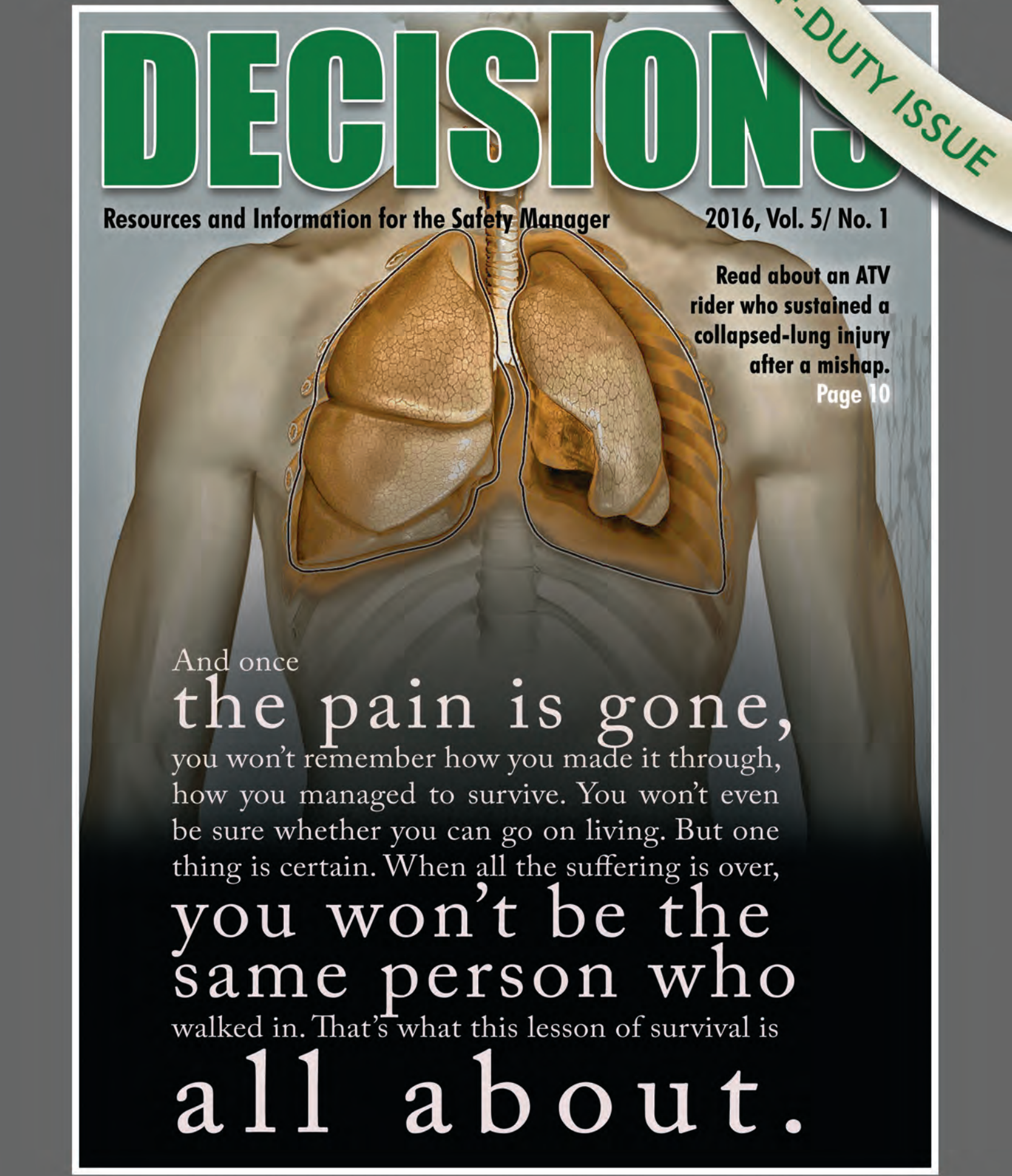
THE NAVAL SAFETY CENTER MAGAZINE FOR SHORE, GROUND AND [illegible]ERATIONS

OFF-DUTY ISSUE

DECISIONS

Resources and Information for the Safety Manager

2016, Vol. 5/ No. 1



Read about an ATV rider who sustained a collapsed-lung injury after a mishap.
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And once
the pain is gone,
you won't remember how you made it through, how you managed to survive. You won't even be sure whether you can go on living. But one thing is certain. When all the suffering is over,
you won't be the same person who
walked in. That's what this lesson of survival is
all about.

SPECIAL FROM OUR VAULT: OFF-DUTY LESSONS OF SURVIVAL Starting on Page 21

DECISIONS 2016, Vol. 5./No. 1
Resources and Information for the Safety Manager

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SHORE SAFETY PROGRAMS
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In support of the Fleet Safety Campaign, NAVSAFECEN delivers a detailed analysis of safety data to the Fleet and TYCOMs on a quarterly basis. Each report includes a prioritized list of safety hazards and causal factors by community, as well as trending data with recommended course of actions.

The quarterly reports are available on the Fleet Safety Campaign site via Intelink (https://intelshare.intelink.gov/sites/navsafecen/SafetyCampaignPlan).

NOW ON: www.public.navy.mil/navsafecen

Quarterly Analysis Reports
The Naval Safety Center has published its analysis of Navy and Marine Corps mishaps. This report focuses on areas of elevated risk that require increased or renewed prevention efforts. The 93-page report contains two sections. Part One is for United States Fleet Forces Command and United States Pacific Fleet. Part Two is for the systems commands and shore infrastructure.
▶ /Pages/media/HMA3_2015.aspx

Sleep/Fatigue Videos
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▶ /pages/video/sleep-fatigue.aspx

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▶ /pages/media/index-safetips.aspx

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Have a survival story, a news brief, or safety tips to share? Send us an email at safe-decisions@navy.mil or contact the editor at 757-444-3520, ext. 7220.

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COVER: Illustration adapted from Wikimedia, Blausen.com staff, "Blausen Gallery 2014."

THIS PAGE: Photo via Creative Commons.

What's Your Off-Duty Care Plan?

Did the cover make you pick up this magazine? It may be a far departure from spring leaves and green grass, considering it's summertime, but we want to drive a message: You have to take care of yourself, at work and off duty. We've prepared this off-duty issue to help you keep safety in mind when planning an enjoyable summer. We want to help you avoid unnecessary pain.

Our first feature, "But I Was Wearing My PPE," on page 10, reminds everyone that it's okay to have fun. But complacency and lack of situational awareness can result in a painful experience for yourself and your loved ones. Our contributing writers also give us insightful stories about motorcycle best practices, lessons learned from car and bicycle mishaps, and power-tool safety.

But before we go into the off-duty lessons learned section, let's take a look at some common work habits. Whether you spend a lot of time in the office sitting at your desk or work long hours to finish your job, the body can only take so much physical stress. The article, "Chronically Hurting," on page 5, will give you insight on how to avoid back pain and prevent spine injuries. The long-term effects of chronic pain can equate to debilitating health conditions, loss of work, and high medical costs. The authors even provided an accompanying poster as a quick exercise guide.

As a reminder that we have a lot of work to do when it comes to off-duty risk management, we've dusted off our archives of unpublished articles. Over the years, we've collected more stories than we have room in our publications. But no matter how long ago they were written, these stories still matter. These can teach us about situational awareness, responsibility and accountability. They can also teach us about the desire to stay alive.

Beginning on Page 21, we've included articles about trip planning, fatigued driving, ATV riding, motorcycle riding, as well as home and personal safety.

The summer season also brings on hurricanes. The Atlantic hurricane season lasts from June to November; the Eastern Pacific season starts in May. Be informed before, during, and after an incident. Many incidents can trigger emergency situations that escalate into disasters, some with little to no advance notice. The "Ready Navy" program offers preparedness guide and resources (see infographic below). Ready Navy is the Navy's Emergency Preparedness Program and is sponsored by Commander, Navy Installations Command.

As the weather gets warmer, more people will be heading outdoors. For every swim in the lake, ride in the park, cross-country trip, or burger on the grill, please think of how much life has to offer —everyday. If you find yourself unsure or doubtful, stop. Think of all the possible outcomes or the worst-case scenario. Think of your loved ones.

We hope you enjoy this issue. Have a great summer!



Ready Navy is designed for you, the Navy community, to provide information, tools, and resources that empower the Navy family to more aptly prepare for, react, and recover when faced with any emergency, with or without advanced warning. Ready Navy covers an array of hazards individuals may encounter, ranging from hurricanes and earthquakes to terrorist attacks. The material, tips, and recommendations provided by Ready Navy are closely aligned with those offered to the public by Ready.gov and other authoritative government resources to include the Federal Emergency Management Agency (FEMA), the National Oceanic and Atmospheric Administration (NOAA), and the Centers for Disease Control and Prevention (CDC). You are an essential partner in emergency preparedness!

Visit www.ready.navy.mil to make a care plan.

LETTERS TO THE EDITOR

Decisions magazine invites letters from readers. Send your letters via email to evelyn.odango@navy.mil; fax to 757-444-4791; or mail to Commander, Naval Safety Center, ATTN: *Decisions* Editor, 375 A St., Norfolk, VA 23511-4399. Please include your contact information. We reserve the right to edit letters.

OSHA-GHS Hazard Communication Pictograms



Hazard Communication Compliance

NAVSAFECEN, Norfolk, Va. — The Globally Harmonized System (GHS) of classification and labeling of chemicals is now the new standard. OSHA has implemented this change to improve safety and health protections for our workers.

The new standard still requires chemical manufacturers and importers to evaluate the chemicals they produce or import, and provide hazard information to employers and workers by putting labels on containers and preparing safety data sheets (SDSs).

However, the old standard allowed chemical manufacturers and importers to convey hazard information on labels and material safety data sheets (MSDSs) in whatever format they chose. The modified standard provides a single set of harmonized criteria for classifying chemicals according to their health and physical hazards and specifies hazard communication elements for labeling and safety data sheets.



By June 1, 2016, all Navy organizations will be required to have integrated GHS into their existing hazard communication program and must have:

– completed transition to new workplace labeling,

– made sure SDSs are available on every chemical and have replaced all existing MSDSs, and

– provided additional employee training for newly identified physical or health hazards.

During the transition period, all chemical manufacturers, importers, distributors and employers must comply with either 29 CFR 1910.1200 final standard), or the current standard, or both.

Visit the "GHS Toolbox" on the Naval Safety Center OSH page. The toolbox explains the major changes to the Hazard Communication Standard. It also offers resources including training materials, videos, and guides.

http://www.public.navy.mil/navsafecen/pages/OSH/GHS.aspx

PROMOTION AND AWARENESS

Free Gun Locks



USFFCOM, Norfolk, Va. — U.S. Fleet Forces Command (USFFCOM) is promoting an initiative that provides gun locks to the fleet. For a limited time, USFFCOM is giving away 5,000 gun locks to those who work or live in the Tidewater area of Southeastern Virginia.

Anyone working with the Navy as a Sailor, civilian, or contractor owning personal firearms or individuals who plan on purchasing a gun may request a gun lock through their command safety officer or suicide prevention coordinator (SPC). USFF will provide the gunlocks to already designated TYCOM/Direct Report (Echelon 3) level safety officers. The free cable-style gun lock can be used on auto-loading pistols, auto-loading and pump-action shotguns, revolvers, and bolt action rifles.

For more information, contact your command safety officer or your TYCOM safety office.

GOT NEWS? SHARE IT!

Let us help you spread the word about your safety-related events and tidbits of information. Send your press release or inquiry to safe-mediafdbk@navy.mil



Researchers have found that staying slouched for long periods of sitting still, repeated day after day, creates stress on the back, neck, shoulders, arms, and legs while putting pressure on the back muscles, spinal disk, and ligaments.

Chronically Hurting

BY CDR THOMAS E. SATHER, MSC, USN, Ed.D., CAsP AND DR. GREG LILLIE

Back pain is the second most common cause of missed work and contributes to about 93 million lost workdays and $5 billion in health care costs every year! Eighty percent of the population will have back pain at some point in their lives and 25 percent Americans currently experience back pain.

Normal spine function underpins successful performance of normal activities of daily living. Back and neck pain may arise from any of the structures in the spine such as the discs, muscles, ligaments, or joints. In the majority of cases, the actual mechanisms causing back and neck pain are unclear. Such "non-specific" problems are costly in terms of disability and work loss.

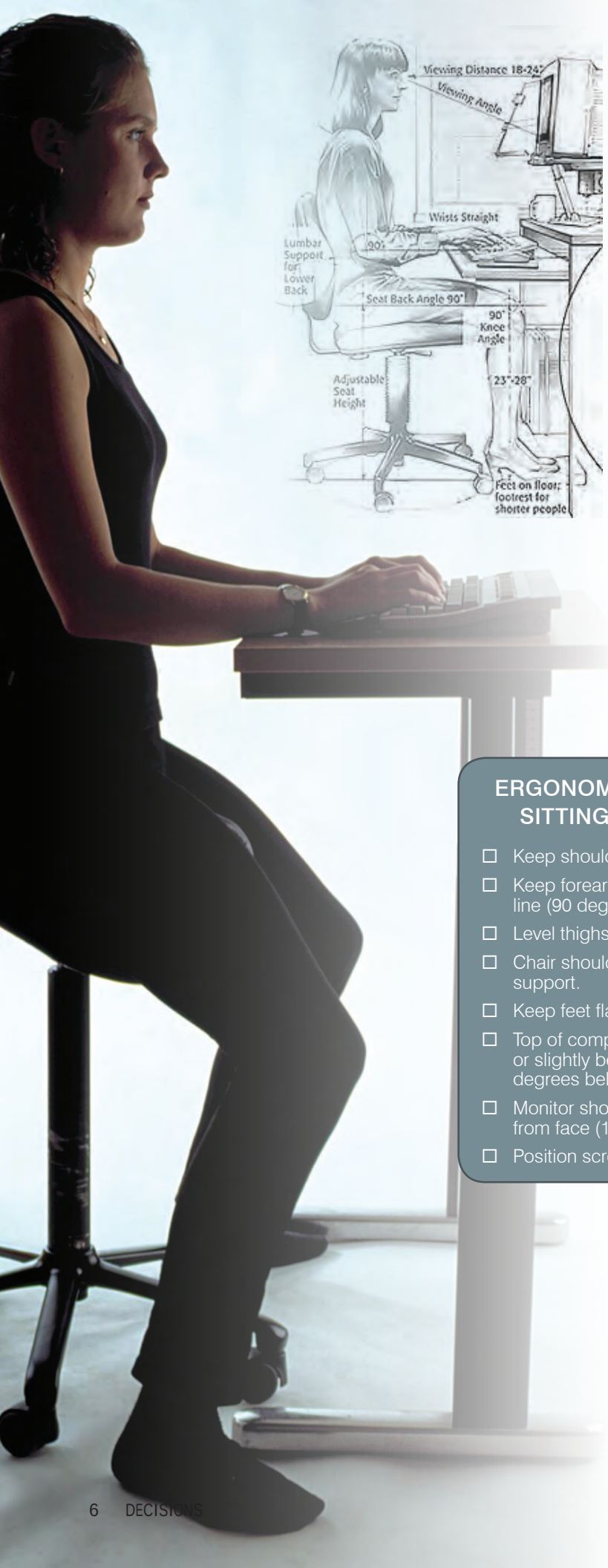
Pain that lasts more than three months is considered chronic, which may actually alter brain function and may have effects on attention, short-term memory, judgment and social skills. Chronic pain may also contribute to mood disorders, depression and anxiety. Chronic pain can cause difficulties falling asleep, staying asleep, and overall quality of rest.

Office workers are more likely to suffer from chronic back and neck pain than people who do physically demanding jobs because of how the body is positioned throughout the work day. The three most common causes of back pain are slouching forward in a chair, holding a telephone between your ear and shoulder, and finally a lack of movement during the work day. Researchers found that slouching for long periods of sitting still, repeated day after day, creates stress on the back, neck, shoulders, arms, and legs; while putting pressure on the back muscles, spinal disk, and ligaments.

With these three causes identified, you would think that we could easily resolve the problem of back pain. Industries have found that changing postural habits can help. One study found that adjustable desks that allow workers to regularly change their work position from sitting to standing reduce upper back and neck pain by 54 percent. Another found that those individuals who reported being in “high discomfort” kept their necks more forward by 8 degrees while typing compared to those who reported “low discomfort”. While the above research findings sounds simple, the biggest issue is actually having people change their habits to actually address these.

Here is what you can do in the office to help alleviate some of the causes. You can sit in ergonomically designed office chairs that support the natural curve of your spine (exercise balls are not a good choice for most people). If one is not available, a pillow or rolled up towel behind your low to mid-back may suffice. You can adjust your chair so that your feet are flat on the floor and with the thighs parallel to the floor. This will keep your low back in a spine neutral position. You can adjust the arm rests so that your shoulders remain low, which helps the upper back. A final helpful hint is to keep your monitor at arm’s length away and kept at a slightly below eye level height. This will encourage you to sit up instead of leaning forward which in turn reduce neck

4-Designer.com image.



strain. In order to help with phone calls, try these helpful hints. If your phone call conversations last longer than five minutes, consider using a speaker phone or use a headset.

There is a trend today to use standing work stations. While standing places less load on the spine than sitting, it can cause other physical stressors leading to pain. To avoid dysfunction and pain if you have a standing work station, it should be adjusted to fit your build. The top of the monitor should be just below eye level. The keyboard should be at a level where your elbows are bent at 90 degrees, with your shoulders (trap muscles) being totally relaxed. Standing on a shock absorbing mat will help reduce leg fatigue. Some people, especially those with circulatory issues, may need to wear support hose or socks (men included!).

Research is lagging on what is best —standing or sitting. It appears that the right balance will be a combination of the two. There are convertible work stations available which will allow one to raise and lower the desk, allowing for alternating between standing and sitting. A good rule of thumb with this type of system is to stand for 15-20 minutes, then sit for 8-10 minutes.

No matter whether you have a stationary sit-down or standing work station, or one of the new adjustable desks, in order to encourage good spinal hygiene, you need to move it! Take a break every 30 minutes. Do a few stretches, get a drink of water (stay hydrated), and activate some of the muscles being neglected by poor posture.

A good way to remind yourself to take a break is: Open the calendar function in Outlook. Type in the word "stretch" and set it to come up every 30 minutes. When it dings at you, step back from your work station and do some of the activities from the poster "MOVE IT: Surviving the Stress of Sitting." Once done, hit "snooze" and go back to work.

Remember, just 30-60 seconds of stretching and engaging neglected muscles every half hour will reap big rewards by the end of the day.

ERGONOMIC CHECKLIST FOR SITTING AT A COMPUTER

- ☐ Keep shoulders relaxed.
- ☐ Keep forearms and hands in a straight line (90 degrees).
- ☐ Level thighs horizontally to floor.
- ☐ Chair should provide lower back support.
- ☐ Keep feet flat on the floor.
- ☐ Top of computer screen shoul dbe at or slightly below eye level (15 to 30 degrees below line of sight).
- ☐ Monitor should be an arm's length away from face (18" to 24" distance).
- ☐ Position screen to avoid reflected glare.

CDR Sather is with the Bureau of Medicine and Surgery, Education and Training in Falls Church, Va. Dr. Lillie is a chiropractic physician with the Naval Branch Health Clinic, Naval Air Technical Training Center (NBHC NATTC) in Pensacola, Fla. Poster models (right) in order of appearance from top: AO3 James M. Sather, Hannah R. Failor, CDR Thomas E. Sather, MSC, USN.

This page: Creative Commons, Wikimedia; opposite: CDR Thomas Sather

MOVE IT: Surviving the Stress of Sitting

The following movements are designed to help unload the neck and low back from the negative effects of sitting. By incorporating these activities into your daily routine, you will help reduce stress and strain on the muscles, tendons and skeletal system. While exercising, breathe normally and use smooth movements. If you feel any unusual pain or numbness, stop. If the symptoms persist, see your physician immediately.



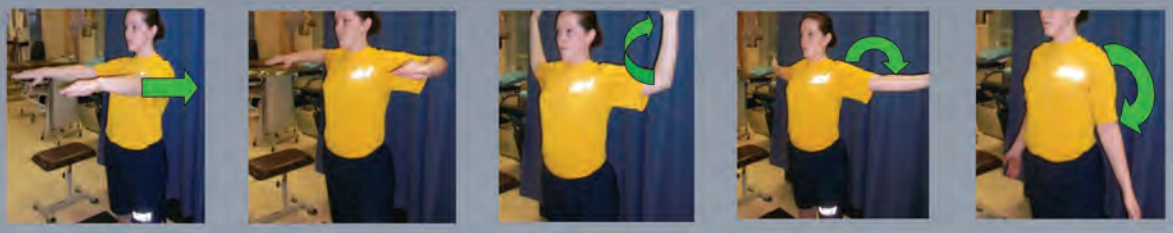
Hold for 20-30 seconds. 3 times each side.



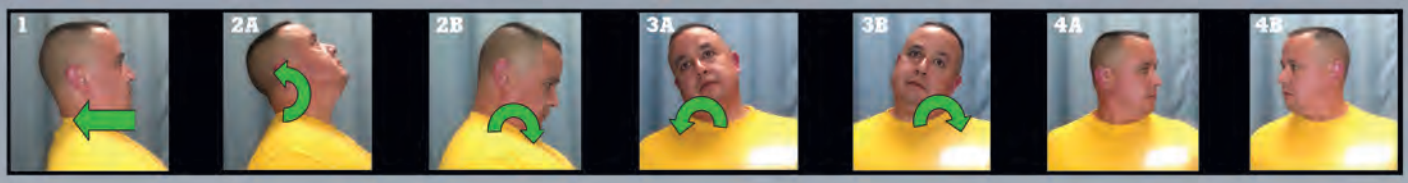
Hold for 20-30 seconds. 3 times each side.



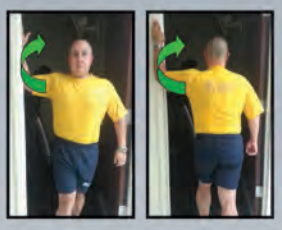
Chest up, wide stance (minimum of shoulder width apart), feet flat, knees over the feet. Tighten abs, push rear back. Squat, maintaining knees over the feet. Hands slide down/up the wall. Return to starting position. Repeat 4-6 times.



Start with arms/shoulders fully extended. Squeeze the shoulder blades together, keeping the arms straight. Bring the upper arms back and up. Rotate arms rearward until the forearms are up, palms facing forward. Keeping the shoulder blades squeezed together, gently extend the elbows, lowering the arms to the side. Repeat 3-5 times.



1) Lightly squeeze the shoulder blades and engage your core. Move your head/neck rearward as far as is comfortable. Hold for 2-3 seconds then relax. Repeat 3-5 times.
2) Retract the head/neck throughout the stretches. **A:** slowly tip your head back as if looking up at the ceiling. Hold for 2-3 seconds then slowly bring your head back to the starting position. **B:** slowly tip your chin down toward your chest. Hold 2-3 seconds then return to the starting point. Repeat 3-5 times.
3) A: Tip one ear toward your shoulder. Take this to full tension, holding for 2-3 seconds. Keep looking straight ahead to prevent rotation. Slowly bring your head back up to the starting position. **B:** Repeat to the opposite side. Repeat 3-5 times.
4) A: Rotate your head fully to one side. Hold 2-3 seconds, return to the starting point. **B:** Rotate to the opposite side. Repeat 3-5 times.



Hold full tension for 5-10 seconds, repeat with the opposite arm. Perform 3-5 times.



Lean back into a corner, feet shoulder width apart, elbows level with shoulders. Push out of the corner. Squeeze shoulder blades together. Relax back into the corner. Repeat 10 times.



Place hands on the wall with the arms extended, as if doing a push-up. Without bending elbows push into the wall, arching the upper part of your back. The shoulder blades will pull apart. Hold this tight for 2-3 seconds.



Then sink chest into the corner, squeezing your shoulder blades together. Hold tight for 2-3 seconds. Repeat 10 times.

Caution: Don't force any motion and go only as far as it is comfortable. Stop immediately if you feel any pain or tingling sensation.



The Path to Owning a Gun

BY CDR MARTY OHME

The decision to own a firearm is very personal, especially if you intend to use it to protect your family or yourself. Making the right decision requires solid information. Seldom do I get into something new — and never anything expensive — without first doing extensive research.

On my third visit to the local Marine Corps Exchange gun counter, I apologized for asking so many questions. I was taken aback when the store associate replied, "You're doing this right. Some people walk in here for a haircut and walk out with a gun." I seriously doubt he was joking. An impulse buy would be easy since only a few steps separate the grooming chairs and gun cases.

Transitioning from the limited exposure and experience the Navy has given me to gun ownership has been quite a journey. If you are considering a firearm purchase, allow me to offer some advice based on my own purchasing experience.

Photo: Evelyn Odango

Like many things, you have to ask yourself these questions up front:

▶ Why do I want to buy a gun?

▶ Is it a need or a want?

▶ How will I safely store it? (Consider who else lives in your home, how quickly you might want to access it, and protection from theft.)

▶ What will my budget be? (Do you really need holographic sights, a match grade barrel, or a supressor?)

▶ Do I have the money? Do I need to save up?

▶ Can I afford ammunition and accessories; range time and training; and secure storage?

Although you should expect to come back to these questions multiple times, don't move forward until you have solid answers for them. Now, where can we find the foundation for the good decision we want to make? What about Petty Officer Pistol; he seems to know exactly what you need. Maybe your neighbor's cousin can help; he always shows off his concealed carry pistol when he comes over. The Internet is all knowing and everything you read there is true, right?

Whoa, Cowboy! Anyone, including a gun store clerk, who presumes to know exactly what you need, doesn't. Ask elsewhere. People who want you to know they're carrying are probably dangerous. Stay away. While the Internet is a vast store of information, look for multiple reputable sources. Look for agreement on big things like safety and the need for training. Also, be open to differing points of view "experts" offer on other matters relevant to your decision. Find out who the respected gun shops are in your area. If any one of them has a range and offers instruction, all the better.

Before you go too far down the path of acquiring a firearm, you should have a talk with your spouse and/or other members of your household. That conversation could go many different directions. Be prepared to talk about why you want a gun and the safety steps you will take. Make sure you are open to other opinions and be ready to listen.

When you ask for advice or shop for a gun, explain to the seller your goals up front. This will frame the discussion so it is less likely you end up hearing about custom triggers for AR platform rifles chambered in 7.62 when you really want to learn and teach handgun safety to your tween.

Ready to buy? Hold on! Would you buy a car you haven't driven? Take some time to shoot. Your research to this point, including what feels comfortable in your hand at the gun counter, should have narrowed your search down to a group to choose from. This is where having a range at the gun shop is a bonus. Guns can often be rented so potential customers like you can try them out.

If you don't have previous firearms training or are not comfortable firing on your own, ask for help. A negligent discharge is far more embarrassing (and potentially dangerous) than admitting you need help. When you test the firearm, remember this should be about what works for you, not what P.O. Pistol told you is best.

Now go home. That's right, go home. Don't buy as soon as you are done shooting. Think about your options. You may want to shoot again before making your decision. Then, do what's best for you. If you choose to buy that gun, get professional training and practice. It's not merely about marksmanship. You own every round that leaves your firearm's barrel. Make sure it hits your intended target.

As you train, evaluate your choices of firearm and other equipment. Even after all the effort, you may find you need or want something different. It could simply be a different holster or sights. You may even want a different gun in the future.

Consider the following convenient memory aid so you don't have to carry this article with you on your search for a gun: Go back and put an "A" by the questions near the beginning of the article. Put a "B" by the next paragraph, which begins with "Although you should expect…" Put a "C" by the paragraph beginning "Before you go too far…" Put a "D" by the paragraph beginning "Ready to buy?" Look at what's in each section. Do you see it?

Part A is about **Assessing** your situation. Part B **Balances** your resources. Part C is about **Communicating.** Part D is ***Do and Debrief.*** (Now you're thinking "This guy duped us into a TCRM lesson with an article about guns!") That's right, time-critical risk management, or TCRM, works in both the time critical* and Navy/Marine Corps environment and at the gun counter. We all make decisions in our lives that could have been better. Sometimes the consequences of those decisions are small and sometimes they are not. How many of your bad decisions would have been different if you had put a little bit more thought into them?

Author's Note: This article follows the structure of the* **ABC*D Model because of those who make an impulse decision to purchase a firearm. However, it describes the kind of very deliberate planning for which the five-step process is designed.* **ABC***D maps neatly onto the five steps. Whichever structure you choose for making a decision on a gun purchase, use it well. For more information on ORM, visit the Naval Safety Center website.* D

CDR Ohme is an analyst in the Naval Safety Center's Aircraft Operations Division.

PERSONAL FIREARMS RESOURCES
http://www.public.navy.mil/navsafecen/pages/aviation/weapons/personalfirearms.aspx

BUT I WAS WEARING MY PPE

BY AM2(AW) ZACKERI CARNES

"I decided to have a little fun and throttled the gas ... "

Although we learn early in our Navy careers that wearing our personal protective equipment (PPE) will help prevent serious bodily injury or harm, certain activities can still be dangerous even with the correct safeguards in place.



Our command had recently returned home from a 10-month combat deployment. While half the squadron was on pre-overseas movement leave, the remaining Sailors had Fridays off. On one of those Fridays, Sailors from my shop and I decided to ride our four wheel all-terrain vehicles (ATV). Early that morning, our group packed up our equipment and went to nearby Malibu Hills. After arriving, we unloaded our gear and started the ATVs to warm them up. While we waited for the ATVs to warm up, my friends and I donned our safety gear: heavy jackets, helmets and gloves.

I decided to take the lead since I had a greater experience and comfort level with this particular trail than my friends. I knew there was a turn about 30 seconds into the trail and briefed this to the group before we began. As I approached the turn, I slowed down slightly to navigate safely. When I was halfway through the turn I decided to have a little fun and throttled the gas. This allowed the ATV to snatch and whip the remainder of the curve in a drift. That turned out to be a foolhardy decision. Instead of drifting out the remainder of the turn, the ATV redirected itself toward the edge of a cliff.

In an instant, I imagined what the 150-foot drop would do to me and I quickly attempted to steer myself out of danger. I overcorrected and found myself careening toward the dirt wall of the trail, which at this point, was the lesser of the two evils. The ATV collided with the solid dirt and rock wall. My body launched into the air. The force of the impact knocked me unconscious.

The entire crash happened incredibly fast. I remember coming to and feeling like I had forgotten how to breathe. I was concerned that my injuries were worse than what I was ready to deal with. I kept telling myself, "Just breathe in and you'll be good." When I finally took in some air for the first time, all I noticed was the feeling and sound of bubbling in my chest. I managed to call out for help with all the energy I could muster; I knew something was seriously wrong. Then, for the second time, everything went black.

When I regained consciousness, I found myself face-to-face with one my friends. The rest of the group huddled around in what seemed like organized chaos. I heard someone say, "Go get the truck," and remember telling my friend about the bubbling in my chest before they lifted me into the back of a truck. At the hospital, the medical staff performed a battery of tests and poked me with needles several times. When the doctor arrived to share the results, I was astonished at the extent of my injuries. I suffered a partially collapsed and punctured lung, a bruised heart, and numerous lacerations to the left side of my body due to my collision with the wall.

After hearing my results and replaying the events that led up to my incident, two things became evident. First, always wear your PPE; mine certainly saved my life. However, even with full PPE, the force of the impact alone knocked me unconscious. Had I not been wearing a helmet, it would have been much worse. Second, even though you feel comfortable in a dangerous situation or activity, you should always be cautious so that you'll be ready for the unexpected. D

AM2 Carnes is with VAW-116 "Sun Kings."

"I was astonished at the extent of my injuries. I suffered a partially collapsed and punctured lung, a bruised heart, and numerous lacerations to the left side of my body due to my collision with the wall."

Photo courtesy of ATV SxS Illustrated Magazine, by permission.



AT1(AW) Brian Austin performs proper riding position demonstrations for advanced riders at the Marine Corps Base Hawaii motorcycle range.

Learn. Train. Live.

BY AT1(AW) BRIAN AUSTIN

> "As a student, I learned ways to sharpen my riding skills to become a safer rider."

During the first year of my enlistment, I had the opportunity to take the Motorcycle Safety Foundation's (MSF) Basic Rider Course. I already had been riding for nearly 10 years and by all rights thought that there was not a thing the course could teach me. I could not have been more wrong despite it being a novice instruction.

This particular course was for people that may have never even sat on a motorcycle. Yet, I found myself learning better braking and control techniques. The experience was extremely humbling and valuable; I could not wait to get more. I am now an advanced rider coach for MSF and have never been a better rider.

As a student, I learned ways to sharpen my riding skills to become a safer rider. As an instructor, I have had the opportunity to share all of my 325,000 miles on two wheels with others. I am proud to say that all of my students have remained vigilant in avoiding a motorcycle accident.



Often when I am driving or riding, I notice and analyze others as they ride their motorcycles. I see common mistakes that could easily initiate a chain of events that may result in a crash.

▶ OVERRIDING ONE'S OWN SKILL SET. Sure, the new-liter bike you bought can do 185 miles per hour. It can even pop a wheelie at 80 mph, but the last bike you rode was a 10-speed. Imagine buying a 16-year-old a Ferrari for his or her first car.

▶ NOT TURNING YOUR HEAD. I have seen many people end up on the side of the road or the side of their bike maybe because they did not look where they wanted to go. If you focus only on what is in front of your bike and not look on either side, then you are going toward only that direction. The technical term for this mistake is target fixation. That may be a good thing behind a scope, but not behind a set of handlebars.

▶ NOT ASSUMING A PROPER RIDING POSITION. Not long ago, another rider coach witnessed a motorcycle-mounted police officer crossed up in a high-speed turn. That means counterweighting for those of you that do not ride or understand the lingo yet. Just as the coach said to himself, "that's going to hurt," the officer went down.

YOUR COMMAND HAS 30 DAYS TO PROVIDE A MOTORCYCLE CLASS AFTER YOU REQUEST IT.

Before you find yourself making any of these mistakes, I encourage you to get proper training from the professionals. Your command has 30 days to provide a motorcycle class after you request it, so take advantage of this valuable opportunity.

Motorcycle riding remains one of the top causes of death for the Navy and Marine Corps. Let us mitigate that risk together. If you ride, don't ride in secret. Inform your command so they can assist you in acquiring proper training. If you are a leader in your command, ensure your personnel are comfortable approaching you and ensure they are receiving the appropriate training provided by the Navy.

Recently, a vehicle that veered out of its lane hit one of our Sailors. The service member was forced into the wall that separates opposing lanes. He was able to slow down and safely stop his bike, but the impact destroyed both sides of the motorcycle. The Sailor later told me that he felt the only thing that saved his life was the training he had received at our Military Sportbike Rider Course just two days before. D

AT1 Austin is with VPU-2, Marine Corps Base Hawaii.

ONLINE RESOURCES

OPNAVINST 5100.12J & MCO 5100.29B: "Navy Traffic Safety Program" and "Marine Corps Safety Program"
Navy Motorcycle Rider: www.navymotorcyclerider.com
ESAMS: https://esams.cnic.navy.mil/esams_gen_2/loginesams.aspx

From top left: AW1 Brandon Potter, USN; this page: Creative Commons, Wikimedia.

Under Pressure

The only sound I could hear once the car came to an abrupt stop was the constant drumming of the rain ...

BY LT ERIC "JIGGLYPUFF" VALDEZ

A friend and I had just wrapped up a relaxing weekend in New Orleans and prepared to make the easy three-hour drive back to Pensacola.

Around noon of the overcast Sunday, we packed the back of my 2008 Honda. The gray four-door had gotten me through thousands of miles of traveling up and down the Atlantic coastline with only the regular minor maintenance issues. I also ensured the car received the required check-ups and fluid replacements.

After saying our farewells, my friend got in the passenger seat while I did a quick walk-around check of the car. Everything looked normal except for the front tires, which appeared to be a little low. I gave each a solid kick with my toe and planned to top the tire pressure off once I got back to Pensacola. The car started like normal, and I set up the GPS and queued up some jams to sustain us for the next few hours of our journey.

About two hours into the drive, going east along Interstate 10, we hit a wall of rain. The late summer heavy showers are a normal occurrence along the Gulf, and can last anywhere from 10 minutes up to over an hour. As we pushed through the heavy downpour, the flow of traffic slowed a little but still hovered around the speed limit. Being these showers are a normal occurrence, the majority of people from the area are used to driving in these conditions. Slowing to an absolute crawl in the hazardous weather was far from their minds.

I was cruising in the left lane when all at once time seemed to speed up while the world around me came to a complete stop. My first inclination that something was wrong was when my car started to veer into the right lane without any turn of the steering wheel. I immediately knew the problem and hoped that my tires would catch, but before I knew it, my car was spinning across multiple lanes of the highway. After a couple of spins, I was off the highway and down the embankment. The car slid down the slick grassy hill until the tree line caught us in her almost-safe embrace.

Hydroplaning is one of those things you hear about through driving school, and hope it never happens to you.

The water between the pavement and your tire creates an almost frictionless surface, much like sliding on ice.

The movement of time returned to normal as my friend and I sat there stunned. Small wisps of smoke started into the air around us but we were not sure if it came from the steam of the rain off the hot motor or maybe the airbags being set off. The front end and driver side took the brunt of the damage. Neither one of us was hurt. What was even more incredible is that during our "dancing" across the highway, we did not hit any other vehicles. Concerned drivers stopped to check on us but we sent them on their way since the cops were on their way. Once a highway patrol officer arrived at the scene, we grabbed our bags out of the trunk of my wrecked car and climbed the wet embankment toward the patrol car.

My friend and I, still shaken and a bit sore, waited at the police station for our ride. The rest of the drive back to Pensacola was almost surreal. With remnants of the shock wearing off, we alternated through nervous bouts of non-stop talking and complete silence. Eventually I leaned my head against the window and tried to break down the miracle that just transpired.

I had been in flight school for about a year when I did my spiral across the highway. Operational risk management (ORM) is one of those terms that is almost pounded into our heads. Now here I sit, over two years into my first fleet tour, looking back on that wild ride and see where using ORM outside of work could have prevented the crash.

Even though I had driven that route dozens of times, I failed to anticipate unforeseen circumstances. I should have inflated my tires prior to starting the road trip, especially before getting on the highway and up to high speeds. The low tire pressure could have led to losing control in the rain. It could also have caused a blowout of one or even both the underinflated tires.

Lesson: Do not let complacency or procrastination become the possible catalyst to a traumatic event.

As aircrew personnel, we plan for weather every time we go flying. That same planning is also applicable to everyday journeys. Since my trip that day crossed numerous miles and a few states, a quick scan of the weather outlook could have prepared me for what was to come. If the predictions were severe enough, I could have decided to delay my departure until a more favorable weather was in the forecast. Once on the drive and as the rain got stronger, I should have adjusted my speed accordingly. Although the flow of traffic was at the speed limit, the safer choice would have been to get in the slower lane.

Lesson: Sometimes the safest choice is not to follow the majority but rather to take caution.

My car ended up as a total loss but the awareness and experience from the event, as well as the overall gratitude that no one was hurt, overshadowed the mere material forfeiture. D

LT Valdez is with VAW-115 "Liberty Bells."

Factors that contribute to hydroplaning: speed, road conditions, tire wear, water depth, and vehicle weight.

Speed: the faster you drive the harder it is for water to get out of your tire's way.

Road Conditions: roads that puddle, smooth roads without texture, and roads with ruts all increase the chances of hydroplaning.

Tires: smaller tire width, worn tire tread, or tires without tread (racing slicks) are most prone to hydroplaning. Skinny tires have less surface area to make contact with the road and tires with less tread provide less space for road water to escape your tires.

Weight: heavier cars are tougher to lift above the water, and are safer in hydroplaning scenarios.



ONLINE RESOURCES

Naval Safety Center Motor Vehicle Safety
http://www.public.navy.mil/comnavsafecen/pages/shore/motor_vehicle/motorvehicle.aspx

Travel Risk Planning System (TRiPS)
https://trips.safety.army.mil/

Left: Creative Commons, Wikimedia; illustration: tred.com.



He

CDR JASON GARRETT

Bicyclists know to be careful as they transit to work through a naval shipyard. These places are notoriously dangerous. New construction or the placement of heavy equipment often requires bikers to take difficult detours. The ever-present train and crane tracks that crisscross the piers also can cause wipe-outs. During a recent maintenance period on USS NIMITZ (CVN 68), it was common to see bicycle riders coming to work sporting new bumps, bruises, scrapes or even limping from their latest crash.

Last summer, a NIMITZ Sailor was riding his bike through the shipyard as he headed to work. It was a route he had traveled numerous times before; yet despite knowing all the hazards, he crashed his bike, just like so many others. What makes his story different is that his crash should have killed him, but amazingly did not. The reason he survived came down to a simple decision he had made months earlier.

ET3 Roberto Tamez was pedaling through the shipyard, on pace, to make duty section turnover at 1600. He navigated through traffic until he came upon a bus stopped along the right side of the road, where it was dropping off and picking up passengers. Without slowing, Tamez moved to pass the bus on its left side. As he did so, the bus doors closed and it began to pull forward, the driver intent on merging into the traffic lane. Tamez had plenty of speed to get past the slowly accelerating bus, so he continued. He passed the bus's back tires – a dual pair of black radials nearly three feet tall – and was rapidly approaching the front tires. That's when he hit the crane tracks.

Lives!



A Sailor crashed his bike on his way to work at a naval shipyard. What makes his story different is that the crash should have killed him.

Before he could react, the narrow front tire of his street bike got caught in the groove between two parallel rails. His handlebars were wrenched from his hands, causing the bike to flip, and throwing him directly under the bus. As soon as he hit the ground he was knocked unconscious.

Based on eyewitness accounts and the physical evidence, when he hit the ground, momentum carried his body completely under the bus. His head came to rest directly in front of the inside back tire. When the tire impacted his head, his bicycle helmet took the brunt of the impact, compressing down on his head and squeezing it clear of the tire. (This is the same principle as squeezing a watermelon seed between your forefinger and thumb and shooting it across the table.)

The next thing Tamez knew, he was in an ambulance and on his way to the hospital. There he was examined by medical personnel and diagnosed with a mild concussion. He was released from the hospital later that same night. A few days later he was aboard NIMITZ, telling the Safety Department his amazing tale.

What we learned from the story proves the old adage that 'luck favors the prepared'. When Tamez decided to start biking to work, he went to purchase a new bicycle helmet. He had originally decided on a low-quality and inexpensive, but otherwise ANSI-approved helmet.

While shopping he noticed a high-end, better-quality sport helmet on display nearby. It was very expensive, but he weighed the risks. Knowing how dangerous it was to bike through the shipyard, he decided that his safety and well-being was worth the extra expense. He bought the better helmet despite the high price tag.

During the investigation, bike experts who looked at the evidence later believed that if Tamez had been wearing a lower-quality helmet, his head would have been crushed by the wheels of the bus on that fateful day and he would have been killed. He is alive all because of a decision he had made months earlier.

When shopping for personal protective equipment (PPE), for any kind of sport or activity, it helps to understand the nature of the activity you will be engaging in. Manage the risks to yourself by carefully evaluating the equipment you need for the environment that you're operating in. The right equipment can prevent injury and save your life, as it certainly did in this case. Educate yourself about the quality of gear material, craftmanship, as well as the industry safety rating. The high price may not always equate to quality, but if you do research and product comparison, you can't go wrong. Always wear the appropriate PPE when engaging in high-risk activities.

As an end note, Tamez is riding his bike again. Before he went "back on the saddle," he went shopping for a new bike helmet. As you can imagine, there was only one real choice: He bought the exact same helmet for what now seemed like a bargain price of $100.

ET3 Tamez later said, "I bought the same helmet again and don't think I'll ever own a different one." D

CDR Garrett is the safety officer for USS NIMITZ (CVN 68).

Images by 4-designer.com

Could've Been Worse

STORY AND PHOTO BY AT2(AW) NATHAN MORRISON

This particular Friday began as any other normal day for me. The day started out exciting, but ended with a trip to the emergency room, while teaching me a valuable lesson that was written in my own blood.

While doing small household improvements, I recently found new use for what once served as a fish tank stand. After some brief thought, I decided that I would convert this stand to function as a computer desk and entertainment center.

A few days later, my youngest daughter ran into the corner of the desk while playing with her two older sisters, receiving a small cut above her eye. To prevent any future injuries, I immediately – conceivably in haste – drove to the hardware store and purchased a router so that I could round the desk corners and edges.

I would like to make it clear that I am no handyman Bob Vila. I only have rudimentary woodworking knowledge from observing my father and grandfather use various power tools, and from what I have taught myself over the years. Perhaps it would have been helpful to remind myself of that fact prior to using a router for the first time.

The desk was too large to easily move outside, so I made space for a work area in my living room by moving furniture, opening doors and windows, and laying down a plastic tarp that would contain the saw dust and wood splinters. I made sure to thoroughly read the user manual for the router to make certain I had it set up properly and that I was fairly familiarized with it since, again, I had never used one before.

Once my working space and tools were prepared, I began to cut the edges of the desk, making sure to move slowly to get acquainted with the router. Initially, I had a few issues getting a round edge. However, as more time passed, I began to feel comfortable; as it turns out, too comfortable.

Nearing completion of the first side of the desk, I decided to check the progress of my work. I lifted the router up and away with my right hand while placing my left hand on the edge of the desk. I proceeded to check my work while the router blade was still spinning. As I was examining the smoothness of the edge, I felt a sudden rush of pain envelop my entire left hand. Quickly stopping the router and setting it down on my living room floor, I looked at my hand and realized that I had severely cut my left index finger. The bleeding and pain were severe.

Realizing the injury would require more than I could handle, and with a pregnant wife and three young children at home, I called 9-1-1 to get a ride to the local emergency room. After getting my wound cleaned up and having a few X-rays taken, the emergency room doctor told me that I had cut a large portion of my index finger down to the bone. Parts of the bone were fractured and even shattered from being nicked by the blade. I also had parallel and shallow cuts along the top of my finger, and the fingernail was completely missing.

A few days later I was referred to an orthopedic surgeon who told me that I was extremely lucky that I did not do more damage to my finger. The doctors initially told me that the tip of my finger would need to be amputated at the first knuckle. After further assessment, I was so relieved that it did not turn out that way.

Working with power tools is dangerous, even if they are used properly and with extreme caution. Amplifying that danger even more is when the user is a novice and fails to properly manage the risks associated with the use of power tools. So where did it all go wrong?

First, I failed to properly identify the hazards and assess the risks associated with using a router.

Second, I failed to implement proper controls prior to using the router. In hindsight, not only reading the user manual, but watching a couple YouTube videos on proper router use could have potentially prevented my mishap.

"I only have rudimentary woodworking knowledge from observing my father and grandfather use various power tools."



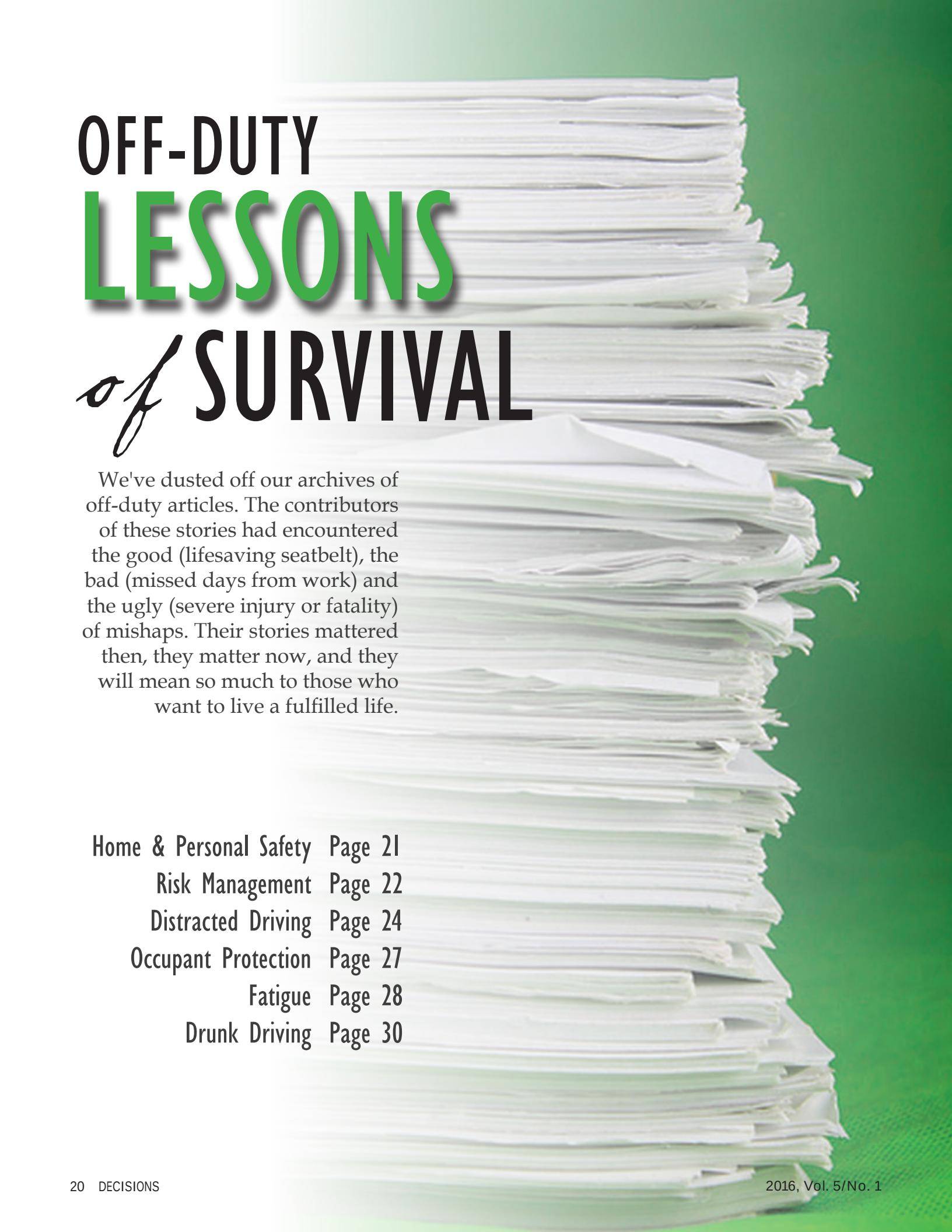
Third, I did not have on proper PPE. A good pair of leather carpenter's gloves could have prevented my finger from being cut – at least less severely.

Lastyly, had I executed time-critical risk management (TCRM), I would have made the proper decision to turn the router off and set it on the ground prior to checking the smoothness of the desk edge.

At the end of the day, this mishap could have been a lot worse. I ended up only losing a small portion of my index finger above my last knuckle, a few days of work, and a little bit of pride. But, as unfortunate as it was, it has helped me realize that risk management is not just a safety tool that is used at work. Performing appropriate risk assessment, implementing the proper controls, and applying TCRM can make a difference when making big decisions while off duty. By applying these principles, in all facets of life, the potential for injuries like mine may be reduced or even prevented. D

AT2 Morrison is with VAW-116.

OFF-DUTY LESSONS *of* SURVIVAL



We've dusted off our archives of off-duty articles. The contributors of these stories had encountered the good (lifesaving seatbelt), the bad (missed days from work) and the ugly (severe injury or fatality) of mishaps. Their stories mattered then, they matter now, and they will mean so much to those who want to live a fulfilled life.

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Trapped Vapors

BY AD1 RICHARD O'CONNOR

I had gotten comfortable at my new command, and my family had settled into our new home. It was time to concentrate on the yard-work part off my "honey-do" list. One day I had gotten off work at a decent time, so there was no reason to put it off any longer.

First on the list was to burn a pile of brush that the previous owner had left. I thought this task would be simple; after all, as a volunteer firefighter, I've set and watched many controlled burns.

I looked over the pile and rearranged a couple of branches. I then poured gasoline on the pile, taking care not to get any gas on the dead grass next to the brush pile. I would light that grass, which would move toward the brush pile and get it going. Everything seemed good to go.

When I bent down to light the grass, though, a fireball erupted and engulfed my upper body. I ran as though my feet were on fire; however, in reality, it was my face. After about 30 yards, I stopped and lifted my T-shirt over my face and head, which put out the fire. The damage had been done, and I had to get to the hospital.

I won't get into how bad the pain was, because the reality is that things could have been much worse. A week after the fire, I had no lasting scars on my face and was told I could return to sunlight and work after two more weeks.

I've spent a lot of time thinking about what happened. A slight breezing was blowing in my face when I lit the dry grass that day. Fumes from the gasoline evidently had migrated to the grass, and my being bent over must have helped trap the fumes against my body. I immediately became a human torch once an ignition source was added as I stood up. D

From our 2009 archives. AD1 O'Connor was with VQ-3 at the time of this writing.

Besides following local fire and county or city regulations, use these precautions when burning leaves:

firebreaks Establish wide firebreaks around the piles. These firebreaks should be free of vegetation and wide enough to contain burning embers that may fall or roll from the pile. The larger the pile to be burned, the wider the firebreak should be.

small pile Keep debris piles small, gradually adding more as the piles burn down. Adding fuel gradually will keep fire intensity lower and lessen the chances that material will roll or be lofted over firebreaks into flammable vegetation. Large piles of burning debris generate intense heat capable of carrying relatively heavy burning embers up and away from the fire, perhaps far from the original fire.

distance Select burn locations away from overhanging branches and utility lines. Intense heat rising from a fire could ignite leaves and branches of trees or damage overhead lines and disrupt utility services.

containment Have an available supply of water on hand to use, in case your fire should get away. A fire extinguisher may be necessary to contain fires arising from brush-pile burning, as embers may be blown farther from the fire and have more time to grow into an uncontrollable wildfire before you can get to the spot fire.

weather Stay informed about possible weather changes. Gusty winds and changes in wind direction often accompany the passage of weather fronts. Thunderstorms also may generate strong gusts and downdrafts. Postpone outdoor burning when gusty winds are present or are expected to occur during the time that burning would be in progress.



File photos



Can You Possibly Avoid Getting Hurt?

BY KEITH DENMAN

Managing Risks
Stop and ask yourself these questions:

What are the steps involved?

What are the risks for each step?

How can I control the risks?

Am I willing to accept the consequences of risks I cannot (or choose not to) control?

If I told you an activity you were planning had a 100 percent chance of seriously injuring you or someone in your family, would you still do it? Probably not. If I told you I knew the steps you could take to reduce the risk of an injury in your favorite activity to nearly zero, would you do what I said? Probably.

Most of us can recognize dangers, and we tend to avoid those activities that have a high probability of serious injury. On the other hand, to say an activity has zero risk isn't realistic, either. The media are full of stories about people killed or injured while doing what should be risk-free activities. Based on our experience and knowledge (or lack of both), we daily make decisions to accept or not to accept risks.

All activities have some level of inherent risk. Whether it's driving to work in the morning, playing basketball at a gym, or shopping at a commissary, there is a potential for injury. The challenge is to identify the risks ahead of time, implement controls to reduce them, and make an informed decision about whether you should do the activity despite the risks.

For the past several years, the military services have been using this technique to reduce risk in flight and field operations, as well as in deployments and high-tempo operations. We call it operational risk management, or ORM. We could call our off-duty application personal risk management or family risk management. Whatever we call it, the purpose is to help us avoid getting hurt.

Using the previous examples, I'm sure you can identify the risks in driving to work or playing basketball. How about shopping at the commissary, though? Are things going to fall from the shelves and land on my feet? The risk of injury while in the commissary may be low, but don't forget you first have to get to the commissary.

If the roads are slippery [from a recent snow or rainstorm], there is a high risk of a traffic accident. Can I reduce the risk by walking? Do I really need to go right now? Should I

Photo: Defense Imagery



wait until the roads are better, or can I manage the risk by reducing my speed and increasing my following distance? Examine all the options and make your decision based on the lowest acceptable risk. You determine what risk to accept; but make sure it's an informed decision – not one based on ignorance of the injury potential.

Here's another example to consider. What are the risks involved with cooking dinner? Fire is at the top of the list, but you can reduce that risk to an acceptable level if you stay in the kitchen. That way, you can react quickly if something goes wrong. What happens, though, if your favorite TV program is on, you need to make some phone calls, or the kids require your attention in another room? You can control the TV and the phone, but you can't always control the needs of the kids. If they need your attention, you should cook dinner later or prepare something that doesn't require cooking. The risk-management process took very little time but may have prevented a serious mishap.

The key to effective risk management is simple. Stop and ask yourself these questions before you start a task: What are the steps involved? What are the risks for each step? How can I control the risks? Am I willing to accept the consequences of risks I cannot (or choose not to) control?

Only after you have followed all of these steps should you proceed with the task. It doesn't take much time, there are no forms to fill out, and no reports to prepare. Just be honest in your assessment.

A few things can get in the way of successful risk management. For example, you're probably an active person who sometimes gets so busy you "don't have time" to stop and ask the right questions. You sometimes base your risk decisions on experiences only, then justify your actions by saying, "I've done it this way a million times before without an injury." The consumption of alcohol also can affect successful risk management. Even in small quantities, alcohol clouds your ability to make a good decision.

Everyone at a command is valuable, and even one injury can affect overall mission effectiveness, so take the time to apply risk management to all your daily activities – at home and at work.

Since retiring from active duty in 2005, I have taught high school NJROTC at Greenville Senior High School in Ohio. We (NJROTC program) use ORM in our daily planning and discuss with our very high-risk teenage population the value of good decision-making. D

Mr. Denman, a retired U.S. Navy captain, is a senior Navy science instructor at Greenville Senior High School. This article first appeared in the Feb. 12, 1999 issue of "The Northern Light," base newspaper for Naval Air Facility, Misawa, Japan. The author was CO there at the time.



Check

How often do you "check your six"? In other words, how often do you use the rear and side mirrors of your car? Is it only when you back up or change lanes? Maybe you never use mirrors, or perhaps you always use them. Do you notice how often drivers are following too closely or making reckless decisions behind you? How do the actions of someone behind you affect your driving decisions?

It was the summer after high school graduation. My friend Mark had bought his first motorcycle: an old Kawasaki KZ1000 that didn't run. It was the same model I had been riding for about two years. We spent the summer disassembling, painting, buying new parts, and reassembling the bike. Three months later, we started it for the first time.

Like anyone with a new toy, Mark was eager to take his bike to the road. We agreed that I would take the bike for the first spin to make final adjustments to the brakes, clutch and carburetor. I dutifully donned all my safety gear, grabbed a small collection of tools, and took off. I rode up and down the access roads of Mark's family farm while he followed in an old truck. It took about an hour of tinkering to get everything adjusted enough for the bike to be roadworthy.

We then switched spots. Mark rode for about 20 minutes before he stopped and said something on the bike didn't seem right. I again put on my gear and climbed on the Kawasaki. Meanwhile, he jumped on my bike, and we headed into town. We stopped once or twice along the way and made more carburetor adjustments. At the next light, Mark pulled off to get some fuel. We agreed to meet again at a supermarket a mile up the road.

Once alone, I noticed the car behind me was following a little too closely. The woman behind the wheel appeared to be putting on make-up every time we stopped at a traffic light. About two more lights down the road, I knew there was a sharp downgrade to a stoplight. As I approached the slope, I noticed the car wasn't following as closely, so I figured she must be familiar with the area and knew about the next light.

I WAS COMPLACENT

My concern eased, and I got lax about checking the mirrors. I went over the hill and stopped behind the car ahead of me at the light. I then pulled out a screwdriver to make a quick adjustment to the bike.

I held the rear brake with my right foot so the bike wouldn't roll. I

Kyrill Poole/Wikimedia Commons; Opposite Page: MM3 Juan Pinalez/U.S. Navy

» Many accidents occur from people rear-ending someone stopped or operating a car in slow traffic. More than 60 percent of these incidents result in serious injury to the people in the stopped vehicle. *National Transportation Safety Board*

» May is motorcycle safety awareness month. All motorists are reminded to safely "share the road" with motorcycles and to be extra alert to help keep motorcyclists safe. Motorcyclists are reminded to make themselves visible to other motorists. *National Highway traffic Safety Administration*

Your Six

BY LCDR PATRICK COLE





DISTRACTED DRIVING:
3,154 were killed in distracted driving crashes in 2013.

TEXTING WHILE DRIVING:
Five seconds is the average time your eyes are off the road while texting. At 55 mph, that's enough time to cover the length of a football field.

Distraction.gov

leaned over the side from the seat with the screwdriver in my hand. At that instant, I heard the sound every motorcyclist dreads: screeching tires.

I quickly turned my head to look behind me just as the woman who had been putting on her make-up struck my bike from the rear. It flew out from under me and hit the stopped car ahead of me. The front bumper and grille of the woman's car hit the backs of my legs. The rest of me slipped up the hood of the car. The back of my helmet and my shoulders rammed the windshield hard enough to break it. The whole episode — from the screeching tires to all motion stopped — couldn't have taken more than 10 seconds.

The woman whose car had hit me and the couple from the car ahead of me had no injuries. I didn't have any broken bones, but my calves, ankles and shoulders were sore and bruised for about three weeks. Remember that screwdriver in my hand? I punctured about an inch of flesh on the outer part of my left calf (my only scar from the accident). The tip painfully stuck out of the front side of my leg.

For about a week after the accident, it was painful to walk and, unless a car had an automatic transmission, I couldn't drive. My neck also was sprained very badly; I wore a neck brace for nearly seven weeks.

WHAT WENT WRONG?

First, neither the woman who hit me nor I was paying attention to what was going on around us. I was focusing too much on the bike's condition rather than keeping good situational awareness of what was happening behind me. As any good motorcyclist knows, you always must have an exit route (and be ready to use it) in case something unexpected occurs — even when sitting still in traffic. The exit route may not always prevent injuries or damage, but it most likely will reduce their extent.

Second, we both were doing something that didn't belong on the road: I should have made the bike adjustments before hitting the open roads. The woman should have done her make-up at home.

Drivers today think nothing about tailgating, talking on a phone, or failing to look before changing lanes. These hazards increase for those of us on two wheels — being smaller and harder to see. Anyone who has had an accident similar to mine knows exactly what I'm talking about. As a lesson, you probably now monitor the rear and side mirrors more closely.

Other than listening to the radio or maybe occasionally sipping a soda (if driving a car), I don't mess around with anything else that can distract me while I'm operating a vehicle. I pay close attention to everything going on ahead of and behind me. I check my mirrors regularly. I make sure my break lights work and are visible. When folks tailgate me on my motorcycle, I make an escape route at stoplights by offsetting slightly left or right of the car in front of me. If they don't get the idea, I let them pass me.

If you're one of those folks with four wheels, I urge you to adjust your mirrors, put down the cheeseburger, turn off the cell phone, and stop tailgating. When changing lanes, quickly glance over your shoulder to avoid blindspots. Big-rig drivers went to driving school to learn how to drive with only their mirrors — you didn't! Besides, mirrors sometimes are deceptive about what they show is happening beside or behind you. Keep your situational awareness high when operating any type of motor vehicle. D

From our 2003 archives. LCDR Cole is the executive officer of VX-1, Patuxent River, Md.



Living Proof

One summer night in Louisville, Ky., U.S. Coast Guard Petty Officer Christopher Henry was traveling southbound on Interstate 71, cruising along about 55 mph.

BY CAPT AYLWYN S. YOUNG, SR.

A short distance from his destination, near downtown Louisville, the unthinkable happened. Someone had abandoned a trailer filled with scrap building materials in the roadway, partly blocking his lane of travel. Not only the trailer was unlighted, it didn't have reflective markings to warn motorists.

When Petty Officer Henry saw the trailer, it was too late; he had no time left to avoid it. He clipped the trailer at full speed, and his vehicle went airborne. When it landed, it slid along the pavement, driver-side down. The vehicle finally came to rest in the middle of the road, facing oncoming traffic.

Although dazed, Petty Officer Henry regained his composure. He noticed that the airbag had deployed, but he could not remember how his vehicle came to rest on its side. He released his seatbelt, turned on the severely damaged vehicle's emergency flashers, and opened and exited through the sunroof. It's doubtful he could have helped himself had he not been restrained properly.

His ability to get clear of the vehicle was critical to his survival. Shortly after he escaped the damaged heap, another vehicle struck it at high rate of speed.

Petty Officer Henry had alerted key members of my staff to the mishap location. Upon learning of the crash and being that I was only a short distance away, I quickly traveled to the accident scene.

The medical responders and police already were on the scene when I arrived, and, as I later learned, were surprised to find a survivor.

Petty Officer Henry had given himself his best chance of survival by making a conscious decision to wear his seatbelt. He is quick to point out, "I wear it without exception."

Petty Officer Henry did not sustain life-threatening injuries. He administered first aid to himself and used his cell phone to alert authorities. Although he looked as though he had fought a 15-round bout with two prizefighters, he fared much better than his vehicle. The bruises, cuts, abrasions, and soreness he endured are testimony that seatbelts do work. As he says enthusiastically, "I'm living proof." D

From our 2004 archives. CAPT Aylwyn S. Young, Sr. currently serves as the liaison officer for U.S. Southern Command.

Kyrill Poole/Wikimedia Commons

Overtime Is AUTHORIZED



After being awake for 14 hours, except for two 20-minute naps, a Sailor drives home, with fatigue riding shotgun.

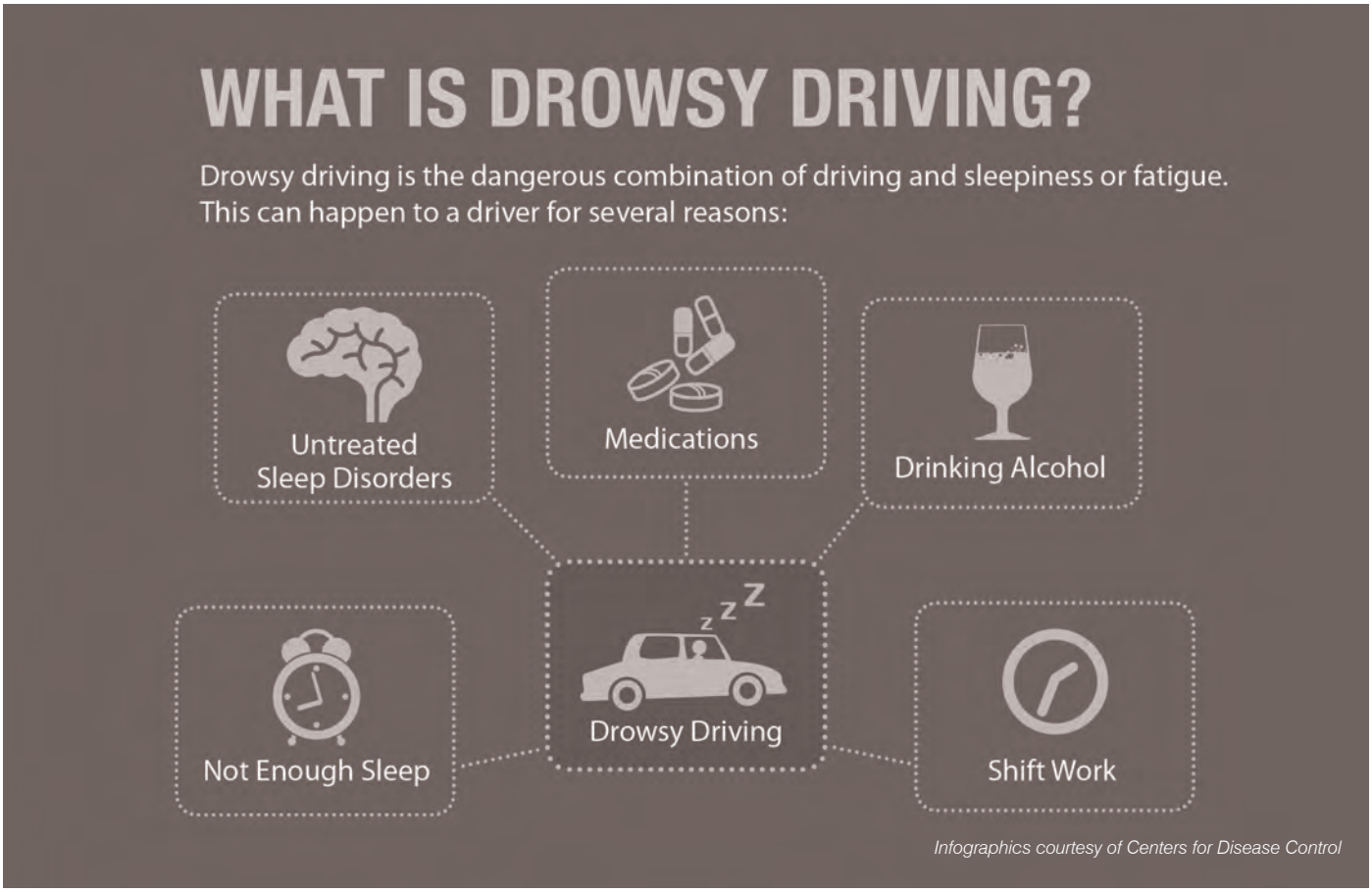
BY AE1(AW) ANTHONY M. VINSON

An AE1 was standing the 2400 to 0800 watch as assistant staff duty officer, when, right on cue, the 5-o'clock-fatigue factor set in. He stretched, then grabbed a soda and some cookies for a quick burst of energy. Everything was uneventful for the rest of the watch. He was relieved at 0730.

He knew he had to stay in the squadron spaces for a couple more hours – just in case the oncoming watch had any questions and to see what was happening in the shop. With only one major discrepancy in work at the time, though, he thought he'd be home in bed by 0930. As it turned out, that discrepancy required a hover check to verify if the mid-check had successfully repaired the gripe. The aircraft went airborne and, being a consummate technician, the Sailor remained on the flight line to watch the hover check. After reviewing the flight, he saw it was a lost cause. He and his team would have to go back to the drawing board.

Because he had been awake 12 hours, fatigue was becoming his enemy. The signs already were showing: blurred vision, elevated heart and pulse rates, mild headache, and sensitivity to sunlight. Nevertheless, the maintenance task was a priority. To make matters worse, a second priority had come in from maintenance control. Another squadron aircraft had

> "Overtime is authorized." Sailors hear this a lot. Sadly, the result is not always desirable.



experienced an improper visual-information-and-display-system indication in flight. The aircraft had to land at an outlying field 10 miles away.

This situation quickly added a twist of fate to the AE1's dilemma. Repairing the second priority involved two significant factors: traveling to the site and more overtime. A maintenance detachment assembled and headed to the site. It was a short ride, but the Sailor got 20 minutes of shuteye. Repairs took 25 minutes. When they finished and headed back to the squadron, he took another short nap.

By the time the team arrived at the squadron, the AE1 was in his 14th hour of being awake – and still had to drive home. The sun was bright, the temperature inside the car was about 75 degrees, and traffic conditions were moderate. He turned on the radio and rolled down the windows, knowing it would take 20 minutes to get home. He felt motivated and kept a positive attitude, but fatigue was riding shotgun with him.

While driving on an interstate, he became relaxed and realized sleep was creeping into the picture. He was driving on automatic at 60 mph! It wasn't until he dozed off and his hand hit the horn that he awoke to find himself headed into the back of a tractor-trailer carrying bags of cement.

What lessons did he learn? Supervisors, leaders and managers need to apply the principles of operational risk management and consider the possible consequences before they authorize overtime.

All hands should also know how far they can push themselves. D

From our 2002 archives. AE1 Vinson was with HSL-41 at the time of this writing.

Short-term Interventions Are Not Enough

Drinking coffee or energy drinks alone is not always enough. They might help you feel more alert. However, the effects last only a short time, and you might not be as alert as you think you are. If you drink coffee and are seriously sleep-deprived, you still may have "micro sleeps" or brief losses of consciousness that can last for four or five seconds. This means that at 55 miles per hour, you've traveled more than 100 yards down the road while asleep. That's plenty of time to cause a crash.

INTERVENTION: If you start to get sleepy while you're driving, drink 1-2 cups of coffee and pull over for a short 20-minute nap in a safe place, such as a lighted designated rest stop. This has been shown to increase alertness in scientific studies but only for short time periods.

National Highway Traffic Safety Administration



Two Deaths in a Day

Two incidents, happening in two different states slightly less than 24 hours apart, end tragically for two Sailors.

BY KEN TESTORFF

What's more dangerous than a drunk behind the wheel of a car? In this case, the answer is two drunks behind the wheels of two cars – and both headed toward the same intersection. As you might have guessed, this situation ended in tragedy.

It happened after a day of partying at a friend's house. A seaman and a seaman apprentice decided to go see a PO3. While at the latter's house, they drank a couple of beers from a six-pack they had bought, then the three of them went to another friend's house. There, the three finished off the six-pack and possibly had a few more beers from the host's refrigerator. They also met a couple of girls whom they arranged to rejoin after they had dropped off the PO3.

Based on the PO3's statement, though, the girls didn't seem like they really wanted to meet the seaman and seaman apprentice. As they all were leaving the friend's house, the girls sped off, with the Sailors in hot pursuit. The seaman spun his wheels out of the driveway and, seeing he didn't have good control of his car, the seaman apprentice asked his buddy to slow down.

They soon lost the girls and ended up on a local roadway, where the seaman made a U-turn and sped up to 65 mph, trying to find the girls. As they approached an intersection with a stop sign, the seaman ignored the sign and T-boned a car containing two civilians. The seaman apprentice died from internal injuries. The seaman, meanwhile, suffered ankle injuries and a partly torn trachea, and the PO3 had a broken left femur and a partly lacerated ear. The two civilians had minor injuries.

Afterward, the seaman didn't remember the stop sign or anything about the mishap. He did remember meeting the girls, though — even with his 0.08 BAC. The civilian driver had a BAC of 0.15.

Contributing causes to this mishap were heavy rain, slick roads, low visibility, excessive speeds, and a failure of shipmates to take away the seaman's keys. The command involved had held two safety standdowns in the six months preceding this tragedy.

Some of the same causes were involved in a fatal single-car crash several states away a little less than 24 hours later. This time, the Navy lost a 33-year-old woman who had been frocked to PO3.

According to the mishap report, this Sailor was traveling a state road at a high rate of speed when she encountered a small left-to-right bend. Her problems started when she tried to recover from the curve throwing her into the opposing lane of traffic. She over compensated and lost all control, first hitting and traveling over a flexible plastic pipe. The left-center part of

her car then smacked a pine tree with an 11-inch diameter. The force of this collision was so strong it uprooted the tree and snapped it into two pieces. The victim's car then rolled onto its left side and became entangled with the tree and its branches. Part of the car wrapped around the tree trunk, and the driver was lodged between her seat and the dashboard.

Investigating officials found 371 feet of yaw marks before the point where the victim's car hit the tree. About 5 vertical feet of the flexible plastic pipe (a marker used to warn of gas lines below the earth's surface) was damaged, and wires were exposed from its top. The pine tree was snapped off about 4 feet from its base.

The car was an even bigger mess. The rear axle had bent, moving the left rear tire noticeably closer to the left front tire. The entire left side had been pushed into the driver's side compartment, which caused the driver's seat to turn clockwise and face the passenger side. Officials noted the driver was wearing her seatbelt.

As part of her military training as a police officer, this victim had completed the Emergency Vehicle Operator's Course, so her driving experience wasn't called into question. However, fatigue was. More importantly, she had a BAC of 0.24. D

Mr. Testorff, former editor of Naval Safety Center's Sea&Shore magazine, wrote this unpublished article in 2003.

In 2012, more than 10,000 people died in alcohol-impaired driving crashes — one every 51 minutes.

Drunk driving is often a symptom of a larger problem: alcohol misuse and abuse.

Alcohol-impaired motor vehicle crashes cost more than an estimated $37 billion annually.

Even kids aren't safe from drunk drivers. In 2013 alone, 200 children 14 or younger were killed in crashes involving impaired drivers.



Top left: Flickr; this page: 4-designer.com

BEFORE YOU GO

To prevent emergencies on a trip, regularly check these essentials:

- Look at your tires to check tread depth. See if they are bulging or low on air. Bulging tires may mean you are about to have a flat.
- Start your engine and check the dashboard lights to see if trouble is indicated.
- Test your brakes to make sure they are working properly.
- Check your headlights and turn signals.
- Check the oil, radiator coolant, and windshield-washer fluid.

READY TO GO

Before you get in your car and take off on your next trip, there are things you can do to make the trip safer and enjoyable. Start by cleaning out the trunk or rear-storage area and putting away unnecessary cargo. Replace those items with an emergency kit containg everything you may need to deal with common problems on the road:

- spare fuses
- fire extinguisher
- rags
- pliers
- jumper cables
- electrical tape
- flashlight
- pocket knife
- first-aid kit
- extra can of oil
- adjustable wrench
- flares or reflectors
- duct tape
- flat-head and Phillips-head screwdrivers
- spare tire in good condition
- jack and lug wrench for changing tires
- empty, approved gasoline container
- sandpaper (to clean battery terminals)
- a sign or white flag to signal for help
- a few plastic trash can liners (these can be used as emergency rain ponchos or tarps)

SAFETY AND SECURITY

Here are some simple precautions to take before and during a trip that will help you feel safer and more secure while traveling:

- Become familiar with your route. Get a map and look at it before you leave. Don't rely on a GPS solely.
- Park in a well-lighted area at night. Always lock your car when you park. Keep your valuables out of sight, preferably locked in the trunk.
- Don't leave maps and guidebooks on the seats. They advertise that you are a traveler.
- Have your car keys ready as you go to your parked car. Check the back seat and floor before you get in.
- Stick to well-lighted areas and streets where there is lots of activity. Don't take shortcuts through areas you don't know.
- If traveling with friends or family, stay together and carefully watch your children. Make sure everyone knows where you are staying, and agree on a meeting place in case anyone gets separated.
- If another car bumps yours, make sure you are in a safe, well-lighted place before you stop and get out. Drive to a police station if you're suspicious.

ON THE ROAD

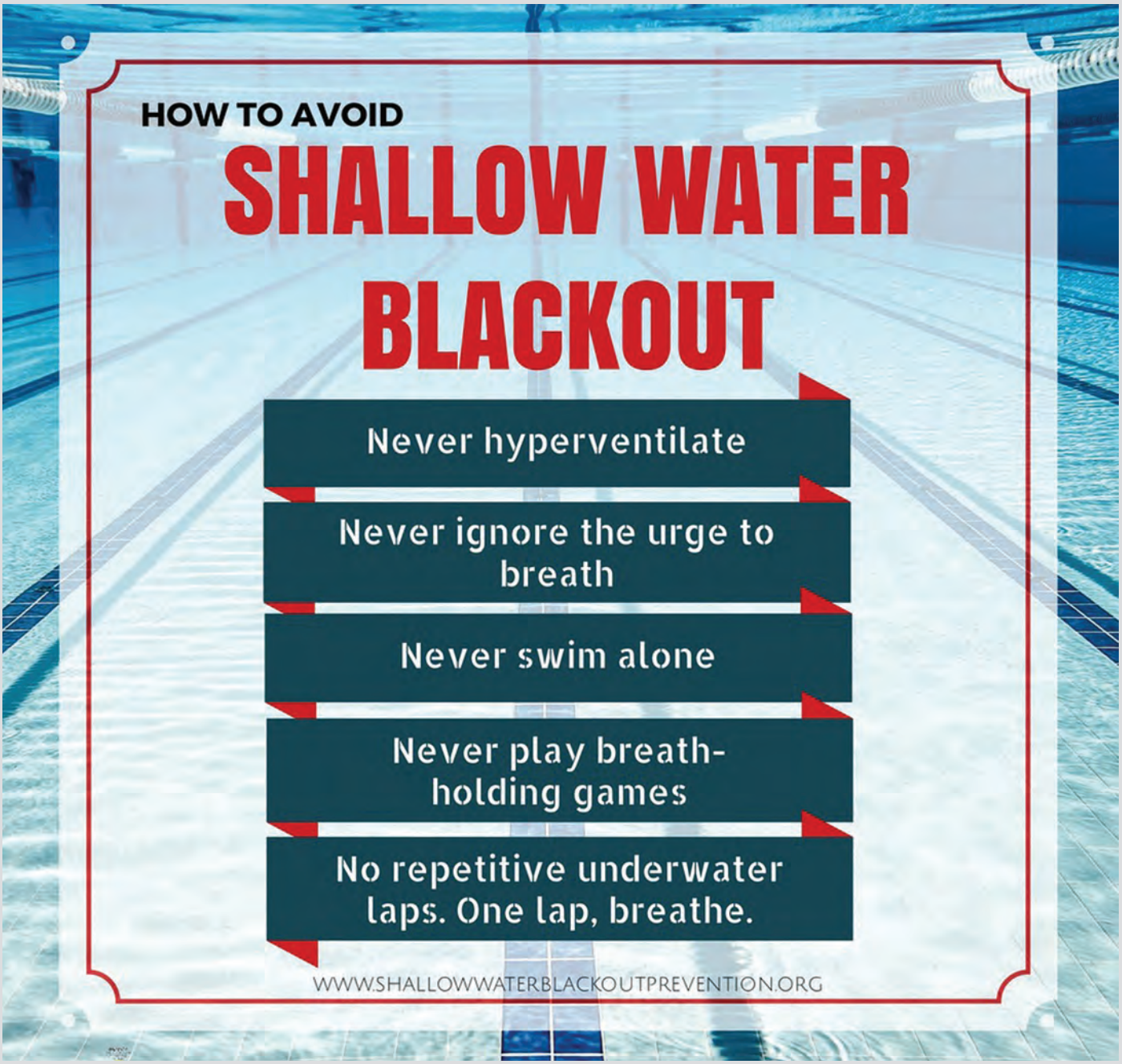
How many times do you see someone making fast and unsafe lane changes, weaving between lanes, or following too closely? As if those bad habits aren't enough, you also have to contend with people who get on your tail and start honking their horns, flashing their lights, or making obscene gestures.

Some states have a number you can call to report aggressive or dangerous driving to the state police. Learn and remember the number. If you have to make that call, do it safely by pulling over or making sure it doesn't affect your driving.

To avoid being a reckless driver yourself, always leave early enough to reach your destination on time. Don't take traffic problems personally.

How do you deal with such reckless and aggressive driving? Never underestimate the other driver's capacity for mayhem. Practice these basic traffic courtesies:

- Stay away from the vehicle(s).
- Do not make obscene gestures.
- Avoid eye contact.
- Be patient and stay cool. Don't react to their actions.
- Do not block traffic lanes or intersections.
- Do not tailgate.
- Avoid unnecessary use of your high-beam headlights.
- If you drive slow, pull to the right when safe and let traffic pass.



Shallow water blackout is an underwater "faint" due to a lack of oxygen to the brain brought on by holding your breath for long periods of time. Without immediate rescue, the swimmer quickly drowns. Shallow water blackout can affect anyone who is breath-holding, even the physically fit swimmer. It is especially seen in competitive swimmers, Navy Special Forces combat divers, Marine Raiders, snorkelers, spearfishermen or anyone who free-dives.

Blackouts cut across the spectrum of free-diver training affecting all levels. No one is protected from succumbing to an underwater blackout. Shallow water blackout can occur in any body of water (pool, lake, river, ocean or bath tub) when breath-holding under water, regardless of water depth. Even if lifeguards are on duty, there is still a great risk because it is hard to detect from above the water.

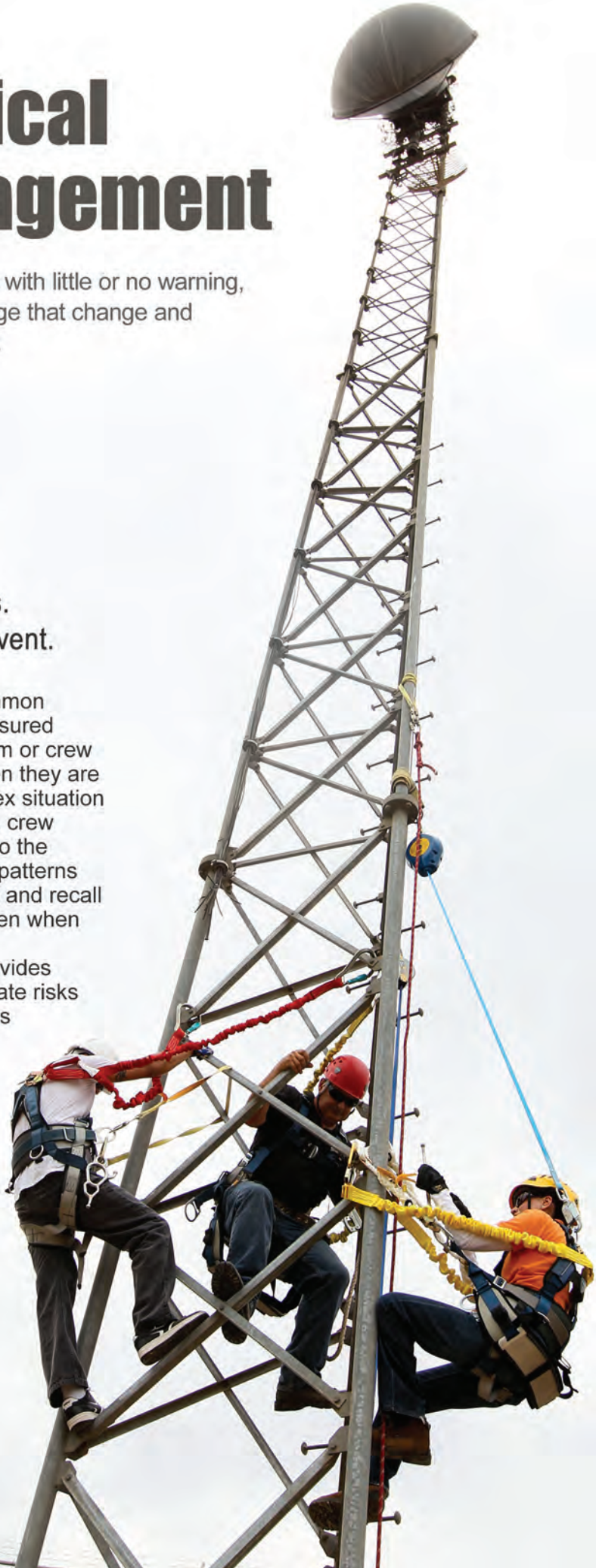
RELATED ARTICLE: "Shallow Water Blackout," *Sea Compass*, spring-summer 2015

Time-Critical Risk Management

Because conditions can change with little or no warning, being ready allows you to manage that change and minimize risks associated with it.

A - Assess the situation.
B - Balance resources.
C - Communicate to others.
D - *Do* and *Debrief* the event.

The ABC***D*** Model provides a common language and structure for a measured response when an individual, team or crew is executing a routine task or when they are under duress from a more complex situation resulting from additive conditions, crew factors, or task loading. Training to the ABC***D*** Model will embed a set of patterns that will help personnel recognize and recall a set of actions to counter risk even when distracted. This simple and easy-to-remember mnemonic provides individuals with a means to evaluate risks and formulate mitigation strategies on-the-run and can easily be applied in both on- and off-duty situations.



Darrick McVay, center, Naval Surface Warfare Center, Corona Division Force Training Assessment Scoring Systems Engineering support contractor, watches as Erika Garcia, right, Range Sustainment and Geomatic Engineering engineer, and Manuel Vasquez, Product Engineering Assessment Navy Gage and Standards Laboratory technician, maneuver on a practice tower during the fall protection course conducted at Naval Weapons Station Seal Beach, Detachment Norco. *Greg Vojtko/USN*