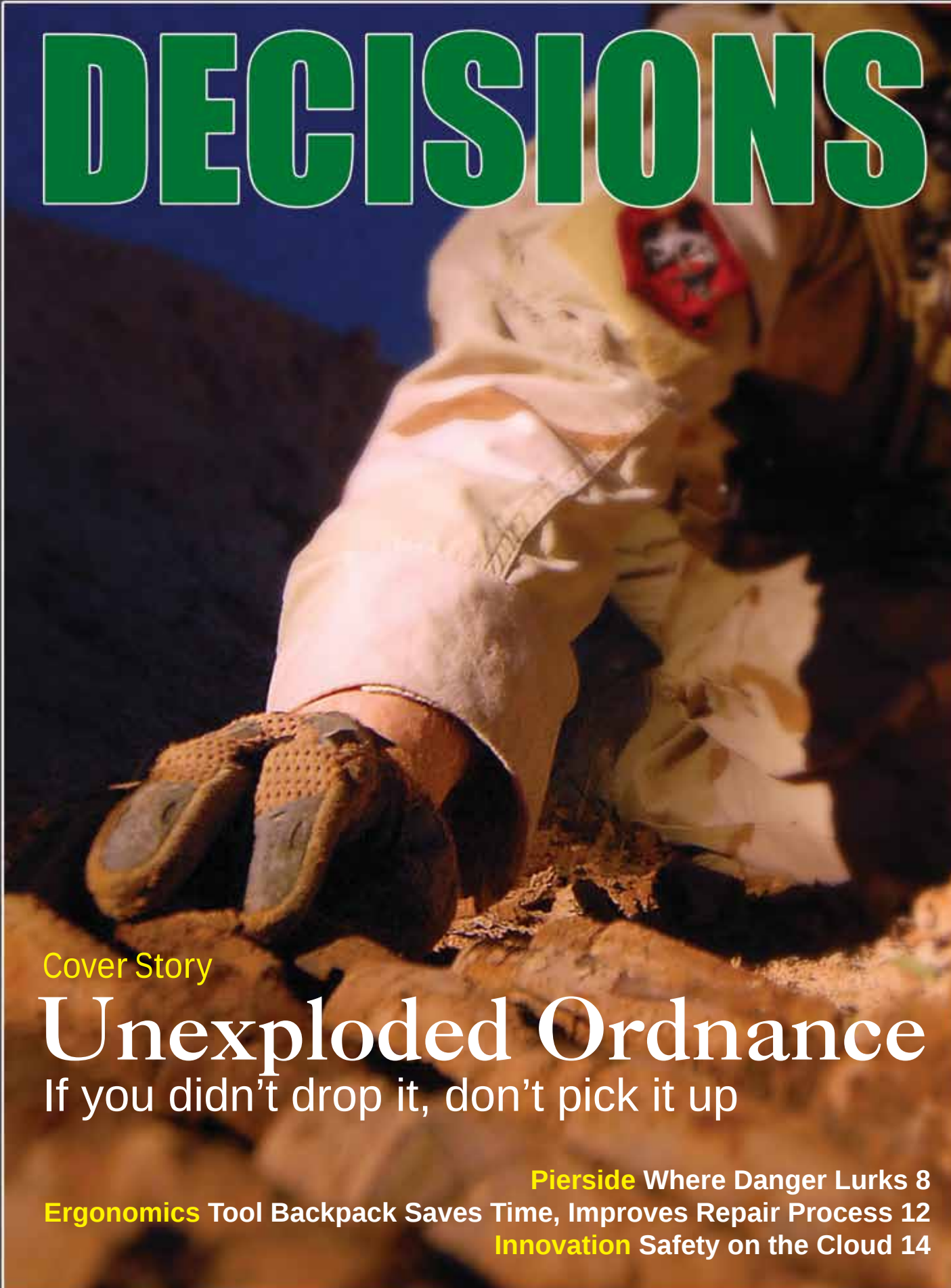


DECISIONS



Cover Story

Unexploded Ordnance

If you didn't drop it, don't pick it up

Pierside Where Danger Lurks 8

Ergonomics Tool Backpack Saves Time, Improves Repair Process 12

Innovation Safety on the Cloud 14

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NAVAL SAFETY CENTER TECHNICAL ADVISORS

To contact a safety analyst by phone, call the main number, 757-444-3520 and dial the extension at any time during the greeting.

OCCUPATIONAL HEALTH & INDUSTRIAL SAFETY PROGRAMS

Steven Geiger, CSP

Safety and Occupational Health Manager

steven.geiger@navy.mil

Installations and Industrial Safety Group Ring

Ext. 7845

SHORE/GROUND SAFETY PROGRAMS

TRAINING SAFETY DIVISION

LCDR Aubrey Hamlett

Training Safety Division Head

aubrey.hamlett@navy.mil

Bobby Blackwell

Training Safety, USMC

bobby.blackwell@navy.mil

Training Safety Division Group Ring

Ext. 7841

TRAFFIC AND RECREATION, OFF-DUTY SAFETY (RODS) DIVISION

Michael Borkowski

Traffic/RODS Specialist (AAA/EVOC)

michael.borkowski@navy.mil

Lisa Johnson

Traffic/RODS Specialist (Motorcycle)

lisa.l.johnson3@navy.mil

Traffic and RODS Division Group Ring

Ext. 7842

WEAPONS SYSTEMS SAFETY DIVISION

Boyzie Hayes

Weapons Analyst (Shore)

boyzie.hayes@navy.mil

GYSGT Amber Allison

Explosives and Weapons Analyst (Ground/USMC)

amber.allison@navy.mil

Weapons Systems Safety Division Group Ring

Ext. 7843

TACTICAL SYSTEMS SAFETY DIVISION

GYSGT Joshua Holcomb

Motor Transport OPS Chief

joshua.j.holcomb@navy.mil

Casey Tweedell

CMC Safety Division Liaison

casey.tweedell@usmc.mil

Tactical Systems Safety Investigations Group Ring

Ext. 7844

DJRS/Jump Group Ring

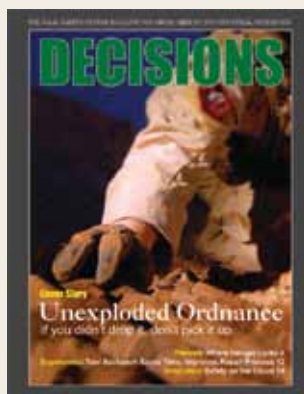
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The Communications and Marketing Department and *Decisions* magazine staff wish to thank the advisors, photographers, correspondents, contributors, and reviewers from the Naval Safety Center and the fleet for their assistance in creating this inaugural issue.

There is more to read on the back side of this inaugural issue. After page 17, flip the magazine to read about off-duty and recreation stories submitted by Sailors, Marines and civilians from all walks of life.

ON THE COVER

Explosive Ordnance Technician 1st Class Ben Jones, assigned to Explosive Ordnance Disposal Mobile Unit One, gathers unexploded ordnance for disposal. (MC2 Joan E. Kretschmer/USN)



BACK COVER

Eric Land carefully hikes the Canyon Trail above Lake Jenny at Grand Teton National Park in Jackson, Wyoming during an early summer hike. (Photo by John Land)



DECISIONS

The Naval Safety Center Magazine for Shore, Ground & Industrial Operations
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COMMANDER, NAVAL SAFETY CENTER

RADM Brian C. Prindle

DEPUTY COMMANDER

COL Mark W. Erb, USMC

DIRECTOR, SHORE AND GROUND SAFETY PROGRAMS

CAPT Len Friddle, USN

DIRECTOR, OCCUPATIONAL HEALTH & INDUSTRIAL SAFETY PROGRAMS

James Culpepper

DIRECTOR, COMMUNICATIONS AND MARKETING

John Mahoney

EDITORIAL STAFF

MEDIA DIVISION HEAD

Derek Nelson

EDITOR

Evelyn Odango

DESIGN AND GRAPHICS

Allan Amen

John W. Williams

WEB DESIGN AND MANAGEMENT

Darlene Savage

EDITORIAL OFFICE

Commander, Naval Safety Center

Attn: *Decisions*

375 A Street

Norfolk, VA 23511-4399

757-444-3520, ext. 7220 (DSN 564-3520)

Fax: 757-444-6791

Editor's email: evelyn.odango@navy.mil

General email: safe-decisions@navy.mil

SHORE AND GROUND SAFETY PROGRAMS DIRECTORATE

Commander, Naval Safety Center

Attn: Code 40

375 A Street

Norfolk, VA 23511-4399

Shore Mishap Line: 444-3520, ext. 7840/7145

Fax: DSN 564-6044

Shore safety email (USN): safe-code40@navy.mil

Shore safety email (USMC): safe-ground@navy.mil

SUBMISSIONS

Submit your stories or news items to: safe-decisions@navy.mil. Send letters to the editor to: evelyn.odango@navy.mil or write directly to: Commander, Naval Safety Center, Attn: *Decisions*, 375 A Street, Norfolk, VA 23511-4399. Please refer to our "Writer Guidelines and Photo Requirements" available at www.public.navy.mil/navsafecen/documents/media/magazines/writer-photo_guidelines.pdf.

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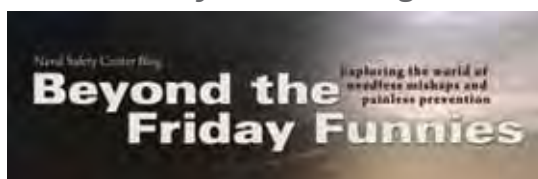
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Safety Gouge



Safety and occupational health training resources for safety petty officers and division officers. *Safety Gouge* will help you meet your bi-monthly training requirements, by providing short, to-the-point guides. Visit the Naval Safety Center home page and click on "Safety Gouge."

Naval Safety Center Blog



Derek Nelson, writer of the "Friday Funnies," takes us into the world of needless mishaps and painless prevention in his new blog: "Beyond the Friday Funnies." Check out weekly posts and links to popular sites like the "Photo of the Week" and humorous presentations.

Decisions Online



You can now take *Decisions* magazine with you as a PDF. Scan the code with your smartphone to download the full issue (data rates may apply). You must have the PDF reader app for this to work. For more information visit the Adobe website at www.adobe.com/products/reader-mobile.html.



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Social Media Community

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If you only had one opportunity to decide, would you have the right tools and information to make the best possible decision?

Risk Management

Because conditions can change with little or no warning, being ready and alert can minimize risks.

- ◉ Assess the situation and potential for threats.
- ◉ Balance resources to prevent error.
- ◉ Communicate risks and intentions.
- ◉ *Do and Debrief to improve future performance.*



The Best Resources for the Right Choices



When our team of safety experts at the Naval Safety Center and leaders in the Department of the Navy decided to create this

new magazine, we knew calling it “Decisions” was fitting. This magazine’s mission is to make Sailors, Marines and civilians aware of the hazards they face every day — both at home and at work. This magazine is about combining the best information and resources to enable people to make the best possible risk decisions.

As the inaugural issue of this magazine comes out this spring, it will coincide with the rapid pace of activities at base installations or off-duty recreation centers. Whether people are lifting pallets at pierside, shooting targets at the range, or hiking the Appalachian Trail, I am certain their focus is on the job and not on making a mistake and hurting someone. During a typical work day, tasks are laid out and resources are made available to personnel to minimize risks. That sounds pretty simple, doesn’t it? It actually is.

We all know that our decision-making ability starts the minute the brain wakes up in the morning. We train ourselves to recall a set of actions from the moment we climb out of bed to the time we leave the house. In our Navy and Marine Corps organizations, we are trained to practice operational risk management to successfully ensure readiness and accomplish the mission. A key component of this is time-critical risk management, or TCRM, a process that an individual or a crew needs to use to respond appropriately in a constrained timeframe.

Just like the process people use from waking up to leaving the house, to getting in the car to driving to work or somewhere else, they maintain their situational awareness because they want to accomplish the task. Because conditions can change with little or no warning and impact our lives significantly, we must be ready and alert at all times.

Every one of us is responsible for minimizing the potential for error that will likely cause a threat

to a team, mission or task. We have to assess the threats, anticipate that they will pop up when we least expect it, and ensure we know what to do so we can make good time-critical decisions. We have the ability and resources to do the right thing for our friends, families and shipmates. All of us — not just senior leaders — understand the value of our irreplaceable human resources: Sailors, Marines and civilian workers.

The Department of Defense is making significant advances in technology to help us better manage our material and human resources, but there is still much that can be done to keep our mishap numbers down. *Decisions* magazine is your vehicle to report mishaps, share information, tell stories, ask questions, or announce innovations. When people decide to not communicate, that’s when they fail at their task or jeopardize their mission. Poor communication increases the potential for human error to occur. In contrast, open communication and free sharing of lessons learned allows a large number of people to benefit from the experience of a few.

Help make *Decisions* magazine your source for practical and actionable solutions; lessons learned and best practices; safety programs that protect and serve; and articles that target key issues and initiatives. Life’s hard lessons are worth telling and can become good teachers. *Decisions* magazine will publish your first-hand stories and close-call anecdotes for the purpose of continuous improvement.

Our organization is constantly changing, and we must be able to respond at all times, as individuals and as a team. Your stories will remind us that we possess a unique set of skills — the ability to make intelligent decisions — which must be practiced consistently to make a difference. We want to hear from you and look forward to reading your stories in future online and printed editions. Inform others, be informed—make good decisions!

A handwritten signature in black ink, appearing to read "Brian Prindle".

RADM Brian “BC” Prindle

Mishap Prevention Is Personal

By Evelyn Odango

Mishaps are worse for the victims. Knowing that we didn't do our part to prevent a mishap can be agonizing, as well.

Our business is risky and dangerous. From FY05-11, 1,199 Sailors and Marines died in mishaps, and 61,977 were injured. The Naval Safety Center staff constantly sifts through class A, B, C or D reports, looking for ways to improve our mishap-prevention efforts. We do this because the Navy is entrusted with the safe employment of our nation's most vital, capable and promising resource: the young men and women of our Navy and Marine Corps.

The cover story by Gunnery Sgt. Amber Allison focuses on making mishap prevention a personal goal by sticking to what training teaches us. Mass Communication Specialist 1st Class Monique Hilley and Patrick Foughty tell you how to anticipate risk and manage a safety program in their story about pierside dangers. Safety officers can now access training online through an innovative distance learning system, reports Alfred Melcher from the Naval Safety and Environmental Training Center.



US Navy Photo

When we entered into a covenant relationship with them, we assumed a moral obligation to respond to their needs. We promised to provide them resources so they may manage risk on and off duty. But how safe are we keeping them? What do their futures hold?

Many of our long-term mishap rates are decreasing. Nevertheless, preventable mishaps exact unacceptable costs in personnel and equipment. Personal motor vehicle crashes remain a leading cause of mishap deaths, accounting for 65 percent (778 deaths) from FY05-11. Right behind PMV as the leading cause of death is recreation and off-duty mishaps at 15 percent (184 deaths).

The publication of this new magazine couldn't have come at a better time. *Decisions* magazine is your newest medium to provide information and resources to try to stem the tide of these losses. The articles in this inaugural issue offer you a chance to become involved and make managing safety a personal issue.

Some of you look for ways to improve processes to save not only time, but also improve personal safety and health, as Trevor Krick writes from PSNS&IMF Bangor, Wash. You can also read about an eyewitness account of something unusual going on outside a local base by Information Technology 1st Class (SW/EXW) Richard Hoepfner. What would you have done if you had witnessed this unusual event?

The articles and stories in this magazine have been written because someone didn't pay attention or a procedure was not in place. This is your magazine. Use it to tell everyone about the good decisions you've made or how you may have saved a life, why your best practice could work for someone else, or who might learn from a lesson you've learned from a bad choice you made.

Thank you for helping us create this inaugural edition. Let us know how we can improve *Decisions* magazine's future printed and online issues. ■

Treating the Safety Allergy

SAFETY MATTERS

By Doug York

Some people seem allergic to safety. They don't follow precautions. They are in too much of a hurry. They don't know the procedures, or if they know them, they take shortcuts or don't follow them at all. If they are supervisors, they don't seem interested in risk management.

The results of safety allergies are obvious: bandages, crutches, limps, bruises, light-duty chits, and knee braces. Sufferers often miss days of work. They ask someone to repeat every other word in a conversation. These people have already learned the hard way. However, there are ways to avoid all this.

Identifying the Risk

The first step in the ORM process tells us that we must identify the hazards. You can't prevent safety allergies if you don't identify the possible causes of mishaps. Many of the risks in your jobs have been engineered out or administratively controlled, but there are other risks that you have to identify and control. Don't rely on someone else to do it for you. Next, continue the ORM process. Once you have assessed the hazards, make sure you have the resources you need — personnel and equipment. Decide on risk controls. Monitor those procedures and make sure they are working. If you detect new problems, flex. Continuously observe and review the process; make changes or corrections as necessary.

Setting Up an Allergy-Free Work Environment

Even though it may be workers who are having the mishaps, supervisors are critical. For starters, they have to provide complete, timely and accurate training. They have to set an example. They also have to be willing to stop any unsafe work, resisting the pressure to get a job done at any cost. If workers detect that they haven't been fully trained, they need to speak up. They need to keep an eye on their habits and make sure they aren't getting sloppy. When new or unrecognized risks crop up, workers need to communicate with their coworkers and supervisor to figure out how to keep it from derailing the task.

Regular allergies are easy to spot when they cause sneezing, runny noses and red eyes. A classic safety allergy — complacency — is harder to spot, but it continues to be lethal. Just because you haven't had a mishap recently doesn't mean everything is fine. Check the checklist. Pay attention. Take a few minutes to run through some "what if" scenarios. Take action to monitor for change. The result: missions accomplished, resources preserved, personnel protected. ■

Mr. York, a retired Navy aviation ordnanceman, is an occupational safety and health specialist in the NAS Norfolk Sewells Point Safety Office Training Department.

An Injection of Knowledge

Step one in avoiding safety allergies is to get the big picture on the rules, procedures, risks and hazards. Although OPNAV instructions aren't the most fascinating reading in the world, they are absolutely necessary, because they set the foundation on which local safety programs are built. You may need to be familiar with the following series:

OPNAVINST 5100.23 (Ashore)
OPNAVINST 5100.19 (Afloat)
29 CFR 1910 (OSHA)
OPNAVINST 5100.12 (Navy traffic safety)
OPNAVINST 5100.25 (Recreational home safety)
OPNAVINST 3500.39 (ORM)
Industrial Hygiene Survey

COVER STORY

If You Didn't Drop It, **Don't Pick It Up**

By GYSGT Amber Allison

One of my duties at the Naval Safety Center is to analyze mishaps. Sometimes, all I can do is shake my head and wonder what was going through a service member's head when he knowingly did something he knew was wrong.

Here's an example involving unexploded ordnance (UXO):

While alone during land-navigation training, I found a green-star cluster flare in some woods. I hadn't had a chance to use this flare or to see it work. I picked it up and angled it down, so that when it went off I wouldn't get in trouble. I hit the flare as hard as I could but it would not go off. I started banging it against a tree. Whoossshhh! The green stars went shooting straight through the trees. The main part of the flare landed near a small stream which enabled me to put out the small fire that had started.

Other people aren't so lucky. Another Marine picked up an odd-looking bundle on a remote part of a base in Iraq. It was wrapped in several layers of cloth and medical tape. Why not unwrap it and find out what is inside? Here's why: It exploded as he held it, burning and cutting his face and hands.

Even worse is when someone unwittingly injures someone else. A common phrase during range sweeps is, "If it doesn't grow, it goes." That's what one Marine did, picking up everything he could find and putting it in ammo cans. Weeks (maybe months) later, another Marine was sorting dunnage from range sweeps and came across one of those cans. He was alone in a warehouse, removing lids and certifying that the cans were empty, so they

could be turned in to the Defense Reutilization and Marketing Office.

The can contained an artillery simulator that appeared to be unused. Certified to handle ammunition, he picked it up and turned it over to inspect it. Too late, he realized that the safety cap was missing, and that the simulator was a dud picked up on range sweep. It exploded in his hand, inflicting second- and third-degree burns to his face and hand. Disfigured and needing skin grafts, he was taken by medevac to a burn center, where he spent the next month recovering.

The saddest case I've had to investigate involves two war-hardened EOD techs who were inerting some UXO brought to them by foreign nationals. Instead of detonating it in place, they decided to inert it to get in some "valuable"



MC2 Joan E. Kretchmer/USN

“It exploded in his hand, inflicting second-and-third degree burns to his face and hand.”

training. While using a handsaw to make some cuts on the ordnance, one of them made a bad choice by using a battery-powered saw. The two techs weren't wearing the PPE for the job. The UXO exploded, killing one, severely wounding another, and giving minor injuries to a bystander.

UXO is dangerous; it can injure or indiscriminately kill, regardless of your professional qualifications. Recognize the hazard and follow the rules.

DEALING WITH UXO

- After identifying potential UXO, don't move closer to it. Some types of ordnance have magnetic or motion-sensitive proximity fuzing that may detonate when they sense a target. Others may have built-in self-destruct timers.

- Don't transmit on a radio in the vicinity of suspected UXO. Signals transmitted from walkie-talkies, short-wave radios, citizens' band (CB) radios, or other communication and navigation devices may detonate the UXO.

- Don't try to remove any object on, attached to, or near UXO. Some fuzes are motion-sensitive.

- Don't move or disturb UXO; the motion could activate the fuze.

- Mark the area near the UXO with the standard marker or with materials such as engineer tape, colored cloth, or colored ribbon. Attach the marker to an object so that it is about three feet off the ground and visible from all approaches. Place the marker no closer than the point where you first recognized the UXO hazard.

- Leave the UXO hazard area.

- Report the UXO to the EOD authorities.

- Stay away from areas of known or suspected UXO.

Gunnery Sgt. Allison is an explosives and weapons analyst at the Naval Safety Center.



Simulator, projectile ground burst M115A2 (DODIC L594)

This Just In

One Bad Decision Burns Marine's Face

While conducting a land navigation course, an SNM found and intentionally lit the flash powder from an artillery simulator, resulting in burns to his face. SNM was aware of, and had been briefed on, the dangers of unexploded ordnance. He, however, disregarded these safety briefings and proceeded to perform an unsafe act.



Visit the **Summary of Mishaps** archives to read more not-so-great decisions made by our Sailors and Marines, and learn from their mistakes.
www.public.navy.mil/navsafecen/pages/funnies/funnies.aspx



Pierside: Where Danger Lurks

By MC1 (SW/AW) Monique K. Hilley and
Patrick Foughty

Photographs by John Land

With a quick show of credentials or military identification, one can access one of the most dangerous environments in the Navy. It's a place where misfortune lurks behind every corner, where the slightest misstep can result in tragedy. While it may seem docile, a Navy industrial pier can present any number of hazards. In many cases, those working or visiting them may be unaware of just how dangerous a pier can be.

Stopping for a moment as you pass through the gate and onto the pier, it's easy to notice the many moving pieces all around. Ships are being moored as lines are tied to bollards. Cranes lift pallets onto ships preparing for departure. Forklifts and tractors whiz by. Open fuel and collection, holding and transfer (CHT) stations buzz in operation. Personnel hustle on the pier, oblivious to what else is going

on around them. On a rainy or windy day this tempo changes dramatically. Danger increases as the pier and brows to the ship become more slippery by the hour, and as objects being lifted begin to sway.

In the past, the Navy has taught its Sailors to be mindful of potential dangers and to always keep their heads on a swivel. Aviators might say you need to maintain good SA, or “situational awareness,” when working in any industrial environment. But often those safety lessons are associated with operations on flight decks or during underway replenishments (UNREPs) and other at-sea evolutions. And while a pier might not seem to have the danger level of at-sea evolutions, the dangers it does present can be more elusive and easy to miss, making one’s SA on the pier all the more important.

This is where Commander, Navy Installations Command (CNIC) comes in. CNIC has designed a safety program that addresses concerns and incorporates safety at all levels of the chain of command. The concept of CNIC’s deck plate safety program is to identify and focus on the core components necessary to reach every person in the organization.

CNIC Director of Operations Capt. Frank Martin encourages Sailors to look first to prevention awareness of their surroundings. He and his team of safety experts ensure that CNIC has a program in place that can be used at all levels, can address specific pier safety issues and can provide steps to be taken if an incident occurs.

The program covers much more than just pier safety, mandating that each installation have at least the following:

- established policy
- safety rules
- training
- emergency action
- checklist if unsafe/unhealthful conditions exist
- reporting procedures
- incident investigation
- safety committee

The overall program is rooted in OPNAV Instruction 5100.23G, which requires each region and installation to establish a safety and occupational health policy.

“Some precautions are based on lessons learned from prior incidents and near-misses,” said Richard

Maiello, CNIC’s deputy safety program director. “Controls have been put in place because mooring lines snapped while tying a ship to the pier or pallets fell while being loaded onto ships. These are not worst-case scenarios made up by overly prudent safety officers,” Maiello said. “Rather, they are dangerous realities of the environment in which Sailors work. Knowing the rules associated with the pier you’re working on is vital to your safety.”

Regular, specific training makes a major difference. A variety of safety training topics are available through the CNIC safety program, including general awareness, refresher, and job specific training that can be provided through computer based training, in the classroom, or on the job. Each person working on the pier is responsible for knowing the precautions and standards in order to avoid accidents.

Personnel must also know how to deal with emergency situations, including first aid, fire, natural disasters, and terrorist attacks. The deck plate safety program at each installation addresses



Opposite page and above photos: Crane and barge operations in Norfolk, Va.

specific procedures for emergency actions at each workplace, practicing what to do in the event of any emergency.

Risk management is everyone’s responsibility. With that in mind, an effective safety program



An MV-22 Osprey being hoisted by a crane onto a flight deck.

allows personnel to participate at all levels of the organization. At a minimum, all personnel must understand how to communicate identified unsafe or unhealthful conditions in the workplace. The new program allows for specific procedures to be put in place at each installation for employees to report unsafe/unhealthful conditions as well as make informal safety suggestions. If there is something that doesn't seem safe in the work environment, report it. Prevention is the key to a good safety program.

WHEN PREVENTION FAILS and consequently leads to accidents, timely and accurate reporting is important to ensure proper investigation. Identifying factors — human or mechanical — will prevent future occurrences. Deck plate safety programs must outline specific procedures for employees to report all near-misses, incidents and mishaps.

Safety rules and procedures are approved and issued by senior leadership, but they are generated by the local safety committee. This group is designated by the commanding officer to develop policy that ensures all those working in hazardous environments know the precautions needed to work safely. The

committee usually consists of a combination of supervisory, non-supervisory and support staff members and can include both military and civilian personnel of any pay grade. They meet at least quarterly to develop safety rules and procedures. They also recommend policy changes based on mishap, near-miss incidents, patterns and trends. The committee also reviews mishaps and near-miss incidents, recommends improvements to the safety program and identifies corrective measures needed to eliminate or control hazards.

When on any Navy pier, no work task should ever be performed without taking precautions and managing risk. Safety rules ensure that all military and civilian personnel know about the hazards that are present, and understand the control measures. By knowing the rules and being aware of the environment around them, personnel can help the Navy stay safe and, quite possibly, save a life. ■

MC1 Hilley and Mr. Foughty are with Commander, Navy Installations Command Public Affairs Office. Mr. Land is with Naval Facilities Engineering Command, Mid-Atlantic.

STEPS TO FORKLIFT SAFETY

OSHA estimates that approximately 100 employees die and 95,000 employees are injured every year while operating powered industrial trucks. Forklifts that turn over account for a significant number of these fatalities. All precautions and operator requirements regarding the safe operation of equipment must be applied and strictly enforced.

GENERAL PRECAUTIONS:

- Wear the necessary personal protective equipment (PPE), such as hard hats, safety shoes, eye and ear protection.
- Do not stand on or pass under the elevated portion of any materials handling equipment (MHE), whether the MHE is loaded or empty.
- Make sure that there is enough headroom to operate the MHE under beams, lights, pipes, sprinkler systems and other overhead items.
- Don't put your arms or legs between the uprights of a mast.
- Don't engage in stunt driving or horseplay. Don't spin the wheels or race an engine.
- Never permit riders on the MHE or a load.
- If the MHE is equipped with seatbelts or other restraints, don't remove them. Keep them in repair. Wear them for all operations with the exception of shipboard and pierside operations; in that case, it is at the discretion of the CO/OIC following an operational assessment.
- Never leave the driver's seat while the MHE is in motion or when the forks are elevated above the ground or deck.

HANDLING SAFETY

Take the following precautions during all handling operations:

- Check the load before fully lifting the forks or moving the MHE.
- Each of the adjustable forks should always be spaced an equal distance from the centerline of the MHE.
- Do not exceed the safe working load (SWL).
- Never lift more than one pallet or container unless it is strapped together as a unit.
- Never lift loosely stacked loads that extend above the backrest on the fork.
- For optimum stability, forks should be adjusted to the maximum width the load will accept.
- Place the load as close to the mast as possible. Then slowly raise the load slightly and carefully tilt mast backward to stabilize the load.
- Use extreme care when tilting the load forward or backward, particularly when high-tiering.

PRECAUTIONS DURING MOVEMENTS

Prior to any movement operation, take the following precautions:

- Check floors, decks, dockplates and ramps for breaks, cracks, or other indications of structural weaknesses.
- All portable dockplates and ramps must be properly secured to prevent any movement during MHE operations.
- Make sure trailers and railcars are chocked (railcars on piers don't require chocking).
- Keep one hand on the steering wheel. MHE will not automatically return to straight forward or reverse travel direction.

- Cell phones and other distractions are prohibited while MHE is in motion or the forks are elevated.
- Obey all traffic and fire regulations, including speed limits.
- Under all travel conditions, operate the MHE at a speed that will allow you to safely stop.
- Keep a clear view in the direction of travel.
- Travel with the load as close to floor or deck as practical.
- Make all starts, stops, turns, or directional reversals in a smooth manner so as not to shift the load or overturn the MHE.
- Keep a safe distance from the edge of elevated docks, ramps, platforms, freight cars and safety nets.
- Slow down when approaching danger points such as downgrades, curves, narrow travel areas, wet or oiled floors, wet or slippery railroad tracks, and rough surfaces.
- Do not jam on brakes.
- Driving MHE downgrades with the forks or forklift attachments facing downhill may make the MHE unstable and may make you lose control.
- Ascend or descend grades slowly.
- Don't turn on an incline.
- Don't try to enter a building through partly opened doors. The doors must be fully open and secured before proceeding.
- Before driving over a dockboard or bridgeplate, be sure it is secured from lateral movement.
- Drive carefully and slowly across dockboards or bridgeplates.

Labels and markings that should be present on MHE



References: These precautions were taken from NAVSUP Publication 538, Management of Materials Handling Equipment (0530-LP-642-6711, Fifth Revision), and Shipboard Mobile Support Equipment, Chapter 5 (Operational Safety Requirements). Please refer to these publications for in-depth explanations of precautions for operating MHE.

Visit the *Decisions* magazine home page for links to the MHE Inspection Form and the Inspection Criteria.

Reviewed by Steve Geiger, CSP
Safety and Occupational Health Manager, Naval Safety Center

Tool Backpack Saves Time, Improves Repair Process

By Trevor Krick

When tool bags no longer do their job the way they are supposed to, it's time to trade up. That's what the hydraulics shop mechanics at the Puget Sound Naval Shipyard & Intermediate Maintenance Facility (PSNS & IMF), Bangor did. They had two good reasons: to save their backs and to keep their tools together.

The hydraulics shop (Shop 31F) mechanics do a lot of back shop work (work not performed shipboard), but they also have an important role aboard boats in supporting unrestricted operations testing, also dubbed as URO-16. While they are very good at what they do, an evaluation of their current processes, along with a brainstorming session, revealed an opportunity for improvement. The team discovered the tool bag used for boat work slowed them down and caused unnecessary churn.

The "boat bag" was far from standard. While the URO-16 discrepancies accounted for most of the shop's onboard workload, the bag was tooled for troubleshooting nearly all hydraulic issues. When a job was assigned, a mechanic would grab the generic assortment of common tools, special tools, fittings and software, all of which were haphazardly thrown into the various pockets of the tool bag. A bag inventory, if conducted, was based on the mechanic's memory of tools required for the job; required items might be forgotten. So, after minutes of treasure hunting in a disorganized bag, a missing tool would result in a trip off the boat to the Delta Pier (where submarines are maintained.) tool room, or even back to the main shop building miles away.

The bag was anything but ergonomic. With one strap, the boat bag would hang off the shoulder,

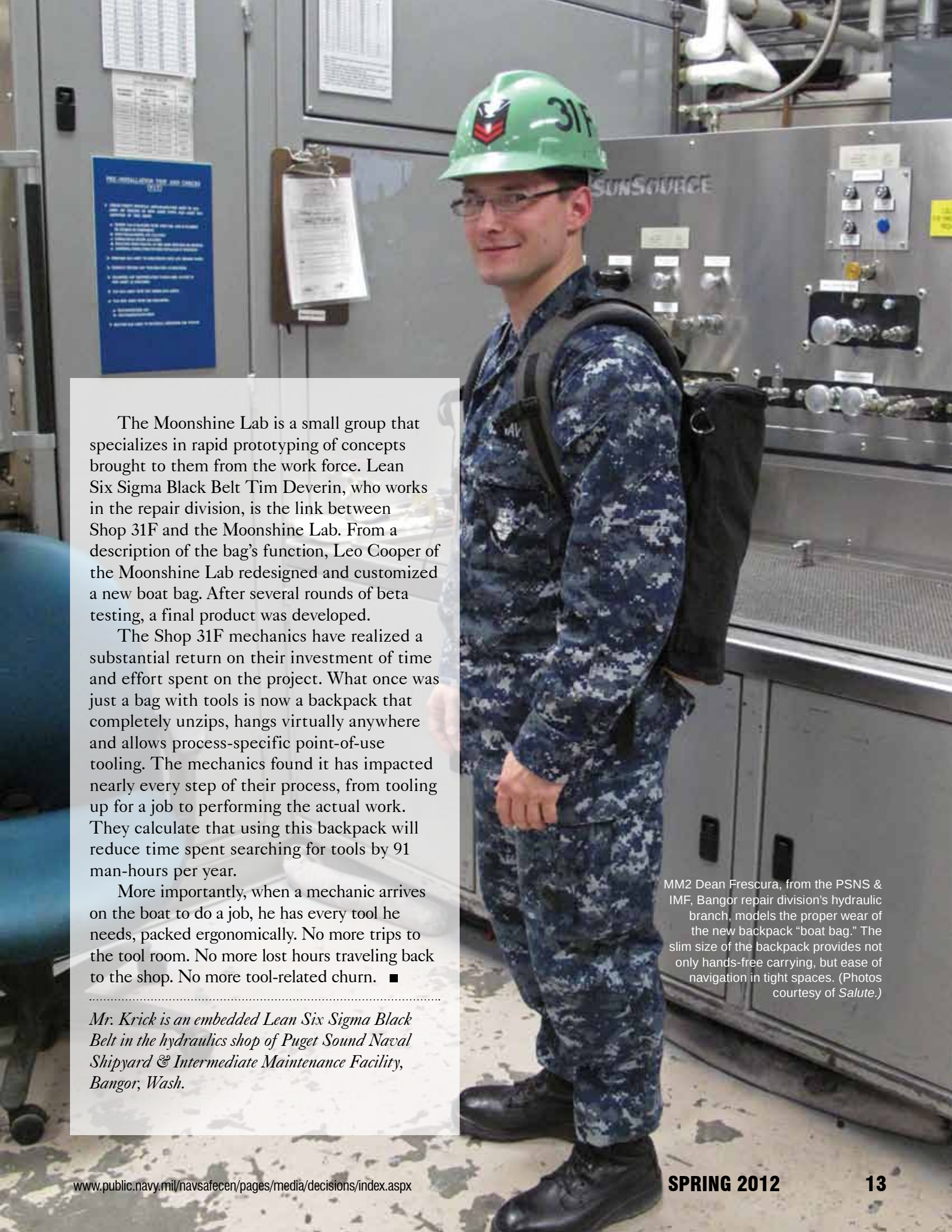
placing an uneven load on the body. Navigating ladders and tight spaces was a problem. The 31F hydraulics mechanics knew what characteristics they wanted in the new bag. That's where the PSNS & IMF "Moonshine Lab" came in.

Before



After



A man in a green hard hat with the number '31F' and a blue camouflage uniform is standing in a workshop. He is wearing a black backpack and looking towards the camera. In the background, there is a large piece of machinery with the word 'SUNSOURCE' on it and various pipes and valves. A blue sign with white text is visible on the wall to the left.

The Moonshine Lab is a small group that specializes in rapid prototyping of concepts brought to them from the work force. Lean Six Sigma Black Belt Tim Deverin, who works in the repair division, is the link between Shop 31F and the Moonshine Lab. From a description of the bag's function, Leo Cooper of the Moonshine Lab redesigned and customized a new boat bag. After several rounds of beta testing, a final product was developed.

The Shop 31F mechanics have realized a substantial return on their investment of time and effort spent on the project. What once was just a bag with tools is now a backpack that completely unzips, hangs virtually anywhere and allows process-specific point-of-use tooling. The mechanics found it has impacted nearly every step of their process, from tooling up for a job to performing the actual work. They calculate that using this backpack will reduce time spent searching for tools by 91 man-hours per year.

More importantly, when a mechanic arrives on the boat to do a job, he has every tool he needs, packed ergonomically. No more trips to the tool room. No more lost hours traveling back to the shop. No more tool-related churn. ■

Mr. Krick is an embedded Lean Six Sigma Black Belt in the hydraulics shop of Puget Sound Naval Shipyard & Intermediate Maintenance Facility, Bangor, Wash.

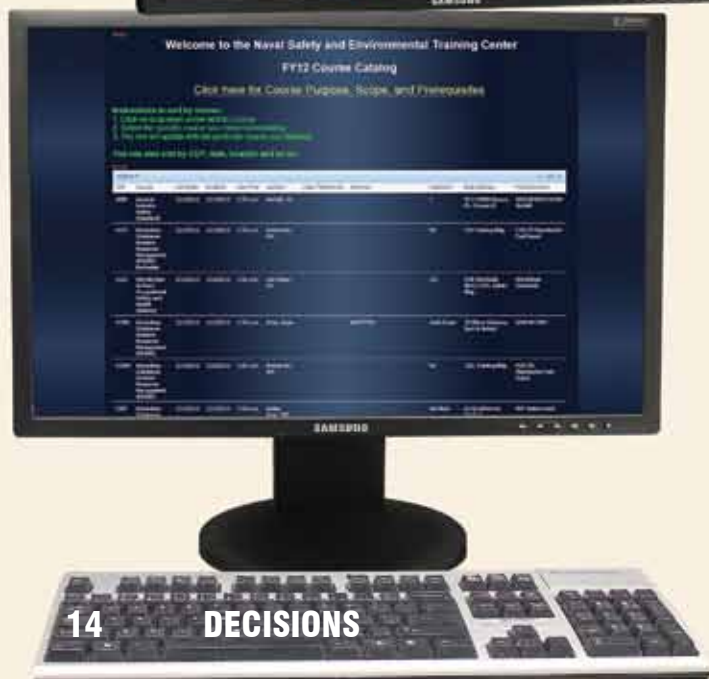
MM2 Dean Frescura, from the PSNS & IMF, Bangor repair division's hydraulic branch, models the proper wear of the new backpack "boat bag." The slim size of the backpack provides not only hands-free carrying, but ease of navigation in tight spaces. (Photos courtesy of Salute.)

Safety on the Cloud

Training and Learning in Real Time

By Alfred Melcher

Safety specialists, technicians, and collateral-duty safety personnel assigned to shore installations can now take advantage of a technology-advanced learning system offered by the Naval Safety and Environmental Training Center. It is a blended online version of the Introduction to Navy Occupational Safety and Health Ashore (INA) course.





Providing flexible access to distance-learning environments is critical for our fleet customers around the globe. — Cmdr. Greg Cook

Commanding Officer, NAVSAFENVTRACEN



This course is a critical requirement for these personnel, who are the Navy's front line in implementing, maintaining and managing safety programs ashore.

The INA course covers key subject areas, including:

- safety, environmental and occupational health programs
- mishap causes, and
- recognizing, evaluating and controlling hazards.

Until recently, students had to attend a four-day course in Norfolk or take the training at one of the few video tele-training (VTT) facilities operated by Naval Education Training Command. In either case, students had to travel to the location where the training was offered, which was expensive and time-consuming. Naval Safety and Environmental Training Center partnered with the Naval Postgraduate School to use their hosted Sakai* environment. Sakai is an open-source, collaborative learning environment that provides tools for creating courses and shared-project sites in a web-portal environment.

Distance Learning on the Cloud

Course architecture includes the real-time conferencing capability of Adobe Connect,** through Defense Connect Online (DCO). Students can complete individual research and assignments and attend live group sessions with the instructor, all from the same web portal.

Since Sakai and DCO are Java- and Flash-based applications that reside on the server cloud, students and instructors connect via their web browser. This allows access from practically any computer with a broadband internet connection. Students have connected from ships, offices, home and even internet cafés.

"Providing flexible access to distance-learning environments is critical for our fleet customers around the globe," said NAVSAFENVTRACEN

Commanding Officer Cmdr. Greg Cook. "It helps lower costs and increases training compliance across the force."

Context Is King

The INA course on Sakai contains 32 curriculum hours, the same as the resident and VTT versions. However, with Sakai, students play the role of a new safety specialist within a naval station environment, complete with industry trappings like aircraft repair hangars, ammo storage sites, ship repair facilities and a variety of office settings. This rich environment is overlaid with scenarios and timelines that challenge students with events that require real-world problem solving, using OPNAV instructions and best practices.

"The course immerses the student in real-life situations where they have to solve actual safety-related problems. This provides a context beyond what can often be done in the traditional classroom environment," said Ray Maxwell, a NAVSAFENVTRACEN course manager.

As students work through the scenarios, they must answer thought-provoking questions, requiring research, analysis and decision-making that will better prepare them for actual jobs. The scenario work is complemented by a number of short, live, virtual-classroom sessions with the instructor, using Adobe Connect. ■

NAVSAFENVTRACEN provides safety and environmental training across the Navy and Marine Corps. In FY11, the command trained more than 9,200 students at more than 40 locations worldwide, using resident, video-teletraining and blended-distance learning.

*Sakai is an open-source educational software platform distributed under the Educational Community License.

**Defense Connect Online uses Adobe Acrobat Connect Pro, which is a product and trademark of Adobe Systems Incorporated.

Mr. Melcher is a standards learning officer at NAVSAFENVTRACEN

Sharing Lessons Learned

Navy personnel and civilians are valuable sources of knowledge, information and expertise. Their ideas can produce benefits, save costs, improve safety, and increase productivity.

By Alonzo Branch

After-action reports following real-world events and exercises are an excellent way to leverage the professional knowledge and experience of Commander, Navy Installation Command's Sailors, civilians and contractors. These reports are critical to analysis and development of corrective action plans and mitigation strategies.

One of the "best practices" for the Training and Readiness Shore Response Plan Branch (CNIC N72) is the Shore Lessons Learned Program (SLLP), which shares information and learning across the CNIC shore enterprise. The program provides a way to review commandwide issues, ensuring they are tracked, resolved, and verified.

"The SLLP's vision is to ensure knowledge gained through this process is shared with all stakeholders," said Bill Clark, training and readiness shore response plans branch head of CNIC N72. Clark added that by sharing, it enables implementation as best practices and formulation of doctrine, organization, training, material, leadership and education, personnel, and facilities (DOTMLPF) solutions to enhance overall shore readiness.

SLLP connects existing lessons-learned initiatives. It provides a series of tools that make it easier to transfer learning and information, involving a broad network of individuals and contributors.

SLLP is more than a single system or process. It is a multifaceted initiative that uses information technologies to link site lessons-learned programs, rapidly transfer time-critical lessons learned, share information to key points of contact, report upcoming events such as conferences and workshops, and provide access to pertinent information available outside of the CNIC community.

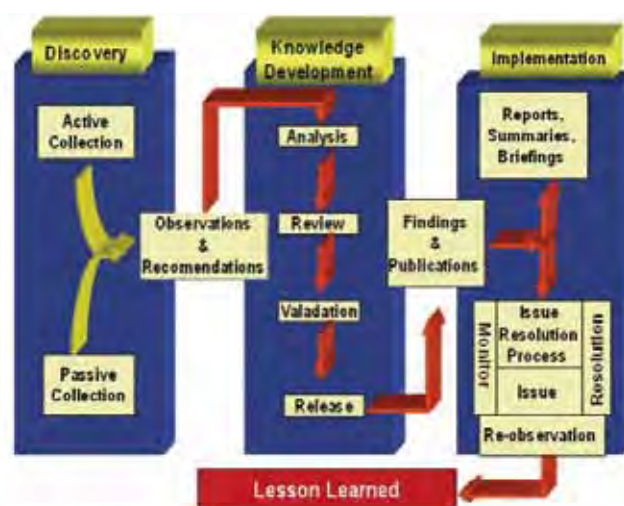
SMART REPOSITORY

CNIC observations and recommendations (O&Rs) reside within the Joint Lessons Learned Repository (JLLR), giving regions and installations access to all shared information maintained within the repository. Knowledge gained from previous O&Rs enables commanders and organizations to improve situations, techniques and processes to better perform assigned tasks and missions. The overall quality of information within the JLLR is directly linked to the quality of submissions received via after-action reports (AARs).

The Joint Lessons Learned Information System (JLLIS) was designed to be used as a DoDwide system to enable the collection, analysis and distribution of O&Rs and best practices across the full spectrum of DoD operations worldwide.

JLLIS is the tool used in the database that contains more than 10,000 O&Rs. JLLIS is the Navy's system of record for observations, lessons

Lessons Learned Process Overview





Base clean up after Hurricane Irene at Joint Expeditionary Base Little Creek-Fort Story, Va. (Spencer R. Layne/USN)



Commander, Amphibious Forces, U.S. 7th Fleet community support during Operation Tomodachi. (MC2 Eva-Marie Ramsaran/USN)



EODMU6 participates in Exercise Solid Curtain-Citadel Shield. (MC2 Gary Granger Jr./USN)

and AARs and is available via SIPRnet and NIPRnet. Any Navy member, military or civilian, can input their observations into JLLIS. Insights added to JLLIS by CNIC personnel can improve (DOTMLPF) as a whole. Since JLLIS is a joint database, these lessons learned can also be shared with the rest of the Navy and other services.

“If there is a better way to do business, that’s what we want to know,” said Randy Morgan, CNIC N7’s training and readiness program director. This tool can point to a requirement and give commanders the justification to adjust their budgets and manpower to meet that requirement.”

CAPTURING LESSONS LEARNED

The Navy Lessons Learned Center gives all commands a comprehensive tool to continue to improve support provided to fleet and shore commands. The Naval Lesson Learned Information System, a component of the U. S. Navy, was established in 2004 at the direction of the Chairman of the Joint Chiefs of Staff (CJCSM 3150.25) to provide a central repository of past

experiences and solutions related to every aspect of operations. One of its most important roles is to ensure that after-action reports, O&Rs, and inputs to surveys are passed on to those involved in the decision-making process. O&Rs are also compiled into reports and briefs routinely distributed to leaders who evaluate future requirements and work to affect DOTMLPF solutions.

“It is important that Navy personnel continue to provide their observations and recommendations, lessons learned and AARs so we can ensure that follow-on Navy personnel have the benefit of hard-earned experience prior to crossing the line of departure,” said George Young, CNIC N724’s shore response scheduler. ■

Mr. Branch is the lessons learned analyst at CNIC N7 Training and Readiness Shore Response Plan Branch.



Visit the **CNIC Lessons Learned** website at https://g2.cnic.navy.mil/public/n7ex/lessons_learned/default.aspx. This site is accessible by authorized government computer systems only.

LESSONS LEARNED WEBSITES

Navy Lessons Learned ► <https://www.jllis.mil/navy>

Joint Lessons Learned NIPR ► <https://www.jllis.mil>

Joint Lessons Learned SIPR ► <http://www.jllis.navy.smil.mil>

Department of Homeland Security Lessons Learned ► <https://www.llis.dhs.gov>

Federal Emergency Management Agency Lessons Learned ► <https://www.llis.dhs.gov/index.do>

Center for Army Lessons Learned ► <http://usacac.army.mil>

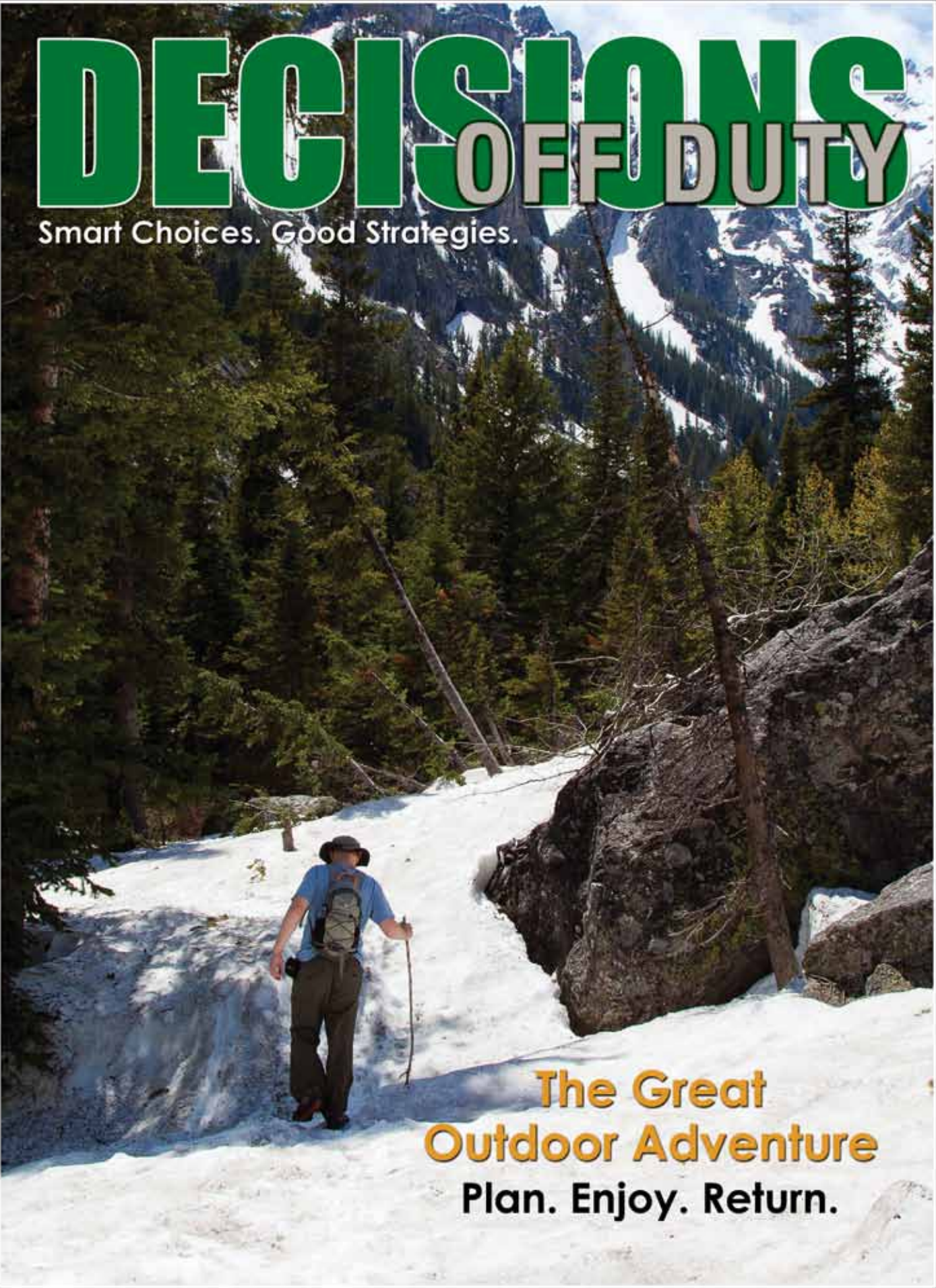
Marine Corps Center for Lessons Learned ► <https://www.mccll.usmc.mil>

Air Force University Lessons Learned ► <http://www.au.af.mil/au/awc/awcgate/awc-lesn.htm#writing>

Naval Operational Medical Lessons Learned Center ► <https://www.jllis.mil/nomi/>

DECISIONS OFF DUTY

Smart Choices. Good Strategies.



**The Great
Outdoor Adventure
Plan. Enjoy. Return.**



**MSR Dashboard Playbook
coming to a representative near you!**

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**2012 Special Issue
coming this spring**

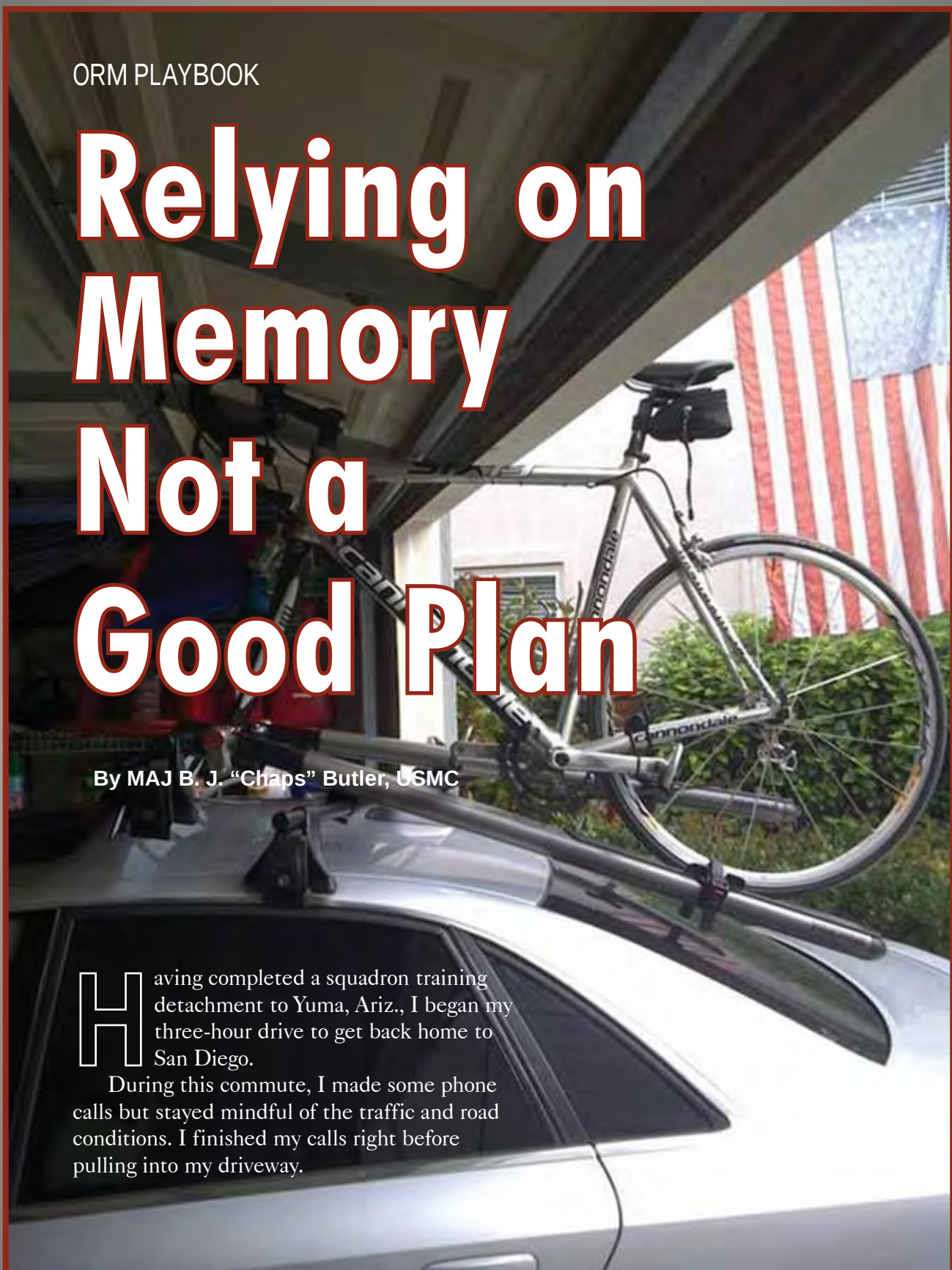


Smart Ride is a special-issue magazine published annually.

It provides information for riders of all ages and experience levels.

Each issue features resources, information and entertaining articles on:

- motorcycle training
- risk management
- rider PPE
- sport bike training
- personal experiences



ORM PLAYBOOK

Relying on Memory Not a Good Plan

By MAJ B. J. "Chaps" Butler, USMC

Having completed a squadron training detachment to Yuma, Ariz., I began my three-hour drive to get back home to San Diego.

During this commute, I made some phone calls but stayed mindful of the traffic and road conditions. I finished my calls right before pulling into my driveway.

I remember thinking, “I hope I never try to drive my car into the garage with the bike on top.”

Let’s play back to when I first purchased the rack. I knew that it could hit the garage door, but I didn’t pay much attention to this hazard. I figured that I could rely on my own memory to keep me from making such a stupid mistake. Unfortunately, when you look at the three methods for mitigating risks through operational risk management (engineering, administrative and PPE), “relying on memory” isn’t one of them – and for a good reason. I had become complacent over the three-hour drive home from Yuma. That complacency — combined with the split-second distraction of noticing that my garage lights had been left on — was just enough to cause this crash.

This was a textbook breakdown of the ORM process. I had completed the first step: identify the hazard. I remember thinking, “I hope I never try to drive my car into the garage with the bike on top.”

I’d even completed the second step: assess the hazard. I realized that the results of that would be pretty bad, most likely resulting in the bike frame being destroyed as it got ripped from the rack, not to mention the possible damage to the rack and car.

Then the breakdown in the ORM process began. I did a poor job of making risk decisions on how I would mitigate or eliminate the risk: I relied on my own memory. Adequate controls were never implemented, and thus, no “supervision” was necessary. Unfortunately, it wasn’t until after this accident with my bike that I completed the ORM process. Here’s what I would do the next time I

used my bike rack: I would take a recycling bin from my garage and put it in front of my car. This would keep me from pulling into the garage without getting out of the car first and moving the bin, hence noticing the bike rack. This solution would cost absolutely nothing and would only take about five seconds to move the bin. In turn, hundreds, maybe thousands, of dollars of damage to bike, rack, garage, and car could be prevented.

As I thought more about my mistake, I realized how many times as professional aviators we look at a situation and say, “It would really be bad if that happened.” But we often fail to follow through with the ORM process by finding a way to keep it from happening. A parallel can be easily drawn between the long drive and a long flight. How many times have you been distracted for a split-second during a critical moment in flight?

Luckily the bike, rack and car only suffered minor cosmetic damage. It was a relatively inexpensive way for me to gain new appreciation for the ORM process and apply it to my daily actions as an aviator. So the next time you see something and say to yourself, “It would really be bad if that happened,” take the time to finish the rest of the ORM process to ensure it doesn’t. ■

Maj. Butler is a UH-1Y instructor pilot and the director of safety and standardization for Marine Light Attack Helicopter Squadron 267, Marine Aircraft Group 39, Camp Pendleton, Calif. (Photo courtesy of the author.)



I Didn't Mean to Shoot ... Really

It isn't that hard to be safe around firearms. Yet Sailors and Marines accidentally shoot themselves or others all too often.

By GYSGT Amber Allison

During boot camp and beyond, there are four weapons safety rules that are crammed down your throat so much so that some people mimic the Tower NCO at the range announcing those rules to everyone. However, many people don't heed those safety rules when they go off duty.

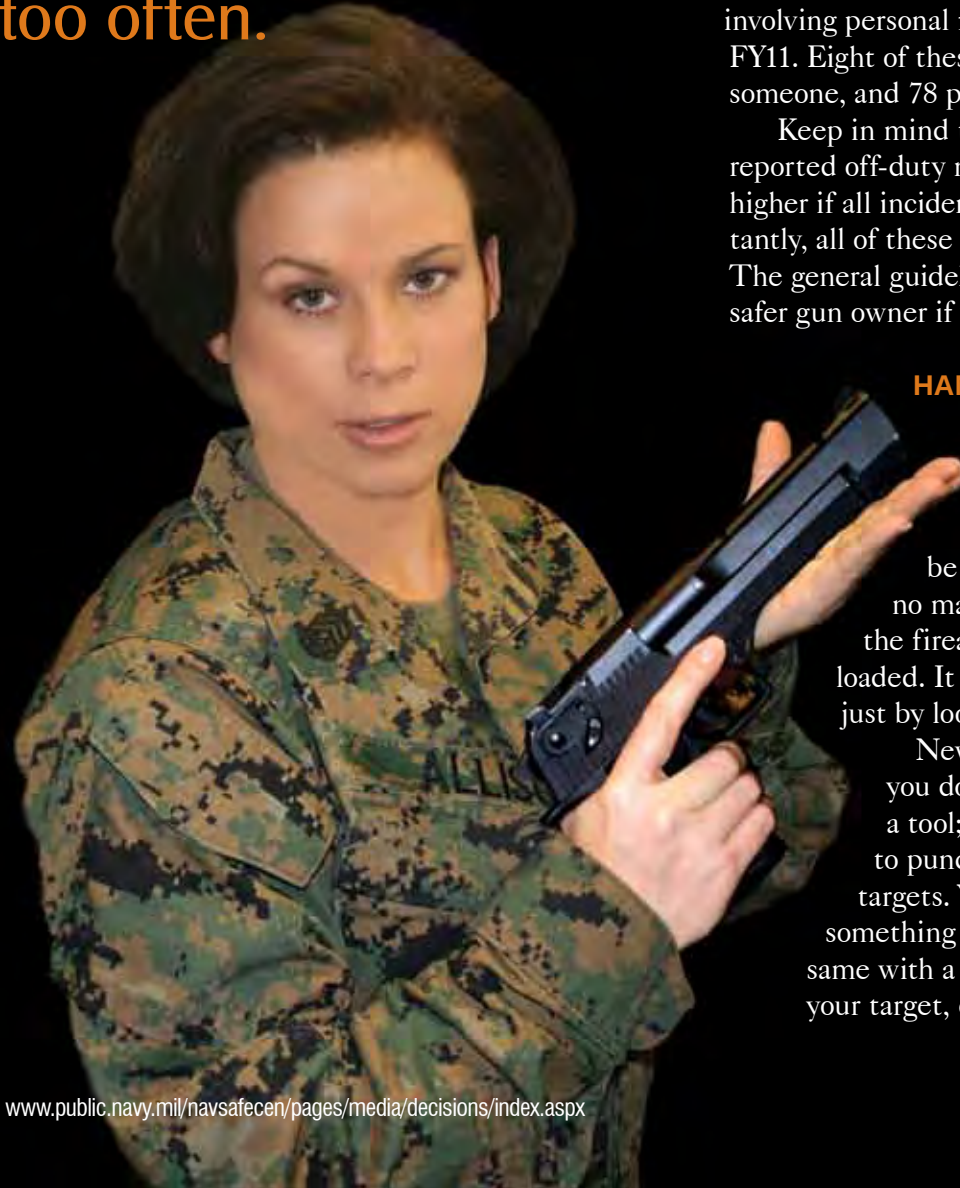
The Naval Safety Center received 86* reports involving personal firearms incidents from FY05 to FY11. Eight of these negligent discharges killed someone, and 78 produced injuries.

Keep in mind that these were only the few reported off-duty mishaps. Numbers would be higher if all incidents were reported. More importantly, all of these mishaps could have been avoided. The general guidelines below will help you be a safer gun owner if you follow them closely.

HANDLING

Treat every weapon as if it were loaded. This rule is sometimes misleading. Some people believe that every weapon should be loaded. This rule means that no matter what condition you believe the firearm is in, always act as if it were loaded. It is generally not possible to tell just by looking if a weapon is loaded.

Never point a weapon at anything you do not intend to shoot. A firearm is a tool; and like any tool it has a purpose: to punch deadly holes in threatening targets. You would never use a saw on something you did not want to cut. It is the same with a firearm: if you don't want to kill your target, don't point a firearm at it.





Keep your finger straight and off the trigger until you intend to fire. Placing your finger in the trigger housing and on the trigger is the last step before firing the weapon. The hands react to a flinch response when startled. If your finger is on the trigger while you are walking with a firearm and you trip, fall, or hear a loud noise, you will instinctively pull the trigger. With your finger outside the trigger guard and held straight alongside the frame of the weapon, this will not happen. When in firing mode, immediately take your finger off the trigger as soon as you are done shooting and hold it straight along the frame of the firearm.

Keep your weapon's safety on until you are ready to fire. If your firearm is equipped with an external safety device, never disengage it until you are ready for your firearm to discharge a bullet. If placing the firearm in a holster, ensure that the safety is on. There is nothing more embarrassing and painful than shooting yourself in the leg or foot due to your own negligence.

Only handle firearms when you are sober. Never engage in horseplay while handling a weapon. Yes, you read that correctly, "sober" and "no horseplay" are supposed to be no-brainers, but many of the reported incidents involved one or both. Never use alcohol or over-the-counter prescription or other drugs before or while shooting as they affect judgment and impair reflexes. Hunters must be alert at all times. Avoid drinking alcoholic beverages or

taking drugs that impair you before and during trips to the range, hunting or weapons handling.

STORAGE

Unload firearms before storing or when not in use. Remove the magazine and any remaining rounds in the chamber immediately after use. Store the weapon and ammunition in separate locked locations. Place a trigger lock on the weapon after each use.

Store your weapons and ammunition in a way that prevents access by children. Place a trigger lock on your weapon and then put the weapon in a locked location, and carry the key with you at all times. Storage is only half the battle. Teaching children to be safe around firearms is the other half. Even if no one in your family owns a firearm, chances are that someone you know does. Your child could get hold of a firearm at a neighbor's house or when playing with friends. Tell your children that if they come across a firearm, leave it alone and tell an adult. The Centers for Disease Control and Prevention found that more than 1.7 million** children live in homes with loaded, unlocked guns.

USE

Don't alter or modify your gun. Firearms are arguably as dangerous as electricity. If you are not a certified electrician, you would not modify your home's circuit breaker, would you? Be sure only a certified armorer services and modifies your weapon.

The Four Personal Firearms Safety Rules

- 1** Treat every firearm as if it were loaded.
- 2** Always keep the firearm pointed in a safe direction.
- 3** Always keep the weapon on safe and your finger off the trigger until ready to fire.
- 4** Always keep the weapon unloaded until ready to use it.

Before cleaning your weapon, make absolutely sure that it is unloaded and no ammunition is in the chamber. Regular cleaning is important in order for your firearm to operate correctly and safely. Taking proper care of it will extend its life. Clean your firearm after each use in accordance with the manufacturer's guidelines.

Ensure the barrel is clear of obstructions before shooting, and inspect your weapon prior to use. If you are hunting there is a greater likelihood of getting debris inside your muzzle. In addition, be sure the ammunition you are using is the proper ammo for your weapon. This will help prevent the improper projectile from getting lodged in the barrel.

Be sure of your target and what is behind it. When shooting, whether for target practice or hunting, ensure that no part of your target will cause a ricochet. Always wear eye and ear protection when on any shooting range. Learn the mechanical and handling characteristics of the firearm you are using. If your gun doesn't fire when you pull the trigger, handle it with care. Every weapon has a different action when trying to clear it.

THE LAW

Other considerations of being a responsible gun owner are to ensure the legality of your firearm.

Is your firearm registered? If you live on base, make sure your firearm is registered at the Provost Marshal's Office or Naval Base Security Office.

When you are transporting your weapon, are you doing it in a legal manner according to the state and military base regulations? Do you have a concealed weapons permit and are you aware of the restrictions? What can you be charged with in violating any of these rules?

Answers to these questions will vary from state to state. However, regardless of location, Articles 92 and 134 can also be charged to service members that fail to properly handle their personal firearms. You might find some helpful answers regarding state laws at www.handgunlaw.us/. However, you should always validate the information you find with local law enforcement. All active-duty firearms owners should complete the NKO Personal Firearms Safety Course annually. It will become an annual requirement after revision of the Navy Recreation and Off-duty Safety Program (OPNAVINST 5100.25B). People who don't own guns are encouraged to take the course, as well. ■

Gunnery Sgt. Allison is an explosives and weapons analyst in the Shore/Ground Safety Programs Directorate at the Naval Safety Center. (Photos courtesy of the author.)

** 13 of the 86 incidents involved alcohol or drugs; 4 of the 13 incidents involving alcohol or drugs ended with a negligent discharge resulting in a death; meaning 50 percent of the overall accidental deaths involved alcohol impairment.*

*** More than 500 children die annually from accidental gunshots. Some shoot themselves, but most kill friends or siblings, often after discovering a gun and becoming curious.*



Naval Safety Center Photo. Modified.

During the last five years, traffic fatalities in the Marine Corps have declined from 64 in FY06 to 41 in FY11, a 36 percent reduction. We have been successful primarily due to a layered approach that combines awareness and attitudinal, hands-on, skill-based training, along with individual risk management enhanced by risk management tools.

As part of an overarching plan, the U.S. Marine Corps has given Marine Corps Installation West (MCIWEST) a regional charter to provide traffic safety training and support to all units and activities west of the Mississippi River. This charter has paid dividends in reducing traffic injuries and losses by empowering the most important person in traffic safety management: the individual who is on the road alone when risk or danger strikes. This is the person who must decisively act upon a plan of action to avoid danger.

The basic principles of operational risk management (ORM) call for an informed decision made at the appropriate level to allow implementation of risk-control measures. These

Photo by Mikey Perez



Rider receives feedback during Advanced Skills Clinic during the Military Dirt Days at Pala Raceway, Calif.

G THE TRAFFIC COMBAT

decisions are critical, especially when traveling on highways like the West Coast interstates or the congested Southern California traffic. From San Diego to Los Angeles, more than eight million people travel and compete for a spot on the road. These roadways are laden with risks and hazards including weather, mechanical problems (your vehicle or eight million others), bad drivers, fatigue, and distractions. As motorists, our personnel must apply ORM to their travels while at work and when off duty if they are to survive the traffic combat and return to work each day.

MCIWEST and the Marine Corps also train and license personnel who operate government vehicles at work. The command provides ORM training and layered awareness training about the risks and hazards so that our drivers can perform ORM while operating these vehicles. We also provide layers of awareness training designed for or aimed at our most at-risk personnel: Marines under the age of 26.

Marines, Sailors and civilian employees can take advantage of all the layers of this awareness training. It starts with the National Safety Council's Driver Improvement Course, using the "Alive at 25" training and remedial driver training using the Attitudinal Dynamics of Driving training. Additional awareness training events include the use of two Kramer International Programs: the Save a Life Tour (an interactive driving simulation that shows how alcohol impairs driving skills) and the Distracted Driving Tour (a program that features high-impact, anti-texting presentations).

MCIWEST and the Marine Corps also provide hands-on training in some targeted higher risk areas at no cost to our personnel. This training includes street motorcycles, dirt bikes, and all-terrain vehicles (ATVs). There is basic and advanced training for both cruiser and sport-style motorcycle riders, as well as advanced motorcycle mentor training (for formal and informal leaders). MCIWEST provides basic and

advanced training for off-road enthusiasts who ride dirt bikes and ATVs.

MCIWEST is currently focusing on off-road training events such as the recent “Military Dirt Days” held at Pala Raceway in Calif. and various Marine Corps-sponsored “Semper Ride” events.

These awareness courses and hands-on training give Marines, Sailors and civilians both the thought process and the skills they need when reacting to split-second emergencies while on the road or off road.

MCIWEST and the Marine Corps provide opportunities as an alternative to riding alone

or with untrained groups. These events include group training and motorcycle rides, motorcycle track days at raceways, and group off-road events (where they can enjoy their dirt bikes and ATVs). These alternative events allow riders to experience what “right” looks like. They practice doing things correctly, enjoy the activity and survive! ■

.....
Mr. Dobarzynski, deputy director of safety and standardization; Mr. Bromwell, traffic safety manager; and Mr. Perez, explosives safety officer, are with Marine Corps Installation West.

U.S. Marine Corps Traffic Safety Training

Motorcycle Training

Level 1 – Motorcycle Safety Foundation Initial Basic Rider Course or Dirt Bike Course: Focuses on skill based training and discusses some decision making in the classroom.

Level 2 – Military Sport Bike Riders Course, Advanced Rider Course or any other intermediate or mid-level rider training approved by CMC Safety Division: This is the building block of hands-on skill-based related training. The follow-on training must target the type of motorcycle the Marine rides.

Level 3 – Any advanced rider training that is approved by CMC Safety Division: California Super Bike School, Advance Motorcycle Operator School, Advance Rider Track Day Courses, Total Control, and American Super Camp. This training provides motorcycle riders with lessons that improve skills by providing practice at realistic speeds with street cornering scenarios, and that simultaneously challenges the rider's abilities in a controlled environment.

All Marines who plan to purchase or operate a motorcycle are required to successfully complete a Level I rider safety course approved by CMC Safety Division. All Marine motorcycle riders will attend mandatory Level II motorcycle training within 120 days of completion of Level I training. Riders will receive refresher training/continuing education (Level II or III) every three years.

Driver Education

Driver Improvement Course – All Marines under the age of 26 will complete a course in traffic safety designed to establish and reinforce positive behaviors toward driving. This course also reviews and addresses local information, including local area traffic patterns, local hazards and related safety concerns.

Remedial Driver Training – This remedial course identifies high-risk individuals and reinforces positive driving behaviors. The course covers classroom instruction in military requirements, driver attitudes, excessive speed, fatigue, driver impairment, distracted driving and other irresponsible driving habits. Instruction includes discussions covering the reason why the driver is attending the class.

Driver education is currently classroom-based only. A completed beta test incorporates skill-based training with classroom instruction.

Risk Management – These are some of the individual risk management tools used in the Marine Corps:

TRiPS	https://crcapps2.crc.army.mil/TRiPS/marines/login.aspx
HARP	www.marines.mil/unit/safety/Documents/HARP.doc
Leave Pledge	www.marines.mil/unit/safety/Documents/Leave_Pledge.doc
Pre-Trip PMV Inspection Checklist	www.marines.mil/unit/safety/Documents/NAVSAFECEN_PMV.doc

During early morning rush hour just outside of Joint Expeditionary Base Little Creek-Fort Story (West) in Virginia Beach, Va., a civilian sees two people in a pickup truck do something unexpected at an intersection. What most would find disturbing becomes even more so since they were wearing Navy uniforms.

As It Seems to Me

By IT1 (SW/EXW) Richard Hoepfner

The passenger of the pick-up truck exits the vehicle, carrying what seems to be a small propane tank or saline bottle. He steps up to the curb by the intersection and throws the bottle onto the grass, then drives off. It looks suspicious.

Meanwhile, the civilian who had been driving behind the pick-up pulls her truck off to the side of the road, grabs her cell phone and stands outside her vehicle to examine the object on the side of the road. I find out later that she called base law enforcement to report what she had just witnessed.

The Mysterious Bottle

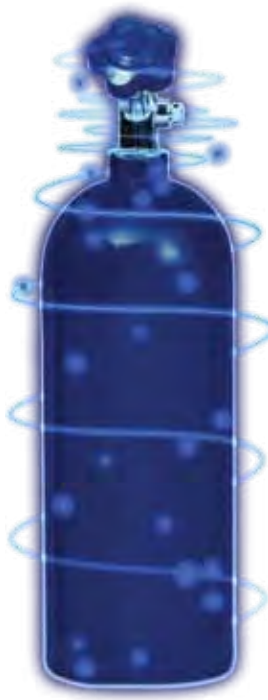
As I pull around her truck and glance in the direction she's looking, something seems out of place. I'm afraid the tank could be a threat to her and others driving by. Parking about a hundred feet from the tank, I walk over to the civilian and caution her to stay away from the object. I notice that something is leaking from the bottle. Common sense would tell you that anything leaking could be harmful to people or to the environment.

Looking at the bottle much more closely, I realize it's not a propane tank; it contains nitrogen. Nitrogen can be used to manufacture ammonia by combining it with hydrogen. It is also an ingredient of some explosives and fertilizers. By this time, base law enforcement arrives and takes the civilian's statement about the two Sailors and their license plate information.

A commercial truck carrying hazmat gas cylinder bottles drives by with the driver persistently honking his horn. He points at the bottle and yells that it was his. He wants it back.

A Few Minutes Earlier

Apparently what the civilian saw was only half the story. The truck driver who came back had lost the bottle out of the back of his truck. The two Sailors picked it up and raced to catch up with him to tell him that he lost a bottle of nitrogen a couple of miles back. When they realized that nitrogen was leaking, they got out of their vehicle, threw it on the side of the road, and caught up to tell him what had happened. That is why the truck came back and claimed it.



Lesson of the Story

So what originally was seen at 8:45 a.m. wasn't in fact someone littering or creating a hazard. It was two people being good Samaritans and helping out a local business recover a serialized item that, if it had fallen in the wrong hands, could be extremely dangerous to others. It was about a civilian who saw the same danger and reported it to local authorities. My role as a bystander was to secure the area to make sure nobody in the close proximity of this item was injured.

What you see is what you understand to be the truth. What would you do if you saw something that seems out of place or someone who can't seem to concentrate on work? What if you didn't do anything and it led to something more harmful? Acting on a hunch to keep something bad from happening is better than doing nothing. ■

IT1 Hoepfner is with Fleet Cyber Command, U.S. 10th Fleet.

Sir Jed and the Possum

By HT1 Ivan Garret and John Mapp

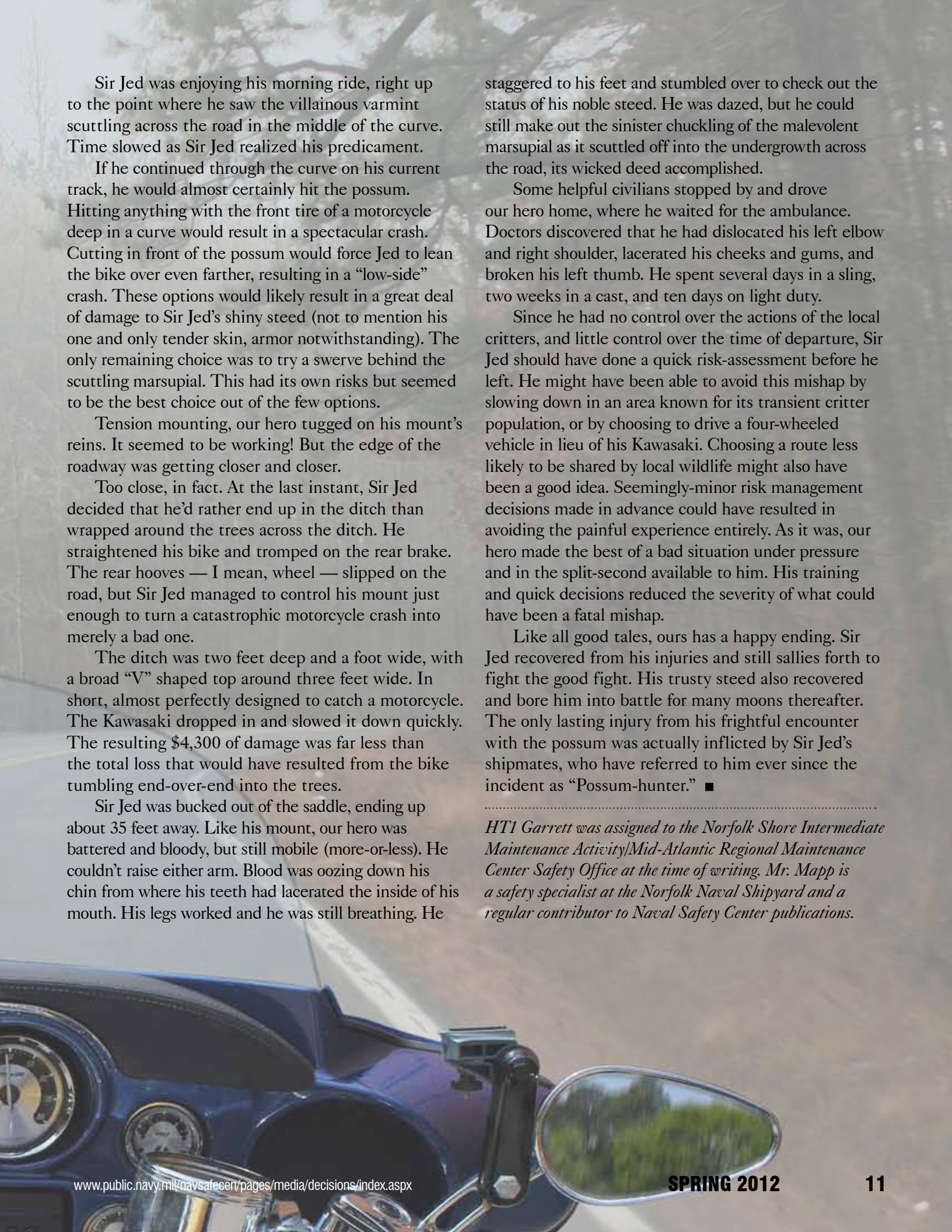
The victim of the mishap I'm about to describe was an experienced rider. He had all the proper training and licenses and was wearing the correct PPE. These three factors by themselves set our hero — whom we will dub Sir Jed — apart from roughly half of the usual motorcycle-related mishaps.

He had donned his battle gear like a knight of old preparing to slay a dragon. Sturdy leather jacket, gloves, boots, and helmet adorning his mighty frame, the stalwart knight mounted his trusty steed (a 2003 Kawasaki Vulcan 1600) and set out on his usual journey to work at Norfolk Naval Station.

It was a clear, brisk morning in May. The sun was not yet up (at 5:30 a.m.), but the route was familiar and fun to drive. Our hero urged his steed to a hearty trot in order to get to the base on time.

The road had four or five curves that force drivers to reduce speed to 35 or 40 mph. Our hero, being familiar with the road, slowed down and leaned into a turn. Alas, another feature of the road's landscaping came into play. The road was bordered by woods, and a fair number of cute-and-furry woodland critters were wont to traipse across the road when most sane people were snug in their beds (such as the last hours of darkness before dawn).

The villain of our tale appeared, a sinister creature of pure evil for our hero to meet in mortal combat: a possum. It must have been watching those TV ads where squirrels cause a car to swerve off the road. The possum took the lessons from the commercials to heart and was dutifully crossing the road in the middle of one of these sharp curves.



Sir Jed was enjoying his morning ride, right up to the point where he saw the villainous varmint scuttling across the road in the middle of the curve. Time slowed as Sir Jed realized his predicament.

If he continued through the curve on his current track, he would almost certainly hit the possum. Hitting anything with the front tire of a motorcycle deep in a curve would result in a spectacular crash. Cutting in front of the possum would force Jed to lean the bike over even farther, resulting in a “low-side” crash. These options would likely result in a great deal of damage to Sir Jed’s shiny steed (not to mention his one and only tender skin, armor notwithstanding). The only remaining choice was to try a swerve behind the scuttling marsupial. This had its own risks but seemed to be the best choice out of the few options.

Tension mounting, our hero tugged on his mount’s reins. It seemed to be working! But the edge of the roadway was getting closer and closer.

Too close, in fact. At the last instant, Sir Jed decided that he’d rather end up in the ditch than wrapped around the trees across the ditch. He straightened his bike and tromped on the rear brake. The rear hooves — I mean, wheel — slipped on the road, but Sir Jed managed to control his mount just enough to turn a catastrophic motorcycle crash into merely a bad one.

The ditch was two feet deep and a foot wide, with a broad “V” shaped top around three feet wide. In short, almost perfectly designed to catch a motorcycle. The Kawasaki dropped in and slowed it down quickly. The resulting \$4,300 of damage was far less than the total loss that would have resulted from the bike tumbling end-over-end into the trees.

Sir Jed was bucked out of the saddle, ending up about 35 feet away. Like his mount, our hero was battered and bloody, but still mobile (more-or-less). He couldn’t raise either arm. Blood was oozing down his chin from where his teeth had lacerated the inside of his mouth. His legs worked and he was still breathing. He

staggered to his feet and stumbled over to check out the status of his noble steed. He was dazed, but he could still make out the sinister chuckling of the malevolent marsupial as it scuttled off into the undergrowth across the road, its wicked deed accomplished.

Some helpful civilians stopped by and drove our hero home, where he waited for the ambulance. Doctors discovered that he had dislocated his left elbow and right shoulder, lacerated his cheeks and gums, and broken his left thumb. He spent several days in a sling, two weeks in a cast, and ten days on light duty.

Since he had no control over the actions of the local critters, and little control over the time of departure, Sir Jed should have done a quick risk-assessment before he left. He might have been able to avoid this mishap by slowing down in an area known for its transient critter population, or by choosing to drive a four-wheeled vehicle in lieu of his Kawasaki. Choosing a route less likely to be shared by local wildlife might also have been a good idea. Seemingly-minor risk management decisions made in advance could have resulted in avoiding the painful experience entirely. As it was, our hero made the best of a bad situation under pressure and in the split-second available to him. His training and quick decisions reduced the severity of what could have been a fatal mishap.

Like all good tales, ours has a happy ending. Sir Jed recovered from his injuries and still sallies forth to fight the good fight. His trusty steed also recovered and bore him into battle for many moons thereafter. The only lasting injury from his frightful encounter with the possum was actually inflicted by Sir Jed’s shipmates, who have referred to him ever since the incident as “Possum-hunter.” ■

HT1 Garrett was assigned to the Norfolk Shore Intermediate Maintenance Activity/Mid-Atlantic Regional Maintenance Center Safety Office at the time of writing. Mr. Mapp is a safety specialist at the Norfolk Naval Shipyard and a regular contributor to Naval Safety Center publications.



By Michael Borkowski

While last fiscal year was a banner year for Navy four-wheel traffic fatalities, I am still amazed by the things I see on the road locally or while traveling. Too many drivers aren't concentrating on the task at hand, and this isn't just a local or regional problem. We all need to step back and re-evaluate our driving habits. Are we safe drivers? When teaching the American Automobile Association Driver Improvement Program (AAA-DIP) course, we start by asking drivers to rate themselves on a scale of 1-10. Most individuals rate themselves "above average," meaning they're better than most of the other drivers on the road. Men are much more likely to rate themselves as above average compared to their female counterparts.

Statistically, however, some of the very same drivers who rate themselves as highly skilled are also more likely to get into crashes, receive tickets, and engage in risky behaviors behind the wheel.

In a briefing to the Chief of Naval Operations (CNO), Commander, Naval Safety Center, Rear Adm. Brian Prindle, used the acronym S.A.F.E. to identify the top four risk factors: Speed, Alcohol, Fatigue, Ejection.

SPEED. Often the mishap reports that come to

the Naval Safety Center avoid the word, but when you get down to the root cause of many crashes, the cause factor was speed. That's what caused the "vehicle to leave the roadway" or "the driver to lose control." I'm not saying that I haven't pushed the speed limit a time or two. At the same time, when it's raining cats and dogs, I'm not going 65 mph just because that is the posted speed limit. We've all seen drivers recklessly (and when I use that term, I'm not talking about the 5-10 mph over the limit, but the ones more than 15-20 mph over the posted limit) flying down the highway.

ALCOHOL. Recently, PBS did a series on "Prohibition in America" and how this massive social reform failed miserably. Lots of people drink. But alcohol and driving still don't mix. By now those of you that partake in some form of drinking should know what your palate, or in some cases your stomach, likes or dislikes and what quantities you can consume before one of the senses tells you you've had too much. If you're not sure what that limit is yet, don't drink then get behind the wheel. Lesson two, if you do plan on having a drink (and you know no one just has one), have a plan. Know your limit, or better yet have a designated driver. Just because you aren't at 0.08 doesn't mean you're fine.

FATIGUE. This continues to be a large factor in many crashes, but it is a hard metric to capture. Unlike alcohol, which can be assessed in a measured quantity called blood alcohol content (BAC), fatigue has a cumulative effect and can catch up to us at the most inopportune time. The body is a unique, well-oiled machine but just like anything else, it needs preventive maintenance; for humans, that means sleep. You should all know by now in a 24-hour cycle our body wants to get rest twice in that period. I'm not going to get wrapped around the axle (there's another one of those automobile terms) on what times this occurs, but most experts in the field and even the common folk like us know that this occurs in the early afternoon (right after lunch) and then again late at night. For you night owls, that means put away the phone, get off the web, shut off the PS3 or Xbox and get some shut eye.



EJECTION. The primary function of a seat belt is to keep you in the vehicle. It can only do this under two conditions: 1) you're wearing it and 2) it's properly worn. Not wearing your seat belt is stupid. Safety belts can keep the driver or passenger alive in about half of all fatal crashes. If you know this and are still not wearing a safety belt, you need to examine your thought process.

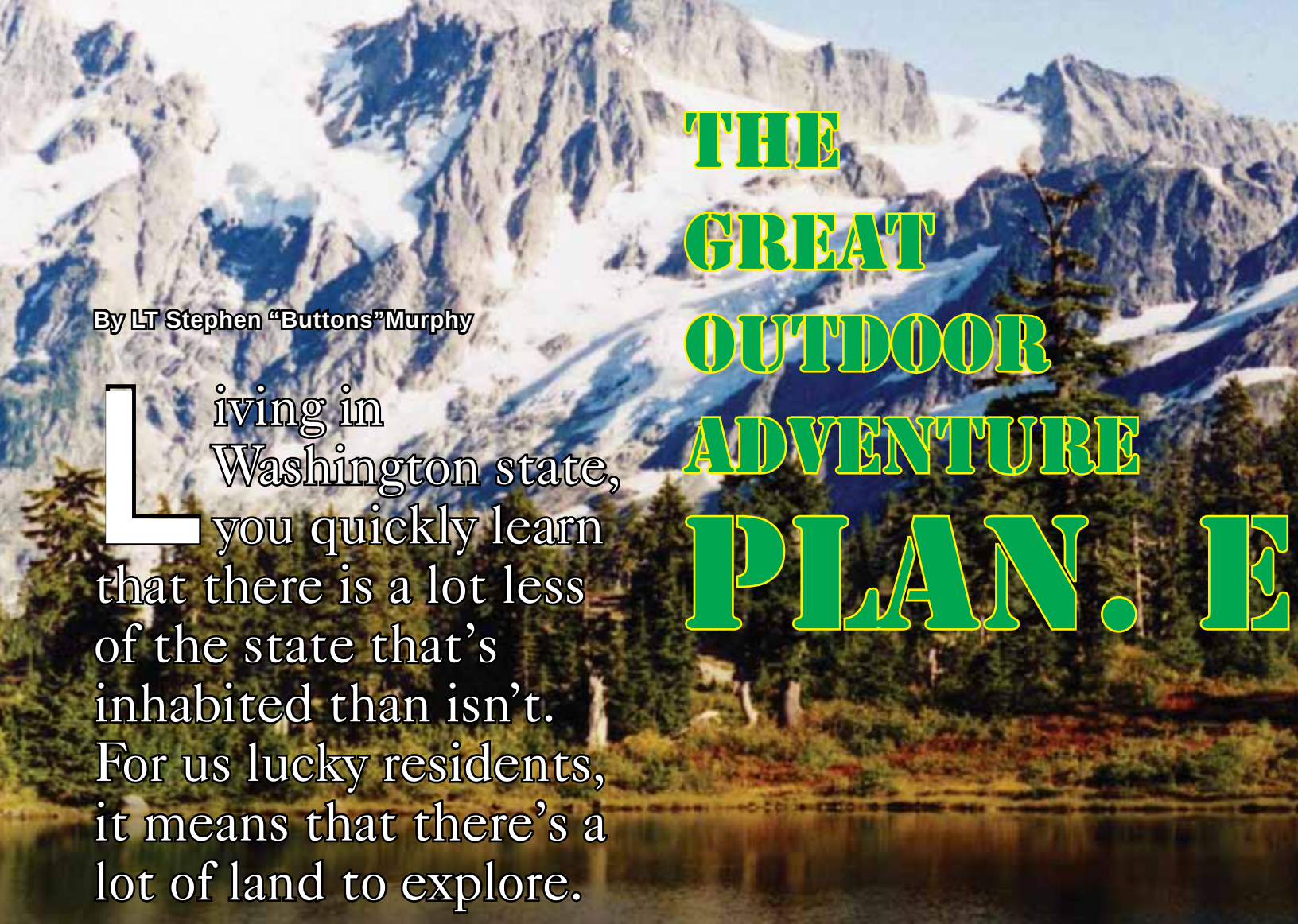
"Properly worn" means with both straps snugly fitted to transfer the impact of the crash to the parts of your body that can take it: your hipbones and shoulder bones. With just the shoulder strap on, you can still slide out from under it and be seriously injured, while a lap belt alone doesn't necessarily keep your face from hitting the steering wheel or windshield.

At the end of the AAA-DIP course, we ask drivers to look at their original rating for themselves. We ask where they rate themselves now. Most of the drivers drop their self-rating by at least two digits.

Making sure that you arrive safely at your destination should be your top priority. After all, you've got loved ones counting on you to come home. The vast majority of traffic crashes are preventable, and each of us has a great deal of control over what happens on the road. When it comes to driving, we're all in this together. So, would you say you're a S.A.F.E. driver? ■

Mr. Borkowski, a traffic and recreation safety specialist at the Naval Safety Center; previously served in the Norfolk Police Department/Traffic Unit.





By LT Stephen "Buttons" Murphy

Living in Washington state, you quickly learn that there is a lot less of the state that's inhabited than isn't. For us lucky residents, it means that there's a lot of land to explore.

THE GREAT OUTDOOR ADVENTURE PLAN. E

Whether it's the Cascade Mountains that include such famous peaks as Mount Rainier and Mount Saint Helens, or the hundreds of pristine lakes and rivers, there's plenty out there to see. Hiking can provide hours or days of enjoyment, but only if you consider the dangers the outdoors can present.

To help maximize your enjoyment of the outdoors, prepare so that small hiccups in your trip don't turn into bigger events. A step to both keep yourself safer and make your trip more enjoyable is to always travel with a partner. When unexpected events occur, people in pairs are less likely to panic. Also, in the event you reach a steep grade, your partner can help you up. The benefit of having a hiking partner in first aid situations is immeasurable.

Another important step is to know where you're going. A little route study goes a long way when in an unknown area. There are numerous tools you can use to help prepare such as online maps or a hiking GPS

unit. It's also not a bad idea to ask an experienced person who has previously hiked the same path. Trail and route study can also tell you how long the hike should take, how strenuous it will be, and how much water and food to bring.

When hiking, everything you bring in will be carried, so it is possible to bring too much. But some items don't weigh much and will pay dividends in unplanned situations. Even on a short hike, bring along a lighter or waterproof matches for times that you spend longer than expected on (or off) the trail. Also plan on bringing a good-quality utility knife that has recently been sharpened. A small first-aid kit is a must and should include gauze, bandages, and a first aid cream. A few other items like aspirin, bug repellent, and sun screen can be just as useful. Bring along a flashlight with fresh batteries if you are planning on hiking for more than an hour or if hiking anywhere near sunset.

NJOY. RETURN.

Bringing along water or a sport drink is a no-brainer, yet an important preparation often forgotten by folks going for a short hike. Your body can lose a lot of fluid in just an hour or two. Dehydration can lead to heat exhaustion or heat stroke, which can be life threatening. Remember when bringing fluids that water weighs roughly eight pounds for a single gallon. Don't take more than you need, but have enough for the hike.

Unless you are in an emergency situation, avoid drinking untreated water from streams and lakes. Natural water sources are normally loaded with bacteria that will leave you regretting the decision for days after drinking the water. There are numerous types of water cleansing pills if you elect to use water from streams; they are a must if you are looking to eliminate some weight on a longer hike.

Remember to bring along enough food to support you for the length of your planned hike. About one

pound of food per day is average for a medium-sized male. You can last much longer without food than water, so it is reasonable to trade off one for the other if you find yourself carrying too much weight. Even on a short hike, it is always smart to bring a small amount of trail mix or some other easily transportable, non-spoiling snack.

Hiking in general is an amazing experience, and you can almost guarantee you'll see something new every time you go. With a few easy preparations and some forethought you can get the most out of your experience without taking out any of the fun. Thinking and planning ahead gives you the tools to create a trip that gets you there and then back again safely so that you can continue to enjoy nature time after time. ■

Lt. Murphy is with Electronic Attack Squadron (VAQ) 135, the "World Famous Black Ravens."