



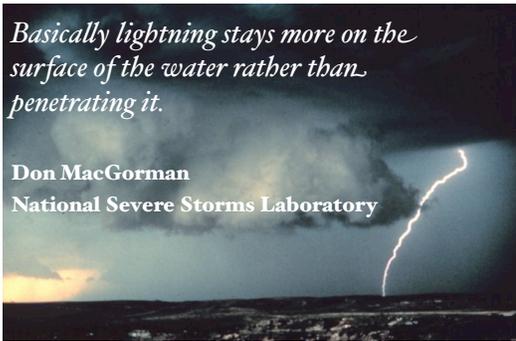
# THE DIVE SLATE

## Thunderstorms and the SCUBA Diver

Summer is here which means an increase chance that a diver, despite taking precautions, may encounter a thunderstorm while diving. If the conditions are right thunderstorms can develop in as little as twenty minutes leaving the diver to decide - is it safer in the water? If shore diving should one exit the water? Is it safer in a boat? If you are caught in a boat about all you can do is attempt to

stay in the center of the boat away from any metal objects (lightning can jump) and make yourself a less likely

target by crouching. But what if you are in the water? The fact is there is little information on the effects of lighting in water. Water does not attract lightning but it is a great conductor of current. It is unknown how far lightning travels through water. Since large numbers of dead fish are not present after a thunderstorm moves over a body of water science surmises that the current from a lightning strike probably moves across the surface in a much greater distance than it penetrates the depths.



*Basically lightning stays more on the surface of the water rather than penetrating it.*

Don MacGorman  
National Severe Storms Laboratory

Don MacGorman with the National Severe Storms Laboratory confirms this stating, "Basically lightning stays more on the surface of the water rather than penetrating it. That's because water is a reasonably good conductor, and a good conductor keeps most of the current on the surface." But he does go on to offer caution stating, "So fish under a lightning strike can

be killed, if it's close enough to the surface." If one considers this response and has an adequate air supply one might opt to take their

chances underwater than in a boat or standing on shore with no shelter nearby. However a diver choosing to remain underwater could become a guinea pig in an unintended experiment on just how quickly lightning dissipates at depth. At the very least, given available air and my dive profile, I would try to remain at least at a depth equal to any schools of fish I encounter. I figure they know better than I on how to survive a storm underwater. :)

### TRI-CITY DIVERS

Just a reminder that Tri-City Divers usually meets the 2nd Tuesday of the month at Beef "O" Brady's, 2913 Boones Creek Rd, Johnson City, TN.

Dinner at 6:00 pm

Program at 7:00 pm

Next Meeting is Tuesday, July 14th so mark your calendars. For more information or to be added to their mailing list send an email to [pbbond@comcast.net](mailto:pbbond@comcast.net)



International Scuba Center is proud to announce that we have once again become an authorized dealer for Zeagle. They are a family owned business dedicated to making innovative equipment for recreational, commercial, public safety, and military divers. Zeagle was a leader in the concept of integrated weight buoyancy systems. The original incarnation of the Scuba Center was the first dive shop in Tennessee to carry Zeagle and we are proud to once again partner with them. They are celebrating 30 years of service to the diving community and we wish them many more.

### Upcoming Classes

All classroom sessions held at International Scuba Center.

Please contact us if you are interested in taking any of the above classes.

Basic Openwater July 7th Tuesday 6:00 pm

Search & Recovery July 11th Saturday 8:00 am

Advance Openwater July 25th Saturday 8:00 am

We are also offering our Summer Special Nitrox Course for \$95.00 just in time for those upcoming dive trips.

Next date July 8th Wednesday 6:00 pm to 8:00 pm

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## *Hey is my tank too old ?*

We have been asked this question more and more of late so we thought we would address it. The intent here is not to go into an in depth history on SCUBA cylinders but to try to shed a little light on some of the myths or misinformation that is out there and try to explain our policy on filling cylinders. Stories of exploding aluminum tanks have rippled through the industry. Tanks DO explode but not often. Usually it is an aluminum tank made before 1988 from an alloy referred to as "6351". Luxfer, Walter Kidde, Reynolds, and Norris all made tanks from this alloy. Luxfer switched to another alloy after May of 88' and the others no longer manufacturer tanks. As of the last report we could locate from the DOT about 12 tanks in the US (17 worldwide) have exploded, usually during filling and several of these were SCBA tanks used in firefighting. For some perspective on this consider a little over 25 million were put into service. Most of the explosions were due to what is called "sustained load cracking". Cracks begin to show up around the crown of the tank and migrate slowly, usually over many years, up thorough the threads. Small cracks are not that uncommon and most cracks do not cause explosions. Those that do should have been obvious to a visual inspector for years. In reality there is a serious problem

with the quality of many of the visual inspections. A test referred to as an eddy test greatly improves detection of hard to see cracks but in no way should be used as a substitute for a visual. We will address the necessity of eddy tests in a later newsletter. So what does all of this mean ? Every shop at it's discretion can refuse to fill any tank. At the Scuba Center we will fill any pre 1990 aluminum tank (some 88' tanks may have been stamped 89') provided it has had an eddy test within the last three years and we do a visual. Any aluminum Catalina tanks will be filled as they never used the "6351" alloy. Also steel tanks are exempt from eddy tests. If you have any questions about our policy we will be more than happy to answer them.

### **Bonaire**

**September 19th - 26th**

Join the International Scuba Center in Bonaire, Netherlands Antilles. We will be staying at the Sand Dollar Condominiums and diving with Bonaire Dive & Adventure. Sand Dollar is home to Bari Reef, the #1 dive site in the Caribbean for the most species of fish. Contact the shop for more information.

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