

TSSC August 11th 2021 Membership Meeting

- The meeting began at approximately 7:00 pm (EST) with a brief discussion regarding the announcement of the sale of the Dutch Springs' property and the dive park's future closing.
- **Jack Ricotta** gave a brief summary of last month's TSSC trip to Roatan and the sights & activities the trip participants encountered. Update also given on the trips that are currently being planned: **Belize: October 2021; Egypt: May 11-26 2022; Sea of Cortez: July 16-22 2022.** Jack also requested suggestions from the TSSC membership for another trip after the holidays tentatively in January of 2023.
- **Judy D** informed the membership of the recent outbreak of Blue Green Algae in the local waterways due in part to the heavy rains & runoff causing the algae to bloom, which makes the water unsafe to swim in.
- **Liza H** briefly spoke about the TSSC BBQ last month and that she is planning additional events in the future.
- **Joe Rinaldi** gave a brief safety message warning of the dangers of holding your breath while scuba diving & the potential repercussions of "Shallow Water Arterial Gas Embolism". See below for a recap of Joe's presentation.

The First Rule of Scuba Diving "Never Hold Your Breath"

I. Why you need to continuously breath while scuba diving

- A. When we scuba dive we are breathing from compressed gas cylinders.
- B. Our regulators supply us with breathing gas adjusted for the ambient depth that we are at in the water column.

II. When we descend, the gas in our lungs becomes compressed, when we ascend the gas in our lungs expand.

- A. Boyle's (gas) law: For a fixed mass of an ideal gas kept at a fixed temperature, pressure & volume are inversely proportional.
- B. In layman's terms, when the pressure increases, the volume decreases and vice versa.

III. The volume of breathing gas a scuba diver can hold in their lungs (tidal volume) does not change significantly during a scuba dive

- A. The O₂ that our bodies consume is offset by the CO₂ our respiration process generates.
- B. In other words the total volume of gas in a scuba divers lungs does not change unless the diver breathes.

IV. The largest percentage of pressure change is in SHALLOW WATER!

- A. The pressure decrease will double the volume of gas in a divers lungs from 33 fsw
- B. The pressure decrease will increase the volume of gas in a divers lungs by 1/3 from just 11 fsw

V. If the expanding gas inside a divers lungs is not released through breathing, it can cause an Arterial Gas Embolism (AGE)

- A. AGE or pneumothorax is one of the most serious potential dive injuries

VI. Never violate the first rule of scuba diving, even if you are only in shallow water as the gas expansion can easily cause you serious injury!

“Sometimes rules are there to save your life” - Doug Liman

- **Amanda Slattery** introduced the three (3) club speakers for tonight's meeting:

- **Katelyn K:** shared a Youtube channel that focuses on recovering things (sometimes debris, but more recently automobiles) from under lakes & rivers.
- **Dennis C:** who shared his experience participating in the coral reef conservation efforts in Roatan, during the recent TSSC trip there.
- **Steve R:** who shared his experiences from his lifetime of diving, including some of the training he has taken, his favorite dive sights & where he hopes to travel to next.

After the presentations from the above speakers, Joe Rinaldi relayed a request that TSSC members “Like” the TSSC Facebook page, and “Share” pictures there to improve the club’s presence on that social medium.

The meeting was adjourned at approximately 9:00 pm (EST)