



COMBATTING THE BLUE THREAT

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From the Director...

Oorah Marines!

It is time for some well-deserved leave and liberty, and I am guessing that more than a few of you are going to take to the great outdoors for some adventuring. Do not stop identifying hazards, assessing risk, and implementing controls! Firing up your bass boat after loading an icy cooler full of barley pops sounds like a great way to spend an afternoon, but have a plan. Make sure you have accounted for the need to have someone sober at the helm on both ingress and egress. Your friends and family are counting on you. The Commandant is counting on you. Make good risk decisions, and don't take yourself out of the fight by punting it into the stands off-duty.

Semper Fidelis,
Trainwreck



Maybe a little TOO Much Fun

Marines participate in many different off-duty activities during the summer months. While it's the perfect time of year for outdoor activities, just remember to exercise a little caution so that your fun in the sun doesn't cost you your health or wellness. From **2015 to 2019, Marines spent 2,157 days** in the hospital, another **25,649 days on restricted/light duty**, and **lost 6,985 work days**—all during the 101 days of summer. Many of these injuries could have been prevented. This edition of the BT focuses on the major activities that Marines participate in and ways to minimize or prevent injuries.



DID YOU KNOW?

Water mishaps are a very real threat. As of publication, two Marines have drowned in the past week.

FY20 FATALITIES

as of 29 June 2020

Aviation

0

Ground On-Duty

5

Car

9

Motorcycle

5

Other

9

TOTAL

28

www.safety.marines.mil

Numbers in fatality categories are subject to change based on final disposition of investigation.

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Recent Class A Mishaps

• AVIATION

NONE

• GROUND ON-DUTY

NONE

• OFF-DUTY (CAR)

NONE

• OFF-DUTY (MOTORCYCLE)

NONE

• OFF-DUTY (OTHER)

29 Jun 2020: MCB Hawaii, HI – E-5 found unresponsive while swimming at Pyramid Rock Beach and was pronounced dead.

24 Jun 2020: Camp Lejeune, NC – E-4 began to struggle on a recreational swim in Morgan Bay. Squad unable to rescue.

FY20 Class A Mishaps

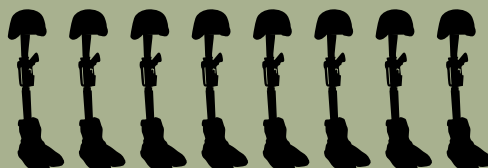
5 GROUND MISHAP

resulted in the death of five Marines



8 CAR MISHAPS

resulted in the death of nine Marines



5 MOTORCYCLE MISHAPS

resulted in the death of five Marines



9 OTHER MISHAPS

resulted in the death of nine Marines



Water Recreation

Alcohol and Water Recreation

From FY15-19, there were 75 off-duty, water-related mishaps where alcohol was a contributing factor. In FY19 alone, there were 11.

Impaired Judgment + Poor vision + Delayed or Slow Reaction Time = Mishap



Water Activities and Drinking Don't Mix

The CDC reports that alcohol is involved in **70%** of deaths related to water recreation. **It's not a risk worth taking!**



Boat Safety

- Don't drink and boat.
- Boating under the influence (BUI) is dangerous and illegal.
- Make sure the boat is in top operating condition.
- Keep legally mandated safety equipment on board.
- Maintain safe speed at all times to avoid a collision.
- Keep an eye out for changing weather conditions and act accordingly.
- Know and obey federal and state regulations and waterway markers.



Did You Know:

- Drink for drink, a boat operator is likely to become impaired quicker than an automobile driver. Being in the sun exaggerates the effects of the alcohol.
- The penalties for boating under the influence (BUI) can include significant fines, revocation of operator privileges, and severe jail terms. That's right—you can get a BUI punishable using the same criteria as a DUI.
- Alcohol is involved in about a third of all recreational boating fatalities.



Pool Safety

Use an approved safety cover and keep the pool covered when not in use. Never allow children access to the pool without adult supervision. Fence and lock your pool. Consider installing a water surface tension alarm.



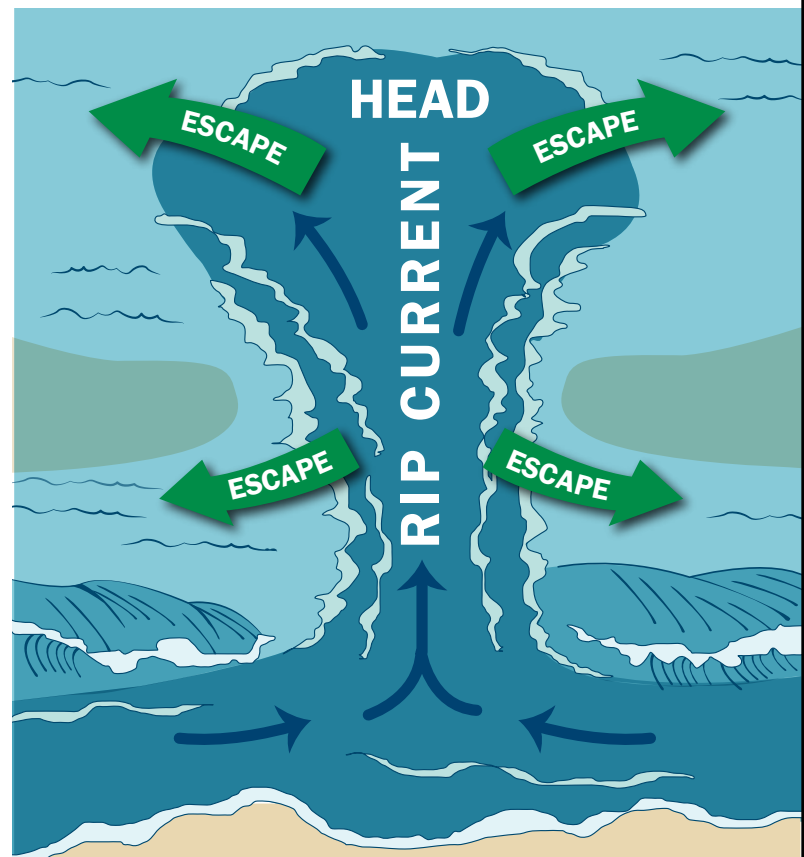
Diving Safety

Always test water depth before diving. If you are unable to see below the water's surface, don't dive. NEVER dive into rivers or other moving bodies of water. Keep your arms extended above your head when diving.

- Follow posted safety rules and warnings.
- Never swim alone or in unsupervised places.
- Do NOT swim alone. ALWAYS swim with a partner.
- Never swim when you are tired, under the influence of alcohol, drugs, or medication.
- Know and observe your swimming limitations and capabilities.
- Avoid swift-moving water. If caught in a current, swim with it and angle towards shore or the edge of the current.
- Stay out of the water during thunderstorms and severe weather.

Rip Currents

Rip currents are powerful currents of water moving away from the shore. They can sweep even the strongest swimmer out to sea.



Heat Injury and Illness

Marines are going to be training, rain or shine, day or night. During these summer months, be aware of the potential injuries summer exercise can bring. Whether you're outside for PT or a hike, know how to prevent or identify these heat-related injuries.

Types of Heat Illness

Heat Cramps

Cause: Occurs after several hours of physical exertion in the heat.

Symptoms: Painful muscle spasms usually in the legs or abdomen.

Treatment: Get out of the heat and into the shade. Hydrate with water or sports drink. Stretch and massage the muscle.

Heat Exhaustion

Cause: Due to loss of water and salt through sweat.

Symptoms: Headache, nausea, dizziness, weakness, and cool, clammy skin.

Treatment: Stop and rest. Hydrate and get into a cool room or shade. Loosen clothing and apply cool, wet towels or pour cool water over the head.

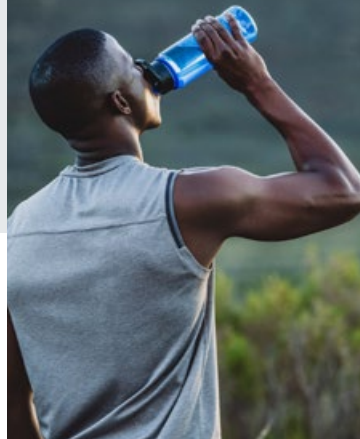
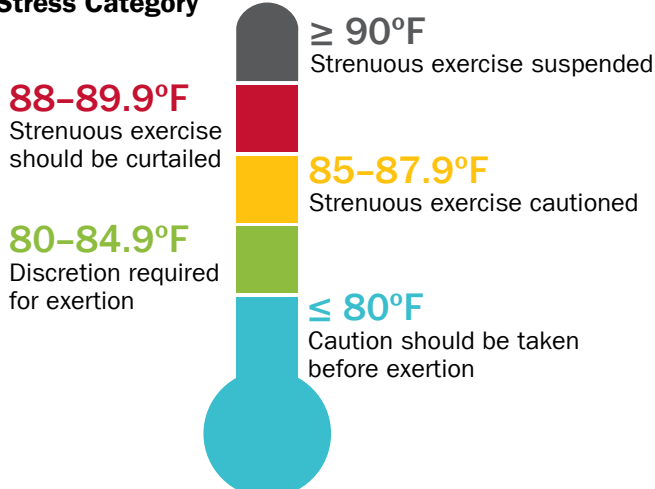
Heat Stroke

Cause: When the body's cooling system stops working and core temperature rises to dangerous levels. It is a serious condition that, if ignored, can lead to death.

Symptoms: Red, hot, and dry skin. Rapid but weak pulse. Rapid but shallow breathing. Confusion, faintness, staggering, hallucinations. Unusual agitation or coma.

Treatment: Reduce body temperature by cooling the body. Remove unnecessary clothing. Apply water, cool air, wet sheets or ice on the neck, groin, and armpits to accelerate cooling. Seek professional medical attention IMMEDIATELY!

Wet Bulb Global Temperature Heat Stress Category



Stay Hydrated!

Begin drinking fluids at least an hour before your activity to avoid heat illness.







Don't rely on thirst to tell you when you are dehydrated—thirst lags behind dehydration by several hours.

Drink 1 cup (8 ounces) of water every 15-20 minutes while working in the heat.

Eat regular meals to replace electrolytes.

Sports drinks can also replace electrolytes, but are not usually necessary unless heavy sweating continues for more than 2 hours.

Heat-related Incident Risk Factors

-  High humidity
-  Dehydration
-  Protective gear, including non-breathable or minimally breathable clothing, respirators, and chemical-resistant apparel
-  Certain health conditions and medications
-  Physically demanding work
-  Recent alcohol use (within the previous 24 hours)

Solar Safety

Wear a wide-brimmed hat to protect your face, neck and ears.

Wear sunglasses to protect your eyes from UV rays and lower the risk of cataracts.

Wear clothing with long sleeves and pant legs to avoid getting sunburned.

Apply sunscreen with SPF of 15 or higher any time you will be outside.

Stay in the shade when you can.



Prevention

Acclimate to the environment so your body adapts to the heat. Hydrate with water or sports drink before and during exercise. Avoid exercising during the hottest part of the day. Wear light, loose clothing and use sunscreen.

Sports-Related Safety

Team Sport Mishaps (2015-2019 during **101** days of Summer)



69 mishaps (torn tendons and foot fractures/sprains)



40 mishaps (torn tendons, finger fractures, dislocated shoulders)



13 mishaps (sprains and strains)



28 mishaps (sprains and strains)



Unsurprisingly, many Marines are extremely competitive by nature.

Despite this, it's worth remembering that we play these sports for fun and exercise. This isn't the NFL, and participants shouldn't put themselves at unnecessary risk for the sake of a leisurely game. Remember to hydrate, stretch, wear appropriate protective gear, and avoid competition in poor weather or on dangerous playing surfaces. Equipment should be in good condition – for example, avoid missing or broken buckles, or compressed or worn padding – and poorly-fitted equipment may be uncomfortable while possibly offering insufficient protection.

Bicycling

As you might expect, when a crash occurs between a vehicle and a bicycle, it's the cyclist who is most likely to be injured. Find out what you can do to prevent bicycle injuries and deaths, and remember—a large percentage of crashes can be avoided if motorists and cyclists follow the rules of the road and watch out for each other.



Common factors that contribute to traffic crashes involving cyclists:

1. Motorists may be non-compliant with traffic laws and impaired by alcohol or drugs.
2. Non-motorists (i.e. cyclists) may fail to comply with traffic laws and fail to wear retroreflective or highly-visible apparel.
3. Infrastructure may offer inadequate separation between motorists and non-motorists.

Recommendations:

- Obey traffic laws.
- Ride on the right side of the road, in the same direction as traffic, and in a single file.
- Always check for traffic when leaving your driveway, an alley, or a curb.
- Maintain heightened awareness. Do not ride too closely to parked or moving cars.
- Use proper arm and hand signals.
- Always wear an approved bicycle helmet.
- Be visible by wearing a brightly colored helmet and retroreflective clothing.
- Avoid riding at night if possible. If you must ride at night, install front and rear lights on your bicycle, and wear reflective clothing. **It's the law!**

Commanders

Many Marines ride bicycles to get exercise and to commute to work. Most Marine cyclists are safe riders; however, mishaps still occur. Talk with your cyclists about the importance of incorporating risk management into their riding (e.g., safe route to work, riding apparel, bicycle maintenance). Even the most skilled bicycle riders need to be reminded of safe riding practices.



Did You Know:

According to the National Highway Traffic Safety Administration (NHTSA), crashes involving bicyclist have been increasing each year since 2009. From 2015-2019, during the summer months alone there have been 27 Marines seriously injured while riding bicycles.

Home Safety (grilling, fireworks, bonfires)

Grilling

- U.S. fire departments responded to an estimated average of **10,600** home structure and outdoor fires involving grills per year during **2014–2018**.
- **84** percent of grills involved in home fires during **2014–2018** were fueled by gas, while **12** percent used charcoal or another solid fuel.
- The leading factors contributing to grill fires overall were failure to clean, leaks or breaks, leaving the grill unattended, and having the grill too close to something that could catch fire.
- Failure to clean and leaks or breaks were more commonly seen in gas grill fires than in fires involving solid-fueled grills.



Safety Tips When Grilling

- Only use the grill outside and away from structures, siding, deck rails, and overhanging branches.
- Maintain your grill: periodically remove grease buildup and check the gas cylinder hose for leaks.
- NEVER add charcoal starter fluid to fire, and NEVER use gasoline or any flammable liquids other than starter fluid.

Fireworks

1. **NEVER** allow children to play with or ignite fireworks.
2. Read and follow **ALL** warnings and instructions.
3. Be sure people are out of range before lighting fireworks.
4. **NEVER** try to relight fireworks that have not fully functioned.
5. **ONLY** light fireworks on a smooth, flat surface away from the house, dry leaves, and flammable materials.
6. In case of a malfunction or fire, keep a bucket of water (or a garden hose) and fire extinguisher at the ready.



ATV/ROV Safety

- Children and young people under the age of 16 should not ride adult All Terrain Vehicles (ATVs) with engines bigger than 90 cubic centimeters.
- Take a hands-on training course.
- **ALWAYS** wear an approved helmet.
- **NEVER** drive an ATV on paved roads.
- **NEVER** drive an ATV while under the influence of drugs or alcohol.
- ATVs are not toys; get training!
- Never ride alone, and always tell someone where you are going and when you will return.
- Read the owner's manual carefully.
- Check local laws.
- Be careful when operating ATVs and Recreational Off-highway Vehicles (ROVs) with added attachments; these affect the stability, braking, and operation of the vehicle.
- Always supervise young operators.
- Never carry extra riders.
- Never operate ATVs or ROVs on streets, highways or paved roads, except to cross at safe, designated areas.
- Always make sure the ATV or ROV is in good condition.
- Remember ATGATT:
"All the Gear, all the Time!"



Summer Travel

Unlike past summers, this year presents an entirely new set of challenges due to COVID-19. In addition to any guidance provided by USMC leadership, your individual command/installation, and local governments, consider your travel logistics and vacation activities carefully as they can affect the health of you and your family.



Air Travel

Due to high traffic in airports and close proximity aboard planes, flying is a particularly risky activity at this time. Currently, many airlines have implemented new policies and procedures on cleaning and disinfecting their aircraft. Additionally, travelers are encouraged to wipe down their seating area (arm rests, seatbelts, tray table, etc.) as best as possible, wear face coverings, wash hands frequently, and avoid touching their face. Travel-sized, TSA-compliant hand sanitizers are useful for this type of travel.



Car Rentals

If the steering wheel, dashboard, and other surfaces are cleaned by yourself or the rental agency, this is considered a low-risk activity.



Accommodations

When booking lodging for yourself and family, consider your options carefully. Hotels and private rentals are generally low-risk options, as long as time spent in high-trafficked common areas are limited and cleaning policies are successfully observed. Resorts offer additional risks due to the additional communal spaces and propensity for buffet-style dining.



Pools, Hot Tubs, and Water Parks

In general, these facilities should present minimal risk to visitors. Shared water itself is not an issue; but attempting to maintaining distance from others and potentially being exposed to large groups of people is where challenges could arise. Visiting these spaces outside of "peak" hours is recommended.



Restaurants

Dining indoors at restaurants is currently deemed moderately or highly risky. Many establishments are offering outdoor seating with tables spaced appropriately in order to mitigate risks. Face coverings would be recommended upon arrival, departure, or leaving the table to use the restroom. Hand washing and sanitizers are advised following contact with shared surfaces like chairs, menus, condiments, etc. Takeout or drive-through options provide alternatives to further minimize risk.



ASAP: Data Equals Dollars

Question: Why should I invest my valuable time to input an ASAP report?

Answer: First, we can't fix issues we don't know about, and we need you to give us that information. Second, the best way to secure the funds to fix the issues you've identified is to be able to make a data-driven argument why we deserve the money more than someone else; ASAP helps provide us that capability.

What's the Goal of ASAP? The goal of ASAP is very simple: **"fix problems – not blame"**. All ASAP data collection is de-identified and designed solely to highlight deficiencies in processes, policies, instructions, procedures, or practices related to hardware, software, human factors, or operating environments; it does not look at individual performance. Once Marine ASAP data is collected, it is first reviewed and analyzed at the squadron level to identify acute stressors (critical and time-sensitive issues) that could injure front line personnel or result in the loss of mission essential equipment. After squadron review, reports are further analyzed at the MAG, MAW, and program level as a control to ensure acute issues are addressed in a timely manner, and to identify chronic stressors (latent or legacy organizational deficiencies) that may require command intervention. All ASAP analysis activities are designed to produce "actionable information" that can be used to design, develop, and implement corrective action or problem fixes. Marine ASAP focuses on the following areas to identify known precursors or historical indicators of impending or future mishaps:

NOTE: Although there is no single analysis function that can definitively identify where the next mishap will occur, comparing and contrasting Fleet ASAP reports with as many of the following sources as possible has proven highly successful in reducing reportable incidents.

Human Factors Issues Highlighted by:

- ASAP Report Analysis and Command Safety Climate continuous feedback
- Navy Safety Center Culture Surveys
- BRZ Threat/Error Active Management (TEAM) Research
- Principles of Crew Resource Management (CRM) and Applied Resource Management (ARM)
- Analysis markers from Advanced Qualification Program (AQP) Research pertaining to Knowledge, Skills, and Attitudes (KSAs)
- Observed Behaviors (OBs) and Key Performance Indicators (KPIs) aligned to NATOPS
- Department of Defense Human Factors Analysis and Classification Markers (DoD HFACS)
- NASA Human Factors Research
- FAA/NTSB Human Factors Research
- University Aviation Accreditation Board International (AABI) Human Factors Research
- ICAO Human Factors Research

Technical (Hardware and Software) Issues Highlighted by:

- ASAP Categorical Reports (direct input from trained-observers)
- Expanded Analysis Using Systems Markers (markers are similar to those approved by ICAO to help with universal systems identification)
- Navy Safety Center Culture Surveys
- DeckPlate/OOMA/NALCOMIS Research
- Manufacturer's Engineering Orders (EOs)
- FAA Air Worthiness Directives (Ads)

Operating Environment Issues Highlighted by:

- ASAP Categorical Reports
- Navy Safety Center Culture Surveys
- FAA/NTSB Research on National Airspace Issues
- ICAO Research on International Airspace and Sovereign State Over-flight
- Federal Bureau of Investigation (FBI) Cyber/Geographic Research
- Defense Security Service's Monthly Newsletter

Organizational Behavior Issues Highlighted by:

- ASAP Command Safety Climate Reports
- ASAP Focus Questions designed by Fleet Users
- BRZ, Inc. TEAM Research
- Navy Safety Center Culture Surveys and Supporting Papers
- Published Outcomes of Military Cultural Workshops
- DoD HFACS Research

When making an ASAP report remember, similar to a maintenance logbook entry, the quality of the fix is directly proportional to the quality of the report. ASAP is a powerful tool – if you choose it to be.

