



SEAWORTHY

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

A Preventable Dockside Tragedy

By Kevin Ritz



Lucas Ritz: 1991 -1999

We were a live-aboard family with three active children at a fresh-water marina on a tributary of the Willamette River near Portland, Oregon. Other kids were already swimming in the cove because it was that kind of day—hot and lazy. This was a common practice by adults as well as children during the warm summer of 1999.

so it was great fun and presumed safe to play in the water. Our children were schooled in aquatic safety. Being young professional people, my wife, Sheryl, and I had taken every precaution we could for peace of mind in a water environment.

On the inside of the dock, the kids were having a great time floating down with the river current on an inner tube. Lucas moved away from the others toward his mother, who was keeping pace on the dock with the children's water activity. As he approached the ladder to get out of the water, he let out a loud gasp, immediately rolling onto his back in his life jacket, apparently unconscious. Sheryl yelled to the other kids to help him and jumped into the water herself.

As the kids approached Lucas, they felt a slight tingly sensation in the water and immediately backed off. Upon

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Our sons Ian, age 10, and Lucas, age eight, asked to swim with their friends. Permission was granted, subject to close adult supervision by parents including their mother, a graduate nurse. The boys were both wearing Type II life jackets,

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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."



"With my digital voltmeter, I went to the area where Lucas had been, put the negative lead to a ground, dropped the positive lead into the water, and immediately got AC voltage."

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hitting the water downstream from Lucas, Sheryl's extremities went numb and she experienced extreme difficulty moving her limbs, which, at the time, she attributed to fear. Somehow, Sheryl managed to pull Lucas to the dockside where others assisted in getting him onto the dock.

I arrived moments later after hearing the commotion and, along with another onlooker, started giving him CPR, which we continued until the paramedics took over approximately 15 to 20 minutes later. Our beloved Lucas was pronounced dead at 6:30 p.m. at Portland's Emanuel Hospital. One moment he was laughing and playing—an instant later, his short life was over, leaving our hearts broken forever.

As parents we suffered agonies of "how did this happen?" This question then turned into "why did this happen?" We relived every moment trying to sort out what we did or didn't do. It was not until the next morning that we were able to start unraveling the pieces of the mystery. The first assumption was that he drowned. However, he was wearing the best life jacket money could buy, which kept his face out of the water even though he was unconscious. He was pulled from a floating position only moments after rolling onto his back and CPR was started immediately. Also, at no time during CPR could we detect a heartbeat and his color was good. Neither of these observations would indicate drowning.

As Sheryl was telling me what had happened, she said she had never been so fearful in her life as to have her extremities tingle and go numb to the point where she could hardly move while in the water. Ian then related to me for the first time that he also felt a tingling as he approached his brother. Upon hearing all this it seemed clear to me that he did not drown, but that somehow, some way, AC electricity was present in the water where the kids were swimming. Our Lucas had been electrocuted.

I then called the County Coroner's office, requesting an autopsy if they had not already done so, because knowledge of the

circumstances and common sense pointed to electrocution, not drowning. They argued that there were no burns on his body. I pointed out that Lucas had been in an electrolytic solution, which eliminated the resistance of the skin (ordinarily skin resistance results in burns when an individual is electrocuted on land). To my complete horror, they responded that they would not know how to test for something like that.

I told them that testing was not difficult and that I was going to test the water in the area. I then called the local Sheriff's Department and left a message telling them my suspicions. With my digital voltmeter, I went to the area where Lucas had been, put the negative lead to a ground, dropped the positive lead into the water, and immediately got AC voltage. I notified the Sheriff's Department, reporting what I had found. They agreed to send out some deputies while I called in an electrician to confirm my suspicions. He arrived later that morning, tracing the electricity to a powerboat that was in the area where the kids had been swimming.

Concerns about liability soon unleashed a stream of other investigators, all of whom were suddenly interested in determining the source of the current. The local utility company wound up sending a team. The owner and manager of the marina arrived. More deputies were called.

Meanwhile, the electrician and I continued our investigation, focusing on the powerboat. We found a 12V wire lying on top of an AC wire, which had gotten hot enough to melt its own insulation and that of the hot (black) AC wire. This put 120V AC into the entire ground system of the boat, including the engines and propellers. This, coupled with lack of an AC safety ground, forced the voltage and electrical current into the surrounding water.

Fresh water is not a good electrical conductor; therefore the AC was unable to reach ground at a sufficient current to trip the breaker. Because of its high salinity, the human body is a much better conductor of electricity than fresh water. (Saltwater is more conductive than the human body,

which explains why electric shock deaths have not occurred in saltwater.) As Lucas approached the ladder, he passed into the field of AC current and, for a brief moment, completed the circuit to ground. His heart was stopped instantly; the insidious path of electrical current took the life of our son.

At first we considered this a freak accident—a unique set of circumstances that just happened to us. But this event completely changed my life and my focus. I was determined to understand how this could happen and to do everything I could to keep it from happening again. I did not want anyone else to suffer the pain we had suffered. With the collaboration of my business partner, Andy Tufts, I wrote a couple articles for The American Boat and Yacht Council (ABYC), describing the accident and the actions that I have taken to create public and professional awareness of the problem, to provide education and a better understanding of the concepts involved, and to encourage the following of the ABYC standards and the use of ground fault-type devices onboard boats and in marinas.

I determined to enhance my own knowledge so that I would have a solid understanding of the workings of AC currents in freshwater environments. Andy and I have done that using many different avenues, not the least of which was ABYC. We are now both ABYC Master Technicians. Also, the thrust of our marine business changed significantly from emphasis primarily on sales to one concentrating on keeping boats electrically safe using ABYC standards. Our business motto became "Safer Boating Begins With A Safe Boat." On-line, I also started checking out freshwater drownings with the suspicion that many were possibly electrical current related.

Much has happened in the years since and all of it good. The awareness of "electric shock drowning" as a serious freshwater issue has significantly increased. A USCG-funded ABYC grant implemented by Capt. David Rifkin and James Shafer has greatly added to the understanding of how AC current behaves in fresh water.

The truth is that most people electrically

shocked in fresh water, unlike my son, *are* drowned. This is because of skeletal muscle paralysis caused by low levels of AC current using the body as part of its return path to its source. This is what Sheryl experienced when she jumped into the water to rescue Lucas. That she didn't drown or get electrocuted was due to the voltage gradient of the electrical current from its source. She entered the water farther from the faulty boat leak than Lucas. Depending upon several bodily factors, a range of say 15 to 30 milliamps (mA) of AC current will create muscle paralysis, and the drowning of even good swimmers is the result. An AC current flow of around 100 mA will put the heart into fibrillation, and death will likely follow within seconds. This is a very serious problem, but it is preventable.

First and foremost, no one should go in the water at a marina. Signs should be posted on every pier warning people to stay out of the water. But, since not everyone will read this article, and since people often ignore signs, (as happened in the case of 19-year-old girl in 2005), or may fall into the water accidentally, the only certain cure is to have GFCI-type devices installed on boats that would automatically interrupt the flow of electricity in the case of a fault. There have been at least 60 needless fatalities and 100 unwarranted casualties from freshwater electrically induced faults. The solution in the future may be ELCI's (see sidebar).

The unfortunate reality is that currently

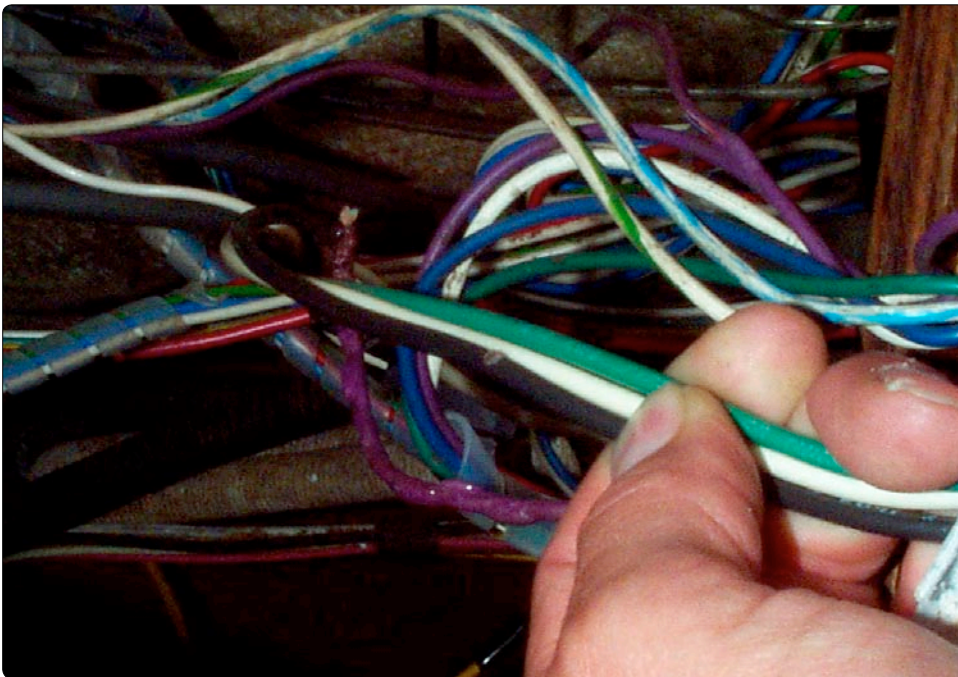
The Long-Term Solution: Equipment Leakage Circuit Interrupters (ELCI)

Lucas's death will not have been in vain if my efforts and involvement with ABYC have played some small part in the creation of a new ABYC E-11 standard that would require the installation of an Equipment Leakage Circuit Interrupter (ELCI) device on boats (already required by code for land-based damp environments such as bathrooms, kitchens, hot tubs, etc.). In our situation, if the 120V AC ground wire had been bonded to the metal components on the boat (i.e. the negative side of the battery), the energizing of the 12V DC system with the 120V AC would have most likely tripped off the shore power breaker, severing electrical current flow. Or, if a Ground Fault Circuit Interrupter (GFCI) breaker had been installed by the marina ahead of the boat's shore power, even 10 mA of current would have tripped it. So, bottom line—if the boat had been properly wired with an ELCI device or the marina placed a GFCI in front of the shore power cord, our son would still be alive today.

Once adopted and implemented on a vessel, the ELCI device, along with ABYC E-11 compliance, coupled with other pertinent ABYC electrical standards, will significantly reduce the odds of an elec-


trically induced death because of an on-board wiring problem. Following standards will not only keep people on the boat electrically protected, but those in the water around the boat will be safe as well. After the accident, GFCI breakers were installed on each of the marina's shore power distribution points. The only problem has been with new people coming to the marina who have tried to bypass the GFCI because their boats have electrical faults and they're tired of resetting breakers.

My business partner and I did extensive research into this issue and have conducted seminars for law enforcement personnel and local, national, and international marine investigators. We also serve as a resource for several agencies if there is a suspicion that electricity might be a factor in a drowning. Our intent is to set up a web site giving technical information on the functioning of electrical currents in fresh water. If this information had been available to us, we would not be still grieving the loss of our son. If this story doesn't say anything else, understand that a relatively simple fix could have prevented years of pain.



Note the very small melt in the AC Hot. This tiny connection between the AC and DC systems was all it took.

there is no post-mortem evidence available to coroners to ascertain whether electricity was involved in a drowning. Nor do most law enforcement personnel have the technical skills or tools to investigate this type of accident. This lack of knowledge, training, and tools leads to questions about how many deaths have occurred due to faulty wiring on boats. Some time after Lucas's death, two Multnomah County River Deputies and I conducted a random sampling of 50 boats in three freshwater marinas in the Portland area. We found 13 boats leaking potentially lethal electrical current into the water. A ratio of 26 percent of faulty boat wiring leads one to wonder if the number of reported electrical deaths in fresh water is only the tip of the iceberg. If you have any doubts about your boat, it should be inspected by an ABYC-certified technician. Do not depend on an electrician with experience only on land. Let's boat safely and save lives.

For more information, contact Kevin Ritz at Kevinritz@gmail.com. 

Boat Wakes and Anger

Regarding your article on wakes, I see that you advise skippers who are creating large wakes to pass other boats from as much distance as possible. While I have observed that wakes do flatten out after running a long distance as you say, I have also observed that wakes generated by boats that pass me abeam at 100 yards or so continue to rock my boat for several minutes. Look at any aerial photo of the wake of a boat and you will see that as the wake spreads out from the boat, more wakes develop. If a boat passes me close abeam, I have one or two wakes to hop over at a comfortable angle. If a boat passes me from a distance, I have dozens of wakes to roll me for what seems an endless period of time, tossing my passengers belowdecks and above from side to side.

Whether overtaking or meeting, speed and thus the size of the wake produced seem to be the safety issue when passing close abeam. When passing wide, the issue for me and the safety of my passengers is incessant rolling.

Captain Max Miller
Columbus, Ohio

According to Dave Gerr, a naval architect and director of the Westlawn Institute of Marine Technology in Mystic, Connecticut, there are no more "wakes" created with distance. A wake fans out in the usual V pattern. Usually, it's a double V (bow and stern waves), but this varies with speed and boat type. It may feel like there are more wakes because, as they fan out, the two wake waves are separated by a greater distance. Thus, close by, you have two quick bumps, but further away you'll have the first bump (wave) and then a longer wait until the second one hits you. Finally, if a wake reflects off the bank of a river or lake as well as off the bottom, it can create multiple waves, though the additional waves are wake reflections, not the wake itself.

I have had my own experience in a no-wake zone when an Army barge came through a bridge underpass as we were approaching. It was clearly not designed to plane; the mightily powered barge was only doing a few knots but was throwing a four-foot-high wake—and we were too

close! My brother-in-law was at the helm of my 18-foot runabout and didn't realize the situation. He had time to turn and run, but instead he cut power completely to wait for the barge. Ten seconds later, when the bow nosed into the trough, a foot-and-a-half of water came over the bow, washing my son through the open bow access. Everyone was okay. Had we taken the wake on the beam, I am sure we would have rolled. The bilge pump ran for 10 minutes. We laughed later, but it was a very sobering experience.

Tom Tillotson
McLean, Virginia

Non-Pyrotechnics

The letters suggesting SOS lights as an alternative or supplement to flares was informative. However, I have been unable to find an SOS light at the major marine suppliers. The ACR light has been discontinued and is not to be restocked. Any suggestions on an American manufacturer of such a device?

Roy Cucchiara
St. Petersburg Beach, Florida

Kevin Osborn, the AVP for Product Development at West Marine, confirmed that ACR had discontinued production of the Distress SOS Night Signal which is the only USCG approved nighttime signaling device we are aware of that can be used in lieu of flares. Kevin said West Marine currently carries a non-pyro signaling device called the Rescue Laser Flare, which emits a fan of laser light that can be seen up to 20 miles away. It was originally designed for signaling aircraft. It can be used in addition to flares but it is not Coast Guard approved as a signaling device.

Kudos for BoatU.S. Claims

Our phone rang at 3:15 a.m. on Monday. The yacht club where we keep our 42-foot Sea Ray on Lake Gunterville had suffered from severe winds and the slips had broken loose, ending up against the highway causeway a quarter-mile away. We rushed to the scene to find local fire and marine police had evacuated the liveaboards that rode the storm out. Once the sun came up, we began assessing the damage.

Of the 60+ vessels involved, most were unhurt or only slightly damaged. However, several boats were aground or trapped in the wreckage of the covered slips, ours included.

I phoned BoatU.S. later that morning and that afternoon was pleased to meet the BoatU.S. adjuster on site. In the meantime, we had received a phone message back at home from BoatU.S. letting us know that they understood something had happened at our facility and wanting to make sure we were all right. The professionalism of our adjuster and of the folks at BoatU.S. Headquarters was great. Once we were able to settle down and get estimates for repairs, BoatU.S. came through right away with a settlement check.

Comparing notes with our dock mates who were insured by other companies, those of us with BoatU.S. were by far better off than the rest. Some adjusters took weeks to arrive on site and were much less than helpful. Our adjuster, John Killough, followed up several times to make sure that we were being taken care of. We could not ask for a better response during our time of



SEAWORTHY

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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. We reserve the right to edit for clarity and brevity. To get an insurance quote for your boat, call 800-283-2883.

2009 Boat Owners Association of The United States
880 So. Pickett Street, Alexandria, VA 22304

need. Thank you to everyone at BoatU.S. for doing a great job.

Murray Beck
Guntersville, Alabama

Learning the Hard Way

Keep up the good work! Your *Seaworthy* publication is a “must-read.” Since becoming a BoatU.S. member, I’ve learned a lot about preventing mishaps. I just forwarded the July 2009 issue to my mate, Keith. Not reading it cover to cover is *not* an option. In our three years of sailboat ownership, we’ve experienced some amazing things while on the waters of southern Chesapeake Bay: rogue waves you can’t outrun; sloppy charting and shifting shoals; squall lines and waterspouts; finding yourself in irons while in a busy shipping channel (when the VHF radio AND outboard motor decide to conk out simultaneously); learning at a bad time that your anchor line is tightly wrapped around the keel and centerboard; why you need to become an amateur meteorologist; what can happen when you step off the boat and miss the finger pier; and much, much more!

We have had some bumpy experiences, and some wonderful ones too. But your publication has helped to open my eyes to putting preparation and preventive maintenance first.

Marci J. Brown
Virginia Beach, Virginia



How Not to Store a Boat This Winter

Thought you might find the attached photo useful for what not to do when storing your boat on land. I drive past this boat every time I go to my own boat. It has been “on the hard” for about four to five years without any owner attention. Note the complete lack of keel support. Also, note the lack of plywood underneath the jack stands to keep

them from sinking into the ground. Finally, note the damage to the chine area as well as the concave deflection of the hull above the damaged chine. Everything you could do wrong was done wrong.

Anthony Caruso
Mentor, Ohio

More on Corrosion

I wanted to commend you for your article “Avoiding Metal Fittings Failures,” in the Vol 27, April 2009 edition of *Seaworthy*. For years while working at the USCG Office of Boating Safety, I answered many questions about this topic. There is much confusion among boat owners, and even surveyors and repairers about the different types of corrosion. You explained it very well. I think this is one of the best explanations of metal corrosion on boats I have seen because it is understandable by both the layman and the technician. Keep up the good work.

Peter D. Eikenberry, Sr.
Tacoma, Washington

In reference to Dave Gerr’s letter on bronze and zinc in the July 09 *Seaworthy*, I’ve never found any descriptions of bronze as an alloy of copper and lead. Bronze is normally described as an alloy of copper and tin (plus other metals, as in silicon bronze, etc). I was wondering where Dave found his reference.

Curt Dunham
Fort Myers, Florida

Thanks for pointing out the mistake. Seaworthy originally erred by saying bronze is subject to dezincification. Dave wrote to point out that while bronze does contain small amounts of zinc, only brass is subject to dezincification. He then erred by saying bronze is an alloy made with copper and lead. Dave is not sure why he said it; he thinks there may be a hex on the subject.

How Vulnerable Is GPS in a Conflict?

I just finished looking at my PDF copy of *Seaworthy*, one of the best editions of the magazine yet. I think the overall balance of the articles was excellent.

By the way, I believe Mr. D’Giovanni’s comment that GPS can be “emasculated” [by

a concerned military in a crisis] and made to revert to its initial error rating (in reality the imposition of selective availability, SA) is untrue. While the government could shut the system down, it could only be done on a global basis if the war were truly global—at which time lots of other things would cease to work. The U.S. has made international commitments regarding the availability and accuracy of GPS, especially for use in the commercial marine and aviation fields. DiGiovanni also misses the major purpose of having Loran—timing. Other than the vulnerable GPS, Loran is the only distributed source of the precision timing information many systems, including cell phones, depend upon.

Chuck Husick
Tierra Verde, Florida

Chuck, who writes for BoatU.S. Magazine, recently became editor of the venerable Chapman Piloting, Seamanship and Small Boat Handling—the “bible” of recreational boating.

Finding Sophie Tucker

I read the story of Sophie Tucker in the July issue of *Seaworthy*. While this story had a happy ending, you missed an opportunity to take this one step further to stress safety. ALL pets aboard a boat should wear a PFD. These are not just for human passengers. Many pet shops, boating supply stores, major retailers, and on-line web sites have inexpensive, suitable life vests for pets. Like all PFDs they must fit adequately, be visible, and WORN to be effective.

The other “miracle” in this story is that Sophie Tucker was able to reunite with her owner. Luckily for her, there was someone who could put the pieces together. Sadly, this is not normally the case. Implantable identification microchips have been available for over 10 years through veterinarians, some local humane shelters, breeders, and rescue organizations. The microchips will help reunite pets with their owners in the event of separation. More recently, an implantable GPS microchip has become available that emits a signal to aid in locating the pet. As expected, it is quite a bit more expensive and there is a higher cost to renew yearly.

Millie Armstrong, DVM
South Hero, Vermont

Headed to Florida This Winter? Part I: Shallow Water Can Land You in DEEP Trouble

Nobody wants to run aground; aside from the hassles and lost time, there is also the possibility of a tow (\$) or maybe even a salvage claim (\$\$\$). But anyone who is headed for Florida this fall should also be aware of the steep fines (\$\$\$\$\$\$\$) that are handed to anyone who damages coral or sea grasses. A study of one of the affected areas in the Florida Keys Marine Sanctuary found that 43 percent of the reported groundings were by people from outside the state.

Sea grasses are vital to all sorts of marine life and restoring prop-damaged grasses can be time-consuming and costly. With smaller groundings, fines are relatively modest—under \$1,000—but there have been others that were much, much higher. At least one skipper, who churned through several hundred yards of sea grass, was fined over \$1 million. Note that marine insurance policies *do not* cover the cost of a fine.

Several suggestions:

- Don't expect areas of sea grass and coral to be well marked. Most aren't. Study your charts, use your GPS, and stay in the channel. If you find yourself off course, stop the boat and figure out where you are.
- Avoid white diamond-shaped markers, which are sometimes used to indicate shoal areas (*Don't motor up to a marker to see what it says!*).
- Wear polarized sunglasses, which reduce glare and allow you to see down into the water.



- Avoid boating at night; if you must be on the water, go slowly and avoid alcohol.

Should you find yourself aground, don't try to power off. Most damage to seagrass occurs when boat owners use their engines—props—to break free of the bottom. Instead, shut off your engine and wait for the tide to lift you off. You can also try to walk your boat to deeper water or call TowBoatU.S. for assistance.

Headed to Florida This Winter? Part II: Anchoring Laws Have Changed

A battle has been going on between Florida waterfront homeowners and boat owners who anchor their boats in front of homes for months or even years. Caught in the middle are transient boat owners who only plan to drop the hook for a short stay. Several counties had placed restrictions on anchoring, but a recently enacted Florida statute (Chapter 2009-86) has meant that cities and counties cannot restrict “active” transient boats outside of permitted mooring fields. Local governments can regulate mooring fields, but thus far there are very few—one in Key West (149 moorings), Ft. Myers Beach (70 moorings), and Fernandina Beach (20 moorings). A mooring field is also under

construction at Dinner Key in Miami.

One problem boat owners may encounter this winter is that not all cities and counties are aware of the new statute. If you're heading south, it would be advisable to carry a copy of the BoatU.S. sheet: “Anchoring Information for Florida Cruisers: <http://www.BoatUS.com/gov/GA005FLAnchoring.pdf>.

For a copy of the Chapter 2009-86, law of Florida (House Bill 1423) as signed into law and filed with the Florida Dept of State, go to http://laws.flrules.org/files/Ch_2009-086.pdf.

Autopilots and the Soporific Effect

There have been many accounts in *Seaworthy* about the dangers of relying on autopilots at night. While the autopilots themselves have proven to be reliable, it's the watchstanders who typically err by falling asleep. Not all of these accidents have been at night, however; the boat shown here had been on autopilot when its aging skipper dozed off in the middle of the afternoon and the boat continued plowing ahead. The skipper woke up when the boat ran onto a beach (Claim #0905031).



Whether in a boat or car, falling asleep at the wheel is not uncommon. A study in Great Britain found that 16 to 20 percent of automobile accidents on certain roadways were sleep related. It also found that there are three major peaks when a driver is most likely to nod off: "at around 0200, 0600, and 1600." The latter, in case you're not familiar with the 24-hour clock, is mid afternoon. The sleep-related accidents tended to occur most often on "monotonous motorways," which brings us back to boats and autopilots.

There is nothing quite so monotonous—and sleep inducing—as a long stretch of open water when someone is alone and the

boat is on autopilot. The scenery doesn't change, the engine hums and the boat rocks gently. It's not difficult to understand why someone would get sleepy late at night but, as the claim above indicates, the possibility of falling asleep should also be a concern on a pleasant summer afternoon. Whenever you use an autopilot, day or night, let one of the crew know if you're feeling groggy. Better yet, make sure someone is nearby to help you remain alert.

Some Accidents Are More \$\$ Painful Than Others

According to the witnesses, the accident shown here occurred when the driver swerved off the road after being cut off by another car. There were no injuries. The boat wasn't insured by BoatU.S., or for that matter, anyone else.



In previous issues, *Seaworthy* has written about the need to distribute the weight evenly and secure the boat to the trailer when a boat is being towed. In this case, however, the lesson to be learned is about insurance. Dan Rutherford, a marine surveyor in Cape May, New Jersey, saw the accident and stopped to help. While he was there, the owner of the tow vehicle called his auto insurance company and found out the trailer and boat were not covered by his auto policy. Next he called the company that insures his home and learned the

same thing: The boat and trailer weren't covered. It was an expensive lesson.

This sort of thing happens more often than you might think—people wait until they've had an accident to think about what is or isn't covered by an insurance policy. Homeowner policies don't automatically cover a boat and the fact that the boat was being towed doesn't

mean it will be covered by an auto policy.

We realize that working your way through an insurance policy isn't like reading a gripping novel, but taking a few minutes to look over your home, automobile and boat policies is time well spent. If you have questions about your boat policy, you can reach a BoatU.S. underwriter by calling 1-800-283-2883.



Victor Haltom

The Trial of Bismarck Dinius

Seaworthy Interviews Dinius and His Attorney, Victor Haltom



Bismarck Dinius

In the October 2008 cover story “A Strange Case of Justice,” *Seaworthy* told the story of Bismarck Dinius, who had been at the helm of a 27-foot sailboat on California’s Clear Lake when it was struck from behind on a still, moonless night by a 24-foot Baja that was being operated by Russell Perdock, the number two man in the local Sheriff’s Department. The Baja ramped completely over the sailboat; all five people aboard suffered injuries, ranging from bruises to broken bones and concussions. A few days later, the sailboat owner’s 51-year-old girlfriend, Lynn Thornton, died as the result of her injuries. The sailboat was insured through the BoatU.S. Marine Insurance program.

Dinius, who was found to have a BAC of .12, was charged with involuntary manslaughter, which, shortly before the trial, was changed to felony boating under the influence causing great bodily injury. Perdock has never been charged. Nor has the sailboat’s owner, who was also aboard.

This past August, after seven hours of deliberation, a 12-member Lake County, California jury found Bismarck Dinius not guilty of felony boating under the influence causing great bodily injury. The same jury also acquitted Dinius of a misdemeanor count of boating under the influence and was deadlocked on a third count of boating with a blood alcohol level of greater than .08. Regarding the latter, the vote was 11 to 1 to acquit and the charge was subsequently dropped.

The following interview was recorded two days after the trial.

Seaworthy: The prosecution’s case was built largely on Perdock’s assertion that the sailboat’s running lights had been turned off. Did the defense merely cast doubts on that assertion or do you think it proved the sailboat’s running lights were on?

Haltom: I think we proved they were on. We had five or six witnesses who saw the sailboat set sail with the lights on, including a retired police officer who saw the sailboat’s lights on 30 or 40 minutes before

the accident. We had Weber [the sailboat’s owner] who said he turned them on. We had another witness, Brian Stole, who knows absolutely nobody in this case, witness the accident and saw the lights from the two boats converge. Then there was the testimony of Dr. William Chilcott who said the stern light’s bulb filament showed it was on at the time of the accident.

Seaworthy: What about all of the prosecution’s witnesses who had said the lights were off?

Photo: Harold La Bonte of Pacificmedialinks.com



The verdict: “Not Guilty”

Haltom: The prosecution was trying to prove a negative. How can you ‘see’ a boat with the lights off? I showed Bismarck some old Admiralty cases where the court had said the same thing: Just because you have a witness who said they did not see the lights on the boat does not prove the lights were not on. Which one carries more weight—the positive testimony where people saw the light or the negative where people didn’t see the light?

I’d put their witnesses in three categories—the three people on Perdock’s boat, the two young girls on the shore who said they didn’t see the lights and the two fishermen. The girls on shore were having a good time with some friends. About 15 seconds before the collision, they said they heard Perdock’s boat and watched as it sped around

the point. They both said they didn’t see any lights on the sailboat but they weren’t paying attention to the sailboat; they were watching Perdock’s boat—the one making all of the noise. Also, they would also have to have recognized the sailboat’s white stern light against a backdrop of numerous lights on shore.

Seaworthy: What about the two fishermen?

Dinius: When I read their initial report I told Victor the two men saw a different boat. They said they saw a bare mast—no sail—and that nobody was in the cockpit. Our sails were always up and we were always in the cockpit.

Seaworthy: You said the two girls would have to have recognized the sailboat’s white stern light against a backdrop of white lights on shore. Would Perdock have had the same view?

Haltom: Absolutely. According to the testimony of another witness, a retired law enforcement officer, Perdock’s boat was headed directly toward an area that was “littered” with lights on shore. His boat hit the sailboat’s stern at a 156-degree angle. Not a direct stern hit, but close. We went out one night and tried to recreate the same conditions as much as we could with the location and angle of impact. It was very easy to blur the stern light with the shore lights, even when you knew the boat was there and were looking for it.

Seaworthy: Would the starboard light have also been visible?

Haltom: No, the impact was more than 22.5 degrees abaft.

Seaworthy: A lot has been written about why Perdock, a police officer, wasn’t charged. What about Mark Weber, the sailboat’s owner, who was sitting next to Dinius in the cockpit? If the prosecution believed the lights were off, then the captain would be responsible. Wouldn’t charging Dinius for the collision be like charging the guy who was steering the *Exxon Valdez*

and not its captain?

Haltom: That's a good point. Bismarck was charged with being the operator of the sailboat. Even the judge commented after the trial but before the jury started its deliberation that this [California] law was not written for sailboats; it was written for cars. Chilcott made the point that you don't drive a sailboat, you sail a sailboat and the master is the one running the show. Bismarck was crew. Some of the jury told us afterward that this was a very important point to them.

Seaworthy: The Rules dictate that the boat being overtaken maintain its course and speed. So, under the law, you did exactly the right thing. Bismarck, was there anything else you could have done that might have prevented the accident?

Dinius: I think back about that constantly. I don't remember the collision; when I finally came to, I was in the Sutter Lakeside Hospital with a tennis ball-sized knot on my head. The knot was there for three months. I've had to learn about the details of the case along with everybody else.

[One of the passengers on the sailboat] told me she said "Oh my god, a boat's going to hit us" a fraction of a second before impact. I asked myself, "Why didn't I hear it coming?" The boat had just come around a point and was moving straight at us very quickly. I'm convinced it was just the physics of sound traveling toward us. We were barely moving; there was nothing I could have done. My conscience is clear on the matter.

Seaworthy: One thing that puzzled everyone who followed this trial—Why didn't the prosecution call Russell Perdock as a witness? Wouldn't he have been the obvious person to explain the prosecution's case?

Haltom: Everybody was expecting Perdock to be called to the stand. Throughout the trial, the judge would ask us at the end of the day who our witnesses were going to be on the following day. On the day before the prosecution rested its case, Hopkins [the prosecutor in the case] had said he was going to call Perdock. He was going to be the last witness and we set aside most of the day for him.

So on the last day when Hopkins announced he was resting without calling Perdock, everybody's jaw dropped. It was a stunning moment. If there had been a strong case,

Perdock should have been his most important witness. It raised a question mark.

One problem may have been Perdock's credibility. In my closing argument, I did a PowerPoint saying he is a proven liar. Perdock said under oath that he had come from his home and gone directly to the boat. We found five people who said that he'd been at Konocti [a bar] that night shortly before he went out on the boat. Those five people put him at Konocti independently. Three saw him there. Two heard statements by Perdock and others demonstrating that he had been there. Those five people who saw him didn't know each other. To say [as the prosecution did] that those five came together and cooked this up is just nutty. Perdock also lied about the timeline of his activities on the day of the accident. Perdock's ex-wife said he was a liar. Lights may have been the biggest thing, but Perdock's lack of credibility also loomed large and I think the prosecution not calling Perdock was huge.

Seaworthy: Do you think Perdock had been drinking alcohol?

Haltom: With the evidence of him having been at Konocti Harbor, I think the answer is yes. If he hadn't been drinking, why else would he have lied? It doesn't make any sense. You'll also remember that Perdock wasn't given a Breathalyzer test at the scene. The policeman, James Beland, who had tried to administer the test said he was fired because he didn't tow the party line. [The Lake County Sheriff's Department] did an internal affairs investigation where most of the allegations against him pertained to this case. There were a couple of others, which were minor. Beland was an ex-Marine who had been in the Lake County Sheriff's office for many years. As soon as he came forward to say that he was ordered not to give a Breathalyzer test to Perdock, they started all of these different investigations and he gets fired. When Beland and Perdock testified at the preliminary hearing, they had two different stories. It was obvious that somebody was lying.

Other deputies—I can't name names—provided us with support and information throughout the trial. There was also an off-duty officer who came up from Tuolumne County to take us out on the lake and recreate the events leading up to the accident. He and the other officers volunteered their time to help Bismarck.

Seaworthy: A lot of people, including Lynn

Thorton's family, believed the wrong person was being charged. Why didn't the legal system prevent this case from going to trial?

Dinius: In April 2007, I got the call from a county investigator and he said I'd been charged with misdemeanor manslaughter and was going to have to turn myself in. I had talked to Victor about legal action, but it shocked me not only that I'd been charged but that I was the only one being charged. I spent a day in jail.

There were a number of times it could have gone away. The judges could have made it go away but they didn't. Judge Martin had a chance to do it at the [preliminary hearing], and other judges had chances to get rid of the case when we tried to recuse the Lake County District Attorney's Office. Probably the occasion before trial when I was most optimistic was in May of 2009, when the prosecutor's office came out with exculpatory evidence while we were in court. I thought for sure they were going to throw in the towel, but it didn't happen. It was obvious to me that nobody wanted to stick his neck out because of the politics involved.

Seaworthy: Given that the testimony during the trial had gone well for you—the evidence was clearly in your favor—were you confident when the jury walked back in the courtroom to give its verdict?

Dinius: I had been confident about the outcome, but when you're looking at 12 jurors who hold your fate in their hands, I became a little anxious.

Seaworthy: One last question. Are you going to pursue a case against the Lake County Sheriff's Office?

Dinius: Right now I'm relishing getting these charges off of my back. At some point Victor and I will talk about what our options are. I'm still heavily in debt.

Even if Bismarck decides to pursue his case against Lake County, the outcome is in question and it could take many months to settle. You can assist his legal fund by sending a check made out to Bismarck Dinius, writing "Bismarck Dinius Defense Fund" in the memo section, and mailing it to Sierra Central Credit Union, Attn: Brian Foxworthy, Branch Manager, 306 N. Sunrise Ave., Roseville, CA 95661. 🏠

Buying a Salvaged Boat

By Caroline Ajootian



Buying a used boat can be something of a gamble. That's why BoatU.S. always recommends hiring a marine surveyor to evaluate a vessel's condition prior to purchase. But, even with an expert on your side, you still may not be able to uncover significant information about a boat's history, including whether it was involved in an accident or damaged during a hurricane.

Sellers are required to reveal information about conditions that affect the use, value and safety of vessels, but lack of knowledge and, yes, even dishonesty, may mean that buyers aren't given the whole story. Buyers bear the burden of proving that the seller knew the boat's history.

Boat registration laws, unlike similar laws for automobiles, aren't consistent from state to state. Instead, they are a patchwork of different requirements and regulations across the U.S. All states have boat registration laws in place, but laws aren't consistent about which boats must be registered. On top of this, powered vessels are required to be titled in only 36 states, so thieves or others wishing to obscure a boat's history need only cross state lines to avoid detection.

In addition, while all states have laws requiring the titles of junked or salvaged cars be "branded" as such, few states have similar laws for boats that have been wrecked in storms and accidents. States routinely require that titles of junked boats be relinquished to the boat registration agency, but little else. If a wreck is moved to a

non-titling state, it can be refurbished and sold—and the lack of title doesn't raise any concern.

So, just think of those after-hurricane photos of boats and marine debris piled high against the shoreline. Some of the hulls are obviously ruined, while others appear to have a few simple scuffs—but may really have serious, hidden structural damage. Boats totaled as a result of severe storms or accidents are often auctioned off for just cents on the dollar. Many of these boats are professionally restored and are in as good or even better shape than before they were wrecked. Boatyards, for example, use salvage restorations as a way to keep crews busy during the offseason. The boats can be an excellent value. But salvage boats, unfortunately, can also be an opportunity for scam artists.

Take, for example, the BoatU.S. member in Bremerton, Washington, who arranged to buy a 1997 24-foot SeaSport fishing boat listed online by a broker in Ohio.

The price was right and the surveyor, who had been recommended by the broker, gave the boat a more-or-less clean bill of health, noting that, although he found some elevated moisture levels in the deck, frames and transom, these structures appeared sound. The survey report recommended only minor repairs and cosmetic work. When a mechanic's inspection showed problems with the starboard engine, the dealer agreed to drop the price by \$7,500 to \$35,000.

The buyer traveled to Port Clinton for a sea trial and later arranged to have the boat shipped to the West Coast in the fall. "What could go wrong?" the buyer thought. A lot, it turns out.

The new owner recalls, "With the boat ready to go in the spring, I took it out for the first time. The only major discrepancy I noticed was the starboard gunwale had excessive vibration."

He was in for a surprise when he cleaned the boat afterwards. "I noticed that repairs had been completed on the starboard gunwale, keel and bow flair and there was water seepage on the starboard chine." In retrospect, he recalled that the dealer's online ad showed photos taken from the boat's port side only.

The owner decided to have the boat surveyed again, but this time by a local surveyor who found the boat's condition made it unsafe to use and wrote in his report, "This vessel was subjected to an excessive trauma, which caused serious damage to the starboard hull bottom, starboard topsides, starboard deck, starboard cabin top, helm, controls and wiring."

The situation, already strange, took another twist. The marina in Bellingham, Washington, where the member was keeping his boat, just happened to be the dealership that sold it to its first owner in 1997. The dealer confirmed that the boat had been moved to Texas, where they learned from its first owner that it was totaled in

a hurricane after breaking free from its mooring and rolling onto the beach—on its starboard side. The original owner then took the boat to Ohio, where it was put up for sale.

When our member confronted the Ohio dealer about the damages, the dealer reminded him that the boat was sold in “as is” condition which, they said, meant they had no obligation to help with repairs. Protections afforded consumers by federal warranty law and state implied warranty provisions are limited when products are sold in “as is” condition.

“We have no jurisdiction” against boat dealers that sell salvaged vessels without warning buyers, says Rick Barrera, who manages the boat registration and titling program for the Ohio Department of Natural Resources, the state agency that handles boat registrations.

Fred Messman, Nevada’s boating law administrator, described another case to BoatU.S. “The insurance company had totaled a vessel and the next summer it was back here for registration from a ‘new’ owner,” he recalls. “Someone bought it, did some mostly cosmetic repairs and sold it. The new owner did not know it had been destroyed, rebuilt and then sold to him.

“We captured the HIN [in the process of registering the boat] and when that was entered it blocked the registration because it was marked as ‘destroyed,’” Messman says. “To me, this is a consumer protection issue and fraud.” Nevada is one of only three titling states that requires salvage vessel titles be “branded.”

“What is needed is a federal uniform vessel titling act adopted by all the states,” says Robert S. Fisher, a maritime attorney in New Jersey and former chairman of the yacht finance subcommittee of the Maritime Law Association. State boat registration or numbering laws are in place because they are required by the Federal Boat Safety Act administered by the U.S. Coast Guard but the Act does not require states to adopt titling laws.

Severe hurricanes that hit Florida and the Gulf of Mexico in the mid-2000s helped shape some consumer protection statutes. The state of Florida instructed insurance companies that they [the insurance companies] must be named on the titles of boats sold in salvage auctions. For buyers,

this is a pretty clear indication that the boat was “a constructive total loss,” in common parlance, totaled.

Trouble is, similar requirements are not in place in any of the other Gulf states that bore the brunt of hurricane activity. Tens of thousands of boats were reduced to scrap as a result of mammoth storms. The *Insurance Journal* (January 2, 2006) estimated that, during Hurricane Katrina alone, almost 75,000 recreational boats were destroyed. It’s a safe bet that a fair number of these wrecks wound up in the hands of owners who have no clue about their histories.

“Protections afforded consumers by federal warranty law and state implied warranty provisions are limited when products are sold in ‘as is’ condition.”

Many of these boats are sold ‘as is, where is’ by third-party liquidators. The new owner may not know about hidden damages until a stringer cracks or something major happens and repair efforts reveal the true extent of the destruction. At this point, the owner is really up a creek because marine insurance policies do not cover pre-existing conditions and owners have little or no recourse against sellers when boats are sold “as is.”

Although a few web sites purport to provide comprehensive background information about used boats, consumers should be skeptical, since there is no centralized clearinghouse for boat information, short of calling each states’ boat registration agency. And even if that were to be done, boat registration records available to the public do not include information about

accidents or insurance claims.

Profound incompatibilities exist between the information gathering and sharing systems of states and the U.S. Coast Guard. And, a Congressional General Accounting Office report found that many states are “unwilling or unable to commit the funds needed to participate.” Efforts are underway to adopt a 17-digit hull identification number that would include additional information on each vessel. The lack of uniformity of state boat registration laws has made it extremely difficult to develop the new system, which would be like the one already in place for automobiles.


Besides helping law enforcement officials track stolen or abandoned vehicles, the system for automobiles also provides ownership and information about previous traffic accidents or traffic law violations.

Nevertheless, the National Association of Boating Law Administrators has developed a model law that would require uniform titling across the country. The model law includes strict provisions that would require “title branding,” in other words, the titles of boats that sustain severe damage, are totaled or otherwise uneconomical to repair would be clearly marked to show their history.

“The thing that will drive it is some kind of tragedy,” comments maritime lawyer Fisher, predicting that a badly damaged vessel sold to an unsuspecting owner may eventually result in accident or injury and that this is one of the major reasons why salvage vessels should be marked.

Certain precautions should be taken when you buy a boat. First and foremost, never rely on a marine surveyor recommended by the seller. And, written into any sales agreement, even for “as is” sales, should be a statement that the seller has revealed everything he or she knows about the boat’s existing or repaired damages. For the owner of the Sea Sport and others like him, the only recourse may be litigation.

In his last correspondence with BoatU.S. he asked, “Do you have any lawyer or attorney references in my area? It appears this may be the path I have to take.”

Caroline Ajootian is Assistant Vice President and Director of the BoatU.S. Consumer Protection Bureau. 

A Hose Is a Hose Is a Hose?

This Winter, Take Time to Squeeze the Hoses

Claim #0705698: When a 32-foot sailboat sank at a New York dock last summer, the investigating surveyor noted that the hose connected to the engine-cooling water intake was cheap radiator hose from an auto parts store. The flimsy hose had softened and split where it connected to the through-hull. Further inspection revealed that radiator hose was used nearly everywhere: cockpit drain lines, fresh water lines, bilge pump, and even the diesel fuel fill.

There is no such thing as an all-purpose hose on a boat; no single hose type can withstand engine exhaust, bring fresh water to the galley, safely transport gasoline to the carburetor, drain the cockpit, and flush the head. Using the wrong hose can cause problems that range from an inconvenient mess, to a burning boat.



A combination of a too-tight hose clamp and age caused this hose to leak gasoline. A surveyor doing a pre-purchase survey averted a catastrophe (Claim #0001161).

Fuel Hose

Special Needs: Chemical resistance and low permeability. Gasoline-powered boats have specific requirements for hose that are so demanding they're federal law. Hoses that carry gasoline must be USCG approved and are marked with J 1527 A1, A2, B1, and B2, as well as with the manufacturing date. Gasoline hoses are usually made of rubber compounds.

A-type hose is thicker than B-type and has to pass a 2.5-minute burn test (which is designed to give you enough time to get off the boat in the event of a fire), while type 1 hose is far less permeable than type 2. In the end, it makes sense to just use the best—A1—for all gasoline uses. A new hose, called A1-15 is even less permeable and will become more and more common due to EPA regulations. Manufacturers say that gasoline hose has a useful life of about 10 to 20 years. This kind of hose deserves the best hose clamps and ABYC standards require that gasoline fuel fill hoses be double-clamped. While there are no federal regulations for diesel-powered boats, A1 hose is also the best to use; the extra thickness guards against chafe and since it is less permeable, it is less likely to smell like diesel.



This bilge pump hose is ridged, which adds significant friction and decreases the bilge pumps' performance. Ridged hose is also not nearly as strong as smooth-walled hose and is much more easily damaged. This hose chafed against a vibrating engine and bilge water simply dumped back into the bilge (Claim #0110782).

Bilge Hose

Special Needs: Low restriction. Bilge pump hose needs to be extremely flexible, strong enough to resist attack from chemicals, and it needs smooth internal surfaces to allow water to flow freely. Corrugated hose, seen in many installations, saps as much as 30 percent of the bilge pump's

capacity because it creates extra friction. Bilge hoses are usually vinyl to maximize flexibility. Bilge pumps won't work well (or at all) if the hose has rises or loops where water can get trapped; the pump may not be able to overcome the resistance. (See "Stacy's Bilge Pump," April 2006).

Potable Water Hose

Special Needs: Chemically inert. Hoses that carry drinking water have to be made of FDA approved nontoxic materials (stamped on the hose) so that chemicals from the hose don't leach into the water; the chemicals also make the water taste bad. PVC hose is usually used for this purpose and systems that have pumps to deliver water under pressure or have hot water should use a reinforced type. While many potable water hoses are clear, opaque hose has the advantage of preventing slime from forming. Even clear hose that is hidden behind lockers will eventually get growth inside. Once slime gets started, it can be killed by allowing a bleach solution (three-quarters of a cup per 10 gallons) to remain inside for a few minutes, but getting the residue out is nearly impossible without removing the hose and running a rag through it.

Holding Tank Hose

Special Needs: Low permeability. While a leaking seawater hose might do the most potential damage, few people would argue that a burst holding tank hose is the most dreaded. Holding tank (sanitation) hose, aside from being strong, also has to have the least permeability possible—a delicate nose can detect the wrong hose. In fact, the best way to locate the source of a holding tank odor (more often than not, it's the hose) is to run a clean cloth over the hose and take a sniff. If it smells icky, the hose is permeating and needs to be replaced. The best sanitation hoses are thick-walled and smooth inside. Reinforced PVC is a good choice, but it should be made specifically for sanitation use. Hoses should be run so that there is no standing water in sags or loops to prevent premature aging and

permeation. Eventually this kind of hose will get clogged with scale from seawater. With luck, the hose can be removed and banded around enough to loosen the scale, but by then, it probably makes sense just to replace it.



The only thing between this boat's hull and the water is this hose, which is so old the reinforcement wires have rusted through. Note also the broken clamp; this boat could sink at any time.

Through-Hull Hose

Special Needs: Strength. Through-hull hoses are really just an extension of a hole in your boat, connected to an above- or below-waterline fitting. As such, they must be exceptionally strong and long lasting. Hoses that are used at water intakes need to be rigid enough to withstand suction from engine raw-water pumps. Through-hull hoses are typically rubber, which has been reinforced with metal or plastic spirals. Don't make the mistake of thinking that automotive radiator hose is strong enough just because some of it's reinforced too—it's thinner and chances are the metal reinforcement will rust from seawater and further weaken the hose. Proper hoses are stiff and it's important they are not bent too far, otherwise a weak spot will be created. This is one type of hose that deserves to be double-clamped, if there is room on the fitting. The lifespan of these hoses varies with their job, but hoses that are over 10 years old should be considered suspect.

Exhaust Hose

Special Needs: Temperature resistance. Exhaust hose is one of the most critical hoses on board. A leaking hose will not only flood the boat with cooling water, but it will also release deadly carbon

monoxide, which is why the ABYC standards call for double-clamping of all exhaust hose connections. Most exhaust hose is rubber and designed to withstand temperatures to 250°F. Some special silicon rubber exhaust hose can withstand up to 500°F. If your engine's cooling water system fails, the exhaust hose is often first to suffer since it takes the full brunt of hot exhaust gases; the higher its temperature rating, the longer it will hold together. If you experience serious overheating, your hoses may look fine, but are likely to be damaged on the inside and should be replaced immediately. Even if the engine has never overheated, check regularly for bulges, cracks, and soft spots. Long runs of exhaust hose need to be well-supported, since they may be full of water and heavy.



Hoses that are hard to reach don't always get inspected. This hose is completely shot, yet its job is to carry explosive propane out of the propane locker. Note that it's also connected to a threaded fitting, rather than a proper barb (Claim #0300044).

LPG and CNG Hose

Special Needs: Flexibility and low permeation. Leaks in a liquefied petroleum gas (LPG) system (also called propane) can be catastrophic, which is why propane hoses must have permanent connections and cannot be hose-clamped to a barb like most other hoses. LPG hose is thermoplastic and sold in specific lengths with fittings already attached. Chafe is the enemy of this kind of hose, which should be protected wherever it passes through a bulkhead. LPG hose must be marked UL 21. CNG (compressed natural gas) is different from LPG and requires a different hose, which must meet the requirement of NFPA 52 for automotive hose. (For more on LPG systems, see the July 2009 issue.)

Tips:

- Hoses are sized by their inside diameter (ID) and hose fittings are labeled based on the ID of the hoses.
- Hose should be well-supported and not allowed to sag.

One of the best ways to inspect hoses is to squeeze them. If they feel mushy, crumbly, or excessively hard, they are beyond their useful life. Also, look at the ends—if they're splitting or swollen, the rest of the hose is in just as bad shape even if you can't see it. Hose that has standing liquid in it, whether effluent, gas, or water, won't last as long, which is why it's important to make hose runs that won't trap liquid.



Good quality hose clamps last much longer than cheap ones. Look for clamps that are 100% stainless steel (including the screw). The best ones are non-perforated rather than slotted. Rust tends to form on the lowest part of the clamp—it's a good idea to rotate them periodically to check for corrosion.

- Use the best marine grade 316 stainless-steel hose clamps. Replace any that are even slightly rusted and double-clamp critical hoses. Clamps that are embossed rather than perforated are much stronger and longer-lasting.
- Stiff hoses can be easier to install if the end is dipped in boiling water; this allows the end to stretch easier.

When shopping for hose, if it is not marked properly (A1, etc.), it doesn't meet the standards, no matter what the salesperson says. ⚠



Ellen Goodman, the Pulitzer Prize winning journalist, wrote: "In journalism, there has always been a tension between getting it first and getting it right." At *Seaworthy*, our motto has always been "don't get sued," which is why we will sometimes let other people get it first—and maybe make mistakes—before we cover a story.

A popular television show "MythBusters" recently did a series of tests and concluded that the photo on the top, which had been widely circulated on the internet, was probably done in Photoshop. A real boat traveling at high speed likely would have bounced off the marker. It should be noted that no one on the *Seaworthy* editorial staff actually saw the episode (#77). Instead, we got a call from Jerry Carderelli, the Vice President of Towing Operations at BoatU.S., who is a big fan of "MythBusters." Jerry thought "MythBusters" got it wrong; he said that *Temporary Insanity* had been skewered late one night by a day marker. As proof, Jerry sent along the bottom photo and suggested we talk to Ham Gale, who owns TowBoatU.S. Annapolis. Ham had been in charge of salvaging the boat.

In the interest of journalistic excellence, we called Ham, who confirmed that the photo was real. Ham said that his TowBoatU.S. crew put flotation collars around the boat, jiggled it a few times, and pulled it off the marker. Start-to-finish, he said the job took about two hours. The boat was a total loss.

Over the years, readers have sent *Seaworthy* stories about the many ways duct tape can be used on a boat. Duct tape has been used to patch a sinking boat's hull; repair a ripped spinnaker during a sailboat race; and even set a broken bone temporarily.

Here's one that tops them all: A 66-year-old woman on a sailboat returning from a recent Newport-to-Bermuda race fell backwards into a lifeline, separating a large flap of skin from her head. The boat's skipper applied gauze to the wound but it soon became apparent that the woman's condition was growing steadily worse. When she appeared to be losing consciousness, the skipper issued a "Mayday."

One of the boats that responded, a J44, was skippered by Capt. John Bonds, who is a member of the BoatU.S. National Advisory Council. Capt. Bonds stood by throughout the night while one of his crew, Dr. Will Schweinzfeier, gave medical advice: Use duct tape—lots of it—on the wound until the blood flow stops.

As with most temporary duct tape "repairs," the tape held and the bleeding stopped. The woman was airlifted to a hospital, where more conventional medical techniques were used. Thanks to duct tape, she recovered completely.

Thanks also go to the Coast Guard. The boat's skipper, George Petrides, described the rescue operation as "one of the most impressive things I have ever seen in my life." To see a video of some of the Coast Guard rescue, go to: www.piersystem.com/go/doc/651/214525.

One thing that has become increasingly more evident after each passing hurricane is that yacht clubs and marinas with well-thought-out hurricane plans have a much higher survival rate than their less-prepared counterparts. Sharing knowledge is the key to reducing damage, so for the past two years, BoatU.S. Marine Insurance has hosted a Marina and Yacht Club Hurricane Preparation Symposium to give marina and yacht club managers the tools they need to weather future storms.

In 2010, BoatU.S. Marine Insurance will join forces with the Association of Marina In-

dustries (AMI) to host three presentations on Hurricane Preparation at AMI's highly regarded International Marina and Boatyard Conference on January 27 – 29 in Tampa, Florida. If you live along the Atlantic or Gulf coasts, encourage your marina's management to attend. Aside from speakers, there will be vendors with state-of-the-art products that have proven to reduce damage.

IMBC is not just about hurricanes; there will be many other topics and vendors of interest to marina managers. It's a terrific conference. To learn more about IMBC, go to: www.marinaassociation.org/imbc or call 401-682-7334.



This past summer, Elaine Dickinson, the managing editor of *BoatU.S. magazine*, was working on her boat at Knapp's Narrows on the Eastern Shore of Maryland when she heard a loud *CRUNCH*, which, it turns out, was the sound of a bridge being lowered onto a sailboat mast. According to witnesses, the span had just started to come down when the sailboat's skipper radioed the bridge tender, who reportedly had only been on the job for two days, and asked if he had time to get through. The bridge tender replied tentatively that he should "hurry up."

Elaine's husband, Jack Hornor, who happens to be a marine surveyor, took the photo of the dismasted sailboat with his cell phone camera. While we couldn't confirm all of the details (the boat wasn't insured with BoatU.S.), the message for boat owners is that once the span starts down—*stay clear*.

For almost 30 years, *Seaworthy* typically has begun a story with a claim and then concluded with a lesson. Recently, Shawn Landin, the towing operations manager at the California Service Center, sent along a series of "lessons" from BoatU.S.

Vessel Assist tows. The lessons are often obvious but well worth recounting, if only as reminders. For example, “DON’T leave your car keys in your pocket when you’re going to be hanging over the side of the boat to pull fish aboard.” Everyone knows that leaving car keys in your pocket is risky on a boat but it’s one of those lessons that could easily be forgotten. There were others: “Remember to charge your hand-held VHF in case you have an emergency”; “Don’t go offshore with 1/8 tank of fuel”; and (a favorite) “Fix the leak *before* you leave the dock.”

Here’s one more: “DON’T get drunk, run aground, and then shout obscenities over the VHF (channel 16).”

Most *Seaworthy* readers will recognize this as also being obvious. But, just in case anyone is interested, here’s the rest of that story: A dispatcher at BoatU.S. Vessel Assist received a VHF call from a skipper who was slurring his words. She tried to get him to switch to another channel. He said his 40-foot boat was stuck on a sandbar. The dispatcher confirmed that the vessel and crew were in no immediate danger and then asked for his boat’s position. The skipper began yelling for her to “shut up and send a tower immediately!” She calmly explained that one would be dispatched as soon as he told her the vessel’s location. She then repeated her request to switch to another channel. The skipper became very angry and yelled, “SEND HELP NOW! MY (@*#&@(* WIFE IS GOING TO (*@Y#* KILL ME IF I DON’T GET HOME IN TIME.” While she was trying to coax him, once again, to switch channels, someone from the Harbor Patrol offered to assist. The skipper gave his position.

The following morning, Vessel Assist got a call from the same skipper who said he had bent his prop the previous night in a grounding and he needed a tow. This time he readily volunteered his boat’s location: It was at the Harbor Patrol impound dock.

Another good story from BoatU.S. Vessel Assist: This past June, a 40-foot sailboat grounded off the south jetty at California’s Oceanside harbor late one night and, thanks to BoatU.S. Vessel Assist San Diego, narrowly missed becoming a total loss.

The would-be salvors, who were over an hour away from the sailboat, quickly loaded their 34-foot boat, *Vessel Assist Shelter Island*, and got underway. Their overwhelming concern was the tide, which was at its peak and would be falling by the time they arrived. If the sailboat could not be pulled off quickly, there would be

almost no chance it would survive through the cycle to the next high tide.



Once *Shelter Island* arrived, shoal water forced them to stay almost a quarter mile away from the jetty, which meant that 1,200 feet of half-inch towline would have to be taken to the sailboat through breaking waves and against an outgoing tide by a swimmer—Shane Thompson. Note that this would have been all but impossible with nylon rope, but the crew had taken time to load a remarkably strong Amsteel Blue line, which floats. When Shane reached the boat, he used arm strength and a boost from a passing wave to climb aboard.

Shane quickly secured the towline to the windlass and foredeck cleat. Captain Robert Butler then ordered the *Shelter Island*’s engines to be set at one third power. The sailboat’s bow swung away from the rocks but could not be moved forward. At three-quarters power, the engines’ turbochargers had kicked in and the sailboat finally started inching slowly ahead. But with a falling tide and almost a quarter-mile to go before the boat reached open water, it was moving far too slowly.

Butler reluctantly ordered the engines opened to full throttle. The reason for his caution had to do with something towers refer to as “tripping,” which can occur when cross swells, towline angle and the pitch of the stranded vessel cause the towboat to roll over. The best defense against tripping is to keep the two boats aligned perfectly.

With the engines wide open, the sailboat began moving steadily forward, jumping a few feet each time it was lifted by a passing swell. About a half-hour into the salvage, the sailboat’s windless was yanked out of the deck but the cleat continued to hold. Shortly before dawn, *Vessel Assist Shelter Island*’s crew had towed the sailboat safely back to deep water. Remarkably, there was no serious damage.

In the July issue of *Seaworthy*, “Salvaging *Narcosis*” detailed the complexities of get-


ting a stranded, 56-foot boat back into the water. That salvage operation took slightly over a month to prepare. While there are many, many differences, it is worth noting that the time it took for the Vessel Assist crew to load their boat, travel almost 40 miles to the jetty, devise a strategy, swim the towline ashore, and then gradually maneuver the sailboat back to open water had taken a little over four hours. It’s a textbook example of what it takes to complete a successful salvage on open water.

Scott Croft, the AVP for Public Relations at BoatU.S., has a natural tendency to be helpful. That’s what PR people are trained to do, of course, but in Scott’s case, it’s in his DNA.

Last winter Scott dutifully laid up his 28-foot Bayliner ashore and covered it with a plastic tarp. He built a wood framing system but, as he discovered midway through the winter, the frame wasn’t up to the job. In his defense, this was Scott’s first try at covering his boat.

Ever helpful, Scott wrote *Seaworthy* to warn about the pitfalls of a hastily built frame and to offer a few suggestions. He thinks his biggest mistake was not making a taller “spine”—the 2 x 3 board that ran the length of the boat. The taller the support on the centerline the better, since this increases the “pitch of the roof,” so to speak, and sheds precipitation more readily. Also, he needed more lateral supports between the centerline spine and the stanchions. Actually, he didn’t have *any* lateral support, so even one or two on each side would have been an improvement.



All of this makes for a good excuse to visit your boat more often this winter. If you find a giant ice pocket starting to develop, don’t bother trying to chop it out. Life is too short. Instead, make a few slices in the tarp so that water formed during the daily freeze/thaw cycle can gradually drain away. That’s what Scott did and in a week or two, almost all of the ice was gone. 

Need to Sharpen Your Boating Skills?

(Our "Give-a-Seaworthy-Gift-Subscription" Sales Pitch)



Roland Dixon, a BoatU.S. member from New Jersey, sent along a story about a guy who is obviously new to boating:

"One of our local Vessel Safety Check [VSC] Inspectors, Ken Kendall, of USCG Flotilla 7-12, Barnegat Light, was doing a VSC with a new boater. Ken asked about navigation lights and the owner could not locate the switch without Ken's help. Then Ken asked about the anchor light. The owner looked somewhat incredulous and asked, 'Do you mean we have to have a light on the anchor?'"

A scary thought: sooner or later this guy will cast off his new boat's dock lines and head for open water. What are the chances that somebody who is confused about anchor lights could also be a little fuzzy about the Rules of the Road or how to light the boat's stove? According to Coast Guard statistics, the chances are good; the number two cause of boating accidents is operator inexperience. Hold that thought.

There is an alternative to the sink or swim approach to operating a boat. Bob Magalen, a BoatU.S. Member in Ohio wrote about an incident on his boat that involved his son, a few of his son's friends, and *Seaworthy*.

Bob's son Jason was water-skiing with friends and had just stopped the boat and shut off the engine to pick up a skier when someone noticed smoke coming from the engine. Jason immediately ordered everyone to don life jackets

and get in the water. He then picked up the VHF and notified other boats of the fire and gave his boat's position. When he knew help was nearby, Jason lifted the hatch and put out the fire. His friends said later that it was like a well-rehearsed fire drill; Jason was very cool.

Bob was impressed with his son's response but said he didn't understand why Jason had broadcast his position on the VHF before grabbing the fire extinguisher and opening the hatch. Jason told his dad that he'd read an article in *Seaworthy* about the possibility of the radio losing power in an emergency. Jason did exactly the right thing; Bob learned later that the fire had been caused by the positive battery cable shorting out on the hot exhaust manifold and it was only a matter of time before the boat's power would have been lost.

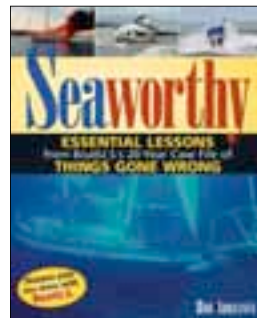
You see where we're going with this: For every guy who thinks the car goes in the water first or that lights go on anchors, there's someone like Jason who avoids serious accidents by reading about other boater's mistakes in *Seaworthy*. Even if you've owned a boat for many years, *Seaworthy* is a far less painful way to sharpen your boating skills.

If you know someone who is new to boating or maybe someone who owns a boat but is a slow learner, 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. To give a gift subscription, call 800 262- 8082, ext 3276. You can also go to boatus.com/seaworthy and click on "Gift Subscriptions" or write to *Seaworthy*, c/o BoatU.S. 880

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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



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Seaworthy is currently available in hardcover for \$16.47 plus shipping at Amazon.com and all major bookstores.

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