NAVAL SAFETY COMMAND
SAFETY AWARENESS DISPATCH SA 26-16

Water-Related Mishaps II

When we're off duty, we're not typically surrounded by professionals who don't hesitate to let us know to get our head in the game if we're not focused; our work environment is much more structured. When off duty, it's incumbent upon each of us to make smart decisions and manage risks appropriately. While the examples below are water-related, the lessons flow into all of our off-duty activities. We must elevate the level of risk management we apply to our off-duty activities to change the detrimental impact mishaps have on our team's readiness.


File photo, not associated with a mishap

Path to Waterfall, Followed by Path to ER

A service member went on a "canyoning" tour. (*We had to look it up too.*) Basically, it's like white-water rafting down a narrow canyon/gorge without the raft, which, depending on the level of intensity you're looking for, may involve waterfalls (*on second thought, it's nothing like rafting*). The adventurer typically wears specialized equipment such as a helmet, wetsuit and canyoning shoes and travels down a canyon using a combination of skills such as climbing, hiking, rappelling, jumping, sliding and swimming. Our service member climbed the mountain trail and arrived at the top of the canyon and made the descent down the waterfall to the first jump. He executed the first jump of roughly 26 feet, landing safely in pooled water in the ravine below. He continued down the ravine and attempted a second, much higher jump, of over 42 feet. However, his landing went wrong. He immediately felt pain and was taken to the ER. He sustained a shoulder injury from his knee colliding with his collarbone due to the force of the water and improper bracing for the impact. — *Canyoning is a high-risk activity that requires physical preparation and assessment of personal skill. Had the service member thoroughly evaluated the risks involved and ensured he was prepared for the more significant jumps, the ER visit may have been avoided.*

Dangers of High Impact Water Entry

A group of Marines planned a recreational bridge jump into a body of water. While the mishap report didn't specify the exact height, it noted the distance from the bridge to the water was significant. The participants in this recreational undertaking had some experience doing the same sort of jump at other locations, however, their experience was limited. One Marine waited on the bridge and watched his fellow Marine make the first jump. After the first jumper returned, the Marine waiting to go next, went. He jumped but entered the water in a poor position — he essentially belly flopped from a substantial height. He did not resurface. A member of the group called emergency services and divers found the Marine about an hour later. He was transported to a hospital where he was pronounced dead. It's believed the impact of the water caused the Marine to lose consciousness and subsequently drown. — *This tragedy serves as a reminder that familiarity with any activity does not eliminate risk. High-risk recreational activities like this need to be vetted through the chain of command. The ensuing discussion helps assess the member's ability to perform the activity and provides another layer of defense to ensure risks are managed effectively. The report does not say if this activity was properly reviewed before it began.*

Permission to Come Aboard

While boating with friends, a Sailor jumped into the water to help another who had fallen overboard. After successfully helping the friend back into the boat, the Sailor attempted to re-board from the stern area. In the process, a current or wave swept the Sailor's leg into the still spinning propeller, severely injuring the lower leg. The Sailor was helped back into the boat, and emergency services were contacted. An ambulance met the boat at the pier and took the Sailor to a hospital, where stitches were applied. Fortunately, no permanent injuries were noted, but this could easily have been much worse. Two weeks SIQ and 30 days of limited duty impacted the command's readiness. — *The lesson is two-fold: 1) boat operators should always turn off the prop when people are in the water and 2) as the swimmer in the water, always verify with the operator before approaching the boat. This act of double-checking is even more important when unplanned events interrupt the typical routine.*

Pendulum Seeks Equilibrium Despite Your Situation

A service member was partaking in a rope-swing activity at a lake surrounded by large trees. The idea was to grasp the rope from an elevated area on shore, swing out over the water, release the rope and drop into the water. (*Think "giant human pendulum;" sounds fun and simple, right?)* The service member had experience from previous swings. But this time, his foot became entangled in a loop of excess rope hanging below his hand hold, which interrupted the planned release and he collided with a tree. The service member was knocked unconscious and fell into the water. Bystanders pulled him from the water and called emergency services. He was hospitalized with a broken pelvis, two broken vertebrae, a broken eye socket, a concussion and multiple lacerations. — *Thinking about potential hazards and areas of risk in an activity and how you can reduce or eliminate them is key to safe operations, on and off duty. When it comes to rope swinging, most participants would likely check to see if the intended "drop zone" was free of obstructions, that the water was deep enough, that the direct swing path to the water was clear and if the rope and anchor points are strong enough, among other things. But it's also important to ask – what could go wrong? If the person swinging doesn't let go, does the rope swing directly back in a straight line or swing off to one side or another - bringing the participant not to the launching area but face-to-face with a tree or other obstruction. Factors like these are variable and depend on how the participant pushes off. Effective risk management necessitates critical thinking through the less obvious points and a questioning attitude as well.*

Factors Converge into Disaster

As sunset approached, a boat operator sped toward shore at full speed to return the rental boat. One passenger, a service member who'd been drinking, was seated at the front of the boat without a life jacket. He stood up to switch seats just as the boat hit a large wake from another vessel. This abrupt change in motion caused the service member to slip on the wet deck and fall overboard. He was struck by the boat's propeller and was quickly surrounded by a pool of blood. Now unconscious, the service member was recovered with multiple lacerations. The boat operator contacted emergency services who met them at the dock 15 minutes later. The service member survived but was permanently disabled after spending more than a month in the hospital followed by several months recovering at home. —*The lack of risk management enabled cumulative hazards to build into a tragic outcome. A deliberate discussion (real-time risk assessment) before heading back could have identified vulnerabilities that were going to make the return trip more dangerous, such as time constraints, transit distance, water conditions, passenger positioning and movement, sobriety levels, plus the importance of wearing life jackets. Identifying and addressing these factors ahead of time – as well as what to do and what not to do – can make all the difference.*

Key Takeaways

Your readiness matters 24/7. Whether you're injured at work or while relaxing and unwinding through recreational activities, the outcome is the same — reduced operational readiness. Thinking through what you are doing and managing risk must be part of both activities.

- Recreational activities are governed by instruction. The OPNAV M-5100.23, (Navy Safety and Occupational Health Manual, Chapter 37), and MCO 5100.29C, (Marine Corps Safety Management System, Volume 5, Chapter 1), set forth requirements for the Recreation and Off-Duty Safety (RODS) Program for the Navy/Marine Corps team. The goal is to eliminate or mitigate risk with all recreational activities and preserve the wellness of the team. Those who participate or desire to participate in high-risk recreational activities must receive an initial review of their ability to safely engage in the activity. See the references for additional stipulations and guidance.

- Beware of submerged hazards. Diving headfirst into water where you can't see the bottom to verify the depth is never a good idea. With water activities, such as jumping from a boat, off a pier or into the surf — just because a spot was safe yesterday, doesn't mean it's safe today. Weather, currents and tides constantly shift the underwater landscape and water level. Always verify first.

- Landing in water from height can be like hitting a brick wall. The higher you are, the higher the potential for injury or worse. There's a reason professional high-divers and cliff-jumpers don't start out from on high, they perfect their technique down low, mitigating their risk of injury, increasing the height over time as their technique is perfected. At just 35 feet, a person would be traveling more than 30 mph at impact.

- Boating activities can be awesome … until they're not. Manage risk with every outing. Don't wait for the Coast Guard to stop you to find out you're missing life jackets or operating unsafely. Use a checklist, assess risk and make a plan so the day ends with a great memory.

And remember, "Let's be careful out there"