



Drowning - Shocking!

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There is a little known fact that you can drown right at the marina – in the most shocking way! It is called “ESD” – Electric Shock Drowning.

Most mariners are not aware that such a danger even exists other than in the most blatant way, for example an electrical cable thrashing about from a downed power. But how about a charge as low 10 milliamps (.010 A)?

There are two sources of stray current at the marina – faulty marina wiring and faulty wiring on your boat. At the marina, if there is an improper grounding of the neutral, white power conductor, or just unapproved wiring near the water, there can easily be a charge snaking through the waters.

And it doesn't have to be a marina owner who missed his annual inspection. It could be you or your slip mates. As the boats get bigger and the electrical systems get more complicated – with generators, inverters, chargers and other such devices – the chance of error compounds, not to mention all the do-it-yourselfers who add after-market devices to enhance their boats. The usual errors, for example, poor groundings, reversed polarities, and mixing AC and DC wiring, are violations of the American Boat and Yacht Council's Standards and Recommended Practices, but unless the boater is committed to using licensed and experienced electricians, he is not protected from himself.

The most unnerving aspect is that if muscles are exposed to charged water, they can become paralyzed, making it impossible to swim or even breathe. Drowning happens just that much faster since obviously you can't do anything to aid yourself.

What Can I Do About It?

First, stay out of the water in a marina, especially if someone is running a generator. If your cap blows off your head into the drink, get a boat hook with at least a rubber grip and snag it.

Secondly, check with your dock master to be sure that the boats and the marina itself are wired according to official standards. The dock master probably has a charge-indicator in his shop for simple boat work. Have him check the waters periodically, perhaps even by staging an “Electrical Safety Day” at the marina. Have everyone that has a generator turn theirs on. Then test the water. If it shows a charge, turn the generators off one by one until the charge drops out, and that's your guy.

He'll thank you for it – as will everyone at the marina.

If you are interested in being part of USCG Forces, email me at USCGAUX2006@aol.com or go direct to MaryJo Cruickshank, who is in charge of new members matters, at FSO-PS@emcg.us and we will help you “get in this thing...”

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The Time Offsets mentioned in the column are as follows:

Tidal Time Offsets	USCG Station	Potunk Point	Mastic Beach	Smith Pt Bridge
High Tide	+45 min	+4.5 hrs	+4.5 hrs	+3 hrs
Low Tide	+2 hrs	+5 hrs	+5 hrs	+4 hrs

Day	High	Low	High	Low	High
Wed 10		05:04 AM / 0.49	11:26 AM / 2.40	05:25 PM / 0.31	
Thu 11	12:08 AM / 2.52	06:04 AM / 0.57	12:11 PM / 2.25	06:15 PM / 0.40	
Fri 12	12:52 AM / 2.54	07:10 AM / 0.57	12:59 PM / 2.14	07:11 PM / 0.43	
Sat 13	01:40 AM / 2.59	08:11 AM / 0.49	01:55 PM / 2.08	08:07 PM / 0.40	
Sun 14	02:32 AM / 2.66	09:05 AM / 0.36	02:55 PM / 2.09	08:59 PM / 0.32	
Mon 15	03:27 AM / 2.78	09:56 AM / 0.21	03:54 PM / 2.18	09:49 PM / 0.21	
Tue 16	04:19 AM / 2.95	10:44 AM / 0.05	04:47 PM / 2.33	10:39 PM / 0.08	
Wed 17	05:08 AM / 3.13	11:32 AM / -0.11	05:34 PM / 2.49	11:29 PM / -0.07	
Thu 18	05:53 AM / 3.30	12:19 PM / -0.26	06:19 PM / 2.64		
Fri 19		12:18 AM / -0.20	06:37 AM / 3.42	01:04 PM / -0.39	07:03 PM / 2.77
Sat 20		01:06 AM / -0.29	07:22 AM / 3.47	01:47 PM / -0.48	07:49 PM / 2.87
Sun 21		01:53 AM / -0.33	08:08 AM / 3.44	02:29 PM / -0.52	08:38 PM / 2.95
Mon 22		02:40 AM / -0.30	08:57 AM / 3.33	03:11 PM / -0.50	09:30 PM / 3.00
Tue 23		03:30 AM / -0.20	09:50 AM / 3.16	03:56 PM / -0.40	10:24 PM / 3.04
Wed 24		04:25 AM / -0.06	10:44 AM / 2.95	04:44 PM / -0.26	11:19 PM / 3.05