teeth (Claim #993812) and have broken bones (Claim #0194922) when boats hit wakes. The list is long and the claims involving wakes and personal injuries make for some grim reading.

Several things to remember: First, whenever you're approaching another boat's wake, *slow down*. The smaller your boat, the more important it is to reduce speed. Should the boat, despite your best efforts, be slammed by a wake, anyone seated near the bow is more likely to be thrown into the air and injured. Passengers should be seated aft or amidships, away from the bow. This is especially true of passengers over 50, who may be more susceptible to spinal injuries. As mentioned earlier, always warn passengers to hold on! While this may be obvious to you, not everyone realizes how bouncy a boat becomes when it hits a wake, even at slow speeds. 

## MAILBOAT, from page 3

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Cliff Steele's story about the seagull shows how living with animals can be part of owning a boat. As another example, Beaky the coot has been a faithful companion at my boat since I retired in 2003. Wild American coots are clean and friendly animals that can quickly learn to recognize people as individuals, and behave as domestic pets. The story of Mr. Beaky and a monthly newsletter can be found at: [www.beakycoot.com](http://www.beakycoot.com).

Cliff Klinert  
National City, California

## Kill Switches

In the April 2009 issue, you published

an alert on life jackets and kill switches, in which you wrote that the kill switch should *always* be attached to whom-ever is at the controls when the boat is underway. One problem that might result from this procedure is if the operator goes overboard with the kill switch lanyard attached, the other members of the crew cannot restart the engines. I recommend having a spare kill switch lanyard stored in a convenient location, and be sure the crew knows how to reconnect it and operate the engines.

George Sabol  
Chadds Ford, Pennsylvania


## Vector vs Raster

I'd like to take issue with the statement in the April issue (in a box on page 13 called "What About Charts?") that "it isn't possible to update a raster chart without buying a chip from the manufacturer." Raster charts of all U.S. waters are available from NOAA, and can be updated without charge from the NOAA web site. Updates are posted frequently, and I doubt that there is any source that provides more up-to-date information than NOAA.

I also find it hard to believe that the official NOAA raster charts are less accurate than any vector chart that NOAA or others may be issuing.

Stephen Babcock  
Washington, D.C.

*You are right that raster charts can be updated directly from NOAA, but that option is only available if your nav system is PC-based. If your chart plotter uses a proprietary chip, then you have two options: You can take it to a major dealer where they will plug it in to their system and input new data, or you can simply buy this year's latest version.*

*The NOAA vector charts began life with much of their data taken from paper charts. Updates of vector charts are fast and easy, with only the cells of the map that require updating being transmitted. To update a raster chart requires an entirely new chart, which is a lot of data and can take some time to download. Updates for paper charts, and their vector equivalent, are done weekly by NOAA and this new information, like the raster charts, is a free service. *

# Salvaging Narcosis

By David Wiggin, BoatU.S. Hurricane Catastrophe Team



*During Hurricane Ike, Narcosis, a 56-foot Altima Pilothouse Motor Yacht, was carried off its jack stands at a marina in Kemah, Texas (it was not tied down) by the storm's 12-foot surge and eventually came to rest between two nearby houses. Unlike other insurance*

*companies that write you a check and walk away, BoatU.S. handles salvage from start to finish. The following account by CAT team member David Wiggin documents the complex salvage operation that refloated the 58,000-pound yacht (Claim #0806236).*

I first inspected *Narcosis* with Mike McCook, another CAT team member, on September 18, 2008 as it lay stranded between two homes. The contractor we selected for the recovery was Beyel Brothers of Cocoa, Florida, which had a no cure, no pay contract price of \$28,750 to safely re-float and deliver *Narcosis* to the Seabrook Shipyard.

Between my first inspection of *Narcosis* and the day it was salvaged three weeks later, there were numerous discussions with Beyel Brothers, property owners and various government agencies. One reason for the delay was permitting; the heavy equipment that would have to be brought into the area required approval from federal, state and local governments. Mike McCook also worked with property owners and attorneys to obtain the necessary permissions. There were weight restrictions on the bridge accessing the Clear

Lake area as well as a 40,000-pound limit on cranes and counterweights, etc., that would have to be transported to the salvage site.

The solution was to use a barge to bring in the heaviest equipment, including a new Zoomlion, Model QUY200 crawler crane,



The crane barge arriving just before 7 a.m. on October 10, 2008 in preparation of the recovery operation. With the boom extended out, the crane had a safe working load of 46,000 pounds, which was considerably less than *Narcosis*' hefty 58,000 pounds.

There was a distance of 85 to 100 feet between the crane and the stern of *Narcosis*. The solution was to use inflatable rollers to move *Narcosis* closer to the crane before it was picked up.



Once the crane barge was in position and the nylon sling was positioned under the stern of the *Narcosis*, a maximum safe load of 46,000 pounds was taken up by the crane and two rollers were placed under the hull and inflated. The rollers were approximately three to four feet in diameter by 30 to 35 feet in length when inflated and weighed over 500 pounds each. A smaller crane was brought in to lift the rollers into place.



equipped with approximately 100 feet of boom and several hundred thousand pounds of counterweights. It is a beautiful crane, with the sort of engineering and "muscle" that makes a salvor's heart flutter.

The maximum-rated lifting capacity is 200 tons. Other rigging used for the operation

included two 87,000-pound nylon slings, one 110-ton capacity spreader and two 55-ton capacity spreader frames, various heavy wire rope bridles and shackles, and several heavy-duty inflatable rollers (over 500 pounds each), commercial-duty air compressor, plywood dunnage, etc. The photos document the salvage operation.



**Narcosis was blocked briefly while the slings were lowered and the two spreaders and bridles rigged in preparation for picking up the full weight of the vessel.**

Here's the truck that was used to pull Narcosis back to the water. Ha ha, that's a joke; it's actually the property owners, Paul and Linda Merryman, horsing around with their golf cart. The Merrymans were on scene throughout the operation and had to be consulted on several occasions. With the exception of several bushes and a large dent in the lawn where the keel had rested, there was no damage to their home or property.



**Narcosis finally being swung into position alongside the barge for re-floating**

**Beyel Brothers crew after successfully recovering and re-floating the Narcosis, which was moved with no further damage.**



## Salvaging Narcosis A Timeline

**06:55**— Riggers arrived on the scene; preparations began immediately.

**08:38**— The crane barge was positioned at the bulkhead.

**09:53**— The first sling was positioned under the stern and the vessel boosted slightly so that inflatable rollers could be placed under the hull.

**10:56**— Air compressor finally arrived (\*&#\*\*@#).

**11:00**— Plywood laid down.

**11:06**— Two rollers under the hull were inflated. Vessel was gradually pulled toward the water by walking the crane back on the deck of the barge, with assistance from an F-350 pickup truck. As *Narcosis* gradually inched forward, rollers were continually deflated, moved and re-inflated. Aside from moving the vessel, the rollers lifted it over a small stone wall on the edge of the lawn.

**14:04**— Vessel was blocked across the road and the rigging re-configured in preparation for lifting.

**14:57**— *Narcosis* was picked off blocks.

**15:08**— *Narcosis* was re-floated.

**16:07**— *Narcosis* was towed to Seabrook Yacht Services, hauled out and blocked ashore.

**Editor's Note:** The best defense against a salvage operation of this magnitude is to protect the boat prior to a storm. All BoatU.S. Marine Insurance policyholders receive Hurricane haulout coverage with their policies. If a hurricane watch or warning is issued for your area by the National Oceanic and Atmospheric Administration (NOAA), the insurance company will pay 50% of the cost up to a maximum of \$1,000 for having your boat hauled out and blocked ashore, including anchoring it to the ground (which would have been a good idea in the case of *Narcosis*), power-washing and relaunch. The BoatU.S. Marine Insurance policy will also pay 50% of the cost, up to a maximum of \$1,000, to have your boat moved by a professional captain to a hurricane hole prior to a storm. 🏠



Photo: David Wiggan

## Keeping Propane Safe

**O**n the cover of its most recent May issue, a well-regarded boating magazine featured a sailboat ghosting through the water at sunset; the three people aboard were probably heading for a secluded anchorage and a relaxing dinner. Or maybe not. Haphazardly dangling from the stern pulpit was a large propane tank, with a hose that disappeared into the lazarette.

### Who Should Work on Your LPG System? (Hint: Not you.)

When it's time to install or service a propane system on your boat, you need a qualified person to handle the job. The American Boat & Yacht Council has standards for propane systems (A-1), propane stoves (A-3), propane heating systems (A-7), propane detection systems (A-14), and propane-fueled appliances (A-26), and anyone working on a propane system needs to know the standards inside and out. Propane system repairs are no place to skimp on quality; your best bet is to find an ABYC-certified shop with a technician who is experienced in all phases of propane repair and installation.

Even though the rest of the installation was hidden to readers, it clearly wasn't the sort of cooking arrangement that was likely to inspire words like "relaxing."

Fortunately, propane explosions on boats are rare, but when they do happen, however infrequently, the BoatU.S. Marine Insurance claim files have found the cause is often a do-it-yourself installation or repair.

*Claim #0803172: The owner of a 34-foot trawler had just installed a new solenoid shut-off valve. He then made himself breakfast on board, and had even shut off the solenoid when he was finished cooking. Just as he was sitting down to eat, the boat exploded. A fire investigator later found that the fitting on the solenoid had not been sufficiently tightened, which caused a leak that was ignited by an unknown source. The boat was completely destroyed and two other boats nearby were damaged.*

Miraculously the owner was not killed. His mistake, as we shall see, was not testing the system, which would have revealed the leak.

Since propane is notoriously volatile, the American Boat & Yacht Council, the organization that writes standards for recreational boat builders, devoted hundreds

of man hours to finding how to make propane installations as safe as possible. (*Seaworthy* editors often volunteer their time with ABYC project technical committees, including the propane committee). But there are many boats, typically older boats, that weren't built to ABYC standards. One *Seaworthy* staffer bought a 34-year-old imported sailboat with an owner-installed propane system, complete with non-approved hose, loose hose clamps, and no safety solenoid valve. The entire system was a disaster waiting to happen and was quickly discarded.

Propane is a liquid under fairly low pressure, which becomes a gas as it is released from the tank. Most people know that it's heavier than air and as such will sink to the lowest spot in a boat, usually the bilge, but what most people don't realize is how little it takes to cause an explosion. Almost any amount will explode, from a hair-singeing *woof* at the stove to a devastating *BOOM*. Since propane by itself is odorless, manufacturers are required to add a distinctive smell, which can be an important safety feature—a sort of early warning system—if it's heeded. Investigators often find that people who were involved in an explosion mention smelling propane but apparently dismissed it.

If you smell propane, get off the boat and

don't operate anything electrical, including battery switches. Turn off the propane at the tank, leave the companionway hatch open (to dissipate fumes) and call 911. Don't go back aboard until you've been told it's safe.

**Note:** Before you go tearing out your propane stove and resigning yourself to cold pork and beans, remember that a *proper* propane installation is very safe. How do you know if your installation is up to snuff? Here is a walk-through of a proper system.

First, start with your propane tank. Tanks don't last forever; a new tank has to be recertified after 12 years and then every five thereafter. (Look on the tank for a stamp/date.) A tank that is rusted or damaged won't be recertified. For the last 10 years or so, all propane tanks have

been required to have an over-flow protection device (OPD). This device closes the fill valve when the tank is about 80% full, ensuring it can't be over-filled. A tank that is too full has the potential to leak in certain conditions. Tanks with an OPD have a three-lobed valve wheel. Retailers will not fill tanks without an OPD. The tank must either be secured on deck (protected from the elements and damage) where escaping gases will flow directly overboard, or secured in a dedicated propane locker that is vapor-tight to the hull interior. Such lockers need a gasketed cover that latches tightly and opens on top directly to the outside atmosphere, and a vent hose at the bottom to drain any leaking

Photo: Alison Mazon



**Tanks must be well secured fore and aft as well as side-to-side so they don't bang around under way, otherwise a fitting could be broken off, releasing propane. Stuffing a towel next to the tank, as in this picture, is not adequate.**

propane safely overboard. The vent hose (minimum 1/2-inch inside diameter) should

*Continued on next page*

## Top Propane Installation Bugaboos

*Comments from marine surveyors about the problems they most often see in the field.*

- **Vent in propane tank locker plugged.** Without a way for leaking gas to escape, propane can build up to dangerous levels in the locker. Periodically remove the tank and pour water in the locker and verify it drains directly downward; there should be no low pockets to collect water. Check lid gaskets for proper fit and sealing as well.
- **Wiring attached to gas line.** It goes without saying that having an electrical wire tied to a propane line is a bad idea. Should there be a short, the wire can get hot enough to melt through the hose.
- **Storing junk in propane lockers.** The only thing that should be in a propane locker is a propane tank. One surveyor noted an anchor in a locker that had scratched the paint off the tank and caused it to rust. Heavy objects can damage the regulator or gauge during a rough outing and sharp objects can cut the hose. Another point: Make sure that the propane tank is not rattling around in the locker—it must be secured.
- **One gas line supplying multiple appli-**

**ances.** Gas lines for each appliance must originate at the tank, which prevents a junction inside the boat. No junctions means fewer opportunities for leaks.

- **No working propane detector.** While not required, these are inexpensive, easy to install and can save your life. If you have a detector, check the manufacture date. They typically have a reliable lifespan of five years. And don't forget to test it periodically—releasing a little fuel from a butane lighter can be used to check the sensor.
- **Lack of chafe protection on gas lines.** Wherever hoses pass through bulkheads, they must be protected from chafe. The constant movement and vibration on a boat can cause them to wear against a hard surface and leak. Hoses must be well supported with non-chafing fittings.
- **Rusted tanks, regulators, and solenoids.** Replace rusted components right away. Even if the date stamped is still valid, a rusted tank is no longer reliable and could fail at any time.
- **No operating instructions posted.** Someone unfamiliar with the boat might not know to turn off the system after use or know proper lighting instructions.
- **Manual shutoff valve behind stove.**

Reaching over a hot fire to shut off the valve is a bad idea, especially in the event of a leak at the stove. Much better is a remote electric solenoid shutoff mounted on the tank.

- **Missing or inoperable pressure gauge.** Without a reliable gauge, there is no way to test the system for leaks, something that should be done regularly, especially after repairs or a severe grounding or collision.
- **Weathered, cracked or improper fuel hoses.** Hoses don't last forever, especially if they are exposed to sunlight or heat. Manufacturers typically state hose life as around 10 to 20 years. Surveyors have reported seeing gasoline and air hoses used in place of proper UL-listed propane hose.
- **Spare gas cylinders (large or small) stored inside the boat.** Spare propane tanks must be stored the same way primary ones are—never down below. Even small cylinders for portable appliances must be stored in a vented locker or on deck.

In the words of one experienced surveyor: "It is well worth an extraordinary inspection effort when you have a propane system."

## KEEPING PROPANE SAFE, from page 11

be routed directly downward to a through-hull that is well above the waterline. If the propane locker is installed within, say, another cockpit locker, the top of the propane locker must be located as high as possible toward the top of the cockpit locker's opening. The idea for all of this is to prevent any escaping gas from sinking down into the hull interior where it can settle and ignite. Therefore, holes cut through a dedicated locker where the propane supply line or solenoid wires pass through must be tightly sealed with a rubber grommet or sealant.

Attached to the cylinder's main valve, there is (or should be) a pressure gauge and a regulator that reduces the pressure to a level that appliances can safely use. (Note: The gauge won't tell you the amount of propane in the tank, as the pressure is always the same, no matter how much propane remains.) Attached to the regulator should be an electric solenoid valve that allows the propane to be turned on or off from a remote switch in the galley. An indicator light in the galley tells you that the solenoid valve is open and gas is available. The solenoid should always be off unless the stove is in use (the hand-wheel on the tank should also be turned *off* when the stove is not being used). All of these components need to be either on deck or in the locker with the tank. The hose that delivers the gas from the tank to the appliance must be marked "*UL 21, LP Gas Hose*." (Annealed copper tubing is also acceptable, but should be professionally installed.) If more than one appliance uses propane, such as a heater or grill, each supply line must also originate *inside* the locker. Anywhere a hose passes through a locker or bulkhead, it must be protected with a



Photo: Alison Mazon

**Spare propane tanks have to be secured on deck or stored in a vented locker, just like the main tank. If this tank began leaking, a spark in the engine room would cause an explosion.**



Photo: Alison Mazon

**Inoperative pressure gauges like this one won't allow you to perform critical leak tests. Any rusted components—including the tank—should be replaced immediately.**



Photo: Alison Mazon

**Propane lockers must be vapor tight to the interior of the boat. The gaps in this locker will allow any leaking propane to escape to the bilge.**

sealing grommet (locker) or some type of chafe guard (bulkhead). One place where do-it-yourselfers often err is running the hose from the tank to appliances; there can be *no* hose connections inside the boat except at the appliance—the hose has to be *one continuous piece*. In addition, all propane hoses must have permanently attached end fittings that screw together (no hose-clamped connections!). The hose should be supported with non-rusting smooth-edged clamps. Hose connected to a gimbaled stove should have sufficient slack to allow the stove to swing to its maximum angle of movement.

A propane detector can sniff out a propane leak well before it's obvious to people onboard. The sensors should be mounted low, near the stove and in the engine compartment, also down low, since this is where fumes are liable to collect. Often, sensors detect both propane and gasoline fumes, which serves a double purpose (see *Seaworthy*, April 2006 for more information on detectors).

## Testing Your System

All propane systems should have pressure gauges fitted that make testing for leaks easy. Here's how to do it: After making sure all propane appliances are turned off, momentarily open the tank's manual and solenoid supply valves to fill the system with gas. Note the pressure reading and then close the manual valve. The pressure should remain constant for at least three minutes. If it doesn't, there's a leak somewhere and the entire system should be checked. Apply leak detection fluid or a solution of mild (ammonia-free) detergent at the connections. If the solution bubbles, there is a leak. The same technique also works on a hose, for example, where it can chafe at a bulkhead. If you find a leak, shut off the system at the tank valve and have it repaired *immediately*. It's not a bad idea to put a note on appliances, telling others not to use them too. Note: Never, ever use a flame to check for leaks. ⚠



## Stuffing Box Leaks

*You wouldn't think a minor leak could sink a boat, but according to a BoatU.S. Marine Insurance claim file study, that steady drip-drip-drip from a stuffing box is responsible for the majority (35%) of inboard-powered boat sinkings and is the second most common cause of sailboat sinkings (33%).*

\*\*\*\*\*

Stuffing boxes are the picture of simplicity; they use the compression of a flexible material (the stuff) around the propshaft to seal the opening through the hull. Stuffing boxes are *supposed* to leak in order to keep themselves cool, but no more than several drops per minute underway, and *never* at rest. A stuffing box can be tightened when it continues to leak at rest, but eventually the stuffing hardens and tightening will put pressure on the prop shaft, potentially scoring the metal and making it forever prone to leaks. Chronically leaking stuffing boxes can also be caused by engine misalignment, worn cutless bearings, or out-of-balance props. Simply tightening the box may buy you some time, but the leak will return, and probably be worse. Usually, replacing the packing will remedy the problem, but if you tighten the stuffing box and the leak soon resumes, it's time to find out why.

One of the most common causes of a chronically leaking stuffing box is a worn cutless bearing. Cutless bearings are designed to wear over time, and eventually they become worn enough to allow

the prop shaft to move excessively, which makes a stuffing box much more prone to leaking. Every time your boat is hauled out, give the prop a good shake and get a feel for how much play there is; a little play is acceptable, but too much places a huge strain on the stuffing box. A rule of thumb is that a business card should not fit between the shaft and bearing. If you've recently struck something with your prop, the prop may be unbalanced, which will wear the cutless bearing, and in turn, the stuffing box (see *Seaworthy*, January 2009 for more on props). A prop may look perfectly fine after a grounding, but it's likely out of balance and will cause the stuffing box to wear and leak more. A good prop shop can make it good as new.

Engine misalignment is another cause of stuffing box leaks. Off-center shafts will wear stuffing boxes (and cutless bearings) in short order and can damage transmission bearings. Unfortunately, it is not possible to eyeball engine alignment without disconnecting the prop shaft and measuring. However, if you find a cutless bearing that is worn heavily on one side, it's a fair bet that engine misalignment is to blame.


### What's New?

There are some products on the market that can slow or even eliminate stuffing box drips, and many manufacturers now install them on new boats. One product substitutes traditional flax packing with Teflon and another substitutes Gore-Tex.

These high-tech packings are very slippery and allow the stuffing box to be tightened so that drips are no longer necessary. They also last much longer than traditional flax packing and are not expensive.

Dripless stuffing boxes are another innovation that use a precision rotating seal that does not need dripping water to cool it. They're not expensive and can usually be refitted with a minimum of fuss. Some early models needed to be "burped" after a haul-out to allow water to reenter the seal—if this was forgotten, they could either overheat and leak, or not seat properly and begin to leak in a big way. Newer versions use a hose led high up into the engine compartment, which eliminates the need for burping. Some dripless stuffing boxes have cooling water hoses that, like any other hose, could fail and leak.

### Access: Denied

One of the common threads in the claim files dealing with leaking stuffing boxes is that they are often very difficult to get to or get a wrench on to adjust. Gaining access to one sailboat's stuffing box involved removing the water heater and fuel tank. And on another boat, a small sailboat, the hull had to be cut open in order to get to the stuffing box. Boats with hard-to-get-to stuffing boxes should either have dripless packing or a dripless stuffing box installed. And boat buyers should inspect the accessibility of the stuffing box before they sign on the dotted line. 

Ever wonder where rules come from? Phil DiGenova from Tierra Verde sent a letter to *Seaworthy* about how he came up with a “One Hour Rule,” which is to always carry TWO spare tires for a boat trailer whenever you’ll be towing your boat more than an hour from home. As rules go, it’s not especially profound; it’s how he came up with the rule that’s interesting.

As with most rules, it was learned the hard way. Last summer, Phil was on his way to Northern Florida, pulling his inflatable boat, when one of his trailer’s tires blew out. He stepped out of the car and while he was staring at the completely flat tire, he heard something hissing on the other side of the trailer. A minute or two later, he discovered that the second tire had gone flat. Curiously, the hissing persisted.

Ever heard the “rule” about bad things happening in threes? Despite mud flaps and step fenders, some shards of steel (“little missiles”) had been flung off the tires and made some “teensy weensy” holes in his boat’s Hypalon tubes.

Phil was feeling, well, *deflated*. He was in the middle of nowhere; nobody gets a flat trailer tire next to a place that sells trailer tires. It was late on a Sunday afternoon, which meant that even if he had been next to a tire store, it would have been closed. After a great deal of hassling, he found a motel and spent the night plotting strategy. It worked; the next day he managed to get everything fixed and spent the following three days enjoying the Suwannee and Santa Fe Rivers.

Besides his now sacrosanct *One Hour Rule*, what did Phil learn? He says he will no longer buy just any tire for his trailer. Instead of steel-belted tires, which he says are fine for highways but not so durable on bumpier country roads, he prefers biasply tires with reinforced walls (D thickness, which are hard to find). He would have preferred 14-inch tires but then the boat wouldn’t fit under his garage, so he had to settle for 13-inch tires.

He also recommends maintaining a sense of humor whenever you face adversity and maybe looking into the BoatU.S. Trailer Assist and Tow program (800-888-4869).

In the last issue of *Seaworthy*’s “Small

Stuff,” there was a story of a boat that was stolen late at night from a Baltimore marina. The following morning the police found the boat on a nearby beach and promptly arrested the two (dozing) men who had apparently been joyriding and partying all night.

It’s always nice when the police arrest the bad guys, but what if *you* were to find a thief on your boat? A member in Massachusetts found himself in exactly that situation, and what follows is a textbook example of what *not* to do.

“Rodney” (not his real name) did what a lot of red-blooded American men would have done: He sucked in his stomach, puffed out his chest and boldly confronted the unwelcome intruder. The thief responded by knocking Rodney overboard.

A few minutes later, Rodney, dripping wet and panting, met the thief again in the marina parking lot. This time the thief flipped Rodney onto the ground and Rodney wisely decided to stay there. The man left with a GPS (Claim #881861).

The lesson: Thieves are desperate people and desperate people do desperate things, especially when they are caught red-handed. Had this person been snooping around the docks, a simple “*May I help you?*” might have been an adequate deterrent. But once it was obvious that Rodney had stumbled onto a theft, he should have kept on walking and then used his cell phone to call the police. Some thieves, after all, carry guns. And the police are much better at confronting a thief than some guy whose only weapon is his hot temper.

One more theft story. This past September, someone tried to steal a boat from a lift in the Florida Keys. The thief didn’t get far, which turned out to be good news and bad news. The following is from the marine surveyor’s report (Claim #0900960):

*“On February 28, 2009, unknown persons attempted to steal the vessel from the insured’s residence in Key Biscayne. During the evening, the boat was lowered from its lift. In the morning, it was found [the good news] sticking out of the water [the bad news] in the canal, approximately 150 feet*

*from the lift. It appears that the thieves did not put the plug in the transom drain hole prior to lowering the boat into the water.”*

Bob Duke, a member in Bellingham, Washington, wrote to *Seaworthy* commenting on the article in the April issue, “*The History of Navigation—What About Charts?*” Back in 2004, Bob wrote a book about cruising the inside passage to Alaska, “*Cruising to Alaska: Tips & Tactics from 20 Skippers,*” in which the skippers who were interviewed routinely said they preferred raster charts. Duke conducted another informal survey earlier this year and got the same result: Experienced commercial and recreational skippers all continue to prefer raster charts for shoal water navigation.

The reason, according to Duke, is that vector charts often lack detail in shoal water, which is where details are most critical. A raster chart is an electronic picture of the original chart with the boat’s GPS position superimposed. Vector charts are also based on the original paper charts, but have been digitized so that the information can be manipulated. Duke has found that vector charts are adequate as long as you’re in a well marked channel like the Alaska Marine Highway, but in shoal waters raster charts have the advantage of continuously displaying depths, bottom contours, composition and features, buoys, obstructions, and hazards.

He has a good point. With vector charts, details may or may not be there. And if they are there, buried in the software, they may not be accessible because the navigator has no idea how to get all of the needed details onto the screen. Even worse, the navigator may not know that the details can be accessed because he’s never given the manual more than a cursor read-through.

Whereas navigators used to learn their trade with parallels and dividers (still a good idea), it is now equally necessary for a navigator to also spend time learning how to get the most out of his or her chart plotter. It may take awhile for an old dog to learn all of its new tricks, but chart plotters are often capable of much more than merely showing your position on a chart.

Another point that should be made about



Not all rocks are charted.

today's electronic charts, raster or vector: While the GPS chart plotter technology may be state-of-the-art, the underlying information may be many decades old. Several years ago, the trawler above struck a rock at Kah Shakes Bay, Alaska. The boat was being skippered by a professional captain and the rock wasn't where it was supposed to be.

In "Behind the Accuracy of Electronic Charts," Captain Perugini, who recently retired as the chief of NOAA's Marine Chart Division, says that over half the depth information found on NOAA's charts is based on hydrographic surveys conducted before 1940. He notes that a given chart might encompass areas that are based on surveys conducted with a lead line and sextant in the 1890s, while another area of the same chart was surveyed last year with a shallow-water multi-beam system. Perugini said that when NOAA and its contractors re-survey areas, they frequently find uncharted features, some of which are hazardous. Others, like the one above, are "found" by skippers and, hopefully, reported to NOAA.

How soon will the information be updated? According to David Enabnit, NOAA's technical director, NOAA is currently surveying about 3,000 square nautical miles a year. That sounds like a lot but there is a backlog for critical areas that runs 40 to 50 years. The non-critical surveys, he says, will run longer than that. For some good news, NOAA updates the Raster Navigational Charts weekly and the vector Electronic Navigational Charts monthly for all critical chart corrections published in the *Notices to Mariners*. The resulting updates and updated digital charts are available for free from NOAA at <http://www.nauticalcharts.noaa.gov/>. The Print-on-Demand paper charts are also

updated weekly.

The lesson is that you should not always trust the information on a chart or chart plotter. The farther you get from channels, the more likely there could be errors. At the very least, whenever you're in dicey (shallow water) areas that are infrequently traveled, *slow down*.

Commenting on "Kids and Flare Guns" in the April issue of *Seaworthy*, Jerry Griggs, a member in

Blue River, Oregon, sent along an account he found on the Internet of a flare gun accident that occurred to two grown men fishing from an almost-new Riviera fly-bridge cruiser on the Columbia River about 10 miles from Astoria.

The boat's skipper was very safety conscious; he always wore his PFD and prided himself on having a lot of safety equipment onboard. Since his flares were due to expire in July, he had just purchased a couple of SOLAS flares. When the two men got bored fishing, the skipper got out the new flares to show his friend ("*my first mistake*"). The friend wanted to know how they worked. The skipper replied that he had no idea. Being curious, he took off the bottom part exposing what looked like a trigger. A second or two later the flare shot off directly into the cabin. As accidents go, the skipper said "*It was about as stupid as they get.*"

Smoke started billowing out of the companion way hatch. The skipper ordered his friend into the life raft while he grabbed the extinguisher and tried unsuccessfully to put out the fire. After joining his friend in the life raft, the two men drifted for at least an hour before being rescued.

None of the lessons he learned are likely to surprise anybody. Clearly it's a good idea to get some experience with flares before they're needed but this particular skipper says he's never going to touch a flare again. Instead, he's going to put more effort into equipping his life raft. The skipper was surprised, to say the least, at how quickly a fire can get started on a boat. It should be noted that he had five fire extinguishers aboard but, because of the smoke, he could only

reach one. He said the extinguisher was so small it couldn't have extinguished a burning matchbook. Maybe this guy wasn't as safety conscious as he thought.

To read a full account of the incident, go to: [www.ifish.net/board/showthread.php?t=247662&highlight=flare](http://www.ifish.net/board/showthread.php?t=247662&highlight=flare).


It's always a good idea for a "damage-avoidance" publication like *Seaworthy* to put aside the usual accounts of burning and sinking boats and conclude with a story that has a happy ending. This one is from Australia, which author Bill Bryson notes has "more things that will kill you than anywhere else." As countries go, there is not much in Australia that would suggest a happy ending. The waters are known for things like great white sharks, poisonous corals, crocodiles and deadly jellyfish. And Australia is also home to the world's 10 most poisonous snakes. So when Jan Griffith's dog, a four-year-old blue heeler named Sophie Tucker, disappeared overboard in rough seas, Jan and her husband didn't hold out any hope of ever seeing their pet again.

Four months later, Queensland park rangers found a "wild dog" living on a remote island six miles from where Sophie had fallen overboard. Some friends of the Griffiths heard about the dog and suspected it might be Sophie.

And now for the happy ending: It was!



Where's Sophie?

When the Griffiths and Sophie were reunited, the dog went crazy, according to an account in the *Queensland Daily Mercury*, and started banging her cage and whimpering. When she was released, Sophie almost flattened the Griffiths. "*She wiggled around like a mad thing.*" The overwrought pooch eventually settled down and is now living happily (as in "happily ever after") with the Griffiths. 



# The Cookie Man Cometh

*"A Maritime Tradition for Those Who are Stranded"*

The instant his boat's keel touched bottom, Jody Winningham knew he was in serious trouble. The tide on Washington's Puget Sound was falling quickly and blustery winds and lumpy seas were pushing his 38-foot sailboat, *Hello Gorgeous*, steadily onto the shoal. A few minutes spent trying to free the boat confirmed his worst fears; it was going to be a long afternoon.

After the boat had settled, Jody received a call on the VHF from a nearby resident, David Close, who had seen their predicament and was offering advice on water depth, including what to expect when the tide started coming back in. Jody thanked him and signed off; there was nothing more to do but sit and wait. It was a dark, gloomy day and the crew's spirits were falling along with the tide.

While they were waiting, one of the crew spotted a man wading near the shore, over ½-mile away. Jody assumed he was a fisherman, but after a few minutes they could see he didn't have a fishing rod. Gradually, it became apparent that the man was coming toward *Hello Gorgeous*. Over the next half-hour, Jody and his despondent crew watched as the man gingerly pushed his bulky frame through the 40-degree water (he was wearing chest waders) and two-foot waves to reach the boat. When he finally arrived, the mysterious stranger smiled broadly and introduced himself—"Hi, I'm the welcoming

committee." He was David Close, the same guy who had called earlier on the VHF.

To cheer them up, he'd brought along some Girl Scout cookies and beer. David called it a "maritime tradition for those who are stranded." Even though he only stayed for about 15 minutes David's visit helped them realize that things weren't as bad as they seemed. Jody said it was a big-hearted gesture that transformed the mood of the crew; the doom and gloom that hung over the boat like a pall had been replaced with joking and laughter.

*Seaworthy* contacted David and asked him why he would wade over a half-mile in frigid water to cheer up a group of strangers. He said he likes to fish and has been in trouble on boats a time or two himself. "The sea is not the sort of place you take lightly; there is this tradition that we watch out for one another." *Thought:* In a world where people don't seem to have much time for helping others, wouldn't it be nice if there were a few more mariners like David Close?

## Epilogue

The tide came back in late that afternoon but *Hello Gorgeous* remained stuck. Jody called Vessel Assist,



which freed the boat and towed it to CSR Marine in Ballard, where it is currently undergoing repairs for a fractured rudder (Claim #0901242). David and Jody still keep in touch via e-mail. 