

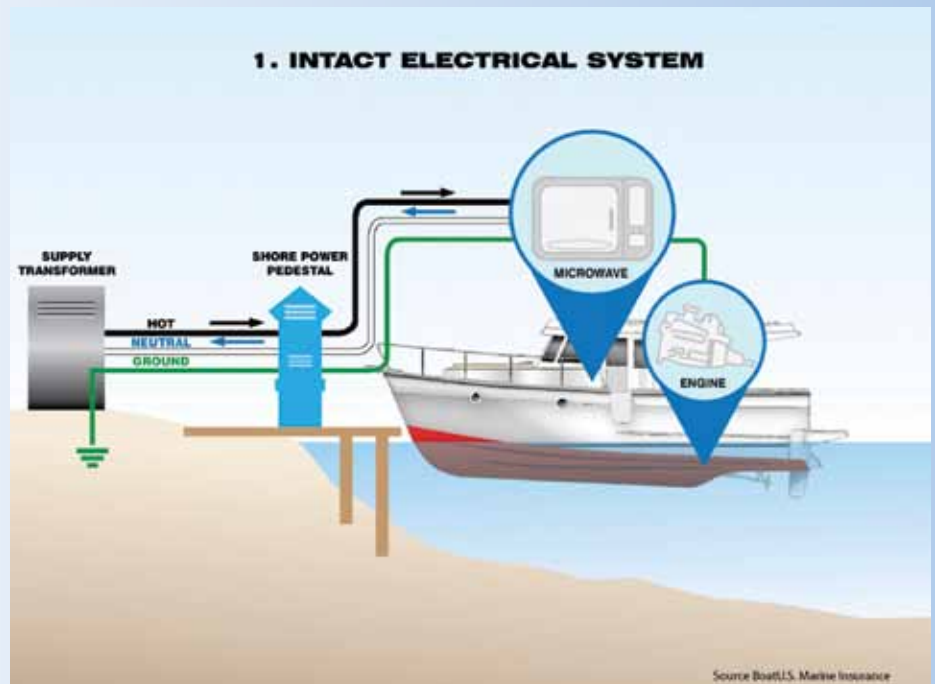
Electric Shock Drowning (ESD), the Silent Killer

by Lifeline Editor Philip May

Someone once likened it to taking a bath with a radio plugged in and resting on the edge of the bathtub. No sane person would ever do that, and yet that is what swimming in a marina is like. You may be safe one moment, and dead the next. And sadly, this happens to children more than adults because they are usually the ones who are most likely to go swimming off the boat.

ESD is the direct result of a paralysis caused by electrical currents in the water. The resulting paralysis causes the person in water to be unable to swim, leading quickly to drowning. In some cases where the electrical current is strong enough, the person in the water is electrocuted. Survival is uncommon, and only happens if the electrical current is low, and the swimmer upon first feeling an electrical tingle swims in the opposite direction.

So what causes ESD to occur? The explanation is not simple; the cause is multifaceted. Diagram #1 illustrates what the normal setup looks like. Both the boat and the dock have functioning grounds. The equipment on the boat is correctly grounded. In diagram #2, an appliance on the boat, in this illustration a microwave, has a ground fault and is leaking a low electrical current into the water. A swimmer could feel a tingle. The worst scenario is illustrated in diagram #3. This situation is the killer. The microwave has a ground fault, and the dock has an open ground. Keep in mind that these are illustrations. In reality you do not see anything out of the ordinary. The microwave is working, and water looks like it always looks. Yet, below the surface of the water lurks a killer. If you find yourself in a situation where you witness ESD occurring,



immediately turn off your power, and throw the victim a life ring. Try to direct the person away from the docks. Call 911.

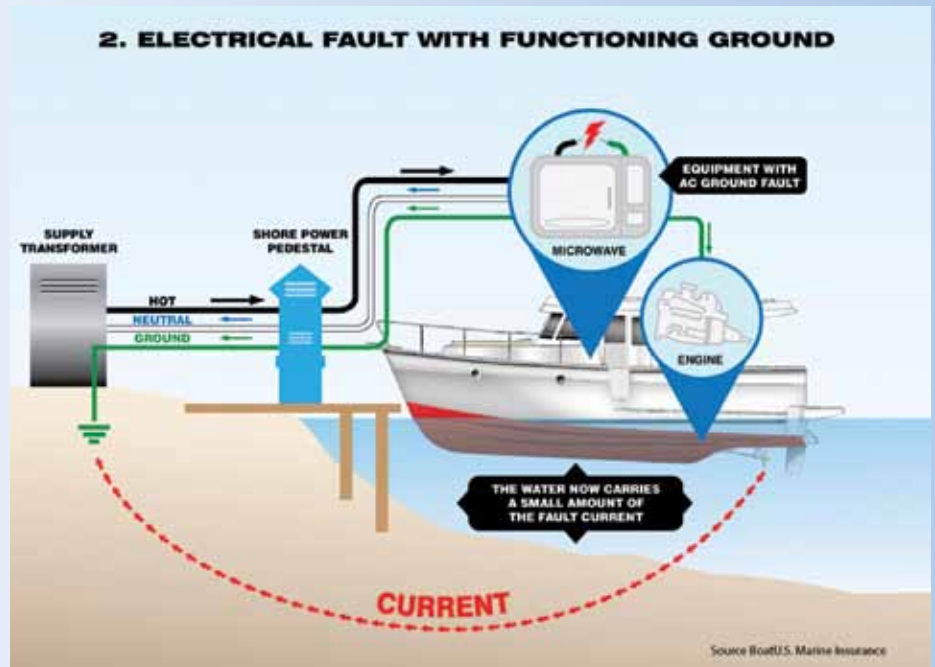
DO NOT JUMP IN TO HELP.

What you can do to prevent ESD:

1. Do not under any circumstances let anyone swim near docks and boats that are using electricity. This

includes your dog. Consider the entire length of the dock as too dangerous to swim near. If you or your guests want to swim, find a location at a minimum distance of 50 yards away from any dock with electrical power.

2. Make sure your boat's wiring is up to par. Follow the standards



set by the American Boat and Yacht Council (ABYC). Their website contains a wealth of information on proper wiring at: www.abycinc.org.

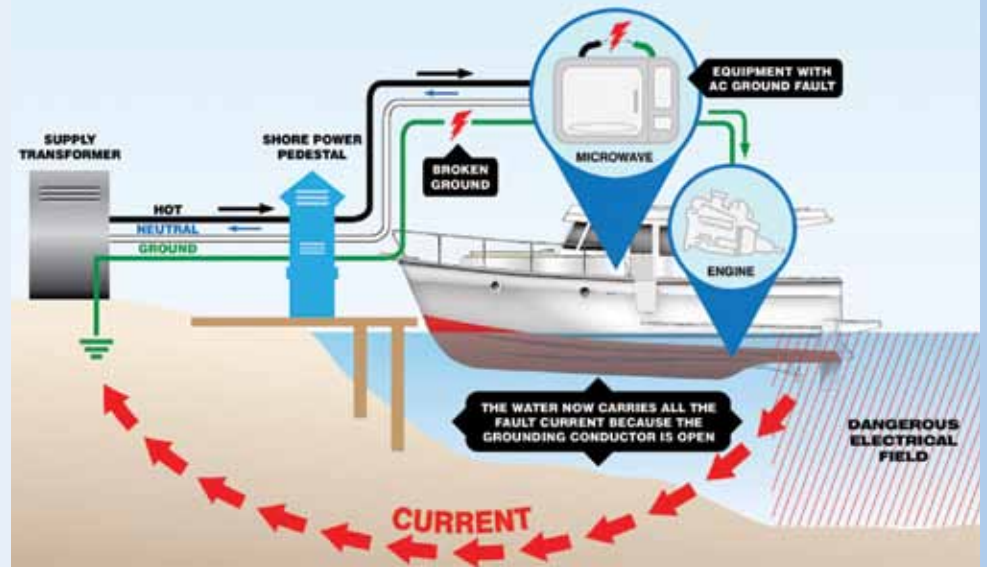
3. Spread the word. Tell your friends and boat guests about the fatal dangers of swimming around boats or docks that are connected to electrical power. Ⓜ

For more information visit: www.ElectricShockDrowning.org

Special thanks to:
Capt. David Rifkin (USN Ret.)
Quality Marine Services, LLC

Additional Sources:
Grant Crowley
Crowley's Yacht Yard
Molly M. Hall, Executive Director
Energy Education Council

3. ELECTRICAL FAULT + SAFETY GROUND FAULT = DANGER!



Big Lake ...Big Fun!

Don't Miss the Lake Superior Rally!

The 28th Annual Lake Superior Rally is scheduled for Aug. 14-16 at the Ashland City Marina (S-195) on the shores of the Chequamegon Bay. This Wisconsin city is the largest between Duluth-Superior and Marquette. It is also considered part of the greater Apostle Islands cruising grounds.

The marina is conveniently located near Ashland's downtown area, with its many his-

toric murals, interesting architecture, walking trails, and various establishments. Some of the rally activities will take place at the striking Hotel Chequamegon, which overlooks the marina. It is also a fine place to watch the sunset.

While the rally activities will get underway in earnest on Friday, Aug. 14, we strongly recommend you arrive early on Thursday, Aug. 13. As is tradition, we will have early registration available, as well as some spontaneous activities. You will not want to miss them, or the added opportunity to get together with new and old GLCC friends.

The precise Lake Superior Rally program is still being worked on, so instead of having to make adjustments later, let's just say there will be some pleasant surprises. Please keep a close eye on the website for updates (<http://www.glccclub.com/2015-lake-superior-rally>). Regardless, you can be assured the schedule will include many of the usual and popular Lake Superior Rally activities.

Registration for the event can be done on the website, or with the flyer enclosed in this issue of *Lifeline*. The registration fee is again \$40 USD per boat. For your convenience, a block of rooms is reserved for the rally attendees at the Hotel Chequamegon, but you must make your dockage reservations directly with Ashland City Marine (715-682-7049). For further information about the 2015 Lake Superior Rally, please feel free to contact Port Captain (Madeline Island) Stan Cory (612-816-3887), or Port Captain (Silver Bay) Renny Lovold (218-343-5512). We look forward to seeing you there. Ⓜ



Lake Superior's Ashland City Marina. Photo by Niels R. Jensen