

Combat Edge

Summer 2023

Air Combat Command's Safety Magazine

LOAD CLEAR

PAGE 12

Keep home safe when away on vacation.

Here are 4 easy ways to reduce risk when you head out:

- Ask neighbors to watch your home.
- Lock your doors, including the garage door.
- Put lights on timers to give the impression that you are home.
- Don't post photos on social media until you return home.

Source: National Crime Prevention Council



Combat Edge

- 4 | **BLOWOUT**
by TSgt William L. McDonald
748 AMXS, 48 FW, RAF Lakenheath, UK
- 6 | **IN A BIND**
by SMSgt Chad A. Konyndyk
9 MXS/MSM, Beale AFB, CA
- 8 | **AWASH**
by TSgt Michael J. Baker
55 MXS/MXMCR, Offutt AFB, NE
- 12 | **LOAD CLEAR**
by SSgt Alan M. Travassos
4 FW/SEG, Seymour Johnson AFB, NC

- 14 | **TAKING THE TIME TO DO IT RIGHT**
by SSgt Michael W. Lapham
55 WG/SE, Offutt AFB, NE
- 16 | **LEARN THE STICK**
by SSgt Daniel W. Bruno
11 ATKS, Creech AFB, NV
- 17 | **DON'T ASSUME**
by SSGT David L. Brewer
77 FGS, Shaw AFB, SC
- 18 | **1ST QUARTER AWARDS**
- 21 | **STATS**

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COVER PHOTO BY TSGT DE-JUAN HALEY

ACCent



This year marks the Air Force's reintroduction of the "101 Critical Days of Summer" campaign. It runs from Memorial Day through Labor Day, and is an initiative to increase awareness of potential risks related to off-duty recreational activities and other summer activities. Although risk management and safety are stressed throughout the year, the "101 Critical Days of Summer" focuses on the time-period when most off-duty mishaps occur. To ensure this campaign is a success, I'd like to offer a few risk-management tips.



Kenneth E. Walker
Interim Director of Safety

Key elements of risk management are the identification, control, and elimination or reduction of uncertain outcomes. When thinking of risk management, one often associates its use with work operations or processes, but there are other times when risk management and its principles should be considered. As we enjoy the warmer weather and its associated activities, let's be mindful of the hazards that are present and take the time to incorporate risk management. This year ACC has teamed with AETC, and produced flyers for our MilSuite page (<https://www.milsuite.mil/book/docs/DOC-1249944>) as a reminder to take precautions when participating in various activities. You are all vital to the success of our mission and an irreplaceable part of the ACC Team ... Have fun; enjoy the Summer; do it SAFELY!

See Something Do Something...Live to be Lethal



BLOWOUT

BY TSgt WILLIAM L. MCDONALD



May 5, 2022, started out as a typical launch-and-recovery day for the crew chiefs of the F-22 RAPTOR Aircraft Maintenance Unit (757 AMXS) at Nellis Air Force Base. At the time, Nellis was host to NEPTUNE HAWK. Participating in the exercise was aircraft 0195, the newest F-22 in the Air Force arsenal, and the flagship jet of Joint Base Elmendorf-Richardson's 525th Fighter Squadron.

As a member of RAPTOR AMU, I watched as the F-22 returned to base and prepared to land. As the aircraft touched down, I knew something wasn't right: it landed with a massive bang, accompanied by a cloud of smoke and debris. It appeared to have blown a tire in the main landing gear.

To complicate matters, no one with the 525 FS responded to the ground emergency because of a radio malfunction. I immediately notified the expediter, TSgt Michael Buckner. We both knew we had to act quickly in order to rescue the pilot and prevent further damage to the 197-million-dollar aircraft.

To ensure we could safely shut down the running aircraft and recover the pilot, TSgt Buckner also alerted SSgt Timothy Isaacs and SrA Andrew Rogers. The two Airmen gathered the necessary equipment and headed to the scene, as TSgt Buckner coordinated with Air Traffic Control to gain access to the runway where the crippled F-22 stood. Our team began to follow the Technical Orders and emergency procedures for shutting down the aircraft safely. I coordinated with the Nellis AFB Fire Department to make sure there was no danger of fire, and verified the brake temperature, in order to determine when the team could safely approach the aircraft.

Monitoring the brake temperature was extremely important, as a hot-brake situation could cause the other tire to blow out, potentially resulting in a deadly fire. Upon achieving communication with the pilot, I verified he was uninjured, and was able to shut down the engines. Next, SSgt Isaacs and SrA Rogers worked together to safe the main landing gear and weapons bay doors. After securing the aircraft, SSgt



Isaacs signaled to me that I could shut down the engines and begin the pilot's egress.

I helped the pilot exit the aircraft and debriefed him, and then assessed the damage to

the right main landing wheel and tire assembly. At the same time, TSgt Buckner tried to contact the aircraft's owning unit. After finally reaching 525 FS by going through the

maintenance operations control centers network, he was able to alert the custodian unit that their aircraft had experienced a ground emergency. He urged them to organize a recovery

team to remove the aircraft from the controlled movement area. Raptor AMU then turned over the pilot, aircraft, and aircraft equipment to the 525 FS. ✪

IN A BIND

BY SMSGT CHAD A. KONYNDYK

The U-2S (codename: Dragon Lady), is a unique, single-seat, single-engine, high-altitude reconnaissance aircraft developed during the Cold War. Its primary role is to deliver images and information to intelligence agencies and organizations for use in developing strategies to help our service members stay a step ahead of their adversaries. The TU-2S is the two-seat trainer variant, used to prepare pilots to carry out lengthy solo missions in the upper stratosphere. To keep weight to a minimum, the TU-2S utilizes an old-fashioned

cable-and-pulley system, one most larger aircraft have replaced with hydraulics. The ability to inspect, diagnose, and rig these mechanical control systems is nearly a lost art.

During a routine training sortie on 14 February 2022, the pilot of one such trainer noted a binding in the flight controls. Aircraft recovery technicians from the 9th Maintenance Flight, 9th Maintenance Squadron at Beale AFB, CA, who specialize in aircraft rigging, sprang into action. The maintenance crew knew that, because of small fleet dynamics, every hour this aircraft sat on the ground would be another lost training sortie. The

technicians noted higher-than-normal resistance when operating the flight control yoke left and right. Ground crews were able to duplicate the problem, but couldn't determine the source of the binding using standard diagnostics.

The crew poured a great deal of effort into troubleshooting the valuable trainer, including a complete yoke checkout, aileron rig tests, and cable tension checks. They decided to inspect the aileron cables manually from start to end. They removed panels to access the aircraft's extensive cable interchange network. Each cable, pulley, and tensioner was inspected until

the cause of the problem was identified. They found a bent bracket on an aileron cable-pulley interconnect making contact with the pulley, creating resistance. With some delicate adjustments and persuasion, the crew was able to return the bracket to its correct position. Operational checks of the aileron confirmed the problem was resolved, and the aircraft was returned to service. The aircraft flew another training flight that same day, and landed without any further difficulty.

The ground crew was able to diagnose, repair, and return to service a vital part of the U-2 program through the crew's



Photo by SrA Frederick A. Brown

extensive experience and knowledge. Their skills are critical in order to understand the complex job of rigging. It's the kind of knowledge obtained through years of training and dedication. The technicians who repaired the aircraft had decades of experience and U-2 know-how. Although most modern aircraft of this size use more advanced systems like fly-by-wire, there still are those with older systems,

and it pays to have technicians available who can diagnose and troubleshoot them.

The U-2 is a distinctive aircraft that remains a valuable Air Force asset. With the combined skills, knowledge, and dedication of the maintainers in the 9th Maintenance Squadron, it will continue to fly critical surveillance missions for many decades to come. ✈️



AWASH

BY TSGT MICHAEL J. BAKER

For nearly two years, The 55th Maintenance Squadron operated out of Lincoln Airport, an hour south of Omaha, Nebraska. While there,

we had located a suitable jacking location on the small space we were allotted on the flight line, in case our preferred location (inside the hangar) was occupied. The outside spot was not ideal, but we

had used it about a dozen times with no major issues. One August day, we were tasked with jacking an aircraft in order to troubleshoot a landing gear indication malfunction, and had to use the outdoor spot.

Our unit is comprised of “in-depth” Crew Chiefs, who generally handle flight control rigging/replacement, landing gear, aircraft jacking, and crash recovery operations. All the

big stuff! The work is both challenging and rewarding, and always “all or nothing” as far as the workload is concerned. On the day in question, my team was working a “business-as-usual” full

aircraft jack—when we suddenly were forced to take action.

When raising an aircraft, location is crucial. It must be on level ground, have sufficiently strong concrete, and be out of

harm's way. Of course, wind (natural or man-made) is a constant concern. The jack supervisor is responsible for ensuring all requirements are met. Our spot was near a throat (small connection taxiway) behind a perpendicular taxiway across from us. It was used by our RC-135 Rivet Joints, as well as the big E4-B Nightwatch (747 variant). These large aircraft would turn onto the throat and head out of the parking apron and towards the runway. We had an agreement with Operations to ensure no aircraft would use the throat while we had an aircraft jacked in our spot. Having performed numerous jackings there, I didn't anticipate any problems, and focused on safely raising the aircraft.

During a typical jacking operation, we have crew of around 9 personnel in various positions. They ensure each jack is operating within pressure limits, and hold the safety ram locks, which are used in the event of a component failure or other emergency. In order to lift the jet, we employ 5 tripod jacks (hydraulic, two on each wing, one on the tail) to raise the aircraft to its final height. A sixth jack is used once final height is reached to stabilize the nose of the aircraft. This always raises the eyebrows of those unfamiliar with lifting an RC-135, as the entire forward section of the fuselage appears to float in mid-air.

As the jet neared its final height, I was about to call "stop" when I heard the sound of engines spooling up! It was common to hear engines or Auxiliary Power Units (APUs) running while on the flight line, especially from the E4s. I didn't really pay attention until the sound of a launching aircraft set off an alarm in my head. Whilst I had been running around the jet looking at the jacks, maintaining correct pressures, watching for unseating jack legs, ensuring no one had their fingers between the

ram and the lock, and keeping a keen eye on the raising aircraft to our final height, an E4-B diagonally across the ramp was spooling up to taxi!

Seeing it begin to turn towards us I yelled to my manifold operator: "It's going to turn up that taxi way! We need to drop it ASAP!" To add to the poor situation, our aircraft was fully turned, tail toward the throat, with the elevators raised – perfectly positioned to catch jet blast right up the tail. I stopped

the jacking, told everyone to raise their ram locks, while we lowered the jet as quickly as possible.

Sure enough, the E4-B began its turn, and I swore aloud profusely. We were supposed to have been notified, and it was as clear as day that we were jacking the aircraft. Just as the nose gear began to touch to the ground once again, the E4, which had stalled mid-turn, ran up its massive engines to continue. We were blasted with jet wash, right up the tail.



There is a wind limit of 20 knots to jack, and a maximum of 40-knot gusts once the jet is fully elevated with the jacks locked. What we got from the E4-B was well above that, with the RC-135's nose off the ground. Had we not responded as quickly as we did, I'm sure the jet would have tipped off the tail jack. The forward fuselage would have fallen onto the nose gear. The major risk, of course, was loss of life if a jack had failed, or the nose gear had collapsed under the weight. Fortunately, neither happened. A more likely result would have been the aircraft's bouncing off its nose, causing

the tail to come down misaligned with the tail jack, thus puncturing the tail. There also was the possibility of overstressing the 4 remaining wing jacks.

In the end, nothing was damaged, no one was injured, and we resumed raising the aircraft and got the job done. Had we not responded quickly, it likely would have become a Class A Mishap, possibly including loss of life. I am glad we averted a catastrophe, and now can say "We did that!"

Always be aware of your surroundings. You never know: it could be someone e/se who doesn't follow the rules! 🗡️



LOAD CLEAR

BY SSGT ALAN M. TRAVASSOS

On a cold, moonless night along the English coastline, the quiet of the lush, rolling hills, and grazing livestock is interrupted by the faint chirp of a radio. A single phrase is uttered in the darkness: “Clear to drop.” From the north, the dull hum of four turboprop engines grows louder. The smell

of sulfur fills the air as a smoke grenade is set off in the middle of a green pasture. As the sound of the aircraft engines becomes deafening, a loud *whoosh* is heard as two massive parachutes open to support the cargo below them. With the engine noise fading as the aircraft begins to move off to the south, the radio chirps again, this time from above: “Load clear.”

This is a scenario in which I had found myself hundreds of times before. Crouching in the middle of the English countryside, radios and equipment strapped to my back, looking through a narrow field of vision with a slightly green tint—all to ensure that the other Airmen and I were combat-ready at all

times. On most nights, it was routine; however, that night was different. Instead of the dropped platform gently coming down to earth hundreds of yards from my position as planned, I was looking at 4,000 pounds of metal, wood, duct tape, and fabric coming straight for me from above. In that split second, my mind ran through everything I had done up to that point.

This type of mission involved hazards that were well established. We had assessed them in pre-mission briefs. We had developed controls and action plans to mitigate them, from calibrating equipment before leaving that night, to double- and triple-checking coordinates to ensure I had positioned myself

well outside the danger area. Yet somehow, I was no more than 6 seconds from becoming a small bump in a field. Luckily for me, a change in the wind and a good judgment call as to which direction to run allowed me to go home that night unharmed.

What we do as airmen is inherently dangerous. No matter how much planning is put into a task, sometimes things just go wrong. Using the risk-assessment process helps mitigate the danger as much as possible. With the use of real-time risk assessment, split-second decision-making, and a bit of luck, I am still here today. Make it a priority to know and use risk assessments in daily tasks, because your life might be on the line. ✈



Taking the Time to Do It Right

BY SSGT MICHAEL W. LAPHAM

On a warm afternoon in an Aerospace Ground Equipment maintenance shop, everything was normal. Inspections were being worked, maintenance was being conducted, and tools were being checked out. Normal, that is, until an Airman First Class (A1C) was assigned to perform an annual inspection on a Universal Maintenance Stand (UMS). This is a piece of ground equipment used as a powered maintenance stand. It can be driven to a specific location near an aircraft, and raised as high as 30 feet. The main deck has removable panels that allow Airmen to access parts of the aircraft.

Annual inspections of this equipment typically don't take very long, especially when the maintainer follows the Technical Orders (TO). On the day in question, though, the maintainer was a certain A1C—me. I was relatively new to the career field, but had been trained on the equipment. This was my first time inspecting the equipment by myself, with a little monitoring from a Senior Airman.

The inspection was going well; however, I wanted to rush in order to make and/or beat the suspense that we had been given. The UMS is equipped with diesel-powered hydraulic pumps which raise and lower the deck. As part of the inspection, one has to change hydraulic fluid filters.

I had changed the oil in this equipment before, with no issues. Everything was the same as with any other unit with a diesel engine. Once the inspection was complete, I went underneath the unit to change the hydraulic filter. I skimmed the TO, and saw I had to close the tank valve in order to prevent hydraulic fluid from leaking out once the filter was removed. In my haste, I neglected to read the next instruction, which was to release the air pressure that was in the system.

I loosened the filter. The instant it was free, approximately 100 psi of air forced all the hydraulic fluid out of the lines, and gave me a nice, red shower. I immediately got out from under the equipment. Hydraulic fluid had filled my goggles, and I was unable to see. Two supervisors were on hand, and directed me to the emergency shower and eyewash. They then escorted me to the clinic, where I was checked out to ensure I wasn't injured. In the end, the only thing that was damaged was my pride ... and I had to throw away my favorite pair of coveralls.

As I look back on this event, I realize how bad the situation could have been had it not been for the people there who assisted me. I have learned the importance of why the TOs are written the way they are. I definitely have learned the lesson of taking the time to do it right. ✖





Learn the Stick

BY SSGT DANIEL W. BRUNO

It was the summer of 2017, and I was deployed to Djibouti (my first), a country in the Horn of Africa. The landscape is extreme and varied, with rough mountains to the north, and a string of low desert plains to the west and south. Parallel plateaus divide the regions.

I was working at a different base from the one where I lived. The drive from base to base was over 30 minutes long, and the roads were not paved. The available vehicles were Toyota

Land Cruisers, all with manual transmissions. Many of the newer Airmen didn't have any experience driving manuals. Traveling the winding dirt roads in the area was challenging, and doing so while learning to operate a standard transmission was even more so. On average, it took people a couple of weeks to learn the roads and become proficient in driving a stick. There were no posted speed limits.

During my first week in Djibouti, there was a vehicle mishap involving two Airmen. The driver had very little experience with manual transmissions, and he was speeding. He lost control

while trying to shift gears, and the vehicle went off a bridge and flipped over. The passenger had to be medically evacuated, and nearly was paralyzed.

Lessons were learned that day, though it should not have taken an accident to get people to realize the importance of safe driving practices. After the incident, people became more aware of speeding. Speed limits were created and strictly enforced. New drivers were sent to a training course.

The best way to be safe on any road is to follow the speed limit, and – just as important – know how to operate your vehicle. 🚗

DANGER

DON'T ASSUME

BY SSGT DAVID L. BREWER

While I was performing Additional Duty Weapons Safety Representative (ADWSR) tasks in a deployed location, we had multiple locations where aircraft could be parked for weapons loading/unloading. Turnover from the previous ADWSR had been inadequate, and the new personnel missed vital information. When my unit arrived, we began loading aircraft with high-explosive munitions (HD 1.1), having assumed all the combat aircraft parking areas were sited properly. *(Editor's note: Parking sites are assigned locations used for explosives operations. Their purpose is to ensure the required safe space is maintained between the explosives and surrounding structures and/or personnel. Their size and placement are*

determined by the type and number of explosives approved for the area.)

There was a great deal of construction going on throughout the flight line. Blast barricades were being built, and taxiways and aprons were being redone. There also were a number of changes made to the site plans. While I was looking through the ADWSR SharePoint files, digging out what was/wasn't valid, I came across the site plan for the apron. Upon closer inspection, I realized C7 was not sited. After verifying with the current Weapons Safety Manager (WSM), I immediately informed the expeditors, and they had the aircraft downloaded until it could be towed to a sited combat aircraft parking area. Considering the situation, this was the best course of action.

There were at least three opportunities for us to have handled the situation better.

- We shouldn't have assumed all the spots were properly sited before beginning to load explosives onto an aircraft in an un-sited parking area.
- There should have been better turnover from the previous crew, which would have informed us of the un-sited parking area.
- I would have identified the conflicting information sooner if I had gone through the ADSWR files sooner.

I learned not to assume other people have all the information, and always to verify site plans. This is especially important when construction is going on, and the site plans are being changed. I hope others will learn from my mistake. When turning over an ADWSR or WSM program, always look over the entire program as soon as possible.

Just because it's done doesn't mean it's done right. 🚧

1st Quarter FY23 Awards



Aircrew Safety Award
Crew of H00VR46
343 RS, 55 WG, 16 AF
Offutt AFB, NE



Aviation Maintenance Safety
SILENT SHIELD Maintenance Section
25 IS, Det2, 1 SOW, 16 AF
APO, AE



Flight Line Safety
TSgt John A. Worley
333 FGS, 4 FW, 15 AF
Seymour Johnson AFB, NC



Pilot Safety
Maj Michael R. McLain
28 TES, 53 WG, USAF WC
Eglin AFB, FL



Safety Career Professional
TSgt Christian E. Stevens
20 FW/SEG, 15 AF
Shaw AFB, SC



Congratulations



Unit Safety
23 MUNS Armament Flight
23 MUNS, 23 WG, 15 AF
Moody AFB, GA



Unit Safety Representative
TSgt Danny R. Pryor
552 AMXS, 552 ACW, 15 AF
Tinker AFB, OK



EXCESSIVE HEAT WATCH

An Excessive Heat Watch is issued when **dangerous heat is possible**.

Reschedule outdoor activities in the coming days. Make sure that children, the elderly, and pets have a place to cool off during the heat.

Be Prepared.

EXCESSIVE HEAT WARNING



An Excessive Heat Warning is issued when **dangerous heat is happening or about to happen**.

Avoid heavy activity & direct sunlight. Stay hydrated, find a cool indoor place, and check on children, elderly & pets.




Take Action!

Heat can escalate quickly.

Warm temperatures can quickly become dangerous. Heat is one of the most deadly weather hazards — don't underestimate it.

-  NEVER leave pets alone in a closed car
-  Spend time in air conditioning and in the shade

HELPING OTHERS: EXTREME HEAT

-  NEVER leave anyone (or pets) alone in a locked car
-  Monitor others exercising or playing sports, ensuring frequent breaks
-  Bring water to outdoor activities to keep everyone hydrated



Heat Impacts: Vulnerable Populations



PREGNANT



NEWBORNS



CHILDREN





ELDERLY



CHRONIC ILLNESS

Everyone is at risk from the dangers of extreme heat, but these groups are more vulnerable than most. Age and certain conditions make the body less able to regulate temperature.


-  Drink plenty of water, even if not thirsty
-  Wear loose-fitting, light-colored clothing



Mishap Statistics Scoreboard

FY23 Flight

Thru 31 March 2023

	Fatal	Aircraft Destroyed	Class A Aircraft Damage
15 AF	0		0
16 AF	0	0	0
USAFWC	0	0	0
ANG (ACC-gained)	0	0	0
AFRC (ACC-gained)	0	0	0
AFCENT (ACC-gained)	0	0	0

FY23 Occupational

Thru 31 March 2023

	Class A Fatal	Class A Non-Fatal	Class B
AFCENT	0	0	0
USAFWC	1	0	0
12 AF	0	0	0
15 AF	3	0	2
16 AF	0	0	0

FY23 Weapons

Thru 31 March 2023

	Class A	Class B	Class C	Class D	Class E
ACC	0	0	1	1	3

Legend

Class A - Fatality; permanent total disability; property damage \$2.5 million or more
Class B - Permanent partial disability; property damage between \$600,000 and \$2.5 million
Class C - Lost workday; property damage between \$60,000 and \$600,000
(Class description effective Oct. 1, 2019)

(RED) = On-duty (BLACK) = Off-duty

Symbols for Mishap Aircraft



Flight Notes

Air Combat Command Flight Safety experienced two Class A mishaps in the 2d Quarter of 2023. I will repeat my comment: Airmen are doing it Right! This time last year, we had 60% more mishaps, costing the Air Force millions of dollars across five airframes. Let's not become complacent and take these statistics lightly. Mishaps happen every day at a lesser classification, and sometimes causes a ripple in the Air Force mission. The critical days of summer are here, and the mission pace has already increased significantly. Keep your eyes on your fellow Airmen, and say something when things are out of the ordinary. That is what keeps the Air Force moving and ready to answer our nations call!

Occupational Notes

Air Combat Command Occupational Safety sustained one Class A mishap in the second quarter of the fiscal year (FY) 2023, involving a 2-Wheel private motor vehicle fatality. Several factors led to the mishap, including a lack of proper training, excessive speed, and alcohol use. Additionally, the command sustained two Class B mishaps. One involved a member who lost part of his thumb when it became caught in a motorcycle chain during maintenance—the result of a lack of proper risk management. The final mishap involved a warehouse fire. Poor housekeeping was contributory in this mishap.

While we realize we cannot eliminate all risks, we must take measures to decrease the likelihood of the next mishap. As we transition from spring into summer, we all tend to become more active, and thus place ourselves at a higher risk for a mishap. While commanders and supervisors are responsible for promoting and enforcing standards, **YOU** are the key to your own safety, your family's safety, and the safety of your coworkers.

Weapons Notes

During the second quarter of FY23, ACC experienced one Class C, one Class D, and three Class E mishaps. The Class C mishap resulted from a 20MM gun system jammed on an F-15E. The Class D mishap resulted from an MHU-141 trailer striking two AIM-120 missiles on a parked trailer. Two Class E mishaps were the result of negligent handgun discharges. The last Class E mishap was due to firing impulse carts during an operational check.



OVER ^{the}
Edge
MAGAZINE

don't go
**OUT WITH
A BANG!**

Stay Healthy in the Heat

Stay Cool

Stay inside an air conditioned place or go to a pool

Stay Hydrated

Fill a reusable bottle with water and bring it with you

Summer clothes

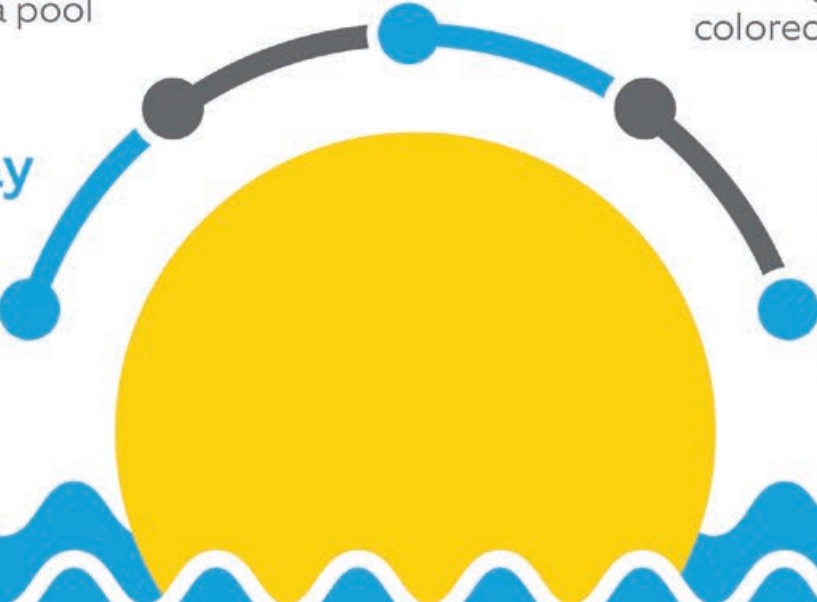
Wear lightweight, light colored clothes

Plan Your Day

Avoid going out or exercising at the hottest times of the day

Help Others

Check in on those at risk, like the sick, older adults, children



Source: National Weather Service

OVER the Edge MAGAZINE

4 | **101 CRITICAL DAYS OF SUMMER**
by Ms. Lisa A. Gonzales
AFSEC/SEGS, JB Lackland-San Antonio, TX

- 8 | **THE LURE OF THE RIDE**
by A1C Aston G. Lee
25 OSS, Shaw AFB SC
- 12 | **ASLEEP AT THE WHEEL**
by SSgt Nathan C. Schurke
355 WG/SE, Davis-Monthan AFB, AZ
- 16 | **A COLLATERAL COVID CASUALTY**
by SSgt Michael A. Zehnal
23 WG/SEG, Moody AFB, GA
- 18 | **DON'T GO OUT WITH A BANG!**
by MSgt Bradly R. Kainrath
HQ ACC/SEW, JB Langley-Eustis, VA



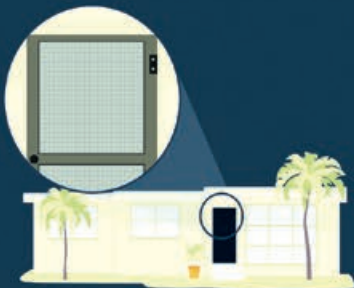
MOSQUITO BITES CAN MAKE YOU SICK

Mosquitoes spread germs



Mosquitoes bite day and night.

Mosquitoes that spread viruses bite during the day and night and live indoors and outdoors.



Mosquito-proof your home.

Use screens on windows and doors. Use air conditioning if available. Keep mosquitoes from laying eggs in or near standing water.



Use insect repellent. It works!

Look for the following active ingredients: DEET, picaridin, IR3535, oil of lemon eucalyptus, para-menthane-diol, or 2-undecanone.



Wear long-sleeved shirts and long pants.

For extra protection, treat clothing with permethrin.



101

Defending the Human Weapon System

CRITICAL DAYS OF SUMMER

BY MS. LISA A. GONZALES

The Air Force Safety Center announces the return of the 101 *Critical Days of Summer* campaign, with off-duty risk-management materials created to educate Airmen and Guardians about summer safety. The 101 CDS begin Memorial Day weekend, and continue through Labor Day. During this time, many Airmen and Guardians enjoy traveling, barbecuing with friends, boating, swimming, camping, and other outdoor activities. Such pursuits are fun, but they also include increased risk.

See Something Do Something...Live to be Lethal

101 CRITICAL DAYS OF

SUMMER



This year's theme is "See Something, Do Something ... Live to be Lethal." Risk Management doesn't apply only to on-duty activities, but also belongs in our daily lives, to be used to defend the Human Weapon System—YOU—from unnecessary threats that could result in injury or death. Reaching the goal of zero mishaps and fatalities begins with every Airman and Guardian. There have been 134 off-duty fatalities over the past ten summers. The top three causes involved four-wheeled motor vehicles (47), motorcycles (41), and water-related activities (19). It goes without saying that a single Airman or Guardian lost to a preventable mishap is one too many.

On Wheels



• According to the National Safety Council, an average of 17,503 people died on roadways during the summers between 2016 and 2020. Don't be one of those statistics: Prepare for your trip by having your vehicle checked, and plan ahead for the possibility of inclement weather and fatigue. Be sure to take an emergency kit, stocked with vehicle supplies, extra water, food, batteries, and a phone charger.



• Motorcycle riders should be 100% trained, and equipped with the required skills and proactive mindset needed to ride safely. In the first four months of FY23, seven Airmen died in motorcycle accidents. The leading causes were the lack of risk management, speeding, and alcohol.



• There also is a growing trend in mishaps involving e-bikes and e-scooters. These electric vehicles provide a convenient way to get around in a crowded city. They are compact, lightweight, and environmentally friendly; however, they also can be dangerous if not used with the proper training and the right personal protective equipment. As with any motorized vehicle, the rider should follow the manufacturer's safety guidelines.

On the Water



• The World Health Organization lists drowning as the third leading cause of unintentional injury death worldwide, accounting for seven percent of all injury-related deaths.



• Water sports like boating, fishing, and swimming can cool you off, but one wrong decision could result in injury or death. Remember to wear a life jacket around the water, don't drink while boating or swimming, and always keep an eye on small children and make sure they wear life jackets.

Beat the Heat



• The summer days can become extremely hot, and cramps, heat exhaustion, or heatstroke can strike without much warning. Be prepared if you spot someone in trouble. Get them out of the sun, and cool them down. Apply water, cool air, wet sheets, or ice on the neck, groin, or armpits. Seek medical attention immediately.

Drink Up



• Stay hydrated this summer. Water lubricates and cushions your joints, protects your spinal cord and other sensitive tissues, and gets rid of wastes through urination, perspiration, and bowel movements. The average adult loses about two-and-a-half quarts of water each day. Drinking approximately eight to twelve glasses of water throughout the day will help the body stay hydrated. If you plan to be outside in the sun, consider drinking more. Dehydration can occur before you know it. Learn to recognize the signs, such as headache, nausea, dry skin, and muscle/joint pain.

It is imperative that Airmen and Guardians implement proper off-duty risk management in all recreational activities they enjoy during the 101 CDS and beyond. Keep the Air Force strong by staying safe! For more information, go to the Air Force Safety Center's summer webpage: <https://www.safety.af.mil/Divisions/Occupational-Safety-Division/Summer-Safety/>.



THE LURE OF THE RIDE

BY A1C ASTON G. LEE

Ever since I was a teenager, I had wanted to ride a motorcycle. Growing up in New York City, one of the coolest things to me was seeing guys and girls twisting the throttles, and hearing the engines roar as they went up and down the street.

By April of 2013, I finally had saved up enough money to buy my first motorcycle. I had never even been on a motorcycle before, but many of my old classmates had been riding for a few years, and I just knew they could teach me everything I needed to know. I found a great deal on a 2006 Kawasaki ZX-10r, and my buddy “MJ” and I drove an hour north of the city to check it out.

Not that I knew what I was looking at, but I thought the bike looked great. MJ rode it back and forth a few minutes and did all the safety checks, while the seller and I verified the paperwork. A few moments later, we started our journey back to the city – with MJ on my “new-to-me” ZX-10r, and me driving behind him, smiling from ear to ear.

We arrived at my grandmother's house, and parked the motorcycle in her backyard. MJ went on his way while I stayed there for several hours, trying to figure out how to get the bike started. I didn't have any idea what I was doing, but I couldn't let MJ know – I had to look cool. After watching several YouTube videos and referring to online manuals, I finally figured it out. Then, with no training whatsoever, I began my motorcycle-riding journey.

I had heard the stories that would make any reasonable person think twice about riding a motorcycle, of course. Even so, it really doesn't hit home until you go down or see someone else go down. In the motorcycle community, we say "ride your own ride." This is especially true when traveling in groups. It's important to know your limitations instead of trying to compensate for a lack of skill.

One autumn Sunday in 2019, my co-worker "Q", a few friends from college, and I all wanted to take one last ride to close out the season. We decided to travel from NYC to Philadelphia for Philly Cheesesteaks. The pack was comprised of guys who had over 10 years of experience, as well as others who were closing out their first season of riding. Q happened to be one of the latter.

Before each ride, we always gathered to go over "dos and don'ts." We inspected each motorcycle to ensure it was in optimal condition, made sure each rider had the personal protective equipment (PPE), and said a prayer for guidance and safety. This trip, all riders gave the thumbs-up, and we headed out towards I-95. We put two of the more seasoned riders at the front, the less experienced riders in the middle, and the remaining seasoned riders in the back to ensure no one got left behind. Q rode in the middle of the pack, and I followed behind.

Seven minutes and 47 seconds in, I heard a loud tire screech followed by a thunderous slam, as if a boulder had hit a brick wall. As I rounded the corner, I saw long tire marks in the road, and fluid streaming down the gutter. Up ahead, I saw a white RV parked on the right side of the street. Wedged beneath it were the crumbled remains of what had been a motorcycle. All the riders pulled off to the side and ran to see if anyone was injured.

As we got closer, we saw Q lying in the grass on the shoulder, with his bike under the right rear wheels of the RV. We called 911 as we checked his condition. He was coherent, but obviously startled. His right leg was swollen just above the knee. The paramedics arrived on the scene, and rushed Q to a nearby emergency room, where he was treated for a broken femur and minor abrasions.

This is how it happened: The leaders, who were more familiar with the route, had gone around the corner faster than Q had anticipated. Commercial vehicles frequently parked in the area, and it was known for having loose, oily gravel. As Q attempted to go around the corner at the same speed as the leaders, he miscalculated, lost control, and was seriously injured. Fortunately, he was wearing PPE; otherwise, the outcome could have been much worse.

Riding can be a real thrill, if done safely and at the skill-level of the rider. Whatever one's ability, wearing PPE should be the minimum precaution each rider takes to lessen their chances of being seriously injured (or worse).

Before you ride:

- Wear a DOT or Snell-approved helmet, properly fastened under the chin.
- Wear proper eye protection.
- Wear appropriate foot protection, to include sturdy over-the-ankle footwear.
- Wear full-fingered gloves or mittens designed for motorcycle use.
- Wear long-sleeve shirt or motorcycle jacket and pants appropriate for motorcycle riding.

Safety isn't just for work. Be sure to take it with you the next time you ride, and STAY SAFE! 🏍️



Photo by M-Production/Shutterstock

How to Identify Unsafe Motorcycle Helmets

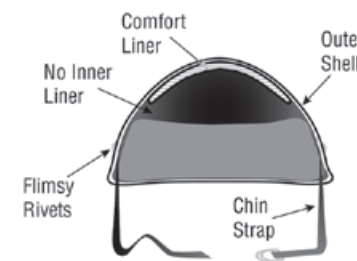
It's clear ... Motorcycle helmets save lives. To help protect the lives of motorcycle riders, the U.S. Department of Transportation (DOT) requires that all motorcycle helmets sold in the United States meet Federal Motor Vehicle Safety Standard (FMVSS) No. 218. This standard defines minimum levels of performance that helmets must meet to protect the head and brain in a crash. Each year, DOT conducts compliance testing of a variety of motorcycle helmets to determine whether helmets being sold in the United States meet the Federal safety standard. Because helmets add such a critical margin of safety for motorcycle riders, many states now have laws requiring use of helmets that meet FMVSS No. 218 requirements. Some motorcycle riders are violating these state laws by wearing unsafe helmets that do not meet FMVSS No. 218. Most of these helmets are sold as novelty items and circumvent FMVSS No. 218's requirements. In some cases, motorcyclists purchase these helmets in the mistaken belief that they offer protection. However, many people who wear these novelty helmets know that they are unsafe – but wear them anyway. Here is how to identify unsafe novelty helmets and recognize those that meet the Federal safety standard.

Design/Style of Helmet

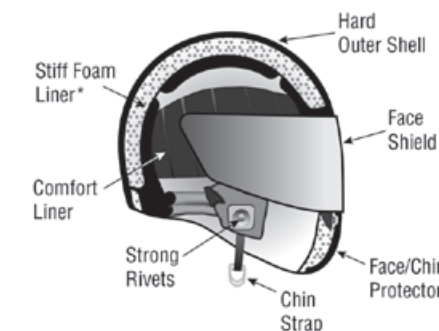
The DOT safety standard does not allow rigid protrusions to extend farther than one-fifth of an inch from the surface of a helmet unless required for operation of essential accessories. For example, while visor fasteners are allowed, a spike or other protruding decoration may indicate an unsafe helmet.

Safe helmets can come in styles ranging from partial to complete coverage. However, the more a helmet covers, the more protection it can provide.

UNSAFE Helmet Interior



SAFE Helmet Interior



*Typically expanded polystyrene

What to Check For

Check for weight, inner liner thickness, sturdy chinstraps, as well as the DOT certification label to assess if the helmet meets the Federal safety standard. Familiarize yourself with brand names and designs of helmets that comply with DOT requirements. For example, a full-face design is a good indicator of a safe helmet. To date, we have never seen a full-face style novelty helmet.

Weight of Helmet

Depending on design, unsafe helmets can weigh only one pound or less. Helmets meeting FMVSS No. 218 generally weigh about three pounds. Become familiar with the weight of helmets that comply with the DOT safety standard. These helmets feel more substantial.

Inner Liner Thickness

Helmets meeting the minimum Federal safety standard typically have an expanded polystyrene (stiff foam having the appearance of styrofoam) inner liner that is at least ¾-inch thick. Sometimes the inner liner will not be visible, but you should still be able to feel its thickness. Unsafe motorcycle helmets may have an inner liner less than ¾-inch thick, only a soft foam padding liner, or may lack an inner liner entirely.

Sturdy Chin Strap and Rivets

Helmets meeting the DOT safety standard have sturdy chin straps with solid rivets.

DOT Certification Label

Helmets that meet FMVSS No. 218 have certification labels on the back of the helmet. Helmets manufactured on or after May 13, 2013, are required to have the new DOT certification label:



Manufacturer's Labeling

Manufacturers are required under FMVSS No. 218 to place a label on or inside the helmet stating the manufacturer's name, size, month and year of manufacture, and instructions to the purchaser which includes construction materials and warnings regarding the care and use of the helmet. A helmet that does not meet the Federal safety standard usually does not have such labeling. Remember that a DOT label on the back of the helmet and proper inside labeling do not necessarily indicate that a helmet meets all DOT requirements. Some helmets may have counterfeit DOT certification labels, and a limited few may also have manufacturer's labeling.

Snell or ANSI Label

In addition to the DOT certification label, labels located inside the helmet showing that a helmet meets the standards of private, nonprofit organizations such as SNELL or the American National Standards Institute (ANSI) are good indicators that the helmet also meets FMVSS No. 218.



ASLEEP at the WHEEL



Photo by SSgt Nathan C. Schurke

BY SSGT NATHAN C. SCHURKE

The event took place in October of 2005, about 150 miles north of Las Vegas. I was not in the Air Force at that time. I had taken a break from college, and left my life in Missouri for two years in order to serve a mission for my church. I had spent about nine months in Las Vegas, and recently had been told that I would move Reno to continue my missionary service.

The day came for me to meet with my leaders and the others who were going to Reno. There I saw Ed, with whom I had worked at the beginning of my mission. He told me he was driving one of the cars to Reno, and asked me to join him so we could spend time together and catch up. I agreed, and we took off. There were several other missionaries going to Reno, and most were in a large van. The rest were others driving cars.

The drive through Las Vegas was nice, but there wasn't much to see once we left the city, and the trip became uninteresting. To keep ourselves occupied, Ed and I caught up on everything that had happened while we were apart. Ed was a very

funny, lighthearted person. He was born in New York City, and had only learned to drive a few years earlier. He normally didn't drive on long car trips – not more than two hours. While we were catching up, he mentioned that he had been up late packing his suitcases. He hadn't gotten much sleep, as we had gathered early that morning.

As we traveled, there was a lull in the conversation. I looked out the window for a while, just looking at the scenery. After a while, I glanced over at Ed, and what I saw horrified me. Ed was asleep! I then realized we were drifting into the other lane of a two-lane highway, heading straight for oncoming traffic—a tractor trailer!

What does one do when panicking in a scary situation? I didn't have time to think, and yanked the steering wheel. What happened next is something I will remember for the rest of my life. Because I pulled the steering wheel in a panic, I over-corrected. The car went off the road, and rolled 3 or 4 times. It seemed as though everything happened in slow motion. While we were rolling, I looked over at Ed just as the roof caved in and cut

his head. I reached out the window, and grabbed the top of the car, which rolled over on my hand. We both had cuts from the broken glass, and bruises from the seat belts. Sadly, the airbags did not deploy.

All the other vehicles in our group stopped. Our companions gave us first aid and called for emergency services. We were transported to the hospital in Las Vegas. Ed was treated for a large cut on his head, as well as road rash. I was treated for some cuts, including a large one on the knuckle of my middle finger that had to be stitched. I was very sore for the next few days.

During the 17 years since it happened, I have reflected many times on the accident, thinking of all the things I could have done to prevent it. The fact that Ed and I had only minor injuries was nothing short of a miracle. I learned a great deal from it, and now take the opportunity to encourage others to be prepared when driving long distances.

Some of the things I have learned:

- Get enough sleep! It is important to get a good night's sleep prior to going on a long drive, especially if you are driving alone.
- Offer to drive if you are well rested and the person driving is tired.
- Be sure to tell friends or family that you are taking a trip. Ask them to check on you.
- Don't text and drive! Have a hands-free device if someone calls during your trip. Call them to check in when you stop for food, rest, or fuel.
- Plan ahead! Map out your trip, and try not to deviate from your plans.
- Do not drive over 8 hours. If there are other with you on your trip, ask one of them to take over. For long trips, planning ahead. Make sure you have a good comfortable bed at a hotel. Avoid sleeping in your car.
- Pay attention to your location. In case of an emergency, it is important to know the mile marker or name of a crossroad. What is the name of the town you just passed, or the one you are approaching?

I hope these ideas will be helpful on your next road trip. Prepare for your time on the road, and stay safe. 🚗



DROWSY DRIVING

ASLEEP AT THE WHEEL

DRIVE ALERT AND
STAY UNHURT.

Learn the risks of drowsy driving
and how to protect yourself.

THE WARNING SIGNS OF DROWSY DRIVING

- **Yawning** or **blinking** frequently.
- **Difficulty remembering** the past few miles driven.
- **Missing** your exit.
- **Drifting** from your lane.
- **Hitting** a rumble strip on the side of the road.

For more warning signs visit the American Academy of Sleep Medicine



WHAT IS DROWSY DRIVING?

Drowsy driving is the dangerous combination of driving and sleepiness or fatigue.
This can happen to a driver for several reasons



PREVENT DROWSY DRIVING, BEFORE TAKING THE WHEEL

There are a few things you should do before taking the wheel
to prevent driving while drowsy.



Get enough sleep! Adults
need **7 hours** and teens need
at least **8 hours**.



**Develop good sleeping
habits** such as sticking to
a sleep schedule.



Avoid drinking alcohol or
taking medications that make
you **sleepy**. Check the labels.



Talk to your doctor about treatment
options if you have a sleep disorder
or symptoms such as snoring



If you notice the warning signs of drowsy driving
while driving, **pull over** to a safe place and take a
15-20 minute nap or **change drivers**.

DID YOU KNOW?

Up to
6,000 fatal crashes
each year may be caused by drowsy drivers



A Collateral Covid Casualty

BY SSGT MICHAEL A. ZEHNAL

The Covid-19 pandemic changed life as we know it. Everyone was affected by it, sometimes in ways we didn't see coming. On a muggy morning in May 2020, I was awakened shortly after going to sleep (I had been on shift until 0400 that morning) by my shift leader. I couldn't decide which was stranger – that he was in uniform, or that he was at my door so soon after our shift had ended. He told me people had been trying to get in touch with me all morning, and I needed to show up to the unit immediately, in uniform. After he left, I checked my phone. There were several missed calls and text messages from people looking for me. My mind raced, because no matter how many times I asked, he wouldn't (or couldn't) tell me what was going on. Was I in trouble? Had we fouled up one of our jobs in the wee hours of the night, and now we had to go in and fix it? Were we going to war?

I had no idea. I got dressed as quickly as I could, and made my way back to the base to find out what was going on.

I didn't even make it into the building. As I entered the secure side of my work area, I was met by my flight chief. We stood in an open field under a clear blue sky. It looked like the beginning of an absolutely beautiful day to be alive. Then he told me: "There was an accident last night." He then proceeded to tell me that my best friend had passed away. "I know you were close, and I'm sorry, man." I'm pretty sure he said more after that, but, as the meaning of that first sentence began to click in my head, everything else became a surreal blur. No – No way. Things like this don't happen to me. That was true: Up until that day, I had never lost anyone close to me in such a tragic way.

I learned the details of my friend's passing. Covid had shut down the world, and, like everyone else, he had been exploring new hobbies. Riding

an ATV had been at the top of his list. At work all he talked constantly about riding, the great deal he had found on a Honda ATV, and how he was going to pay for it. I told him not to buy it, and more seasoned NCOs gave him the same advice. He bought it anyway, and started riding without proper training or any Personal Protective Equipment (PPE). Predictably, while alone and bored during quarantine, he decided one night to go for the ride that ended up being the last thing he ever did. Not more than a week after he had purchased the ATV, he lost control, and it flipped over on him. For his sake, I hope the end was quick.

Under normal circumstances, he would have had access to training, PPE, and wingmen. He wouldn't have had so much time on his hands to become bored, sitting at home and making poor decisions. Proper training, PPE, and wingmen save lives. They could have saved his, and they definitely can save yours. 🦋

8 Golden Rules of ATV Safety

1. Always wear a Department of Transportation (DOT) compliant helmet, goggles, long sleeves, long pants, over-the-ankle boots, and gloves.
2. Never ride on paved roads except to cross, and only when done safely and permitted by law – Another vehicle could hit you. ATVs are designed to be operated off-highway.
3. Never ride under the influence of alcohol or drugs.
4. Never carry a passenger on a single-rider ATV, and no more than one passenger on an ATV specifically designed for two people.
5. Ride an ATV that's right for your age.
6. Supervise riders younger than 16. ATVs are not toys.
7. Ride only on designated trails, and at a safe speed.
8. Take a hands-on ATV *RiderCourse* and the free online E-course. Visit ATVsafety.org or call 800.887.2887.

(source: ATV Safety Institute)



don't go OUT WITH A BANG!

BY MSGT BRADLY R. KAINRATH

For me, there is nothing better than celebrating the Fourth of July with friends and family while enjoying some delicious BBQ and tasty beverages. The night culminates with the customary fireworks display. There is always a thrill that comes from being able to wrap up the night with setting off some fireworks of my own. This past year, though, things were different.

In years past, I always made a point of getting ready a few days prior to the Fourth of July. I made sure the grass was freshly mown, and the clippings removed. I also watered the grass frequently. Last year, though, I had a short-notice Temporary Duty (TDY) assignment just before July 1st, and I wouldn't return until July 3d. I arrived home late on that evening, and went down to the local fireworks stand to purchase the biggest fireworks I thought I could set off at my house. At this point, the thought of safety hadn't crossed my mind, as I was happy just to be home to celebrate with my family and enjoy some time away from work.

The 4th of July arrived. As the time for the fireworks show approached, we started prepping for everyone to arrive. My wife casually mentioned that the grass looked a little high; however, I dismissed her comment with "Oh, nothing will happen." As the saying goes, hindsight is always 20-20.

The sun went down, and night settled upon us. We got our fireworks ready, and set up our little launching area. Everyone took their seats, and we began the show. Everything was going well ... until it wasn't. One shell misfired. Essentially, it didn't ascend to its maximum height before it detonated, and instead exploded too low, showering the ground with beautiful little fireballs.

This is where my wife was right, and I still haven't heard the end of it. During the previous few weeks, we had experienced high temperatures and low rainfall. Those little fireballs ignited the tall, dry grass in several areas of the yard, which sent us all into a mild panic mode. I immediately grabbed the hose and began to douse the small fires

before they could spread. A friend gathered our unused fireworks and moved them a safe distance away in order to prevent any further incidents. Unfortunately, the mishap brought the night's festivities to an end, and we cleaned up the yard to make sure no embers would flare back up.

My disregard for our usual safety precautions—despite my wife's comments—could have led to severe injury or property damage. No matter what you are doing, whether it's the first or millionth time: It is imperative that you take every precaution to keep everyone safe. 🚒

Fireworks Safety Tips:

- Light fireworks outside, one at a time, then move away quickly.
- Do not place your body directly over the device.
- Don't try to relight malfunctioning fireworks.
- Never hold lit fireworks in your hands.
- Never point or throw fireworks at anyone.
- Keep a bucket of water or a garden hose nearby in case of an emergency.
- Soak both used and unused fireworks in water before throwing them away.
- Don't let young children light or play with fireworks, including sparklers.
- Don't use fireworks if you're impaired by drugs or alcohol.

The next time your plans involve fireworks, consider these statistics:

- In 2021, accidents involving fireworks resulted in 9 fatalities and approximately 11,500 injuries.
- Men are more likely to be injured than women.
- People aged 20-24 have the highest rate of injuries.
- Most injuries occur to hands and fingers, due to improper handling.