



# SEAWORTHY

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

## Keeping An Eye On The Weather



Photo: Albert Barfkus

**B**ack in the days of iron men and wooden ships, weather predictions were made with a barometer, good eyesight (a weather eye), and maybe a little intuition. Today's mariner is more likely to predict the weather by glancing down at a computer screen than up at the sky. But when clouds start building and the sky's growing dark, having at least a basic understanding of how the weather works can give you a valuable head start on preparation.

Florida. By afternoon, some ominous dark clouds began building and seemed to be heading his way quickly. Jerry lowered his sails, donned a PFD, and started the engine. He decided against running for cover at his marina because he didn't want to be docking single-handed during a thunderstorm. It turned out to be a wise decision.

Jerry says he felt a refreshingly cool breeze, which he learned later was being caused by water vapor drawn up to the thunderhead where it froze and then returned back to earth. Shortly after the cool air, the breeze picked up to a brisk 15 knots. In the distance, Jerry could see spray being kicked up by even more wind. In an instant, his boat, with the sails down, was knocked onto its beam ends. Jerry said he'd never been hit so hard by a gust, but what really surprised him was the duration—the "gust" didn't last for the usual few moments, but went on for nearly 40 minutes. Soon, the VHF was crackling with boaters who

*Continued on page 12*

### *In This Issue . . .*

- ULTRA LOW SULFUR DIESEL . . . . . 6
- MINI LIFESAVERS . . . . . 8
- GOOD-NIGHT IRENE . . . . . 10
- SEAWORTHY ADVICE . . . . . 16

\*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."



## Electricity and Drowning

In the past year, there have been at least five fatalities involving people swimming near boats that were leaking current in the water. I suspect there have been others that were classified as "drownings." In accident studies, as many as 26 percent of boats in a marina are leaking some amount of current into the surrounding water. All of these have been in fresh water and connected to shore power. Because saltwater is more conductive than the human body, swimmers in saltwater are not susceptible to this sort of hazard.

There is a new device that boat owners will start noticing on the 2010 and newer boats that will eventually reduce these sorts of untimely accidents: an Electrical Leakage Circuit Interrupter (ELCI). The ELCI is now required by the American Boat & Yacht Council (ABYC) electrical standards in all 120/240V AC electrical systems. The ELCI is a residual current device that detects equipment ground fault leakage current and disconnects all ungrounded 120/240V AC current-carrying conductors from the supply source. If there is current leaking into the 12V DC system or water surrounding the boat, it will detect the missing current between those conductors. If the difference between the hot and neutral conductors is greater than 30 milliamperes, it will trip the ELCI breaker. Shore power is not the only time you have 120/240V AC power on your vessel. Whenever your generator or inverter is operating, it can have the same effects if there is improper or damaged wiring on your vessel.

Until ELCIs are used on all boats, it's important to remember why it is not safe to swim in the marinas. You should also make sure your boat and your marina are tested for any stray electrical current. I would strongly recommend that you have your vessel inspected and tested for any issues. You can start by contacting an ABYC-certified electrical technician to have your and neighboring vessels tested.

Marc Nugent  
Manitou Boatworks & Engineering  
Traverse City, Michigan

## A Plea to Slow Down

As a member of BoatU.S. and a resident of Alabama living on the Tombigbee River, I have a couple of issues that need to be addressed. First, the larger vessels that travel through residential areas without slowing throw enormous wakes, which cause severe bank erosion. Moreover, when the river has risen, the wakes caused by these vessels wash up the bank leading to further erosion.

Additionally, in the summer, some yachts do slow for small fishing boats; however, those that don't slow cause a dangerous situation for smaller boats. For instance, just yesterday, my family and I encountered a yacht as we were traveling to the closest sandbar from our house. We signaled to the driver to slow down as we approached the boat, but he disrespectfully continued at the same speed; we then pulled toward the bank and braced ourselves for the impact of the wake as the yacht continued without regard to our safety. Unfortunately, this situation is not uncommon.

At least in residential areas of the river, [practice] common courtesy in no-wake zones and slow down for smaller crafts during the summer, as this is our recreational season. A little respect would allow us to preserve our banks and share the waters safely during the summer months.

George and Susan Carpenter  
Mile Marker 172, Tombigbee River

## July Seaworthy Issue

As usual, the new edition of *Seaworthy* grabbed my attention. Lots of illumination about important things. A few comments:


**1. About chain plates and rigging failures:** We (i.e., at Cherubini Yachts, where I keep my boat and serve as webmaster) recently heard of a boat that suffered a broken whisker stay. In our restoration, we generally replace bobstays that suffer from crevice corrosion. I once picked up a piece of stainless steel from the ground, and it sure looked like the end of a whisker

stay chain plate. The key point is that owners of boats with bowsprits should be examining the bowsprit rigging very carefully and consider periodic replacements. The same would apply for the rigging of a boomkin.

I replaced the chain plates on my boat a few years ago. I had them made of duplex stainless steel (grade 2025). It is supposed to be more corrosion resistant and stronger.

About 10 years earlier, I had removed chain plates for inspection and discovered that the studs that secured the chain plates were made of stainless steel and had extensive damage from crevice corrosion. I had Monel studs made for replacements.

**2. About possible requirements to wear life preservers:** I am not against regulation, but I do think regulation should be based on accurate, empirical survey data. It is likely that a carefully targeted requirement could substantially reduce the fatalities, without impinging on lots of other boaters.



**Publisher**  
William M. Oakerson

**Editor**  
Robert A. Adriance, Jr.

**Associate Editor**  
Charles D. Fort

**Contributing Writers**  
Gregory O. Jones  
Lenny Rudow

**Graphic Artist**  
Nancy K. Roberts

**Proofreader**  
Regina D. Cruz

**Circulation**  
Nelo Karimi  
Kristin Loyd

*Seaworthy* is published quarterly (Jan, Apr, Jul, Oct) by BoatU.S. Marine Insurance, 880 South Pickett St., Alexandria, VA 22304-4695. Subscription rate: \$10 per year. Single copies: \$3.50. Tel. 800-262-8082 x3276. **POSTMASTER:** Send address changes to *Seaworthy*, 880 South Pickett St., Alexandria, VA 22304-4695.

Letters to the Editor should be sent to *Seaworthy*, c/o BoatU.S., 880 South Pickett St., Alexandria, VA 22304. E-Mail: [Seaworthy@BoatUS.com](mailto:Seaworthy@BoatUS.com). We reserve the right to edit for clarity and brevity. To get an insurance quote for your boat, call 800-283-2883.

2011 Boat Owners Association of The United States  
880 So. Pickett Street, Alexandria, VA 22304



My impression in the past is that when regulations were enacted in no discharge zones, there was little or no empirical survey data to clarify whether or not people were using their holding tanks properly and legally, and whether or not the Type I and Type II treatment systems were working satisfactorily. The result was more or less outlawing the treatment systems without empirical data. The people who were obeying the law were the people who had to pay (by junking their MSDs and installing holding tanks), and the people who were polluting were never punished for not using their holding tanks (I guess).

Is there a database that shows boating drownings, and includes significant variables such as sail, jet ski, outboard motor boat, inboard motorboat; size of boat; ages of the persons who drowned; age of the captain; whether alcohol was involved? Was the boat anchored or drifting (swimming, fishing)? Was the boat underway, and what was its speed?

### 3. Boating accident that claimed two lives:

Last summer, there was a fatal accident on the Delaware River. A barge, pushed by a tugboat, ran over and sank a “Duck” (amphibious) boat in the Delaware River, right in front of the Philadelphia waterfront. Two passengers in the small boat drowned. The case was in the courts, and what happened is clear. ([www.philly.com/philly/news/20110715\\_First\\_mate\\_charged\\_in\\_Philly\\_duck\\_boat\\_accident.html?viewAll=y](http://www.philly.com/philly/news/20110715_First_mate_charged_in_Philly_duck_boat_accident.html?viewAll=y))

On the duck boat, before starting off, a crewmember checked the engine, including the coolant. Unfortunately, he forgot to put the cap on the coolant tank. When the boat was underway, the coolant boiled and released steam. The crew thought the steam was smoke and that there was a fire in the engine compartment. They stopped the engine and anchored. The duck boat was immobilized and “not under control.” The duck boat captain used VHF to call and warn the tug that he was anchored, unable to maneuver.

On the tug, the first mate was in command, on an elevated bridge, and with good visibility. He got a phone call

about his son, who was undergoing eye surgery. The surgery was going badly. He went down to the regular [lower] bridge, which had much poorer visibility, and went to his computer to go online and learn more about what was happening. He turned down the VHF radio volume so it wouldn't interfere with these activities. Unfortunately, the captain and a deckhand were off watch, sleeping, and two other crew members were in the galley. Obviously a disaster was waiting to happen. It did.

The first mate agreed to plead guilty to “misconduct of a ship operator causing death,” the maritime-law version of manslaughter.

Note: I navigate through the very spot where this accident occurred at least twice a year, and I am very careful about maintaining lookout (at least two people on deck) and [staying] in VHF contact with commercial vessels.

Ben Stavis  
Bala Cynwyd, Pennsylvania

## Frequent Pump Failures

I am looking for information on a potentially dangerous situation with a fuel pump/cooler part I have been replacing almost every other season. I own a 2001 Stamas 310 Express with twin Mercruiser 350 Mag MPI engines. The issue is that a large amount of fuel is passing through the fuel cooler and out the exhaust, and there is a large sheen of fuel around the boat. The part number is 861156A02 Fuel Pump/Cooler Kit and the design seems to be flawed. My mechanic is a certified Mercury mechanic but he cannot explain why this is happening.

I am hoping *Seaworthy* and their resources can help me with this and hopefully prevent a possible fatal situation from occurring. Could the U.S. Coast Guard investigate?

John Bickford  
Bolton, Massachusetts

*According to Mercruiser's service director Kevin Clark, “Fuel entering the cooling system through the ‘Cool Fuel Module’ is*

*not a known failure mode.” He said the symptoms described by this boat owner suggest either that the engine is running very rich or that a cylinder is not firing.*

*“Either would result in unburned fuel exiting the engine through the exhaust system and the sheen on the surface of the water,” Clark added. He recommended that taking the boat to an authorized Mercruiser dealer was the best first step, but mentioned that they had no record of the owner's mechanic contacting their technical staff for assistance.*

*Because of the engines' age and their out-of-warranty status, Mercruiser has no obligation to provide repairs at no cost. However, BoatU.S. has found the manufacturer to be helpful in providing technical assistance, even with older engines. Regarding possible recall action by the U.S. Coast Guard, the federal defect statute for marine products lasts for 10 years from the date of manufacture. The Coast Guard does not mandate recalls of products older than 10 years.*

## Whale Watching

I have been watching “*Whale Wars*,” for a few seasons now (Animal Planet, Friday, 9 p.m. ET) and am amazed at the lack of concern or care of the captains and pilots of the various boats they use (i.e., *Steve Irwin*, *Bob Barker*, *Gojira*, and some inflatables)

I cannot believe that these people are aware of any rules of navigation on the ocean, and that they have not had licenses pulled. They have made some very dangerous maneuvers—for example, crossing directly in front of a larger, faster moving vessel—and have put their crew in danger. They have caused their own boats to be damaged and even sunk!

We had to take a boating safety course and get a certificate to drive our small boat here in New Jersey. So much of what they do goes against everything we were taught.

Bette Barr  
East Windsor, New Jersey 

## Refueling and Deck Fills

In New Jersey this past summer, there was yet another dramatic example of why you should always be present when the boat is refueled. New Jersey is one of the few states that require attendants and only attendants to pump gasoline at a service station. In this case, the attendant—a teenager—stuck the pump nozzle into a trailer boat's fish rod holder, pulled the trigger, and pumped over 100 gallons into the bilge. The fire department responded immediately and averted a catastrophe. The boat itself wasn't as lucky; the gasoline found its way into the foam core and it was declared a total loss (Claim #11000044).

It's not just fish rod holders that have been involved in people's dangerous mistakes. Most larger boats have three deck fills: water, waste, and fuel (diesel or gas), any one of which has become confused with another. Gasoline has been pumped into diesel fills and diesel has been pumped into gasoline fills. Both have been pumped into waste and water tanks, as well as the aforementioned fish rod holders (and bilges).



To prevent confusion, deck fills should be clearly marked: "Gas" (or "Diesel"), "Water" and "Waste." But the best defense against mistakenly shoving a nozzle into the wrong hole is for *you*—and not a guest—to handle the nozzle. If the job must be done by an attendant, look over his or her shoulder to make sure the nozzle is going into the fuel tank.

## Refueling, Ignition Protection and Fill Hoses— and Why You Must Open the Hatch and Sniff Before Starting the Engine

Claim #0604041: According to the surveyor's report, an explosion occurred shortly after the boat was refueled. Gasoline had leaked down out of a hole and down the exterior of the fuel pipe and into the bilge. The engine was started and the explosion was traced to an automotive starter that was not ignition protected.



Three things that boat owners can learn from this claim: First, it certainly underscores the need to use only ignition-protected parts on a boat's gasoline engine. Anyone who owns a gasoline-powered boat knows, or should know, that a single spark in an

engine compartment has the potential to destroy the boat. And—point number two—fill hoses, like any other hose on the engine, need to be inspected periodically. Even though a fill hose only holds gasoline intermittently, it is prone to becoming brittle and cracking as it ages, just like any other hose in the fuel system. The final point is one that should be etched in the mind of every skipper whose boat is powered with a gasoline engine: ALWAYS,

ALWAYS, ALWAYS open the hatch and sniff for gasoline before starting the engine. Merely running the blower for five minutes will do nothing to prevent an explosion if there is spilled fuel in the engine compartment.



## This Winter, Consider Moving Your Boat to a Larger Slip

Securing a chubby boat in a tight slip is a precise exercise anytime but it's especially critical in winter when winds can be blustery, tides can be extreme and visits to the marina are less frequent. The best way to protect your boat over the winter is to store it ashore; boats don't sink on land and they can't be bashed against pilings. If you must leave it in the water, however, it's imperative that the slip be well protected and large enough to keep the boat floating freely away from hard surfaces. If the boat is in a slip with marginal room to rise and fall with winter tides, consider asking permission to move it over the winter to a more commodious slip, one that is being vacated by a larger boat that is being stored ashore.

Other tips for in-the-water storage:

- Consider doubling up on lines, especially if the slip isn't well protected.
- Allow just enough slack in the lines to keep boats a safe distance from the pilings. A "safe" distance includes allowing for some stretching whenever the wind kicks up.
- Criss-cross the stern lines to gain more stretch and a finer angle to the piling.
- Rigging spring lines fore and aft will help to keep the boat centered and safely away from the dock and outer pilings.
- Use chafe protection at the chocks and wherever the lines could be abraded.
- Fenders can't hurt, but don't expect fenders to compensate for a poor docking arrangement.



## Alcohol, More Alcohol and Gazebos: Another Example of Why Drinking and Operating a Boat Is a Really Bad Idea

As with most late-night accidents involving alcohol, the details of what happened just before the accident were sketchy. It seems that the owner of the boat shown in the photo had to go below, although he wasn't sure why. Meanwhile the boat was rocketing through the darkness at over 30 mph with no one at the helm. Unlike similar accidents, the boat wasn't even being steered by an autopilot.

It crashed onto the beach and finally stopped after wiping out a gazebo (Claim #1105831). Unlike many of the other collision claims involving alcohol, there were no serious injuries.



## Are Your Navigation Lights Visible?



On a dark night last summer in Connecticut, a man piloting a small powerboat struck the stern of a much larger sportfisherman that had its stern light hidden by an inflatable dinghy. Fortunately, the rubber dinghy acted like a fender, minimizing damage and preventing any injuries (Claim #02083247).

Aside from dinghies (and jet skis) on a boat's transom, navigation lights have been hidden behind carelessly installed VHF antennas, outriggers, tuna towers and ring buoys. Check your navigation lights occasionally and make sure some new piece of equipment isn't restricting their visibility. Stern lights have to show over an unbroken arc of 135 degrees. Each sidelight has to show over an arc of 112.5 degrees.

## Spilled Gasoline And Common Sense

Keeping anything that isn't ignition protected away from spilled-gasoline may seem like common sense, but this past summer, there were two more claims, one on the West Coast and one on the East Coast, that involved spilled gasoline and wet/dry vacs. There have now been half a dozen wet/dry vac claims, and in all cases people were injured and boats were burned.

One of this summer's claims involved a man who was working on a boat's fuel system. Apparently he had worked mostly with diesel engines and didn't realize that even a small amount of spilled gasoline could be extremely dangerous. The second claim involved an owner who was cleaning his boat with a wet/dry vac when it accidentally ingested gasoline. In both cases, there was an explosion followed by a raging fire.

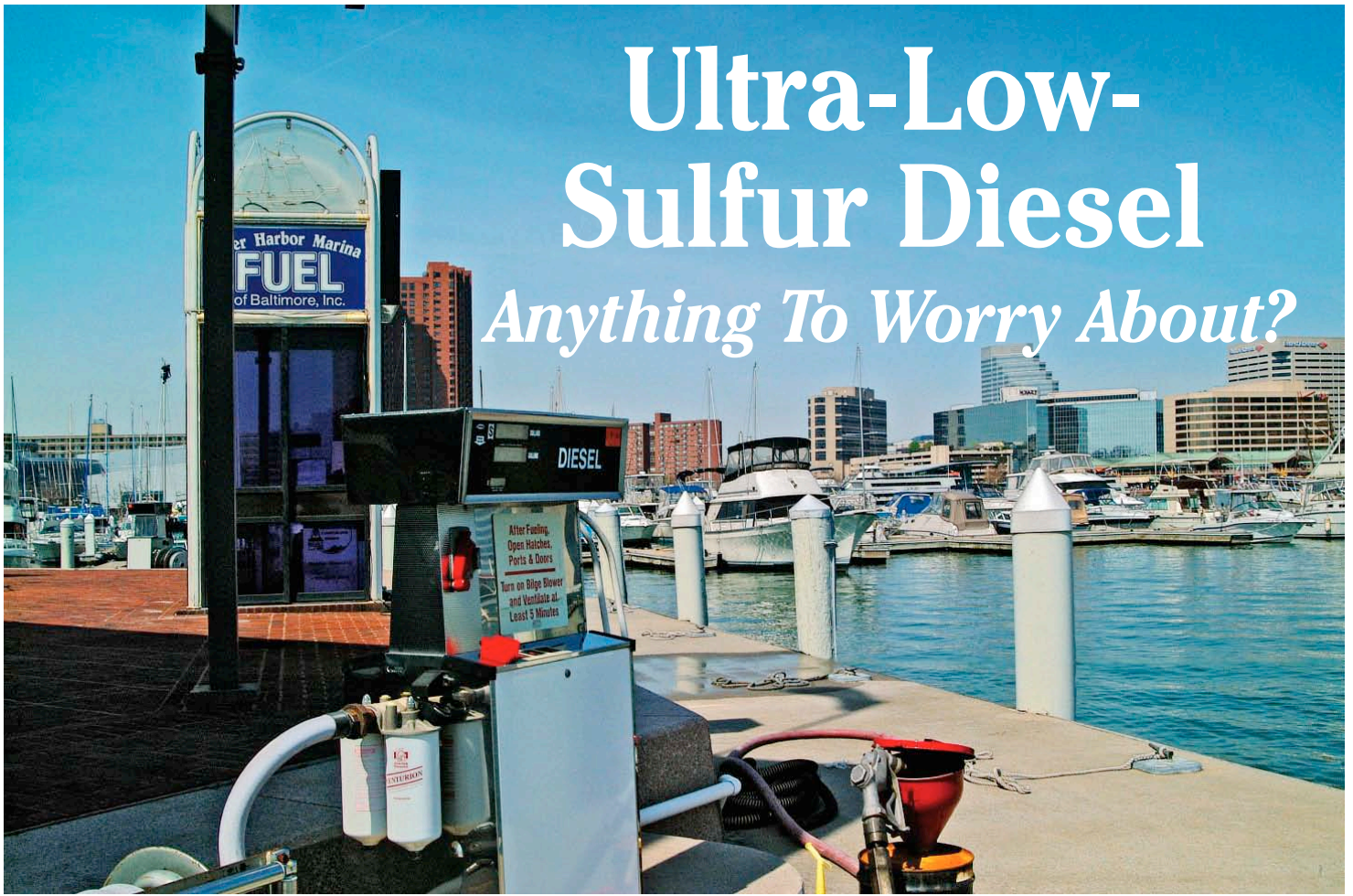
Wet/dry vacs are not the only thing that can spark and cause spilled gasoline to explode. In July, two men on a houseboat

were badly burned when fumes were ignited by a 12-volt pump. The water in the bilge was mixed with gasoline that had been leaking from the boat's engine.

Anything electrical can spark a gasoline fire, so if you smell—or even suspect—gasoline fumes, don't use any electrical equipment until the vapors have been eliminated. If you find more spilled gasoline than you can safely handle in your boat (more than you can easily wipe up with a rag), don't try to clean it up yourself. According to Kenny Athing, a technician with the Fairfax County, Virginia Fire and Rescue, firefighters handle the situation by boarding the boat (in full protective gear) to assess the situation. First, they shut off the battery switch to reduce the chance of sparking. Then, they fill the bilge with foam to suppress the explosive vapors. The boat's owner can then contact a private salvor to clean the foamed gasoline. The latter often will have a compressed air pump to safely remove the gas/foam mixture.

# Ultra-Low-Sulfur Diesel

*Anything To Worry About?*



**F**or anyone who is fond of breathing, there is a lot to like about ultra-low-sulfur diesel (ULSD). Less than two decades ago, diesel fuel contained up to 5,000 ppm of sulfur. That dropped to 500 ppm in 1993. Ultra-low-sulfur diesel, with only 15 ppm or less of sulfur, was mandated for use in most vehicles, boats and machinery in December 2010. As a practical matter, however, ULSD has been around a lot longer, since late 2006, when oil companies had to begin selling ULSD for use in model year 2007 diesel vehicles. (The latter have advanced emissions control devices that require ULSD in order to work properly.) A spokesman for one of the oil companies said that refiners typically don't have spare tanks available to offer two types of diesel fuel, so once ULSD was mandated for newer vehicles, it was usually sold to everyone. A survey of service stations by the Environmental Protection Agency (EPA) found that in September 2006, 85 percent of service stations were already selling ULSD (although less than half of the pumps were labeled correctly). And while the EPA didn't compile statistics for marinas, refiners don't store "marine"

**"Minimum lubricity is a requirement of the ASTM-D975 standard, which means oil companies must use either soy biodiesel or a synthetic additive to return fuel to its pre-ULSD lubricity levels."**

and "vehicle" fuel separately; whatever was going in trucks and automobiles was distributed to marinas.

Given the problems that arose with ethanol, the obvious question from anyone who owns an older, pre-2007 diesel is, "What's ULSD fuel liable to do to my engine?" After talking to numerous repairers, marina managers, engine manufacturers, and oil company technicians, the answer is likely to be, very little.

Below are the potential trouble areas and what, if anything, could be in store for your marine diesel engine.

## Lubricity

The most immediate concern with ULSD—certainly the one that has received the most publicity—is lubricity. When diesel fuel is refined to make ULSD, it is reacted with hydrogen to remove the sulfur. This *process* also removes much of the fuel's lubricity. (Many people mistakenly believe that it is only the sulfur that supplies lubricity.)

Lubricity is essential in diesel fuel to reduce friction at finely machined pumps and injectors; without sufficient lubricity, a diesel would grind itself to a premature death.



Minimum lubricity is a requirement of the ASTM-D975 standard, which means oil companies must use either soy biodiesel or a synthetic additive to return fuel to its pre-ULSD lubricity levels. Soy biodiesel has the potential to loosen built-up gunk in the tank and clog filters, but not to the extent that ethanol did with gasoline tanks. Note, however, that a synthetic additive is more likely to be used, since it is less expensive and more stable than soy.

## Cetane

Diesels rely on compression (and not a spark) to ignite the fuel. A higher cetane number means the fuel will ignite more readily, run smoother and produce less smoke. All diesel fuel must have a cetane rating of at least 40. Most regular diesel fuel has a cetane rating of 43 to 45, which should be fine for most boat engines. The good news is that the cetane numbers remained the same with ULSD.

Using an additive to boost cetane may help your engine, but be aware that an independent study of 19 additives sold to improve an engine's cetane rating found that five had no significant effect on the fuel's cetane rating and four additives significantly *lowered* the cetane content.

## Corrosion

Since ULSD was introduced in 2006, some suppliers have reported accelerated corrosion in underground steel storage tanks. The cause is unclear and no one is certain whether it is related to ULSD, an additive, or something that occurred during the transition from low sulfur diesel (LSD) to ULSD. (Curiously, in Europe, where ULSD has been in use for much longer, there have not been any corrosion issues, according to a report in *Fuel Oil News*.) The only solution, thus far, is to keep tanks as clean as possible with no water bottoms so there is nothing for the fuel to react with. On boats, repairers we talked with had not seen any indications of corrosion problems.

## Leaking Gaskets

When the transition was made to LSD in

1993, there were problems with leaking gaskets. Newer gaskets that resist leaking were developed, but there were some fears that the gaskets might not stand up to ULSD. After talking to numerous marina owners and engine manufacturers, leaking gaskets don't appear to be a problem.

## Water and "Bugs"

Microbial growth—bugs—needs water to grow and has always been a concern with diesel fuel. ULSD holds *less* water than older, higher-sulfur fuels. While that sounds like good news, it's not; any water that finds its way into a boat's tank is less likely to be absorbed into the fuel and is more likely to wind up at the bottom of the tank, where it can help spawn the dreaded microbial "bugs." Biocides kill bugs (as will freezing temperatures), but their tiny little carcasses accumulate at the bottom of the tank and form a funereal goo. It's possible that tanks may need to be cleaned more often to prevent filter clogging and corrosion.

The best defense is to keep water out of your fuel by keeping the tank topped off to reduce condensation, only buying fuel from a reliable source, and checking your water separator. If water starts to appear routinely, you'll have to take steps to clean your tank and polish the fuel.

## Cold Weather

The refining process used to lower the sulfur content of ULSD also can affect the content of naturally occurring paraffin (wax) in diesel fuel, which causes it to gel more readily in cold weather. For the vast majority of boat owners, who lay up their

boats over the winter, cold weather starting isn't a concern. For anyone who plans to use their diesel in winter, distributors compensate for colder temperatures by selling a winter blend. If you still have a summer blend in the tank, you'll need to use a cold-weather additive and follow the instructions. Use only the recommended

dose, as too much additive may make gel problems worse.




## Keeping Diesel Fuel Clean

Keeping fuel healthy is the key to a healthy diesel engine. Below are four important considerations to keeping fuel clean.

- 1 Start by adding clean fuel, which means buying your fuel from a reliable source. Fuel that has been languishing for months in an underground storage tank is more likely to have water, rust, and even bugs.
- 2 Microbial bugs can't live without water. Keeping the tank topped off minimizes condensation. Check your fuel separator routinely for water, which can signal a problem that will have to be corrected.
- 3 Check if your fuel distributor uses biocides in its fuel. If not, adding a biocide may be helpful, but take care to use the recommended dosage.
- 4 Change filters at least annually. Slimy, smelly filters are indications of a microbial fuel infection. If filters, especially secondary filters, look dirty, consider having your tank emptied and cleaned. Otherwise, you'll be fighting an uphill battle.

## Fuel Source

A reliable source for your fuel is (and has always been) very important. A high-volume dealer is far more likely to have fresh fuel than a sleepy, backwater marina. As a general rule, diesel fuel can be expected to remain "healthy" for at least a year. The major oil companies or distributors will sometimes use their own additives (antioxidants and biocides). If the fuel has been treated and stored in a clean (no rust), water-free tank that is in a cool (or underground) climate, diesel fuel can last as long as three years. 

# Mini Lifesavers

## *Survival Now Fits Into The Palm Of Your Hand*

At 4:07 a.m., the constant battering of 10- to 12-foot seas finally took its toll in the form of a broken rudder. Without steering, the 30-foot sailboat *White Tale* had no way to continue fighting the waves, no way to keep the bow into the seas, and no way to make for land—which was some 87 miles distant. Here, in an angry, open ocean, the captain picked up a device no larger than a deck of playing cards and pressed a single button—and in doing so, quite possibly saved his own life.

This is not a concocted story or sensationalized dramatization. It's a simple, factual account of the first-ever offshore BoatU.S. SPOT Assist dispatch. It's also an excellent example of how, in this day and age, mariners can literally hold their own lives in the palm of their hand.

A combination of miniaturization, modern satellite communications, and production efficiencies has made handheld lifesavers not only possible, but downright inexpensive. While they are undoubtedly the most effective, you now have alternatives to a large, expensive EPIRB to call for help from anywhere on the planet.

### TEXTING 1 ... 2 ... 3

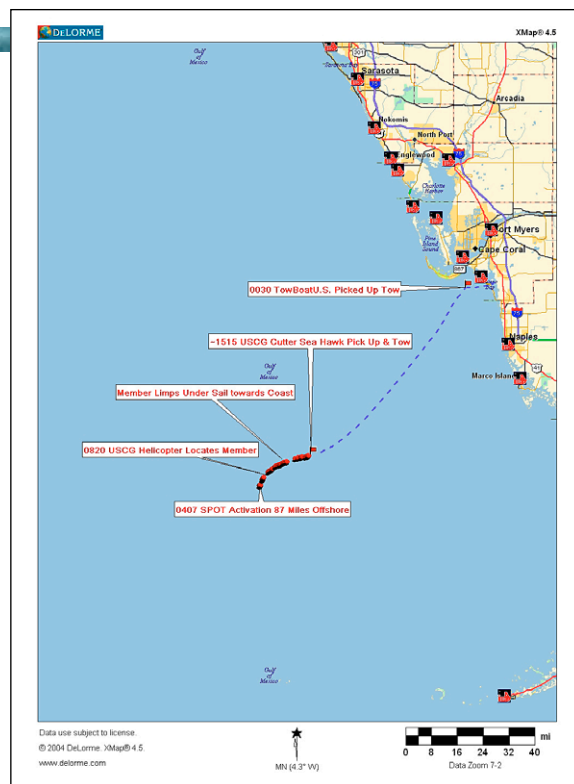
In a car, texting might get you into trouble, but in a boat, it can also get you out of it. Several units have hit the market in the past year, which allow you to text anywhere, anytime, by virtue of satellite messaging. The SPOT was the first satellite messenger, and so it's also the most familiar. But the original SPOT (introduced in 2007) offered very limited abilities. Users could press a 911 button to send a distress call to the GEOS emergency response center, or a "help" button to request assistance from preprogrammed personal contacts in situations that weren't life-threatening. And this unit—which fit in a shirt pocket

and weighed a mere seven ounces—cost only \$150 to buy and \$99 a year to activate.

BoatU.S. quickly realized the value of SPOT, and the two entities joined hands to create BoatU.S. SPOT Assist. With SPOT Assist (\$10), the SPOT can be used to summon the assistance of the BoatU.S. towing services at the press of a button. And as you do so, they'll instantly know your vessel's make, length, color, homeport, owner and family details, and your exact latitude and longitude.

That's exactly what happened when *White Tale* lost its rudder, 87 miles southwest of Marco Island, Florida. The BoatU.S. dispatcher first attempted to send a towboat, but quickly determined that the sea conditions were too rough for this type of assistance. Maintaining constant contact with the U.S. Coast Guard sector St. Petersburg, the situation was upgraded to an official SAR mission 37 minutes later. A helicopter flew to the scene and established radio contact, as a cutter got underway. BoatU.S. monitored the boat's position constantly via the SPOT, and when the sailboat's VHF failed a few hours later, that tiny unit became the only means of communication between the sailboat and rescue personnel. Every five minutes it updated their location (the captain was able to jury-rig a temporary rudder and slowly limp toward land), which BoatU.S. immediately e-mailed to the Coast Guard until the cutter arrived.

Satellite messaging has come a long way since the initial introduction of the SPOT. New, second-generation SPOT units are smaller (3.7 inches x 2.6 inches) and light-



After initially locating the stricken sailboat, the BoatU.S. SPOT Assist dispatcher was able to track its location until it made it back to port—with the assistance of the Coast Guard and TowBoatU.S.

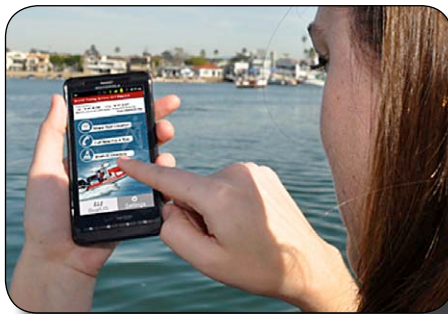
er (5.2 ounces) than the original. The one downside? Your messaging abilities are all one-way. At least, they were until the SPOT Connect was introduced. This new messenger uses Bluetooth to talk with your iTouch, iPhone, or Android, and bump messages of up to 41 characters at a time from your phone to the satellites—and vice versa.

Two-way texting is not purely the domain of SPOT, however. DeLorme has also gotten into the game, offering two-way worldwide texting on their Earthmate PN-60w handheld GPS. Again using Bluetooth, the DeLorme can communicate with the SPOT Communicator and relay texts typed out on the GPS unit's internal keyboard. These two units can be purchased for a \$450 package, or the Earthmate can also shout up to the stars—at up to 160 characters per message—using DeLorme's inReach (\$250 plus \$9.95/month), a unit that's similar to the Connect and can also bounce Android texts back and forth between satellites. Without linking up to the Earthmate or a cell phone, the inReach (4.8 x 2.9 inches, 7.9 ounces) can, like the SPOT, still send SOS messages, tracking locations, and up to three preprogrammed text messages on its own.

These units share two common traits: They're far smaller and lighter than an



## An Amazing App for Assistance From BoatU.S.



If you have an Android or an iPhone and are within cell range, you can get assistance from a BoatUS towboat with a few strokes of your finger. The BoatUS app has a feature called “Call for a Tow” and when you activate it, BoatUS will receive critical information including your exact location, boat type and size, and contact info. That can shorten the time it takes to get help, and eliminate communication errors. The app’s latest version (due

out about the time of this printing) also includes an electronic “membership card,” in case you don’t have your hard copy on-hand.

Another feature that boosts your safety margin is “Share Your Location,” which lets your friends keep tabs on you and displays your latitude and longitude on their phone. You can also send a text or an e-mail, with a Google Maps link. Plus, the app’s BoatU.S. Directory can lend a hand when you need to find out what services are available to members. Use it to get a quote or file a claim with BoatU.S. Insurance, contact the BoatUS Foundation, or just get an update on the latest BoatUS news. Check it out at [www.BoatUS.com/towing/app](http://www.BoatUS.com/towing/app), or download it for free at the Android Marketplace or the App Store.

EPIRB, and they’re much less expensive than an average EPIRB. Yet they have the ability to broadcast a distress signal along with your exact GPS coordinates anywhere, anytime, along with the new texting options. Added bonus feature: While an EPIRB is registered to and stays on a single specific boat, these units can be easily carried from boat to boat and used as portable lifesavers.

### Beacon of Hope

Though satellite messengers are the newest on the SAR scene, another palm-sized lifesaver is the modern PLB (personal locator beacon). PLBs have a couple of advantages when it comes to calling for a lifeline: They put out more power than satellite messengers, which helps them better penetrate heavy cloud cover (though this hasn’t proven to be a common problem with messengers, up to this point); they’re built to tougher waterproofing standards (RTCM standards requiring submersion to five meters for an hour

without failure, versus IPX7 standards requiring submersion to one meter for 30 minutes); and their homing beacons can be picked up by passing aircraft, as well as satellites. The latest models, like ACR’s ResQLink 406 GPS (which at 1.9 inches x 3.9 inches and 4.6 ounces is the world’s smallest PLB), broadcast both 406-MHz and 121.5-MHz homing signals as well as your GPS coordinates to the COSPAS-SARSAT satellite network. The ResQLink also adds in another safety feature, a built-in strobe light in its casing. Sure, there’s the added step of unfolding an antenna, but beyond that, calling for help is a matter of pressing the button. At about \$300, the price is a bit higher than some of these other miniature marvels, but it’s close enough that you’ll soon recoup the initial difference since you don’t have to pay yearly or monthly activation or service fees.

knowing that your unit is working properly and getting the distress message through. And some PLB units do have this ability. The AquaLink View 406, for example, has an LCD display screen that tells you what the unit’s doing, whether it’s functioning properly, and can even give you operating instructions. That screen takes up space, however, and this unit is notably larger than other handheld lifesavers at 2.3 inches x 5.8 inches and 9.2 ounces.

When you consider how good these petite protectors are, why would anyone opt for those clunky old EPIRBs? For one thing, since these other units are portable, they can’t be hydrostatically activated. EPIRB reliability has been proven through years of SAR events, and their messages go directly to SAR personnel instead of being routed through the GEOS center, which can lead to a time lag of several minutes between triggering the unit and government agency notification. So for boaters who make extended cruises offshore and are likely to remain on the water when bad weather arrives, an EPIRB is probably going to remain the number-one way to dial 911 in a hurry. If, that is, you don’t mind the extra expense, don’t need it to be portable, and don’t desire the additional texting capabilities afforded by a messenger. Either way, these new units can give you a huge safety boost each and every time you shove off the dock—and they really do allow you to hold your own life right in the palm of your hand. 🦋



**DeLorme inReach** - DeLorme’s inReach can be used for casual texting, as well as calling in the cavalry.



**ResQLink** - The ACR ResQLink is the smallest PLB to hit the world of recreational boating.



**NEW SPOT Satellite** - The latest-generation SPOT is smaller and lighter than the original version.



**SPOT Connect** - The new Connect lets you text with your cell phone, via Bluetooth communications.

# Good-Night Irene (And Good Riddance) A few pictures and lessons



This past August, marina and boat owners along the Florida, Georgia and South Carolina coasts

began watching Hurricane Irene with a sense of foreboding. It was a powerful storm that had the potential to do a lot of damage, but as it got closer to the coast, Irene started making a gradual turn northward. A lot of people were relieved but nobody was surprised. The tendency for storms to turn away from the coast and head out to sea had become almost routine, starting last year with Hurricanes Danielle, Earl, Fiona, Igor, Otto, Shary and Tomas and then earlier this year with Hurricane Emily. But unlike the other recent hurricanes, Irene didn't continue its clockwise turn out to sea. Instead, the powerful storm's course steadied and on the morning of August 27, Irene came ashore at Cape Lookout on North Carolina's Outer Banks.

For the next three days, Irene went on a rampage, steadily moving up the East Coast. Hampton Roads was hit on August 28 and then Irene went back out to sea briefly before coming ashore again the following morning in New Jersey. New York and Long Island Sound were next; although Irene was downgraded to a tropical storm, it still had significant wind and especially heavy rains. The upper Hudson River was flooded and land-locked Vermont suffered the worst flooding in centuries. By the time skies had finally cleared, Irene had done about \$7 billion in damage, including almost \$500 million in damage to boats. Below are a few photos of the storm and some of the lessons learned or perhaps relearned.

## North Carolina

Irene came ashore at Cape Lookout, which created a nine- to 12-foot surge to the north—the right side of the storm. Marinas

in Oriental, New Bern and Washington were much more likely to have been damaged than marinas on the left side of the storm



in Wrightsville Beach and Wilmington. According to BoatUS CAT Team member Brian Donnalley, boats on lifts were most likely to have been damaged by the surge as were boats in covered sheds that were lifted to the roofs.



## Chesapeake Bay

Much of the damage along the coast was to canvas—biminis and dodgers—and furling headsails. Leaving sails or canvas up during a storm creates windage and also makes it more likely that they will be shredded during a storm. Note that canvas and sails

are subject to both depreciation and the boat's deductible.

Photo: Jack Hornor



Jack Hornor, a BoatUS CAT Team member from Davidsonville, took this photo of a boat that he said was as well prepared as any boat in the water. There were double or even triple lines led to distant pilings to allow for any surge. The ports and instruments were sealed with duct tape to keep water out. All sails and canvas—bimini and dodger—were stripped to reduce windage. The boat was ready for Irene, and as you might expect, there was no damage

## New England

In New Bedford, Massachusetts, TowBoatU.S. stayed active throughout the storm. Capt. Clint Allen said one of the first things they did was rescue two men who called for help after realizing that staying aboard their boat in a hurricane was a bad idea. The rescue took place in 60 mph winds and seven-foot seas shortly after the storm had come ashore. (A couple of hours after the men were safely off of their boat, it chafed its pendant and broke loose.)

In the photo (page 11, top left), Capt. Allen had just put another TowBoatU.S. Captain, Mike McNamara, ashore to help save a sailboat that was on the rocks. McNamara climbed aboard the sailboat in six- to eight-foot seas and secured a tow hawser.



TowBoatU.S. New Bedford saved a total of 15 boats that broke free of their moorings during the storm. Capt. Allen said all of the boats had chafed through their pendants.



Several other boats in slips were also damaged or destroyed after being bashed against pilings.

Whether they were on moorings or at docks, Capt. Allen said the boats that weren't secured with larger, heavier lines added before the storm were most likely to have been damaged.

The news on moored boats wasn't all doom and gloom. The January, 2010 *Seaworthy* reported that Nantucket Moorings had begun using Dyneema mooring pendants from the cleats through the chocks where they were mated with traditional nylon pendants using eye-to-eye splices. The nylon is supposed to give a pendant the stretch it needs to absorb shock and the Dyneema, which has no stretch, is seemingly impervious to chafe. Among other things, Dyneema is used to make

bullet-proof vests.

*Seaworthy* contacted the owner of Nantucket Moorings, Dennis Metcalfe, to see how the Dyneema pendants fared when Irene came ashore in Nantucket with gusts to 65 mph. His reply: "We didn't lose a single boat." Metcalfe said in the three years Nantucket Moorings has been using Dyneema, he has never seen any signs of chafe.

Burr Brothers in Marion, Massachusetts, was another marina that didn't lose any moored boats in Irene. Toby Burr said that at the start of hurricane season, they back up their everyday nylon pendants with a second, slightly longer storm pendant that has a stainless steel inner core and a 5/8 inch poly- and woven-steel shell. The storm pendants have eyes at both ends and are made by Hercules SLR US ([www.Herculeslr.com](http://www.Herculeslr.com)), originally for use on commercial fishing trawls. In Irene, two of the boats at Burr Brothers had their nylon pendants fail but both were saved by the stainless back up pendants.

Photo: David Wiggin



Most of the boats in other harbors that wound up on the beach had chafed pendants, but a few dragged their mooring anchors, including the boat shown above that had been secured with a traditional mushroom anchor. Mushroom anchors can provide substantial holding power—up to 10 times their submerged weight—if they are sufficiently buried in mud. (Scope is also a major factor in holding power.) In many harbors with mud seabeds, like Nantucket, mushrooms have been used successfully for generations.

In a harder seabed, however, like

sand or clay, a mushroom anchor tends to stay on the surface and will provide only its deadweight holding power. As one New England harbormaster said, "If it isn't buried, you can tow it around on the bottom like a lobster trap." Another potential pitfall: A mushroom anchor can become canted—half buried—toward the prevailing summer winds, making it vulnerable when a storm comes out of a different quadrant. The mushroom anchor that failed to anchor the boat (center column) was in a harbor that had a mostly sand seabed.

Photo: Dan Rutherford




## New Jersey Coast

From Dan Rutherford: Many marinas along the coast took advantage of the long-range predictions from the National Weather Service to haul boats out of the water. This was true up and down the East Coast. At the Avalon Marine Center in Avalon New Jersey, to cite one example, employees worked from sunup to sundown for two-and-a-half days to haul and block 125 of the marina's boats. Avalon Marine Center staff also sent emails updating the hurricane's projected path and giving advice to slip holders (from the BoatUS web site) on how to prep their boats. The result was that there was no damage to boats or docks.

Photo: David Kacprovicz



## Hudson River

The damage on the Hudson River area was mostly the result of heavy rains and subsequent flooding. This is what's left of an unidentified boat that broke loose when floods swept through marinas, carrying away some of the boats (and docks). 



Nantucket Harbor

were caught in the storm and being blown ashore. The wind—a downburst, later estimated by meteorologists to be around 60 - 70 knots—quickly kicked up short steep waves. Jerry tried to keep his bow pointed into the wind and waves, knowing that if he got broadside to the wind, he'd probably lose control. Soon, there was so much spray that he could barely see and when the rain started, the drops stung like needles. Jerry grabbed a dive mask so he could peer over the dodger, but he said there was nothing to see except blowing rain and spray, and he could only hope he was still in deep water. The radio was filled with cries of panic as boats were knocked around, but no rescue vessels could be launched in the heat of the storm. When it was finally over (Jerry said it seemed like hours), he could see sailboats with shredded sails and some powerboats on the lee shore. A pontoon tour boat had been overturned but fortunately was empty except for the operator who was unharmed. Later, he heard of boaters trying to anchor in the tempest only to have anchors drag or anchor lines part. In addition to numerous boats being driven ashore and damaged, several people were injured trying to douse sails or lower anchors.

Not all thunderstorms are as intense and potentially dangerous as that one, but, as vulnerable as boaters tend to be to the weather, it pays to have some basic weather-reading skills—in addition to official forecasts—so you can be prepared.

## The Basics

### Clouds

Whole books have been written on how to predict the weather by looking at clouds, but since most people have a hard time remembering all the different types and what they signify, a simple rule of thumb is that if flat clouds get lower, or puffy clouds grow and get higher, keep an eye out for rain or a storm. Generally, the slower the clouds change, the longer the duration of the weather change. Thunderheads form quickly and dissipate quickly while slowly thickening low clouds associated with a cold front often mean a soaker. When you're looking at the sky, it's helpful to remember that most weather changes come from the west (as it did in Jerry's case), so keep your weather eye in that direction.

### Wind

Most of the time, winds are light in the morning and pick up in the afternoon, then get light again as evening approaches. This

## Weather Lore and What It Means

### ***Red sky in morning, sailors take warning, red sky at night, sailors' delight.***

A red sky at night is caused by light passing through dust particles in the air in front of the setting sun. Dust typically indicates dry weather and since most weather changes come from the west, a red sky at night usually indicates dry weather approaching. A red sky in the morning, however, indicates that the dry air has moved east and rain may be coming, especially if there are clouds that are illuminated. If the morning sky is a deep fiery red, it means a high water content in the atmosphere with the likelihood of rain. A gray sky at night means that the western air is filled with moisture and it will likely rain soon. One thing to remember, though, is that this rhyme can't predict thunderstorms that develop in the afternoon when the morning has been clear.

### ***A summer fog for fair, a winter fog for rain.***

Fog is formed when the air cools enough that the water vapor condenses. In order for the air to be cool on a summer night,

the sky must be clear, so excess heat can be radiated into space. Cloudy skies act like a blanket, absorbing and re-radiating the heat, keeping it in. So if it is cool enough (and clear enough) for fog to form on a summer morning, it will probably be clear later or at least by the next day. Winter fog is different. Above the ocean or a large lake, air is typically more humid than above land. When the humid air moves over cold land, it will bring fog and possibly rain.

### ***When halo rings the moon or sun, rain's approaching on the run.***

The halo around the sun or moon is caused by ice crystals high in the sky that indicate an approaching warm front and usually predict rain within 24 hours, though this rhyme is more accurate in the summer than the winter.

### ***The higher the clouds, the better the weather.***

High clouds generally indicate both dry air and high atmospheric pressure—usually associated with fair weather. Lowering clouds indicate approaching rain.

is a typical wind pattern, but if you find the wind speed not following the usual local pattern, suspect a change coming. The direction of wind changes can also give you a heads-up as to what's coming. If the wind changes clockwise—say, from the south to southwest to the west—it usually means fair weather on the way. If it changes counterclockwise—say, from the west to southwest to the south—it usually signifies the approach of foul weather (remember that a wind is named for the direction from which it comes). During the formation of a quick thunderstorm, the wind doesn't usually follow that rule since it often comes straight down from the clouds and spreads out in all directions, so if you feel a sudden cool wind, check the sky for towering clouds. Something to keep in mind: When the speed of the wind increases, its effect on your boat increases exponentially. For example, a 20-knot wind has four times the force as a 10-knot wind.

### Barometer

Barometers are more than just pretty brass instruments that look “shippy” on

a bulkhead. Knowing what they're saying can alert you to the advancing weather. Barometers are typically marked one of two ways: solely with numbers, or with areas of the face declaring “fair,” “changing”, and so on. The wording is misleading since reading a barometer is about noting changes. A falling barometer usually means bad weather is approaching, but it's as much the speed of the change as the change itself that's important to note. A rapid fall means bigger changes (barometers normally go through a small daily up-and-down change that should be ignored). An especially rapid rise may indicate fair weather with strong winds. Usually, checking a barometer every couple of hours is adequate.

### Thunder

If a thunderstorm is approaching, listening to thunder can tell you a lot about it. Counting the seconds between the flash of lightning and the boom gives you distance—five seconds equal about a mile. Comparing the times between the various flashes can tell you whether the storm is heading toward you or away. This takes some practice,



as you're likely to be counting while also dashing around trying to prep your boat.

### Radar

If your boat is equipped with radar, you can see the rain produced by thunderstorms. Radar can give you the range and movement of the rain, allowing you to change course to avoid the worst. Keep in mind, though, that while radar will tell you where the rain is, it won't give you any information about wind. (For more about radar, see "Radar Love," January 2009).

While using your own senses to look for signs of a weather change is a good idea, knowing the forecast before you head out is equally important. The U.S. is blessed with dozens of outlets that forecast and report the weather, most of them free of charge.

### NOAA

The most prominent weather data gatherer is the U.S. government's National Oceanic and Atmospheric Administration (NOAA). NOAA's National Weather Service (NWS) gives forecasts for all parts of the U.S. via the Internet ([www.noaa.gov/wx.html](http://www.noaa.gov/wx.html)) as well as regularly updated VHF broadcasts. All modern VHF radios can tune in to the forecasts, which operate on one of seven frequencies. Scan through the channels to find the best reception; the signal's

computer synthesized voice can typically be heard for 25 miles or more from the transmitter. The NWS also makes their forecasts available via telephone (go to [www.weather.gov/om/marine/noaatel.htm](http://www.weather.gov/om/marine/noaatel.htm) for a list of numbers). If you have a smartphone, go to: [mobile.weather.gov](http://mobile.weather.gov). Something else NOAA provides is a website that lists current wind speed, wave height, and more at a nearby weather buoy. Go to: [www.ndbc.noaa.gov](http://www.ndbc.noaa.gov) for a look.

### Weather.com

The online counterpart to television's The Weather Channel, [weather.com](http://weather.com) has its own army of forecasters, though much of their raw data comes from NOAA. Weather.com offers a text subscription service for smartphones (go to: [www.weather.com/mobile/textmessaging.html](http://www.weather.com/mobile/textmessaging.html)) as well as apps that can be downloaded to provide video forecasts for any area ([www.weather.com/mobile/](http://www.weather.com/mobile/)).

### Weather Underground

Weather Underground ([www.weatherunderground.com](http://www.weatherunderground.com)) also gets much of its data from NOAA, but supplements it with thousands of local amateur weather stations. The site features an informative blog from founder Dr. Jeff Masters that includes details about the various weather events. For those

## Marine Warnings and What They Mean

- **Small Craft Advisory** - This is issued if winds are expected to sustain speeds in the range of 20 to 33 knots. There is no definition of a small craft, but most people in small open boats and operators with little experience should stay in.
- **Gale Warning** - This is issued if winds within the range of 34 to 47 knots are forecast for the area.
- **Storm Warning** - This is issued if winds within the range of 48 to 63 knots are forecast for the area.
- **Special Marine Warning** - This is issued whenever a severe local storm or strong wind of brief duration is imminent and is not covered by existing warnings or advisories.

who use Twitter, Weather Underground offers Twitter feeds with local forecasts and severe weather alerts for specified locations. This website, like others, also allows smartphone users to see animated local weather radar, which can be used to track storms. ⚓

## One Small Price for Your Extra Peace of Mind

*With our Premier Protection program, boats valued at over \$100,000 get more — for less!*

Get \$700 worth of policy extras with your premium including:

- ▶ Lowered Dinghy Deductible — reduced to \$100 per incident
- ▶ Lowered Electronics Deductible — reduced to \$250 per incident
- ▶ Depreciation Waiver (for boats under 10 years of age)
- ▶ Additional \$10,000 for Medical Payments
- ▶ \$5,000 Personal Effects Coverage
- ▶ Ice and Freezing Coverage
- ▶ Captain's Liability Coverage



**FAST, FREE QUOTES**

**1-800-283-2883 or [BoatUS.com/insurance](http://BoatUS.com/insurance)**

Premier Protection Program for boats with hull values over \$100k. Lower value boats eligible for Premier Value Program. Ask for details. All policies subject to limits and exclusions.

■ This year's "How I Spent My Summer Vacation" Award goes to—roll the drums—Pat Piper, the editor of BoatUS *Trailing* magazine. Pat's unlikely adventure began while he was sailing alone in his 24-foot sailboat on the Chesapeake Bay. Actually "sailing" is an exaggeration; Pat was drifting on a near-windless, steamy-hot day. After several hours ghosting through the water he suddenly found that he was surrounded by a small flotilla of weekend fishing boats. Pat was bored, so using a fishing pole that someone left on his boat, he decided to join the fun. It should be noted that Pat is not a fisherman.

He says he doesn't remember whether he used a bare hook or a lure, but after a few minutes he got a bite. A big bite. The first few tugs were exciting but then the boat started moving backwards, just like in the movie *Jaws*.

Pat tried to reel in the fish while at the same time steering in reverse so that the boat would track in a straight line. While he was fumbling with the rod and tiller, he overheard someone on his VHF talking about "the rag-bagger" who had hooked something big and HIS BOAT WAS MOVING BACKWARD! The guy sounded excited. Pat's VHF was soon buzzing with chatter about some sailboat that was being dragged around by a big fish. The fact that guys who fish every weekend were excited about whatever it was at the other end of Pat's line made him nervous.

Not surprisingly, the fish got away. Pat said he was relieved. When he finally arrived back to his dock, a neighbor told him he'd overheard an incredible story on his VHF about some guy in a sailboat who had hooked a giant fish. And the fish had pulled the boat backward!

Pat didn't know what to say, so he smiled and changed the subject.

■ First runner-up honors go to Scott Croft, who, as the AVP of Public Relations at BoatU.S., is always looking for good boating stories about BoatUS employees. In this case, the story is about him.

Late one night this past July, Scott was helping a friend deliver his sailboat back from a race on the Hudson River near Nyack to its homeport in Chelsea, New York. As they were passing through the

Hudson Highlands, Scott said the full moon, sparkling water and towering cliffs reminded him of a painting from the Hudson River School. Scott notices stuff like that.

It's the more mundane, everyday types of things that can sometimes escape Scott's attention. Shortly after they rounded a bend in the river, he said a brilliant light suddenly illuminated the boat "like it was daylight." Somewhere off in the distance, a tug and barge had been coming at them very quickly and its skipper obviously thought Scott and his buddy should know. They responded by making a quick 90-degree turn and shoving the throttle forward.

Scott said they didn't have a clue the tug was there, most likely because its navigation lights were lost among the lights on shore—backscatter. Aside from keeping a sharper eye out for lights that may be hard to see, Scott says he'll cruise outside the main channel whenever possible.

■ *Seaworthy* receives a lot of emails from faraway places, including these photos of a sailboat that was stranded on Nai Harn Beach in Thailand. The photos had been passed around on the internet and were forwarded to *Seaworthy* by Bill Livingston, a member in Mexico.



Judging by the size of the waves, the anchorage doesn't appear to be very well protected. A photo caption said the boat had been left unattended and wound up on the beach after a wind shift. The 1.5-inch rope from the salvage tug broke six or seven times before it finally held and the sailboat was dragged back to deep water. Judging from the photos, damage to the sailboat appears to be minimal.

The moral: Don't leave your boat unattended when it's in an exposed anchorage. Or, better yet, don't anchor in an area that isn't well protected. Finally, keep in mind that thanks to the Internet, your mistakes could be seen by thousands of people all over the world.

■ Terri Parrow Botsford, VP of Internet Operations, recently got an iPad and has been on a quest to read as many things as she can on its 9.7-inch screen. Thanks to Terri, *Seaworthy* is available for Kindle app readers at Amazon: [www.BoatUS.com/Kindle](http://www.BoatUS.com/Kindle). The cost is \$0.99 per issue. Note that BoatUS members can also read *Seaworthy* on their tablets for free, albeit in the slightly less user-friendly PDF format.

■ Terry Hill called *Seaworthy* this past July to report a strange snail that had begun showing up in engine intakes, causing a few to overheat. Terry is a TowBoatU.S. tower in Woodbridge, Virginia and also the owner of a local repair facility, Potomac Marine, which gives him a leg up at spotting trends on the upper Potomac River. Last year, Terry saw one or two boats with the snails and shrugged it off. This year, he says the problem has become much worse, with dozens of boats being affected. The snails are becoming rampant, threatening to disrupt the area's ecosystem. When some of Terry's friends scooped up a handful of the creatures, they soon discovered that snails quickly give off a terrible odor ("very stinky—ugh"). As for the boats, anything that has the potential to restrict the flow of cooling water has the potential to wreck engines. One of the boats in Terry's yard had \$4,000 damage to one of its engines. Terry is afraid that the sudden appearance of the snails is only going to get worse.

Terry did some research and found





Regarding invasive species, a lot of press has been given to the bony (and ugly) Asian silver carp, which have been crowding out indigenous game fish on many of the nation's waterways. Whenever they hear a boat engine, the carp leap into the air, frequently smacking into boats and people. As far as most boaters are concerned, they're at the very top of the nuisance scale.

out the snails are called Chinese mystery snails, Japanese mystery snails, or Asian mystery snails. Whatever you call them, they most likely found their way into the nation's waterways after being released from someone's aquarium, perhaps as far back as the 1940s. They are capable of reproducing quickly and can grow to about the size of a walnut. (The "mystery" has to do with the way their fully developed young mysteriously appear.) It seems that it's the younger snails—ones that are smaller than an eraser head—that have been getting into the engine intakes.

Like the better-known zebra mussels, the mystery snails are capable of doing considerable damage to an engine if enough of them take up residence in the boat's raw-water intake. *The damage is not covered by insurance.*

To guard against snails, mussels and anything else that might take up residence in your intake, make it a habit of checking the flow of exhaust water every time you start your engine. Glance at the temperature gauges regularly and consider installing an engine overheat alarm if you don't already have one. The latter gives you peace of mind, especially in areas where these sorts of interlopers are becoming commonplace.

The word nuisance doesn't describe what happened this past summer when a "fish" leaped aboard a research vessel in South Africa. The *Cape Times*, a South African newspaper, reported that the researchers heard a splash and saw a great white



shark hovering above the stern. It came down half in and half out of the boat. The researchers hoped—prayed—that the flailing creature would work its way back into the water. Instead, the 10-foot, 1,200-pound shark fell inside the boat and continued its flailing. Luckily they were in a large boat.

Even luckier, at least for the shark, the researchers were researching great white sharks; without creatures like the one

flopping around on their boat's stern, they'd be out of work. Once the shark had settled down, the researchers poured water over its gills to keep it alive and quickly headed back to the dock. Using a crane, the great white was hoisted off the boat and placed back into the water. The *Cape Times* article said the shark thrashed around for a few seconds and then swam quietly toward the harbor entrance.


It's almost winter, a time of quiet reflection, long walks, evenings by the fireplace, and for anyone who yearns to be back on the water—let's be honest here—a time of BOREDOM and COLD. If you're looking for some action, but not too much, consider taking a boating course offered by the Power Squadron or Coast Guard Auxiliary. The courses are free and they're held in heated buildings.

The Coast Guard Auxiliary offers courses in Sailing Skills and Seamanship, Boating Safety, America's Boating Course®, Suddenly in Command, Global Positioning System (GPS) for Mariners, Personal Watercraft, Weekend Navigator, and How to Read a Nautical Chart. The Power Squadron offers their well-regarded Boat Smart and Chart Smart courses.

To learn about locations and times for these and other courses, check the BoatU.S. Foundation CourseLine: [www.BoatUS.com/Courseline](http://www.BoatUS.com/Courseline).



Dan LeBlanc, who transports boats all over the country, sent along this photo of a large megayacht he saw at a Florida boatyard. Dan didn't think much of the blocking job done by the yard. Aside from the shaky supports under the keel, note that the jack stands aren't chained together, as is recommended by the American Boat & Yacht Council (ABYC) TY-28 standard for Boat Lifting and Storage. ⚠



**Q**—How did this golf cart in Santa Fe, Texas land on top of a boat (Claim #0911261)?

**A**—The boat was kept in a boathouse that also doubled as a garage. A woman was driving the cart into the garage when she was distracted by a bee. (Texas has a lot of killer bees, which are definitely distracting.) She lost control of the cart, ran onto the boat's foredeck and smashed through the windshield. No injuries other than to the boat.



Photo: Bill Wahab



**BOAT OWNERS ASSOCIATION  
of THE UNITED STATES**  
Washington National Headquarters SEA  
880 South Pickett St., Alexandria, Va. 22304

## ***Seaworthy: All The Advice That's Fit To Print*** ***Our annual plea to readers to give gift subscriptions of*** ***Seaworthy to friends and family***

**I**n this issue, editors are going to “lay it all on the line” about what advice is fit to print in *Seaworthy*. The point has always been to help you, the readers, learn from other people’s mistakes; there’s no use blowing up your boat, for example, to learn that you should have been inspecting your fuel system occasionally for gasoline leaks. But while we’ve tried to include the finer points of avoiding boating mishaps, we’ve also been careful not to insult our readers by publishing accounts of really obvious mistakes.

Until now: This past August, a boat owner in Norfolk, Virginia left the security of his marina and went sailing just before Hurricane Irene came ashore. The reason, the skipper said later, was that he was worried about his boat being damaged so he was trying to take it to a more secure location that was 150 miles further inland. That’s certainly a viable strategy if the hurricane is still a day or two offshore. But his decision to cast off the lines and raise the sails when the wind and waves were already building was not well thought out and, not surprisingly, the skipper and boat quickly got into trouble. Shortly after leaving the marina, conditions became horrendous and

the forestay parted. The boat’s engine wouldn’t start. The skipper threw out the anchor. The windlass pulled out of the deck. When the boat had dragged to within a few yards of the surf line, the skipper put out a mayday. Given the conditions, rather than launch a helicopter or surfboat, the Coast Guard opted to conduct an old-fashioned rescue from the beach. The skipper and his girlfriend, who was also aboard, were rescued. Shortly afterward, the boat came crashing through the surf and wound up on a beach. The boat was not insured by BoatUS. In fact, it appears that the boat wasn’t insured by anybody.

A few points that are begging to be made: 1. Some hurricane prep strategies work better than others. 2. It’s a good idea to insure your boat. 3. It’s an even better idea to insure your boat with BoatUS because in addition to paying (legitimate) claims quickly, you can get a lot of practical advice by reading *Seaworthy*.

One more point: If the skipper had read *Seaworthy*, he would have known that the time to begin planning for a hurricane is before the start of the hurricane season, not during a hurricane. If you know someone who owns a boat but still has a lot to learn, for only \$10 (\$18 for two years) you can give him or her a gift subscription to *Seaworthy*.

We’ll send a card saying the subscription is from you. Note that you can also give yourself a subscription (paper copy) for only \$6 a year.

For subscriptions, call 800-262-8082, ext 3276. You can also go to [www.boatus.com/Seaworthy](http://www.boatus.com/Seaworthy) and click on “Gift Subscriptions.” Or write to *Seaworthy*, c/o BoatU.S. 880 South Pickett St., Alexandria, VA 22304.

### ***Seaworthy (The Book)***

Published by McGraw Hill/International Marine, *Seaworthy* (the book) has 280 pages of advice on how to avoid all the things that can ruin a peaceful afternoon on the water—collisions, fires, falling overboard, sinking, etc. There are over 150 photographs.

*Seaworthy* is currently available in hardcover for \$17.54 plus shipping at [Amazon.com](http://Amazon.com) and all major bookstores.

\*\*\*\*\*

*“I am on my third reading of this book, making notes on what else I might do to my own boats to prevent the problems that have been expertly identified. Great book! Richard H. May, Orange Park, Florida. ⚓*



# Seaworthy: All The Advice That's Fit To Print

*Our annual plea to  
readers to give  
gift subscriptions of  
Seaworthy to friends  
and family*

Photo: Bill Wahab



**I**n this issue, editors are going to “lay it all on the line” about what advice is fit to print in *Seaworthy*. The point has always been to help you, the readers, learn from other people’s mistakes; there’s no use blowing up your boat, for example, to learn that you should have been inspecting your fuel system occasionally for gasoline leaks. But while we’ve tried to include the finer points of avoiding boating mishaps, we’ve also been careful not to insult our readers by publishing accounts of really obvious mistakes.

Until now: This past August, a boat owner in Norfolk, Virginia left the security of his marina and went sailing just before Hurricane Irene came ashore. The reason, the skipper said later, was that he was worried about his boat being damaged so he was trying to take it to a more secure location that was 150 miles further inland. That’s certainly a viable strategy if the hurricane is still a day or two offshore. But his decision to cast off the lines and raise the sails when the wind and waves were already building was not well thought out and, not surprisingly, the skipper and boat quickly got into trouble. Shortly after leaving the marina, conditions became horrendous and the forestay parted. The boat’s engine wouldn’t start. The skipper threw out the anchor. The windlass pulled out of the deck. When the boat had dragged to within a few yards of the surf line, the skipper put out a mayday. Given the conditions, rather than launch a helicopter or

surfboat, the Coast Guard opted to conduct an old-fashioned rescue from the beach. The skipper and his girlfriend, who was also aboard, were rescued. Shortly afterward, the boat came crashing through the surf and wound up on a beach.

The boat was not insured by BoatUS. In fact, it appears that the boat wasn’t insured by anybody.

A few points that are begging to be made:

1. Some hurricane prep strategies work better than others.
2. It’s a good idea to insure your boat.
3. It’s an even better idea to insure your boat with BoatUS because in addition to paying (legitimate) claims quickly, you can get a lot of practical advice by reading *Seaworthy*.

One more point: If the skipper had read *Seaworthy*, he would have known that the time to begin planning for a hurricane is before the start of the hurricane season, not during a hurricane. If you know someone who owns a boat but still has a lot to learn, for only \$10 (\$18 for two years) you can give him or her a gift subscription to *Seaworthy*. We’ll send a card saying the subscription is from you. Note that you can also give *yourself* a subscription (paper copy) for only \$6 a year.

For subscriptions, call 800-262-8082, ext 3276. You can also go to [www.boatus.com/Seaworthy](http://www.boatus.com/Seaworthy) and click on “Gift Subscriptions.” Or write to *Seaworthy*, c/o BoatU.S. 880 South Pickett St., Alexandria, VA 22304.

## Seaworthy (The Book)

Published by McGraw Hill/International Marine, *Seaworthy* (the book) has 280 pages of advice on how to avoid all the things that can ruin a peaceful afternoon on the water—collisions, fires, falling overboard, sinking, etc. There are over 150 photographs.

*Seaworthy* is currently available in hardcover for \$17.54 plus shipping at Amazon.com and all major bookstores.

\*\*\*\*\*

*“I am on my third reading of this book, making notes on what else I might do to my own boats to prevent the problems that have been expertly identified. Great book! Richard H. May, Orange Park, Florida.*

*“My choice for a textbook to use in boating safety classes . . . I really enjoyed this book.” –Greg Mansfield, Good Old Boat Magazine*

*“A permanent and well-worn fixture on my boating resource shelf.”*

Dan Armitage, Boating Columnist 

