



# NAVAL SAFETY COMMAND SAFETY AWARENESS DISPATCH SA 26-06

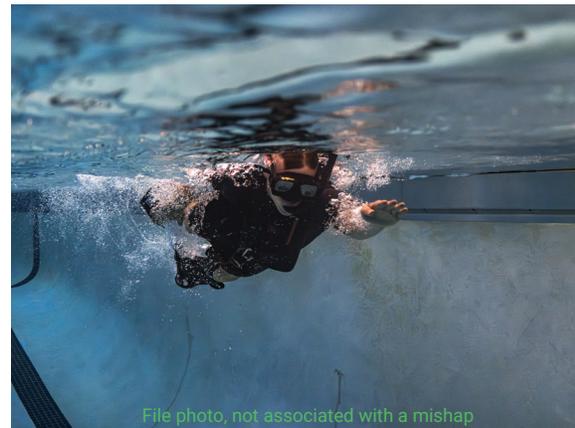


## Water-Related Training Fatalities

Among the many high-risk training activities performed by the Navy and Marine Corps, one might overlook water training as a high-hazard event. That would be a mistake. Of the 159 on-duty fatal mishap events over the past ten years, seven were water-training events. That number may seem low, but when you consider the limited amount of water training conducted compared to live-fire training, vehicle operations or flight time, that number starts to look a lot bigger. Regardless of how you look at the numbers, one thing that must be accepted is water training is inherently high risk and proper risk mitigations must be planned out. The following are some cases where planning was not effective, and service members paid the price.

### Overheating in the Water

People rarely associate heat casualty mishaps with aquatic training, erroneously believing the water will completely negate the heat. This incident proves otherwise. The event occurred in the second week of a rescue swimmer course. The unit was conducting on land physical training (PT) immediately followed by a swim proficiency and conditioning (SP&C) evolution. The class leader, who normally excelled in physical fitness, struggled this day during the 4.75 mile run and calisthenics that followed. Classmates and instructors noted he looked fatigued and was having noticeable muscle cramps. An instructor asked the Sailor if he was fit to train, but the Sailor did not want to give up. Following the on-land PT, the students donned wetsuits, booties, TRI-SAR harness, helmet, mask, fins and snorkel and entered the pool for the SP&C training. The evolution started with a warm-up swim, then 25-meter laps allowing only one breath on the surface. Students then executed surface sprint ladders of 25, 50, 75 and 100 meters. During the first 75-meter sprint the Sailor was noticeably falling behind and was asked again by instructors if he was fit to train; but they also motivated him to keep going. On the second set of ladder sprints the Sailor's swimming form broke down, slowed to a crawl, then within seconds the Sailor began to sink. Instructors pulled the Sailor to the surface within three seconds, removed him from the pool and began life-saving actions. Emergency medical services arrived seven minutes later assuming care and evacuated the Sailor to the hospital where he was placed in a medically induced coma. He was removed from life support a week later. The medical examination determined this was a heat-related cardiac event, rather than drowning. Among other factors, the mishap investigation board highlighted its conclusion that the Sailor started the day fatigued, then became dehydrated throughout PT and SP&C. The board concluded the Sailor was already succumbing to heat exhaustion when he entered the pool and could not cool down due to the gear worn and exertional demands. The board particularly noted that during the on-land PT students carried hydration vessels and were given breaks where the instructor would count down from 5 allowing students to hydrate and square away their uniform. Most students stated, though, they would rather square away their uniform than get yelled at. *—This incident is a testament to the importance of hydration, even if you are going to be in the water. It is also a testament to the consequences of not facilitating vital hydration for your students. The board noted the training cadre's perception was students had ample time to hydrate, but clearly the students felt otherwise. Proper hydration is required, particularly with water training, where novice personnel may not recognize heat stress symptoms due to the cooling sensation of the water. You may feel cooler on the skin, but your internal body temperature can still be rising. Know when to stop and when to tell someone else to stop. If someone is showing signs of heat exhaustion during a high-risk event it's time to stop the training/event.*

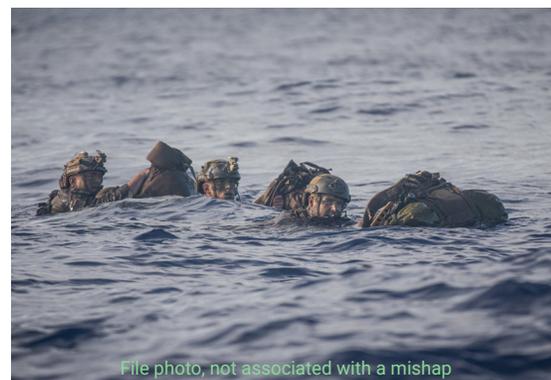


File photo, not associated with a mishap

### Poor Swim Oversight

A Marine Corps unit conducted a "moto" (motivational) PT off base consisting of a unit run through a state park concluding with a recreational swim in a river. No formal risk mitigation planning occurred before the event, and as such, resulted in no risk mitigations and poor judgment during the swim. When the unit arrived at the swim site, one Marine expressed concerns about their own skill limitations, but decided to participate anyway. The Marine was water survival basic qualified, but their experience was limited to the controlled environment of a pool. When the Marine entered the river, he began to struggle in the current. Another Marine noticed the struggling and swam over to help. The struggling Marine (M1), in his panic, tried to climb on top of the other Marine (M2). M2 recovered

and attempted to keep M1's head above water, but M1 slipped from his grasp, submerged and did not resurface. Emergency services were called and search and rescue operations began. The Marine was found deceased, approximately 200 meters from the incident site. *—While this may not fall squarely into the realm of swim “training,” it is still an event where unit leadership is responsible for the safety of its personnel in the water. Any organized event requires deliberate consideration of the risks. That is especially true when the event takes place in a less controlled natural environment. A brief assessment of this event beforehand could have identified several risk factors and assigned appropriate stopgaps to prevent an improficient swimmer from entering turbulent water.*



## Equipment Oversight

A scout swimmer course was conducting training during which students had to swim 50 meters with their pack from shore through the 4-foot-high surf zone. Students swam in buddy pairs, one pair at a time to ensure accountability in the surf zone. One buddy pair consistently had trouble donning their fins in the water quickly enough, resulting in the strong lateral current pushing them out of the safety lane and requiring them to restart. After three failed attempts to cross the surf, the buddy team was told they would have one more chance to transit the surf along with the last buddy pair, otherwise they would be dropped from the course. As the pair began their final attempt, one student (S1) began to struggle and drift toward the boundary again and returned to shore in a somewhat distressed manner. His buddy (S2) attempted to continue through the surf, though. The onshore safety swimmer was focused on S1 returning to shore and did not immediately observe S2 stop kicking 30 meters from shore. Moments later he realized S2 was motionless in the water, notified the safety vessel and began swimming to him. EMS was also notified and headed to the scene. The safety swimmer and safety vessel, a jet ski with a sled, reached S2 at about the same time, finding him face down and unresponsive. The safety vessel was only manned with one operator. This hindered the loading of S2 onto the sled, resulting in the vessel operator jumping in the water and he and the safety swimmer pulling S2 to shore, taking notably more time. Once ashore, the corpsman began providing care but struggled to apply a nasal pharyngeal airway (NPA) to clear the airway. Additionally, he did not have an AED or supplemental oxygen, because these were in the safety vehicle in the parking lot 300 meters from shore. A nearby lifeguard observed the rescue and responded to assist. He arrived observing the corpsman struggling with the NPA and provided his B-VAC suction device to clear the victim's airway. He and the corpsman then began CPR until EMS arrived. The EMS ambulance arrived at the beach, but was unable to drive on the sand, so the lifeguard's ATV with sled was used to transport S2 to the EMS ambulance. He was transported to the hospital where he was pronounced dead. *—Swimming through a 4-foot surf zone added another layer of risk to an already high-risk event. As such the actions that must be taken in an emergency must be well thought out and rehearsed. The Casualty Evacuation (CASEVAC) shortfall faced during this incident could have been identified and avoided with more purposeful planning prior to training.*

## Key Takeaways

The hazards associated with water training must not be taken for granted. Water training can result in just as bad of consequences as any other high-risk training. We recommend the following when planning your next swim event.

- 1. Water training is always high risk.** Don't let the skill level of the participants trick you into believing otherwise. The cost of a mishap in the water can very easily be death. Plan your risk mitigation deliberately and accordingly.
- 2. Be conscious of the environment.** One can drown in any type of water, but specific hazards are present in different swim environments. Whether training in a pool, river, lake or ocean, think about the specific risk your personnel will face and how to mitigate them.
- 3. Take the CASEVAC plan seriously.** With any high-risk training, your Marines' or Sailors' lives may depend on effectively executing a CASEVAC. You don't do your personnel justice if you don't think out every step of this plan, the problems that might pop up and how to overcome them.

*And remember, “Let's be careful out there”*