



Col "Turk" Marshall Chief of Safety

Ron Smith Executive Director

Lt Col Adrian Robbe Editor

> Barbara Taylor Associate Editor

SSgt Dave White Design & Layout

The Combat Edge (ISSN 1063-8970) is published monthly by the Air Combat Command, HQ ACC/SE, 175 Sweeney Blyd, Langley AFB VA 23665-2700. Secondclass postage paid at Hampton VA and additional mailing offices.

POSTMASTER: Send address changes to *The Combat Edge*, HQ ACC/SEP, 175 Sweeney Blvd, Langley AFB VA 23665-2700.

DISTRIBUTION: F(X). OPR: HQ ACC/ SEP. Distribution is controlled through the PDO based on a ratio of one copy per ten persons assigned. Air Force units should contact their servicing PDO to establish or change requirements. Other Department of Defense (DoD) units have no fixed ratio and should submit their requests to the OPR.

ANNUAL SUBSCRIPTIONS: Available to non-DoD readers for \$30 (\$37.50 outside the U.S.) from the Superintendent of Documents, PO Box 371954, Pittsburgh PA 15250-7954. All subscription service correspondence should be directed to the Superintendent, not HQ ACC/SEP. CONTRIBUTIONS: Articles, comments, and criticisms are welcome. Write:

Editor, The Combat Edge HQ ACC/SEP 175 Sweeney Blvd Langley AFB VA 23665-2700

Telephone: (757) 726-8842 DSN 574-8842 FAX: (757) 726-8975 e-mail: adrian.robbe@langley.af.mil

The editors reserve the right to edit all manuscripts for readability and good taste.

DISCLAIMER: This magazine is an authorized publication for members of the DoD. Contents of *The Combat Edge* are not necessarily the official views of, or endorsed by, the U.S. Government, the DoD, or the United States Air Force. Information contained in any article may not be construed as incriminating under Article 31, UCMJ. M Denotes images digitally manipulated.

CONTENTS

ACC SP 91-1 VOLUME 6 ISSUE 12

About the Cover: Photo by MSgt Dave Nolan. The EF-111A Raven — designed to provide electronic countermeasures support by detecting, sorting, identifying, and nullifying different enemy radars — is scheduled to be retired from the Air Force inventory in May 1998. The EF-111A aircraft has fulfilled a significant role in the Air Force mission over Southwest Asia for many years and has led the way in continued and faithful support to several different contingency operations.

FEATURES

THE PHANTOM AND THE ELEPHANT

Major Neil Cosentino USAF (Ret.) Tampa FL



4

THE ONLY REAL WARRIOR IS A SAFE WARRIOR

Lt Col Charles Buck 442 FW/SE Whiteman AFB MO

DEPARTMENTS

FLIGHT SAFETY	16
WEAPONS SAFETY	15, 21
GROUND SAFETY 8, 9,	, 25, 30
ORM	22
AWARDS	11, 18
SAFETY STATS	24

Visit us online at: http://www.acc.af.mil/public/combat-edge/



A hhh, springtime! There are birds in the air, and their tunes mingle with the sweet sounds of folks at play and enjoying the activities of the great outdoors. Say — let's play a game. See if you can recognize this sound ... "VROOM, VROOM, BRADDA, BRADDA, VROOM!!!" Okay, who's ready to guess?

Motorcycle? Hey, good try, but no. The motorcycle I'm thinking of stopped making that neat throbbing sound when it went off the road, over the ditch, and into the guardrail. Yeah, there was some low moaning going on there for a little bit; but that stopped pretty quick, too. The only sounds from the bike now are quiet ticking as a wheel slowly spins to a stop and as the hot exhaust pipe cools.

Lawn mower? Hey, another great guess! But, alas, this lawn mower stalled when the operator slipped on a damp spot of grass and his sandaled foot slid underneath. Those freshly sharpened blades didn't have much trouble whittling away the first couple inches of his ol' Goodyears. As a matter of fact, they were making pretty short work of the toes, as well. I guess the motor just ran out of oomph when the blade finally started biting into some real bone.

What's that guess? Outboard motor? You mean, like the ski boat kind? Well, that's a thought; but the last sound that motor made was more like a gurgle as the motor went down with the sinking of the boat. Seems like the driver was too busy watching other things than where he was going when he didn't see the partially submerged log.

Are you ready to give up? Well, the sound I had in mind was that of a generator ... the kind that runs the hydraulic pump used to operate a tool the fire and rescue folks call "The Jaws of Life." On just about any spring or summer day somewhere along our nation's highways, you'll hear that sound. Chances are that sound means a family's summer vacation has ended all too soon and ever so tragically.

Listen, it's a jungle out there, and not all of the dangerous things sound like animals. Please, folks, ya'll be careful out there; and don't get yourselves hurt trying to have fun.

I can't end this intro to our magazine without a comment and salute to the retiring old warhorse known as the "Spark 'Vark." The EF-111's been a standout performer from Day 1 and it's sad to see her leave. Of all the times I counted on the EF's to be somewhere, I can't recall a single instance that they weren't on time, on station, and on the air. Farewell, stout warriors; you've served your crews and your country well!

> Colonel Turk Marshall Chief of Safety



Major Neil Cosentino, USAF (Ret.), Tampa FL

y first combat mission was in Southeast Asia in the late summer of 1972. It was just a few months before the 366th Tactical Fighter Wing — "The Gunfighters" - deactivated at Takhli. My squadron - the 4th - moved a few hundred miles up the road to Udorn Royal Thai Air Base. The tour was worth the wait and one that most fighter pilots can only dream about. Every mission was different ... whether day or night, clear or marginal weather, a different country (North Vietnam, Laos, or South Vietnam), a different type mission, or a different type of ordnance.

It would be the first time in my military career that I would be authorized by war orders to

drop bombs that would destroy enemy forces - against an enemy that learned in the past 7 years to shoot back with some success. The best part of my combat tour was the grand finale. I flew many of the combat missions during our proudest moment of the war - Linebacker II (the 11-day air war over Hanoi from December 1972 - January 1973). The Linebacker II missions not only beat the North Vietnamese and ended the war, it brought home our prisoners and proved once and for all that air power is the decisive weapon in any conflict.

I had paid my dues for this tour, staying in Strategic Air Command (SAC) during the mid-sixties instead of going with the airlines; it was an important personal decision that paid off. After the SAC tours in bombers and tankers, coupled with two combat tours in other aircraft (including one as an airborne battle staff officer in an EC-130), I finally stepped into the F-4 Phantom — the world's greatest fighter aircraft. While assigned to the F-4, I had the opportunity to fly some of the most unforgettable combat missions carried out through the entire war in Southeast Asia.

The "FRAG" (i.e., the Air Tasking Order) called for a low risk, almost introductory, road cut mission in southern Laos. My F-4E (Tail Number 68-326) was loaded with twelve 500pound Mark 82 "slicks" fuzed for road cuts. What a magnificent war horse that aircraft was!

Wing policy was that the squadron operations "ops" officer had to fly in the back seat with all the new pilots on their first combat mission. My first mission was diverted by "Hillsborough Orbit" (the airborne EC-130 command post) after we crossed the Mekong river into Laos. We turned northeast toward Mugia Pass and crossed the mountains into Vietnam. What was planned as a first mission "milk run" turned out to be a hot Troops-In-Contact (TIC) road cut mission near the DMZ in Southern Laos where our troops were engaged in heavy street fighting in the middle of the city of Hue, Vietnam. There I was, a new pilot on a TIC for his first combat mission with the ops officer flying in the back seat with someone at the stick who had never seen combat before - who had never "seen the elephant."

We met only a week ago, and now we were circling the center of Hue with his career riding on my bombs. There are no really worthwhile personal rewards for killing an unseen enemy in this kind of a war. The very best that can be said is that it is a job that has to be done. Hopefully, it will done be professionally and with the appropriate level of human detachment. But in a way it was fair - you shoot at them, and they shoot back. On the other hand, there is a terrible price to pay for killing the innocent, especially the good guys with your friendly fire. I meditated on these truths in a very personal way as I carried out my first combat mission.

There is an everlasting mental baggage if you kill your own troops with your friendly fire. Would it be my bombs that would kill the friendlies in the middle of Hue? It would clearly be "My" bombs, because there was little a back-seater could do but hold on and hope. How would killing the innocent and the friendlies affect his career — or mine — for the rest of our lives? We both developed a once-in-a-lifetime bond that day. It was a bonding that only hot combat can fuse together.

We both listened carefully to

It would clearly be "My" bombs, because there was little a backseater could do but hold on and hope. How would killing the innocent and the friendlies affect his career – or mine – for the rest of our lives?

the excited concerned voices of the forward air controllers who were on the ground. They were pinned down in the city trying to talk me through to the correct target. The target was a small building — smack dab in the middle of a city of numerous other small buildings. Both of us knew that the target was nearly impossible to identify from the air by the descriptions given from ground level. All the buildings had the same color and the same roof; they all looked alike.

We circled a few times, trying as hard as I could to identify the building. Knowing that the wrong building could mean killing the innocent as well as those who were fighting for the innocent - our own troops. I knew that asking them to smoke their positions would give their locations away, but I had to do it. It was a matter of fact request that they understood and immediately responded to. Their white signal smoke filtered up from the alleys and streets revealing their locations. At least now I could select the best run-in heading to reduce the danger associated with long and short bombs. Their "smoked" positions formed an irregular semicircle that helped me make the final and fateful decision. I selected the one building that I thought housed the heavy machine gun position that had them pinned down.

I do not know why I decided on the steepest dive angle or why I selected all 12 bombs to release on one pass using the tightest bomb release interval on the weapons select panel. Was it an unconscious hedge? If I missed the target, there would be nothing left of the innocent or the friendlies to bury or to ship home in body bags. I do not know what made me make a small, last second maneuver. It was a "jinking" type maneuver that moved the bomb sight pipper rapidly into a small rice patty about 100 feet at the 4 o'clock position from the building. I can still remember the shimmer off the brown water in

I also remember holding down on the pickle button long after all the bombs were gone, until my right thumb hurt so bad

that rice pond.

It seems now after some thought that it was an almost subconscious act. The

following thought occurred to me after the mission: was I really trained and prepared properly for what I was doing that first day? Who would be held responsible besides me and my back seater for killing someone with friendly fire?

I clearly remember holding the dive run longer than necessary.

the pain told me to release. I remember the rapid succession of little thumps while in the steep dive — the thumps caused by the bomb release ejector racks firing almost instantaneously, releasing all 12 bombs.

It was bombs away in a tight pattern, like a swarm of black hornets heading at a steep angle downward toward the middle of the city. I recall the wonderful feeling of release and the awe-

some sensation of man and machine working together as a single unit as I experienced a graceful pull off the bomb run into a beautiful arching cloverleaf-like maneuver. It was a maneuver in full afterburner that had me for a moment looking straight up into a cool blue sky made cheerful with small, bright puffy white clouds. Indeed, the Phantom and I were one in that one moment of time. It was one of my unforgettable moments, a feeling only pilots can enjoy. Then back to business, I made a hard G-pull back to an upside down position to look over my left shoulder so I could see where the bombs hit. I had paid no attention to the rapid loss of airspeed as I pulled up into an almost vertical recovery over the city.

Editorial Comment:

Neil Cosentino retired from the 62 TFS at MacDill AFB FL in 1978. He has over 6,000 hours of flying time — including over 760 hours in combat. He was awarded the Distinguished Flying Cross, Joint Service Commendation Medal, and the Air Medal with nine oakleaf clusters for flying in combat. He is a rated airline pilot, a commercial aircraft pilot, an instructor pilot, and rated for helicopter, glider, and seaplane operations. He graduated from the University of California, Los Angeles, as a professional Flight Safety Program manager and aircraft accident investigator.

I welcome his submission of an article describing his first combat mission in Southeast Asia. In addition, I especially appreciate how he turned his harrowing experience around with a recommendation for adding a safe, cost-efficient way of making combat training more realistic and effective for pilots who had yet to "see the elephant." In the Air Force, we often refer to these shared experiences as "war stories" or "there I was ...," stories. Everyone has a war story to share because that's how we learn — by experience. I encourage you to take the time to write down your safety related experiences and pass them along in the form of "lessons learned" to others. By doing that, you'll help stimulate thoughts on safety and help ACC personnel learn from the pages of our magazine rather than from painful personal experience. There are thousands of safety related stories out there in Air Combat Command and around the world. Send yours to me ... today!

(e-mail address: adrian.robbe@langley.af.mil)

I had never seen that many bombs go off at one time before. All I could see was a huge growing cloud of brown smoke, dust, dirt, parts, and pieces rapidly tumbling and flying in all directions. Parts and dirt billowing up from where all 12 bombs hit. It is an everlasting image in my mind's eye - 3 tons of bombs slamming into the city at over 500 knots. Bombs fuzed to go off deep in the ground, exploding together, throwing tons of dirt and thousands upon thousands of large and small pieces into the sky that were falling everywhere. What was once a building and people were all part of a giant brown billowing cloud. Many of the pieces were already hitting the shiny brown water of the rice paddy that was so calm and peaceful just moments earlier, making tall thin splashes like hail from a great Midwest thunderstorm. I recovered from the inverted position without a thought or concern about the nose high attitude and low airspeed. There was a long uncomfortable guietness and silence. It was as if all of us those on the ground and we in the air - seemed to have held our breaths at the same time with an eerie silence. Then the verdict came in with a rebirth of the radios from the forward air controllers and radio operators. There were excited voices talking to each other and to me. In glorious confirmation, each voice confirming to me and each other that they were all still there ... still alive! All 12 bombs, the first I ever dropped in combat were right on target.

Only now does it occur to me that maybe a part of the excite-

ment I heard in their voices was the joy of relief. We all survived and none of us would be sent home in body bags or with missing body parts. In addition, my ops officer and I would not have to live with the nightmares of killing the friendlies. As time went on, my first mission seemed to fade into all the other missions I flew while in Southeast Asia. Some of the others were as exciting, but none were as rewarding. Mostly during the early ones, there was the haunting reminder that I really was not trained or prepared for what I was doing. I was anxious that there would be no time or person to train me in the middle of combat.

This story does not end in the late summer of 1972; it picks up after I arrived in Florida after a great 5-year tour with the best fighter squadron in Germany and NATO. I arrived at MacDill AFB some 5 years later, just before my retirement from the 62 TFS. I had submitted a formal Air Force Suggestion for an idea about combat training for TIC's. I suggested that TIC lines be plowed in the sands at the Avon Park bomb range. It was at little or no cost that these TIC lines were plowed in and around the training bomb circle and gunnery targets.

The idea was simple and very low cost. Pilots in training would "see the elephant" on their first training mission and fly with a sense of urgency and the need for accuracy that may be required on their first combat mission. It meant that short rounds, bombs, or rockets on the training range would be life-saving freebies. It was a small price to pay for helping pilots not live with the memory of having killed someone by friendly fire.

I received a \$100 check for the suggestion. It was a reward for adding a very low-cost way of making combat training more real than routine. In typical fighter pilot fashion, I blew it all on a \$100 "best steak of the house" dinner for my wife and I.

My combat tour polished off for me a wonderful, memorable, and exciting military career. It was the best a pilot could ask for, confirming all of my hopes and dreams as a small boy ... that is, to be a "fighter pilot." It confirmed what my good friend, Buck, told me a long, long time ago ... and that was, "Serving your country as a fighter pilot is the best job in the world."

My retirement started soon after that \$100 dinner. Since then, the Phantoms have been retired and are in the boneyard in Tucson AZ. Others are on pedestals — like Tail Number 302 at MacDill AFB FL - another Phantom I had the opportunity to fly in combat. This story is about combat and the Air Force team getting the mission done. Doing our best at all times is the common bond among all comrades in arms. It is the glue that brings the Air Force team together and ties today's warrior to those of the past. For those combat seasoned Air Force personnel in command and leadership positions, I exhort you to continue passing your hard earned lessons learned to our young warriors so that when they see their first elephant, they'll also be victorious. Aim High.

101 Critical Days

MSgt Michael May, HQ ACC/SEG, Langley AFB VA

A t last! The long and cold winter is coming to a close. Overcoats, gloves, and snow shovels will soon give way to water skis, baseball gloves, and barbecue grills. The days are beginning to get longer, and the mercury isn't dipping down quite as far as it did only weeks ago. Once again ... we've survived another winter, and now it's time to celebrate another long — and hopefully safe — summer.

The activities available to us during the next several months are almost endless. From boating to skydiving, we can get out and get involved in individual, team, and family activities on a daily basis. If you've lived the life of a "couch potato" for the entire winter, then you owe it to your body to make an effort to recuperate from months of inactivity. So, by all means, dust off the tennis rackets, lube up the fishing reels, pump up the basketballs, and light the grill — it's time to live again!

Wait! Before you get started, isn't there always an adverse effect to anything that's good? It can never really be guilt or worry free, can it? The secondary characteristic of summer activities is that they all have some danger associated with each and every one of them. If it's skydiving, boating, or even something less risky — such as a trip to the beach — the potential for a serious mishap to occur is heightened during the summer.

For this reason, the "101 Critical Days of Summer" campaign was implemented within the Air Force to raise awareness from Memorial Day through Labor Day. This isn't anything new in our society. Apparently, this must have been a problem long before I and several venerable members of safety ever donned Air Force blue. No one I've spoken with can actually pinpoint when the 101 Critical Days of Summer campaign actually began. We know it's been over 20 years, and we're still fighting many of the same battles our predecessors fought in the 1970s - to educate and raise awareness of the problems faced during the summer season.

After fighting the same battles year after year, I believe it's now time for a different approach. Fortunately, the Army stepped forward and gave us Operational Risk Management (ORM) - a concept of weighing the risks versus the benefit prior to undertaking an activity. Simply stated, ORM is a common sense way of accomplishing the mission with reduced risk. And besides that, the beauty of this concept is that it applies to all our activities, on as well as off duty. Of course, many ground safety types are saying this is old news to us, and I agree; but ORM is a way of doing business that people must learn to use as second nature to become effective. Once that point of utopia is reached, maybe campaigns such as the 101 Critical Days of Summer will become obsolete.

If we can get into the habit of stepping back and taking a moment to visualize what we're going to get involved in beforehand, we can limit the risks associated with any activity we decide to undertake. Even if it's skydiving, there are measures such as equipment checks, weather reports, and experience levels that can be taken into consideration in order to save the life of a teammate, family member, or even your own. So, as you prepare for your summer fishing trip, stop and think if it's a good idea to pile eight people and five coolers on a 15-foot bass boat, without a radio, no life preservers (got rid of them for extra cooler room), and no oar. Sure, that sounds silly; but without thinking what we're doing beforehand, this is the kind of situation we can get ourselves involved in and the kind we read about in fatality reports.

Go ahead, get out there, and get involved in some summer fun. After the long El Niño riddled winter, you owe it to yourself. However, be sure to evaluate the activity you are about to engage in beforehand. Don't accept any unnecessary risks — those that have no benefit and clearly are not worth taking. This will take a focused effort on your part, but the results will be worth it.



While any sport can be dangerous if you do not follow instructions or pay attention to what you are doing, it's a fact that extreme sports do share a common denominator — they are all "inherently unsafe." e all have our favorite sports. While many enjoy football, basketball, volleyball, or softball, others enjoy mountain biking, rock climbing, sky diving, as well as bungee jumping. Yes, in our nation of free spirits, there are some people who like to "live on the edge" and participate in what are called "extreme sports."

Extreme sports have become very popular these days. Many who try this class of sports enjoy the adrenaline rush. However, there are others who say people should limit their participation in extreme sports (or not even participate in them at all) because they are simply too risky. While any sport can be dangerous if you do not follow instructions or pay attention to what you are doing, it's a fact that extreme sports do share a common denominator they are all "inherently unsafe."

What side of the fence are you on concerning the issue of extreme sports? Do you believe the essential nature of these sports is truly unsafe? What's their level of risk? Before a person participates in such a sport, can action be taken to eliminate, reduce, or control the risk? Let's take a brief look at each of these sports and find out some general answers to these questions.

You might ask yourself, "How can mountain biking be dangerous?" Well, take this into consideration - most courses follow ravines, creeks, and steep mountain sides. Many have sharp turns and large rocks to avoid. Therefore, before you ride on these trails, it is wise to familiarize yourself with them. First, take a leisurely ride through the course so you can identify any potential problem areas and obvious hazards. Second, identify the type of safety equipment needed for the activ-One piece of safety ity. equipment that comes to mind - for protecting your head (no pun intended) — is a biking helmet. This should be the most important item on your mountain biking equipment list.

How about rock climbing? By simply going to the Outdoor Recreation Center on base or any other outdoor equipment outlet, you can better prepare yourself with all the protective equipment you need to reduce your risk of injury for this sport - or most any other one for that matter. For example, Tinker AFB's Outdoor Recreation facility not only has the equipment, but they offer military members a course in rock climbing. They have their own mock-up of a mountainside where certified instructors teach would-be wallcrawlers. They also offer rock climbing trips. This is a perfect way to go for the novice climber.

Another sport that takes enthusiasts even "higher" is sky diving. This extreme sport is also taught by certified instructors who will tell you it is imperative you follow all safety procedures. They recommend you take the proper steps to become a certified sky diver before going sky diving. To become a certified sky diver, check the yellow pages for a United States Parachuting Association (USPA) certified sky diving school. They will be quite happy to jump with you out of a perfectly good airplane.

Then there are other extremes — like bungee jumping. Before doing this, ask yourself if you really want to put your life on the line at the end of a giant rubber band? There are many horror stories involving

Extreme sports, like any other, can be fun if performed in a safe and practical manner.

this extreme sport. These stories all have unhappy endings that include paralysis, loss of limbs, broken bones, and even death. In one case, the cause of the accident was the wrong size cord being used. Why? One reason may be that bungee jumping is not covered by any government safety regulations. Remember — cords snap. clasps break, and sometimes operators may miscalculate your weight and the size of cord that should be used. Please think twice before you trust your life to a giant rubber band.

Extreme sports, like any other, can be fun if performed in

a safe and practical manner. Most likely, no one will ever stop you from participating in extreme sports. But if you do, you should never accept any unnecessary risks and do everything you can to eliminate, reduce, or control the risk associated with such an activity. Advise your commander, first sergeant, and supervisor of your intention to participate in potentially dangerous activities while off duty. And when you do, don't expect them to play devil's advocate. Remember, as a military member, you are accountable for your actions.

In summary, use good judgment and make smart risk management decisions when getting involved in sports. Research your chosen sport, and receive the proper training needed to safely participate. This holds true before going out and participating in any activity in our daily lives. Integrating risk controls into your sports activities requires some effort on your part, but the results will be well worth it in the end. Your life may depend on it!

Editorial Comment:

Many commander personnel policies used to be in Air Force Regulations. With the advent of Air Force Instructions, these requirements went away in favor of local commanders establishing their own policies. Does your unit have a policy on notifying supervisors before you engage in extreme sports? — Check it out!

FIVANDA The Do's and Don'ts

- Do review the guidance and instructions on submitting ACC safety awards on our Web page (http://www.acc.af.mil/public/combat-edge/) or in the AF/ACC Awards Guide (dtd Oct 97).
- Do send all nomination packages to HQ ACC/SEP, 175 Sweeney Blvd, Langley AFB VA 23665-2700. Because of our off-base location, only overnight mail—FEDEX—should be sent directly to us and not through BITS. Send overnight mail only to: HQ ACC/SEP, Harbour Centre, 2 Eaton Street, Room 402, Hampton VA 23669.
- Don't forward nominations directly to HQ ACC/SEP. Do ensure all nominations have gone through the proper coordination channels (i.e., WG/SE, WG/CC, NAF/DRU/SE, HQ ACC/SEP IN TURN).
- Do use paragraph format (not bullet format) when submitting monthly and quarterly safety awards.
- Do send photographs with nominations (unless member is TDY or deployed at the time of submission). Military individuals must be in compliance with AFI 36-2903 "Dress and Personal Appearance of Air Force Personnel."
 - Accompany nominations with one 5x7 or 8x10-inch black-andwhite or color photograph.
 - Photographs must be head-and-shoulder shots with the nominee(s) in duty uniform and facing the camera (avoid complex and distracting backgrounds—flags, shields, etc.)
 - Submit a group photograph when more than two people are included in the nomination.
 - If a digital photograph must be used, ensure that the picture is taken close up to the individual to avoid pixilization in final print.



FLIGHT LINE SAFETY AWARD OF DISTINCTION

SSgt David M. Rey 175 AGS, 175 WG Warfield ANGB MD

On 3 Feb 98, while performing weapons arming duties during end of runway operations, SSgt Rey, an A-10 Weapons Loading Specialist, demonstrated a keen eye and a quick response posture. A-10 aircraft 79-0175 was inspected and armed in the End of Runway/Arming area. After being given a "thumbs up" by the EOR supervisor, the A-10 pilot turned aircraft 79-0175 to exit the EOR area and taxi to the active runway for takeoff. The EOR crew proceeded to receive the next aircraft. As aircraft

175 turned, Sgt Rey noticed something black coming from the exhaust of the number one engine. Sgt Rey immediately informed the End of Runway supervisor that something appeared to be wrong with aircraft 175's number one engine. The EOR supervisor promptly notified the tower to hold the aircraft prior to departure. The pilot halted the A-10 on the taxiway just short of the active runway. As the EOR supervisor approached the aircraft, he noted that oil was visible throughout the rear area of the number one engine nacelle and empennage. Oil had also sprayed maintenance vehicles, which were parked 75 yards away. Just as the EOR supervisor was advising the pilot of the major leak, the master caution and number one generator warning lights illuminated. The decision, was made to safe the aircraft and shut down the engines on the taxiway. Upon further investigation, it was discovered that the BB axis in the number one engine gearbox had failed, causing the Integrated Drive Generator shaft to sheer. Oil from the Integrated Drive Generator was pumped into the gear box and spilled overboard. Had it not been for Sgt Rey's alert posture, the aircraft would have been cleared for take off. If the aircraft had been allowed to proceed to the active runway, the result would have been extreme oil loss and probable engine malfunction on takeoff. Sgt Rey's keen eye and quick response prevented a high risk emergency response situation.

GROUND SAFETY AWARD OF DISTINCTION

2Lt Jeffrey C. Jarry (photo unavailable) 9 OSS, 9 RW Beale AFB CA

Lt Jarry is a results-oriented and proactive Unit Safety Representative who raised the safety program of the 9th Operations Support Squadron to new heights in 1997. He ensured mishap prevention ideals and concepts were repeatedly kept in front of the squadron members. He reenergized the program and elevated safety awareness throughout the squadron with immediate results. For example, the squadron's Motorcycle Safety Program was rated "Excellent" during the annual wing inspection. The commander's involvement portion of the unit's Mishap Prevention Program was rated "Excellent." The Air Force Occupational Safety and Health (AFOSH) training and documentation portion of the program was rated "Excellent." In fact, the Airfield Operations Flight's shop specific guide was lauded by the wing inspector and a "Benchmark" guide. Finally, as the squadron's Mishap Prevention Program manager, Lt Jarry was rated "Excellent" by the wing inspector. In the area of ORM, Lt Jarry spearheaded the squadron's ORM training in 1997. He accomplished this through training 100% of available squadron personnel, detailed briefings for the squadron on the principles of ORM, and making ORM training materials available on the local area network. Lt Jarry recognized the need to improve the timeliness and accuracy of the unit's mishap reporting. He provided concise procedures and step-by-step outlines to all squadron supervisory personnel. He also meticulously tracked 19 reportable mishaps, analyzed all mishap reports for trends, and provided supervisors with corrective actions. As a result, a 21% positive improvement in reporting was documented during the wing's annual program inspection. Additionally, he created and presented a comprehensive briefing for the 101 critical days of summer and presented a winter weather hazards briefing. He conducted thorough spot inspections every quarter of all squadron work centers, documented discrepancies, recommended corrective actions, and tracked completion of all actionable items.



CREW CHIEF SAFETY AWARD OF DISTINCTION

SSgt Robert Williams 393 BS, 509 BW Whiteman AFB MO

On 1 Dec 97, SSgt Williams was performing a preflight inspection on his B-2 aircraft. During the inspection, he noticed a wear plate for the number two engine auxiliary inlet door appeared to be installed incorrectly. Though not a normal preflight item, he investigated further and found the wear plate was missing a rivet. This discovery was the "Golden BB," leading safety investiga-

tors directly to the most likely cause of engine damage found on another B-2 aircraft. A one-time inspection was generated for the B-2 fleet that, in turn, uncovered a serious design deficiency. A category one deficiency report was submitted, setting the engineering wheels in motion. Within 24 hours, an emergency action time compliance technical order was issued and the field level modification was underway. SSgt Williams' outstanding professionalism and unparalleled attention to detail prevented an imminent mishap, potentially saving untold millions of dollars in aircraft damage, and the lives of its aircrew members. His dedication, experience, and decisive actions preserved the combat capability of the 509th Bomb Wing, and made the B-2 a safer aircraft to fly.



WEAPONS SAFETY AWARD OF DISTINCTION

MSgt G.W. Kohn 9 MUNS, 9 RW Beale AFB CA

MSgt Kohn's commitment to provide a safe working environment for all munitions personnel Air Force-wide resulted in the identification of an unsafe condition after Time Compliance Technical Order (TCTO) 35D2-17-1-501 was accomplished. The TCTO modified the dollies on the Munitions Assembly Conveyor (MAC), thus making it easier to move bombs along the conveyor tables. Many fully assembled bombs can weigh in excess of 2,000 pounds each. After the TCTO was accomplished, a person

could push up to five bombs at a time along the tables. This created an impact of over 10,000 pounds on the stops at the end of the tables. Sgt Kohn identified that the repeated impact action caused fractures and breakage in the stops. Failure of the stops could cause munitions to slide off the end of the MAO table and fall 3 feet onto the ground. His attention to detail prevented an explosive mishap that would have resulted in mass detonation of the munitions with loss of lives, equipment, and facilities. Sgt Kohn immediately notified the MAC item manager at the San Antonio Air Logistics Center of the fractures and breaking of stops. The item manager directly responded with an Interim Safety Supplement to the technical order notifying all Department of Defense MAC users of the potential hazard. Engineers are currently evaluating stronger materials that can be used in the manufacturing of the stops. Replacement with stronger stops will be accomplished by a safety TCTO. Sgt Kohn's efforts in identifying this problem as well as his proactive response informing the item manager of the hazard has greatly reduced the potential for a major explosive mishap. His efforts have resulted in safer working conditions for all munitions personnel throughout the Air Force.

UNIT SAFETY AWARD OF DISTINCTION

Munitions Inspection Element 57 EMS, 57 WG Nellis AFB NV

Munitions Inspection Element responded exceptionally to all challenges involving weapons and ground safety issues first quarter 1998. Beginning with the 57 EMS weapons and ground safety annual inspection, in which no deficiencies were noted; inspection earned accolades of excellence for outstanding management of their safety program. The section's procedures for documenting individual and shop safety requirements were used as the

squadron's benchmark and the best seen by inspectors. As wing managers of the Munitions Product Quality Deficiency Program, they worked directly with project engineers and customers on three munitions related issues which involved product safety and reliability. The result of their efforts ensured problems were quickly identified and resolved before harmful incidents could occur. Their attention to detail was evident in their submission of five Report of Discrepancy actions against various shipping agencies. These reports identified major special packaging instruction violations affecting the level of protection afforded all personnel while handling and transporting explosive items. In addition to identifying specific item quality concerns, personnel discovered an explosive safety training deficiency within the wing and immediately worked with weapons safety and squadron personnel to develop a checklist to aid in properly training flight line personnel in the safe handling of munitions assets. The 57 EMS was tasked by the Defense Reutilization Management Office (DRMO) to re-certify more than 1,000,000 rounds of ammunition after the discovery of live ammunition in previously certified storage bins. After 4 months of intense 100 percent visual inspection, the entire quantity of expended munitions residue within the DRMO possession has been certified as explosive free. Realizing the need for more strict controls of ammunitions turned into DRMO, section personnel worked directly with DRMO and wing Weapons Safety representatives in writing new policies governing the acceptance of expended munitions residue, ultimately securing the safety of personnel handling munitions residue upon acceptance. While performing static bond inspections, section personnel identified many changes to the orogram regulation. These changes affected both the Flight's internal and external management of this critical safety issue. Through their early identification, civil engineering and flight facility managers were notified and process improvement efforts were put into place to eliminate confusion and ensure proper documentation was accomplished. The Munitions Inspection Section's motto of "integrity and task discipline" is apparent by the myriad of accomplishments they have achieved for the first quarter 1998.

STIN EQUIP MAINT. SO



he basic responsibility of a Weapons Safety Manager (WSM) is to protect assets and prevent accidents. In a wing with a nuclear mission, there are a number of ways this can be accomplished. These procedures include reviewing Dull Sword and Material Deficiency reports (for identification of similar problems that may exist at the base) as well as performing onthe-spot (no-notice) inspections. AFI 91-101, Air Force Nuclear Weapons Surety Program, paragraph 13, gives a great summary of the responsibilities of a WSM assigned to a dual tasked wing.

One specific area this WSM must check is the adequacy and timely completion of corrective actions for nuclear surety problems found during Nuclear Surety Inspections (NSIs), evaluations, and Staff Assistance Visits (SAVs). The WSM must be intimately involved with the wing's operations in order to assist functional managers and supervisors in resolving problems. Although WSMs are not responsible for actually fixing existing problems, they must ensure that others are taking proper corrective action and reporting the results through appropriate channels.

Many of the problems uncovered during NSIs, evaluations, and SAVs are relatively minor and can be corrected by fine-tuning current programs or procedures. Solutions to these "minor" problems are generally effective because more time can be afforded in developing rational courses of action. On the other hand, "major" problems require a much more in-depth approach for finding a solution. Due to the extreme urgency associated with correcting problems of this nature, the luxury of having a sufficient amount of time allotted for determining the most cost-effective solution is oftentimes non-existent.

All too often, the tendency people have in solving a major problem is to treat the symptom — rather than getting to the root cause. Serious problems usually have underlying causes, such as inadequate training or poor overall guidance. Not taking the necessary time to root out the real cause of a problem usually results in an ineffective solution. In fact, it can actually be counterproductive to resolving the issue.

The WSM should have the capability - by virtue of experience and training — to help the organization find a solution to most problems that exist. The interest he/she demonstrates will encourage commanders and superintendents to be more open and willing to accept the WSM's assistance. Therefore, the WSM at a dual tasked wing must maintain a high level of involvement in all issues involving nuclear surety. Active participation in the process of rooting out discrepancies and developing corrective actions before a minor problem matures into a major issue at the wing is a must. As a result, the WSM in a nuclear tasked wing must be thoroughly aware and cognizant of nuclear surety matters throughout the organization. It is crucial to develop and earn credibility among all wing personnel as "the resident expert" on nuclear surety. But what's the bottom-line; how does the WSM do this? Answer: The key is ... getting involved!



1Lt Bernadette Dozier, 27 FW/PA, Cannon AFB NM

Members of the 429th Electronic Combat Squadron (ECS) deployed for the 32d and final time to Southwest Asia recently. The 429 ECS flies the EF-111A Raven, which is the Air Force's only tactical jamming platform and is the longest running single support unit for the Operation Southern Watch mission. As part of the 4404th Wing (Provisional) in Southwest Asia, the deployed Ravens provide tactical electronic jamming support to coalition forces enforcing the No-Fly Zone over Southern Irag.

For the Ravens — who have patrolled these skies since the early nineties — this last rotation is a significant (yet bittersweet) milestone. "It's difficult to describe the feelings associated with this last rotation," said Lt Col Allen Wickman, 429 ECS Commander. "In many ways, it's business as usual for the 429th; but in a larger sense, it really brings home the idea that we're on our way out."

"I take great pride in participating in this last deployment," said CMSgt Greg Weigl, 429 ECS Maintenance Superintendent, who has worked on the F-111 and EF-111A for more than 20 years. "Our sustained success is directly attributable to the competence, perseverance, and strength of the maintainers. It is their continued steadfast support of this mission that has marked it with such accomplishment."

The EF-111A has been in Southwest Asia since August 1990 — with 2,780 days of non-stop operations to date in the AOR. The squadron's safety record — having lost no aircraft or personnel during this entire time — is an illustration of the unit's proficiency and dedication to excellence in carrying out their mission. Since the Ravens began supporting Operation Southern Watch, they have flown 3,474 sorties and have accumulated 10,227 flying hours, said Royal Air Force WG CDR Anker Brodersen, the 429 ECS Senior Maintenance Officer.

By June, the Air Force will have retired all EF-111A aircraft from its inventory. The EF-111A retirement ceremony is scheduled for 2 May, and the squadron inactivation ceremony is set for 19 June. The Raven's mission will be assumed by joint U.S. Air Force and Navy personnel, flying the EA-6B Prowler.

We thank all the personnel of the 429 ECS, as well as other members of "America's Go-To Wing," for meeting the challenges of a very hard and difficult task in a safe and effective manner. Because of your dedicated efforts, the retirement of the EF-111A Raven marks the end of a meritorious era for a highly efficient weapon system and leaves behind a golden legacy to emulate. Thanks for a job well done!



"The Nomad Raven" 429th Electronic Combat Squadron *Never Far From Trouble*



FLIGHT SAFETY AWARD OF THE QUARTER

Capt Donn H. Von Loh 58 FS, 33 FW Eglin AFB FL

Capt Von Loh is the premier Flight Safety Officer in the 33d Fighter Wing and has made significant and lasting contributions to mishap prevention. During the quarter, he distinguished himself by exceptional service as both acting Chief, Flight Safety, 33d Fighter Wing and Flight Safety Officer, 58th Fighter Squadron.

As a squadron-assigned Flight Safety Officer, Capt Von Loh is without peer. He revitalized a faltering program, completely overhauling the squadron's monthly safety checklist, safety training program, and depleted deployment kit. As a direct result of his efforts, his section earned an "Outstanding" rating in the squadron's annual safety inspection, the only flight safety section in the wing to achieve that honor.

Capt Von Loh's contributions to mishap prevention, however, extend far beyond the routine. As acting Chief, Flight Safety, 33d Fighter Wing, he performed flawlessly in a quarter that proved to be one of the busiest in the wing's history. Capt Von Loh directed all Operational Risk Management and safety activities for multiple deployments including two simultaneous overseas deployments, a transition from three 18 Primary Aircraft Assigned squadrons to two 24 Primary Aircraft Assigned squadrons, a no-notice contingency tasking to Southwest Asia, and home-station training in the dynamic winter weather months. A pivotal player in the first-ever contingency deployment of a Rapid Air Expeditionary Force, he monitored the tasked squadron's deployment to Southwest Asia ensuring it was safe and free of unnecessary risk. Capt Von Loh's tireless efforts in aircrew briefing, training, and mishap prevention education significantly raised safety awareness that reduced aircraft departures to zero, down from six the previous quarter, with no adverse mission impacts. With Capt Von Loh at the helm of Flight Safety, this quarter proved to be the wing's best ever; the wing experienced only one Class C mishap and ground aborts were down 25 percent.

Capt Von Loh also spearheaded the wing's highly successful semiannual Safety Day. He orchestrated a superb agenda skillfully integrating Operational Risk Management with aircraft mishap prevention, traffic safety, recreational safety and Driving Under the Influence prevention. His aggressive approach hit the nail on the head and received high praise from the wing commander as "the best safety presentation I've ever seen, period!"

In short, Capt Von Loh personifies the Air Force's core values of excellence and service before self. His unmatched professional competence put the wing safety officer over the top in the annual ACC awards competition earning it the ACC Safety Office of 1997, Category II. Finally, at a time of heightened international tension, he selflessly volunteered to fill a shortnotice hardship TDY requirement at a combat theater. He is currently serving as Chief, Flight Safety for the 4404th Provisional Wing, Prince Sultan Air Base, Saudi Arabia. Capt Von Loh is an exceptional officer and an outstanding safety professional.

WEAPONS SAFETY AWARD OF THE QUARTER

MSgt Steven J. Supachana 85 GP NAS Keflavik IC

MSgt Supachana is the primary manager and key implementer of the Air Force Weapons Safety Program at a unique NATO base where weapons management and safety have historically been operated by the US Navy. He positively impacts the safety of Air Force explosive operations as a tenant at Naval Air Station Keflavik, Iceland. He ensures more than 20 Air Force weapons personnel comply with not only USAF directives, but also Naval directives to promote both safety and interservice teamwork.

Handpicked as one of the group's initial cadre in the development and implementation of Operational Risk Management (ORM). Sgt Supachana completely revamped the group's spot inspection program through practical application of ORM tools and techniques. His ORM program provides commanders valuable metrics to help focus their attention in specific areas of concern. Additionally, Eighth Air Force benchmarked his ORM spot inspection program.

Through his technical awareness, he identified errors in quantity-distance tables in Navy directives (NAVSEA OP-5), thus ensuring site plans forwarded to the Department of Defense Explosives Safety Board (DDESB) would meet applicable criteria. His insight into explosive safety rules saved the Navy countless man-hours that would have been spent on site plan resubmittal.

He is a hard-charger who does not accept the status quo. He submitted three new explosive site plan packages to eliminate two explosive exemptions at NAS Keflavik. One of those exemptions was in-place and never challenged for over 12 years. After extensive research, he realized that previous site plans were not submitted for hardened aircraft shelters. His lean forward approach ensured the Air Force maintains combat capability by increasing the number of combat aircraft parking spots available for Air Force aircraft.

Sgt Supachana's initiative was demonstrated in a local guide he authored to assist and ensure exercise evaluation team members safely conduct all ground burst simulator events during local and higher headquarters exercises. In another instance, he implemented a new weapons safety training block for ground handling and maintenance of explosive-laden aircraft to eliminate current shortfalls in maintenance training.

He provided weapons safety oversight for group exercises in preparation for the March 1998 ORI. His increased weapons safety surveillance for over 800 personnel has resulted in zero weapons safety mishaps since his arrival at NAS Keflavik.

Sgt Supachana's undying performance in the weapons safety arena and total dedication to doing the job right the first time make him more than deserving of this award.

GROUND SAFETY AWARD OF THE QUARTER



Mr. Joseph R. Dixon 5 MXS, 5 BW Minot AFB ND

Mr. Dixon has been the Primary Unit Safety Representative (USR) for the 5th Maintenance Squadron for the last 2 years. Without question, he is the most competent, most aggressive, and most proactive USR in the 5th Bomb Wing and the 91st Space Wing. As Minot AFB's USR of the Year for 1997, he provided exceptional safety guidance through monthly no-notice inspections of the squadron's 12 diverse industrial and maintenance facilities. He meticulously tracked and maintained "error-free" safety training documents and records of the squadron's 300 specialists and technicians. He expertly trained personnel how to report mishaps, how to conduct safety spot inspections, and how to conduct industrial, off-duty, and seasonal safety briefings that promote great safety attitudes. As the base's Confined Space expert, he single-handedly planned, developed, and implemented the 5 MXS Confined Space Program

and has been an integral part of the Minot AFB Confined Space Program Team (CSPT) for the past 7 years. He is one of only a few CSPT members who routinely reviews, recommends, and corrects other squadrons' annual Confined Space Master Entry Plans, Standard Operating Instructions, and training lesson plans. He continuously provides technical advice and guidance on Occupational Safety and Health Standards and interprets the regulations and operating instructions to the 5 MXS. Mr. Dixon possesses the highest degree of confined space knowledge and frequently assists the base populace on numerous confined space issues. Additionally, he designed a confined space trainer for the 5 MXS's Fuel Systems Repair Shop. This unique trainer provides hands-on experience to personnel engaged in confined space training operations that pertain to B-52H aircraft fuel cell cleaning, inspection, and repairing.

The 5 MXS received zero discrepancies and zero deficiencies during its annual Ground Safety Inspection conducted in Jan 98. His enthusiasm, infectious safety attitude, and extensive preparation during the previous quarter were key to the squadron receiving an overall "Outstanding" rating. The 5 MXS was also recognized for "Zero Reportable Mishaps" for 1997. His technically superior aircraft systems knowledge serves him well as a technical advisor to the squadron's Hazardous Materials (HAZMAT) representative. He provides up-to-date safety information on all HAZMAT issues related to chemical use, ventilation, storage, and personal protective equipment. His Designated Driver Program for the squadron's annual Christmas party was a complete success. He recruited 10 volunteers to wear designated driver badges for easy identification by party participants and his efforts paid off—zero incidents of DUIs after the party or during the entire holiday season. He developed an ingenious and long-overdue ergonomic standard operating procedure for his Fuel Systems Repair Section. Included were items pertaining to proper lifting techniques, work and body positions, and a checklist formatted for easy identification and correction of potential ergonomic problems. Mr. Dixon is the wing's multifaceted and talented safety expert! Details Stop and think about these three words — Attention to Detail. Take a minute to look at the accompanying weapons mishap photo, and go over in your mind what might have happened to bust up an Advanced Medium-Range Air-to-Air Missile (AMRAAM) like this. I'll tell you more about the photo later, but for now ... at the risk of being called

just another teller of war stories ... I'd like to relay a few things I've observed over the past 20 years or so working in weapons maintenance.

I remember arriving at work one fine morning at Luke AFB only to hear the news that a load crew had jettisoned a centerline pylon off one of our F-15As the night before while performing a built-in-test (BIT). It seems the previous day's mission had called for no centerline tank - only the empty pylon. It is common practice to install impulse carts in the pylon breeches to allow jettison capability. Of course, the MAU-12 breeches were not carted since nothing was installed on the MAU-12. In addition, the cart liners were installed and sealed to indicate an empty or safe condition. What do you imagine happened next?

Well ... when the aircraft returned after the mission, the crew chief safed and pinned the jet. The only problem was he pinned the empty MAU-12 and not the pylon itself. Maintenance proceeded without incident until late in the night when the weapons crew arrived to perform a BIT check on the armament system. On performing his safe-for-maintenance check of the aircraft, the Load Team Chief did a less than thorough walk-around. Other maintenance had been performed on the aircraft prior to the load crew's arrival. Therefore, when he saw a pin streamer hanging from the centerline MAU-12, he mistakenly assumed that the aircraft was safe. The crew proceeded with the BIT checkout. Then when

a crew member pushed the emergency jettison switch as part of the test, things worked as advertised. Fortunately, nobody was hurt. Although the load crew was badly scared by the firing cartridges, the only damage was to the pylon and concrete below it. How about that Well, the aircraft took off normally. But somewhere over the Arizona desert during a high-G turn, the ACMI pod slid off the rail and was never seen again. A very costly mistake that could have been prevented by heeding those three little words — attention to detail.

A MK-84 being dropped in the load barn due to having the bomb rollers in the wrong positions on the jammer; 20MM ammo strewn over a couple hundred yards of flight line due to not checking a door on an ammo module ... I could go on, but I think you get the point.

So, what's the story behind the busted-up AMRAAM? Well, how's this for an answer ... I don't know. I found the photo archived in our office files when I moved into my current duty section. However, I can imagine how lack of care for those



for lack of attention to detail, not to mention violation of technical data?

Another time, a load crew had loaded an Air Combat Maneuvering Instrumentation (ACMI) pod on an F-15 LAU-114 launcher while it was at End of Runway (EOR). {Note: I still don't know why this was being done there.) Anyway, one of the crew members was tasked to install the detent pin into the launcher after the ACMI pod was loaded. What do you think happened? You guessed it. In his haste, he put the pin in the electrical safety pin hole - not the detent pin hole. This is a very noticeable mistake to most people since the detent pin hole (which is smaller than the electrical safety pin hole) did not fit properly into position.

three little words — Attention to Detail — played a role somewhere in the end result.

With the recent growth trend in the number of missiles inadvertently being dropped around the world, I thought this article might provoke some thought on the importance of safety as we maintain our weapons in the field. Faulty equipment or design cannot be blamed for each and every incident. Take time to keep your focus on what you're doing on the job by paying attention to details. Your mission depends on it ... and so do the lives of your fellow airmen.

> SMSgt Dave Petzoldt 28th Test Squadron Eglin AFB FL



Our letter this month accuses Orville of trying to legislate common sense. Ouch! Talk about hitting below the belt. The accuser writes:

Hey, Orville:

We all recall stories of arriving immigrants being "sold" the Brooklyn Bridge or other government treasures. I've also heard of folks trying to sell ice to Eskimos. I even personally witnessed a television salesman trying a similar tactic on a blind man. He told him that although the sound systems on both models were identical, the more expensive model was worth the price because it had a better picture. But you Orville, you are trying to corner the market and take credit for peddling common sense. What's up with that? Let's face it ... I mean ... am I correct here or not? After all, two of the principles of risk management ("Accept No Unnecessary Risk" and "Accept Risk if Benefits Outweigh the Costs") are really founded on the use of good judgment and sound reasoning, aren't they? Am I missing something here? Operational Risk Management is nothing more than common sense, Orville — and you can't legislate that! Right?

MSgt Stan A. Cuser

Dear Stan:

I must admit that the basic tenants of ORM are common sense. It is certainly not smoke and mirrors or rocket science. In fact, many Air Force people and their organizations were properly applying the tenants of ORM before this veteran was born. And while I have no intent of taking credit for common sense, you have to look no further than the parade of sad stories through a hospital emergency room, the long list of preventable mishaps, or the lessons learned from failed missions to see that some folks

are missing a few planks in the common sense "footbridge of life."

But Stan, you apparently don't fall into that category. You exercise good judgment on a regular basis, and you are insulted that someone would insinuate that you need to be educated on such matters. But ponder this thought, Stan how are you going to use your common sense and superior judgment to control those hazards and risks that remain unknown to you? Unidentified risks are those that have not been determined or uncovered. They're real, and they're important; but they're not known. Therefore, they remain unaltered by a person's common sense. Many times, we are made aware of those unidentified risks during the course of a mishap investigation. This is certainly not the best way to reveal such unpleasantries, and usually of no solace to the victims of the enlightening mishap.

You see, Stan — some aspects of ORM are more than common sense. Complete safety is a condition that seldom can be achieved. All human activity involving a technical device or complex process entails some element of risk. Hazard analysis and risk assessment do not free us from reliance on good judgment and common sense; but on the contrary, they improve it. Remember Stan, "there are no safety problems in mission planning or design; there are only leadership problems that — if left unresolved may cause degraded mission performance or mishaps."

So how can a competent, con-

fident, highly trained individual like yourself benefit from the ORM initiative? Easily! Don't get caught short by an unidentified risk that you could have revealed with the help of some basic ORM tools and techniques. Don't adopt the Ostrich Philosophy: "If I don't know about it, it can't hurt me." Users of the ORM hazard tools have regularly identified a minimum of 50% more hazards than those individuals and groups who elected to go on experience, intuition, and common sense alone.

Don't adopt the Ostrich Philosophy: "If I don't know about it, it can't hurt me."

In closing, ask yourself a sobering question, Stan. "Why would I even consider exposing myself and others to the risks of an activity before I identified the hazards involved using the best procedures and tools available?"

Keep those cards and letters flying in,

Orville . R. Mudd

ORM Dogfight Veteran ACC Office of Safety Editorial Comment: Regarding the announced release of AFP 91-215, "ORM Guidelines and Tools," Orville recently admitted that he was caught speeding in the February 1998 "Ask Orville!" column. Under the scrutiny of our investigative staff, Orville had this to say:

"Yes, I admit it. I arrogantly - and prematurely announced the release of AFP 91-215 on the Air Force Electronic Library, in anticipation of the said event. I mean, the Chief signed it out in Dec 97, and it looked like a lock for January. So I spotted it a month and said it would be out in February. But shame descends upon me, for I did not take into consideration the very real risk that the 'Publications Police' posed to the actual release date. It remained in fact ... an unidentified risk. Any one of the ORM tools could have helped me to avert this embarrassment, but I chose to rely on intuition and common sense."

And there once again goes the cobbler's kid without shoes!

If you have any questions or comments regarding ORM, send them to:

"Ask Orville!" HQ ACC/SEO 175 Sweeney Blvd Langley AFB VA 23665-2700

DSN 574-8800, Fax DSN 574-8975 e-mail: ronald.garhart@langley.af.mil



(1 Oct 97 - 31 Mar 98)

Number of Weapons Mishaps / Dollar Losses			
	Class A	Class B	Class C
8 AF	None	None	\$60K
9 AF*	None	None	\$246K
12 AF	None	None	None
AWFC	None	\$125K	\$425K
TOTAL	None	1/\$125K	6 / \$731K

Weapons Fatalities - None

Nuclear Mishaps - None

*Includes all Class C mishaps in CENTAF AOR **Cost of most recent mishap(s) not yet available Explosive Mishap

=Missile Mishap



Class A - Fatality; Permanent Total Disability; Property Damage \$1,000,000 or more Class B - Permanent Partial Disability; Property Damage between \$200,000 and \$1,000,000 Class C - Lost Workday; Property Damage between \$10,000 and \$200,000 MSgt Jeff Halstead 20 EMS Shaw AFB SC

t's motorcycle-riding time, and engines are revving to the beautiful weather and excellent riding conditions. Motorcycle riding, however, comes with a much higher level of risk than driving an automobile. The moment you straddle the cycle, hazards are all around you with some in the most unexpected places; and this is where my story begins.

This motorcycle incident did not involve an untrained, unskilled rider traveling in deteriorated weather with very heavy traffic at an uncontrolled intersection. In fact, none of these particular conditions contributed to the accident I am about to tell. The result is so dramatic that every rider should take heed of the information I share in this article, for it is at the root of every single ride taken; regardless of rider skill level, weather, traffic, or location.

Summer evenings in South Carolina are absolutely beautiful. The climate is perfect for an evening ride, and this mid-June day was no different. Conditions were excellent; the sun was still shining brightly, with only the slightest breeze, temperature around 80 degrees, and about 2 hours of daylight left. Many of our Shaw AFB airmen find themselves in small groups on evenings like this, going to dinner in some small outlying town, or just getting away from the base. But on this evening, one of my airmen thought he would go at it alone and take a solemn "one-up" ride in the country.

Small roads surrounding the base have some exciting rolling turns, although they are in lower speed semi-residential areas. As you go farther from the base, you find higher speed rural roads, but with less turns, rolling hills, and more straight-line flat riding than anything else — especially as you approach the East coast. I know ... you're waiting on a story that tells of a high speed crash in a low speed turn, a car pulling out in front of the cycle in a blind turn, or of a deer ... but I've already told you that this incident defeats all the statistics. So where was I? Oh, that's right — a great evening, solemn ride, "one-up" riding, and all that. Are you with me?

For the record, the airman in question is not an inexperienced rider, having received Motorcycle Safety Foundation (MSF) rider training, and with many miles of non-incident riding under his belt. This day, as always, he had on the appropriate riding apparel and safety equipment. Now for the incident ...

A two-lane marked road extends away from the base and makes for an excellent ride with its low traffic, good visibility, sweeping turns, and 55 mile-perhour speed limit. The airman was proceeding on a long straight-away, slightly exceeding the speed limit at 60 miles-perhour, when it happened.

As he moved from a smooth road surface to a grooved one (which was placed there to assist new pavement adherence), a wobble started in the front wheel. His sport style motorcycle was engineered with short-trail forks and stubbed handlebars that immediately transferred the wobble from the wheel to the operator. Before any control could be regained, the cycle high-sided, throwing the cycle and the rider away from the direction of the last wobble and onto the pavement.

"I was on my back, sliding at a very high speed, but quickly spun to my arm, shoulder, hip, and buttocks again before sliding completely off the road," said the airman. As he laid at the side of the road, he raised his head and looked back to see what looked like parts of his motorcycle before lying down again quickly due to the pain. An hour passed before another military member found him, called the paramedics, and got him to the hospital.

His injuries were substantial. Abrasions and contusions were down to the bone on his back, shoulder, and arm — from his

His injuries were substantial. Abrasions and contusions were down to the bone on his back, shoulder, and arm — from his wrist to elbow and hip. One ankle was shattered due to striking an object by the roadway and can never be repaired.

wrist to elbow and hip. One ankle was shattered due to striking an object by the roadway and can never be repaired. Muscle was exposed on his back and hip, as well as an entire piece of the buttocks missing. There were no injuries to the head, but multiple impacts to the road surface destroyed a perfectly good helmet. Fortunately, the proper equipment was worn; or the injuries would have been far worse.

I told you this didn't fit the statistics. Who would guess this could happen in great weather, in a straight line, barely exceeding the speed limit, with no traffic? Some would say it was just a fluke — that it was completely environmental, an unfortunate coincidence, and could not have been prevented. Not so! Fundamental, but easily forgotten, preliminary riding techniques would have prevented the entire incident.

The MSF, as do many other driving schools, teach processes that are intended to allow the operator to identify hazards before they become a problem. There are three simple steps to the MSF's process; they are (1) search, (2) predict, and (3) act. However, before the second two steps can be performed, you must always commit yourself to the responsibility of the first — that is, searching. Whether you are a motorcyclist or automobile operator, aggressive searching will allow you to seek out vital information and identify risks so they can be dealt with prior to the occurrence of negative results like those witnessed here. But what do you search for? It is easiest to break this down into the following three categories: (1) other users, (2) signs, signals, and markings, and (3) roadway and surface. First, I'll discuss "other users."

There are a huge variety of other users on the roadway, practical or not. It is easy enough to imagine and spot the typical users; these include any motor vehicle, big or small. But motor-

cycles are an easily missed vehicle. They are sometimes even mistaken as bicycles due to their size and location in the lane of traffic. Bicyclists — as well as skaters, pedestrians (including small children), and even animals - are also a consideration. If you have been in overseas locations where livestock have the right-ofway, you know where I'm coming from here. Regardless of the user, vehicle operators have their hands full just identifying these potential obstacles without anything else to worry about; but the searching process doesn't end here. "Signs, signals, and markings" are also a concern.

From existing regulations to acquiring information while on the road, there is a multitude of data to collect while driving. From stop lights to stop lines, left turns (but only with a green arrow), right on red (but only after 4 p.m.), and "buckle up for safety," there is more information to collect and remember than our tiny memories can hold. All of this coupled together with proper observation of speed limits, school zones, cross walks, as well as "yield" and "do not enter" signs, your mind is spinning with a combination of other users and signs coaching from the sidelines - not to mention an occasional backseat driver. All this to consider, and yet there is still another category to search for - the cause of the accident in this story.

The roadway and surface is a critical factor in the operation and handling of a motorcycle, considering the fact that this vehicle typically has only two wheels. Traction is a key element, and the rubber can only get that traction from the surface that it is riding on. With any loss of traction, there exists the likelihood that control will at least be decreased — if not lost altogether. What conditions could cause this loss of traction? Many contaminants to the surface including oil, water, sand, gravel, and leaves change the traction available to the cycle, especially in conditions other than straight-line riding. Metal bridge and road gratings, railroad

Normal daily riding conditions include changes in surface texture and compounds. Many roads change from concrete to blacktop — or pressed gravel compound to rain grooves — with no signs to signal the surface change.

tracks, speed bumps, and painted road markings also affect operation — even in a straight line. Now for the moral of the story.

Normal daily riding conditions include changes in surface texture and compounds. Many roads change from concrete to blacktop — or pressed gravel compound to rain grooves — with no signs to signal the surface change. As in this story's incident, the road changed from new blacktop to grooved road with no warning sign ... or, in reality, was there an indication?

Searching well ahead along the road surface, there would have been a distinct difference in the color of the road as it changed from new blacktop to old grooved pavement. This is a warning sign of the change to come. The same warning signs exist with other surface changes. So, searching well ahead of the immediate path of travel allows the cyclist to safely compensate by making appropriate speed and path of travel changes to prepare for impending variations in road conditions.

Aggressively and deliberately searching all categories: other users; signs, signals, and markings; as well as roadway and surfaces; will give the operator the best opportunity at identifying potential hazards, dramatically decreasing the chances of an incident. Accurate predictions and actions will follow, increasing riding pleasure while lowering risk.

Searching "from surface to surface" will help you find increased pleasure as you take your next ride. Remember ... when cruising on your cycle, be on the lookout, stay alert, and drive safe!

About the Author:

MSgt Jeffrey K. Halstead is the First Sergeant for the 20th Equipment Maintenance Squadron at Shaw AFB SC. He is an MSF certified instructor, teaching AF motorcycle safety courses for 14 years. He has taught classes at Sheppard, Lackland, and Shaw AFBs as well as with the Texas Department of Public Safety (Motorcycle Safety Bureau).

Lt Col Charles Buck 442 FW/SE Whiteman AFB MO

Reab Warrier Real Warrier

Imagine with me if you will

The in a c

Over the last few months, the news from overseas has grown steadily more alarming. The news media becomes saturated with reports of fighting, death, and destruction. Despite intense efforts in international diplomacy, radical groups are relentlessly moving to overthrow moderate leaders and to consolidate control of ever-increasing areas. NATO forces are experiencing direct attacks, and hope for peace in the region is crumbling. Then, the phone rings. Your key alerter is on the line with reporting instructions. You say to yourself, "This is for real!"

You report to your unit and sign in. As you reach your workplace, your heart swells with pride as you see the signs of intense but well-organized activity all around you. Your wing is ready to go into the warfighting business, and so are you! You are well trained, eager, and focused on the mission at hand. In fact, as the day rolls on, you note that every task is one you've done before. This mission may be for real, but the specific tasks involved are accomplished with the exact same procedures and guidelines you've practiced before. This includes working safely.

You make sure every job follows the Tech Order and job guide ... to the letter. Every time you see two ways to do something you try to pick the . safest approach. Any time you see a marginal practice or unauthorized "shortcut," you take personal responsibility to get things corrected and done right. That's because you know - at this moment in time - every person and every asset in the wing is irreplaceable. Anyone who gets hurt or injured (as well as any piece of equipment that becomes damaged) can't be replaced in time to support the mission. Realizing the seriousness of combat, you absolutely refuse to let yourself - or anyone else around you — jeopardize the mission!

Because you and every member of your warfighting team is a professional in every sense of the word, the unit reaches the combat zone with every single asset and person needed to get the job done. Even as the bullets begin to fly, you remain unwavering in your dedication and insistence on safety. As a result, the wing concludes its tour with the highest combat effectiveness rating in the entire theater ... and YOU helped make it happen. ■

Even as the bullets begin to fly, you remain unwavering in your dedication and insistence on safety.

Editorial Comment:

After reading Lt Col Buck's article, I was reminded of the following statement by General Fogleman prior to his retirement from the United States Air Force: "The Air Force is not a social actions agency. It is not an employment agency ... The Air Force exists to fight and win wars — that's our core expertise. It's what allows us to be called professionals. We're entrusted with the security of our nation. The tools of our trade are lethal, and we engage in operations that involve risk to human life and untold national treasures." These words fuse together a commitment to personal as well as organizational excellence. They should not only govern our actions on an individual basis, but should rule our unit's performance as we work together to successfully carry out our command's mission ____ACC professionals providing the world's best combat air forces delivering rapid, decisive, and sustainable airpower, anytime, anywhere. The bottom line is that successful accomplishment of ACC's mission is dependent upon our commitment to safety. Our safety goal is simple - preserving combat capability through aggressive mishap prevention. Proper implementation of risk management concepts is, therefore, key to preventing mishaps while maximizing mission suc-The benefits of risk cess. management are clear: enhanced operations, increased efficiency, and combat effectiveness. As you come to a close in reading this article, I'm sure you agree with the author — as I do - that personal and unit-wide commitment to operational safety lies at the heart of the profession of arms - our mission depends on it!



The United States Coast Guard (USCG) is the primary federal agency with maritime authority for the United States. With a complex organization of people, ships, aircraft, boats, and shore stations, the USCG responds to tasks in four main mission areas: Maritime Law Enforcement, Maritime Safety, Marine Environmental Protection, and National Security.

For more than 200 years, the United States Coast Guard has always been ready to protect America's interests. On an average day, the USCG:

- Saves 14 lives.
- Cleans or prevents 32 toxic spills.
- Stops \$7 million worth of drugs from reaching America's streets.
- Conducts 180 search and rescue missions.

The United States Coast Guard is also actively involved in designing, promoting, and implementing new and innovative programs to ensure that boaters on America's waterways are as safe as possible.

Three Simple Steps to Safer Boating

Each year, some 76 million Americans enjoy boating as an important form of recreation. Without question, that is a lot of traffic. To ensure everyone's safety, with many happy returns, the U.S. Coast Guard strongly encourages boaters to take three simple precautions.

- First, every boater should wear a life jacket, also known as a Personal Flotation Device (PFD).
- Second, alcohol and boating are a dangerous combination and should not be part of the same outing. - Third, all boaters should take a course in boating safety.

1. Life Jackets: They Float, You Don't

Personal Floatation Devices, the simple, affordable, and accessible life saving devices already very familiar to the boating community, are crucial to saving the lives of boaters. Still, many people on the water to this day do not wear their life jackets.

It was for this very reason that in 1997 the United States Coast Guard enlisted the support of Snoopy, the beloved beagle from Charles Schultz's world renowned comic strip, Peanuts, to serve as celebrity "spokesperson" for PFDs. Snoopy's message was: "Life Jackets: They Float, You Don't."

When an accident occurs and a boater is thrown into the water, if he or she is not wearing a PFD, the likelihood of a drowning is great. This is especially true if that person is drinking alcohol, is injured in the fall, and lacks the skills or strength to stay afloat. Of note, three-fourths of all fatalities on the water involve people who do not wear their PFDs. By doing something as simple as using a PFD at all times when boating, many accidental deaths can be prevented.

2. Stay Afloat: Don't Booze and Boat

More than 800 Americans die each year from boating accidents, and more than 50% of all fatalities on the water are alcohol-related. Furthermore, many experts believe this figure underestimates the true extent of the problem, as only 10% of alcohol-related incidents are reported.

While Boating Under the Influence (BUI) of alcohol is a major problem itself, there are other important factors that compound the BUI issue, these are:

Boater's Fatigue - Boater fatigue is a documented phenomenon in which the combination of the sun, wind, vibration, and motion of the water approximately triples the effects of alcohol — thereby affecting the average boater's judgment after only one drink.

Intoxicated Passengers -More than half of all boating fatalities are the result of a boater falling overboard — not driver error. So while designating a driver appears on the surface to be a good solution, it does not assure everyone on the boat is safe. No age group is safe when it comes to BUI. But of special concern are men ages 20-39, who account for the vast majority of boating accidents each year.

3. Boater Safety Training: Take a Class

Lack of proper boater safety training is a major factor in the number of injuries and fa-

talities occurring on the water. Of all boating accidents, 80% are attributable to boaters who lack adequate safety skills and knowledge. The Coast Guard strongly advises boaters to take a boating safety class to help ensure the safety of all boaters. To learn more, call the Coast Guard's Infoline (tollfree at 1-800-368-5647).

Summary

Safe boating is much more than an idea. It is a way of life. With a few simple precautions and the proper instruction, many potential accidents can be avoided — and hopefully, many lives can be saved. Remember ... "Safe Boating is No Accident."

Editorial Comment:

This year's National Safe Boating Week kicks off May 16 and runs through May 22, just prior to Memorial Day weekend. The theme this year is "Boat Smart from the Start. Wear Your Life Jacket." The campaign is being coordinated by the National Safe Boating Council in cooperation with the United States Coast Guard.

The Combat Edge Air Combat Command's Mishap Prevention Magazine 8