



TELL US YOUR STORY

The Combat Edge presents safety stories from Airmen – people just like you. If you enjoy reading their articles, you can bet they'll enjoy reading yours.

Think of it: You, a **PUBLISHED AUTHOR!** It could happen, and more easily than you think.

We welcome safety stories on all topics from across Air Combat Command. If you have a personal story, a lesson learned, or an idea you'd like to share, we would love to hear about it. Articles can be about on-duty mishaps and/or their prevention, as well as off-duty safety issues: in the home, while traveling, sports, etc.

How easy is it? I'm glad you asked. Send your story, along with any high-resolution photos that go with it to: acc.thecombatedge@us.af.mil. If you haven't done much writing, or don't know how to begin, we can help.

You have to play to win. Get in touch by contacting Richard E. Cook at 757-764-8846 (DSN 574-8846), or richard.cook.38@us.af.mil for more information.

YOUR Story Is Too Good Not To Share!

Correction—In the Summer 2022 edition of *The Combat Edge*, the author of "Lights Out Over Georgia" was incorrectly listed. The article was written by Captain Jack "SPARROW" O'Neill, 41 RQS, Moody AFB, GA. The online version of the magazine contains the correct information. We sincerely apologize for the error.

Combat Edge

LOCAL BUT LOST

Anonymous (Reprinted from TAC Attack, January, 1961)

OLD TAT

(Reprinted from TAC Attack, January, 1961)

THE FIRST LEG WENT SMOOTHLY

by Lt Col Jonathan "Brute" Esparza 192d Fighter Wing, Joint Base Langley-Eustis, VA EDUCATION AND TRAINING by Bill Morrow, SSH, SMS, ASP **AFSEC**

EXPLOSIVES SAFETY TAKES NO DAYS OFF

by MSgt Kenneth Clark 57 AMXS, Nellis AFB, NV

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GEN MARK D. KELLY COMMANDER

COL ANTHONY A. KLEIGER DIRECTOR OF SAFETY

> RICHARD E. COOK EDITOR

> > KURT REILLY

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THE COMBAT EDGE

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COVER PHOTO BY SSGT JERREHT HARRIS



Safety in Elite Teams

As we celebrate 75 years of our Great Air Force, we would be misguided not to consider whether our safety mindset will sustain us through the next 75 years. Compared to 1947, we have fewer Airmen who maintain fewer and more expensive aircraft, while requiring more time-consuming and expensive training. Simply put, we must preserve the force we have because our numbers are too few to lose even one Airman or aircraft.

You may recall the 2020 National Commission on Military Aviation Safety report, which detailed that in 2013-2018, our Air Force had 66 fatalities and 49 destroyed aircraft across 116 Class A, 273 Class B, and 389 Class C aviation mishaps (i.e., flight, flight-related, and ground).



Gen Mark Kelly Commander

Notwithstanding that we have the most aircraft of any service, from 2013-2018 we also had the highest Class A-C mishap rate within DoD. And although last year we suffered only three aviation fatalities. I would argue that three is three too many when our Airmen are professional sons and daughters on loan to us from their trusting parents.

While we know compliance with Technical Orders, procedures, and other guidance is inherently safe, we must do these "common" things "uncommonly well," as aptly put by John D. Rockefeller, Jr. That said, I'd also like to share with you a three-fold vision for safety based on the premises of elite team researchers like Amy Edmondson, author of The Fearless Organization (2018):

Speak Up. The members of the safest elite teams feel confident to bring unsafe acts to the attention of their leadership. I experienced this first-hand recently when a young A1C corrected my oversight on a checklist step I missed during pre-launch ground operations. When asked later, she admitted she was a bit nervous and intimidated to bring it up. Nevertheless, after I completed my checks, she simply said, "Sir, do you want to cycle the aircraft nozzles?"

Listen. The leaders of the safest elite teams pay attention to their members when they bring safety concerns forward. A junior Airman courageously voicing a concern demands a leader's attention. Had I dismissed the A1C, I would have been more than callous. would have been wrong. So, when she asked me if I wanted to cycle the nozzles, I said, "Yes, thank you for reminding me!"

Act. The members and leaders of the safest elite teams act decisively to correct or eliminate safety concerns. Action must also include rewarding those who speak up. After my experience with this A1C, I was so impressed that she spoke up and looked out for her fellow Airman that I coined her and posted our encounter on social media.

Given our Anniversary Theme - "Innovate, Accelerate, Thrive - The Air Force at 75" and the fact that our Airmen are indispensable teammates in the Joint Force, I challenge each of us to Speak Up, Listen, and Act to ensure we return our Airmen back to their families in as good or better shape as they were when we got them.

Grace

ANONYMOUS

(Editor's note: The following article appeared in the first edition of TAC Attack—January 1961. It is included here to commemorate the 75th anniversary of the Air Force. as well as to illustrate how things have changed—and how they have remained the same—over the past 60 years.)

ad you glanced to the east one afternoon a few weeks back, you would have noticed an unusual reddish glow rivaling the sun in brilliance. Had you investigated the cause of this phenomenon, you would have been amazed and just a little saddened. No, the glow was not from fiercely burning aircraft wreckage - Granted, wreckage was present, but no fire existed. It takes fuel to feed a fire and there was no fuel present when the crash occurred. Instead, the glow could be traced to the flushed faces of those directly involved in the events leading up to said crash ... and therein lies our story.

A young First Lieutenant was scheduled for a round-robin photo training mission from an Eastern base. Obnoxious weather delayed his scheduled 0900 departure until 1035. When he did manage to get off on a local VFR clearance, the weather was 800 scattered with 3 miles visibility in haze and fog. By clearing into this, the pilot and briefing officer both violated a base regulation requiring 5 miles visibility for such flights. To compound matters, the aircraft was on a red diagonal restricting it to VFR flight due to an unreliable slave gyro compass. (One-and-a-quarter million bucks worth of aircraft being launched into marginal visibility conditions with an unreliable slave gyro.)

When the pilot started down the active, the slave gyro was 40 degrees out of phase. Fast slave brought it back into agreement with the standby compass and the pilot climbed out on course.

En-route to his first target, he attempted a parrot check, but was unable to obtain one. He also checked his equipment and found most of it sick. He tried a revised mission only to be frustrated by cloud cover. Ah well, he needed a round robin cross country anyway. While homing on the third station enroute, the slave gyro again went out of phase and refused to fast slave back. About this time the number two needle flopped back and forth and indicated the station was to the rear (sounds like he got station passage). He attempted to tune other omni stations, but didn't consider the needle readings reliable. Taking up a heading for home on the standby compass, the pilot tried working GCI sites. Apparently his IFF was inoperative; at least he got little satisfaction from them, even when he squawked "Emergency."

Tuning in an omni station near homeplate, the pilot received a clear signal and steady needle, but elected to try for a DF steer. He called homeplate and asked for a practice steer, advising them of his gyro malfunction. The first steer was given as 138° (he was holding 50°). Using the slave gyro as a guide, he made

the necessary

correction. Approximately once a minute for the next 14 minutes, the DF station gave him seven to ten degree right corrections. During this period he descended from 35.000 to 25.000 feet to permit crossing the field at 20,000. But, instead of crossing the field, this series of steers took him in a huge orbit right around the base. This fact apparently dawned on him, because at one point he stated on the air that he seemed to be traveling in a circle ... One wonders why he didn't make a definite 90° right turn to confirm his

suspicions. Eventually fuel started to become a problem and the pilot declared an emergency, requesting Class "A" steers.

Homeplate then alerted the DF net and fixed him 20 miles SE of the station. By this time he had lost confidence in his standby compass, but nevertheless continued to accept steers for three more minutes. He was then advised to go Channel 17 to attempt contact with RAPCON. Contact was established, but

before an IFF check could be accomplished. RAPCON's radio failed. He returned to DF frequency and was advised to go Guard. By now fuel was critical. The pilot then observed a field underneath which he correctly identified as an auxiliary base which sported a 10,000 foot concrete runway. The DF steer



to homeplate was approximately correct for this position, so despite being down to 1,000 pounds of fuel, he elected to make another try for homeplate.

He departed on a heading which later was calculated to be at right angles to the course to homeplate ... and continued to work DF. Spotting a B-66, he pulled up on its wing and attempted to contact the B-66 crew on Guard channel—with negative results. (And why in thunder wasn't the B-66 monitoring Guard channel as required by regulation?) At this time DF advised him that he was 12 miles SW and was cleared to descend. Shortly afterwards, RAPCON again got into the act, and along with several IFF mode changes, gave him some more steers. At this time the pilot stated that he was completely lost. RAPCON then advised they had him and started issuing gyro out instructions.

They continued these instructions for some three minutes after both engines had flamed out and the pilot had ejected. Seems they had the wrong aircraft.

The aircraft was 33 miles north of the base when the pilot ejected. The ejection, incidentally, appears to have been the only part of the flight that was accomplished without a hitch. Investigators were able to determine the position of the number-two needle on impact and found that it was giving accurate relative bearings. To use these, the pilot would have had to read the heading under the needle, then turn to this course, using the standby compass.

to calculate bearings from the number-two needle-which is understandable under the circumstances—he missed a bet when he failed to use the ID249. The course selector and to/from features of this instrument rely on a completely different set

of impulses than the numbertwo needle and in general are quite reliable. To use the ID249 without a slave gyro, select the course that centers the bar and places "to" in the window. Use the standby compass and either make a timed turn to this course, or use the slave gyro as a reference when turning to this course, selecting the DG position. This gives a more stabilized reference. (Selecting the DG position is something else this pilot neglected to do.) When on approximately the correct course, steer to center the bar and you will soon be in.

Basically, it appears that this pilot became confused and then lost when he started losing confidence in his equipment. Generally, it doesn't look like he had a very good understanding of this equipment. This is particularly true of the standby compass. Aside from someone placing a chunk of iron near it, very little can go wrong with this instrument, but it does have its limitations. Generally speaking, readings are only accurate in stabilized level flight. But with practice, you can run a whole instrument recovery problem using little more than this compass, an attitude gyro, airspeed indicator, and a radio fix. However, it is hardly practical to try learning this or any other such procedure during an emergency situation.

The UHF radio in this aircraft was equipped with the ARA-25 homing adapter. Unfortunately the pilot didn't get around to using this until just before flameout. By then it was too late.

Additionally, one can't help but Even had the pilot been hesitant wonder why this pilot was unable to locate himself from landmarks. As near as investigators were able to tell, he made a complete circle of the base, about 20 to 30 miles out. He passed over some very distinctive landmarks such as a large lake, (which, incidentally, has one finger that points straight

to the base) and the auxiliary field. It would appear that this pilot had paid very little attention to such landmarks during the many previous flights he had made in the local area. Unfortunately he isn't alone. Not many pilots have the foresight to study the landmarks surrounding their home base, locating and memorizing those features which point to the field.

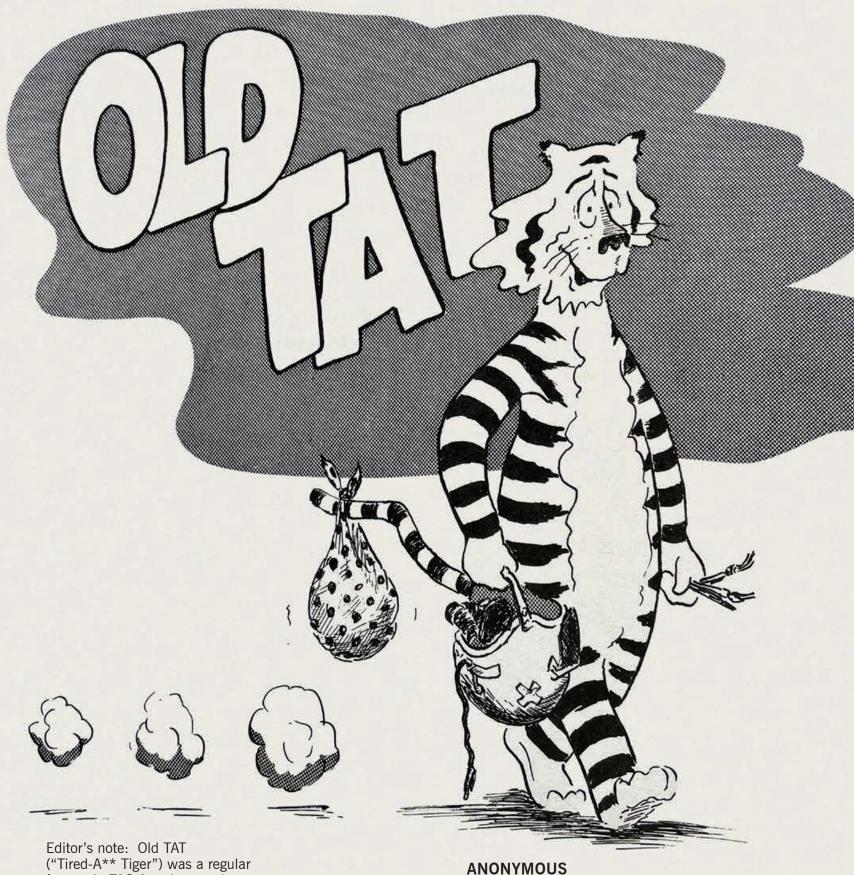
We hardly need comment on his decision to have another go at getting home when directly over a good usable airpatch, even tho that airpatch was only 30 miles from home. Sigh, a bird in the hand ...

Stepping off the pilot's neck, let's look into some other areas needing improvement. Our DF system ... but let's not blame the DF operator too much for this! How many practice steers have you requested? How many of these did you make simulating a sick gyro? O.K., next time you request a practice steer, add (or subtract) 40, 50, or 100 degrees to every heading given. A practiced operator should pick up the discrepancy and correct his steers accordingly but there is only one way for him to become practiced ... on nice clear sunshiny days, of course.

The accident board shook their finger at RAPCON because they never told the pilot whether or not they were painting his parrot. The board thought this gave him a false sense of security. RAPCON also pulled the old classic and tracked the wrong target ... it would appear that, like the pilot involved, they were a bit too eager to jump to conclusions.

In summary, while inadequate assistance of ground stations contributed to this pilot's trouble. his failure to understand and utilize available navigation aids and his rejection of a suitable landing field were the primary causes of this accident.

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feature in TAC Attack, complete with its own cartoon mascot. The section consisted of a collection of mishap summaries written in a rather informal style. The following is an excerpt from the first column of January 1961.

fter squandering the past three years scribbling for PACAF in the peaceful Pacific and the past six months in New York doing similar chores for CONAC, old TAT has finally made his weary way to TAC. This, for TAT, is fortunate, since the motto of both New York and Hawaii is "Help keep this place green—bring money."

"Run-up was normal with proper checks. I started my take-off about 500 feet from the threshold. The 2.000-foot check was O.K. at 100–108 knots. I was carrying a dart on the left outboard, reel centerline, and 275-gallon drop on the right intermediate. At 150 to 160 knots the right tire blew. I saw rubber out the left canopy and at first believed it was the left tire. I was soon getting full right yaw, and my first thought was that the heavy tank was pulling me off to the right. I punched at the jettison button just as the aircraft jolted, causing me to miss the button. At this time I felt the aircraft trying to go into a right turn and put in full left rudder and full left brake. Nose gear steering was engaged and seemed to be giving full effect. I didn't try for the panic button again because I was trying to hold as much rudder as possible to keep from cart-wheeling and with full pressure on rudder and brake, I couldn't reach the panic button.

"I was under control, I thought, until the wheel went off the runway ... then everything happened and I didn't dare release pressure. I remember the gear going and the nose hitting the ground. I think the aircraft did a 90-degree turn to the right and then to the left and stopped about 500 feet off the active. I blew the canopy with the T-handle and climbed out."

For the record, this troop stopcocked the engine shortly after he attempted to jettison the garbage. In the excitement he forgot to deploy the drag chute. Investigators took a good look at skid marks and decided that nose gear steering ceased being effective shortly after maximum braking was initiated to the left wheel. They then did a little checking around the cockpit and found that this pilot—who was all

of five-foot-seven-inches tall—had adjusted the rudder pedals too far forward. When he applied full rudder and full brake, he had to scrooch down in the seat, causing him to inadvertently pull the nose gear off with back stick and also to effectively prevent him from reaching the jettison button.

Cause of tire failure was officially assessed as materiel failure; however, the crew chief did not know the exact weight of the dart and other rigging, so rather than take a chance on over-servicing, he left the tire pressure at 202 psi. Correct pressure should have been 218 psi. Investigators believe this was enough to have contributed to the tire failure.

Perhaps so. Regardless, this should serve as a hint to maintenance supervisors. In short, this crew chief failed to properly inflate the tires because he didn't know where to find the weight of an unusual external store. Certainly, with some time and effort, he could have found this info in the T.O. ... and had he been thoroughly oriented he would have ... BUT, it seems to TAT that it would have been just as professional and far more time-saving to have prepared a list, giving the weight of all external stores in use, attaching said list with the gross weight tire pressure chart.

Before any of us pilots choke on our beer over this troop's abortive attempt to punch the panic button ... best we check ourselves to see that we can apply full rudder and full brake, with the seat and pedal adjustment we've become accustomed to using, without compromising our ability to reach pertinent controls. Also, this pilot obviously didn't have his abort procedures memorized to the point where he could accomplish them to perfection under stress. Have you?

little old word, and come up with a more correct analysis. Be that as it may, the fact that we have arrived should be ample warning for those in the know. If you goof up, you can well expect to find an account of

your exploits indelicately aired on these pages ... right alongside similar accounts of TAT's own, less-professional exhibitions. Speaking of exhibitions, here's

For you troops who have

somehow managed to remain

unexposed to the product of our

one slightly worn, rather tattered,

content in thinking that TAT is an

"Tired" and "Tiger" with another

abbreviation of tattered. Other.

more worldly types will more

correctly assemble the words

gnawed-off pencil stub, TAT is

tired old tiger. There will be

some naïve souls who will be

one that concerns an F-100, a blown tire, and ... but let's read what the pilot had to say.

The First Leg Went Smoothly

BY LT COL JONATHAN "BRUTE" ESPARZA

hose who have flown fighters home from the Pacific know return legs from Hawaii to the mainland all begin similarly. Fighters depart in the early morning, rejoin with a tanker, and perform multiple refuelings in order to keep the tanks continually filled. Before the sun comes up each fighter in a cell of six has refueled from the tanker four times. The distance from an airfield that could offer relief in the event of a malfunction increases with every mile. For the six-ship fighter cell returning on the morning of 17 December 2020, the day began like all others, but the halfway point created a challenge only overcome by solid teamwork.





Photo by SrA John Linzmeier

Months earlier, F-22s assigned to the 1st Fighter Wing, Langley AFB, Virginia deployed to Andersen AFB, Guam, This movement demonstrated rapid mobility of the nation's fifth generation air superiority fighter. While assigned to Indo-Pacific Command, the team conducted robust coalition training, practiced rapid F-22 refueling on short airfields using C-130s, and gained better perspective on the tyranny of distance. Once the deployment was complete, the focus shifted to deploying home. The return would take two legs, with the first moving the jets from Guam to Hawaii, and the final from Hawaii to Virginia.

The first leg went smoothly, and all six F-22s arrived safely at Hickam AFB for a day of rest. The next leg would prove challenging. The 2,100 nautical mile range between Hawaii and the West Coast of the United

States offered few options. Should something go wrong at the halfway point, the team would have two choices: return to Hawaii. or continue to the West Coast and divert. The trip in either direction would take over two hours, require tremendous fuel and strain aircraft systems already not operating at optimal capacity. We hoped the second leg, like the first, would be uneventful.

The first 1.050 nautical miles proved ordinary. The sun was now above the horizon, the F-22s had full tanks of fuel, and we had just flown past the midway point. Now the countdown began, only 1.050 miles to the Coast. With our next refueling one hour away, we had some time to spread the formation and wiggle fingers and toes. Unfortunately, this relief was short-lived. The F-22 I was flying decided it was time to shut down the left engine.

The first and most prominent characteristic was a reduction in noise. Next. several malfunction lights illuminated. When I saw the generator had failed, I looked at my engine page and saw another indication leading me to believe what I already suspected. The engine rpm indicator was rolling back towards zero. I concluded the left engine had failed. My eyes were now fixed on the right engine indications, and my concern was the health of my only source of thrust for the next 1.000 miles.

In almost all cases the F-22 engines provide amazing power. With 35,000 pounds of thrust per engine, the jet rarely is in a situation in which everything is required to maintain altitude and airspeed; however, this was just such an occasion. With the loss of the left motor, full external fuel tanks, and 25.000 ft. Mean Sea Level (MSL). the raptor required intermittent use of afterburner to remain stable.

With the aircraft under control. it was time to diagnose the malfunction and determine a course of action. Fortunately, there was no shortage of time or resources. With five other F-22's in the formation and a KC-10 crew equipped with long range communication, the team had the necessary tools in order to recover safely. Each pilot departed that day with two Electronic Flight Bags (EFBs). Quickly we began to divide tasks. Everyone contributed to the collective information by researching a topic relevant to the situation. Some leveraged manuals researching main and subsystems, better understanding the exact malfunction and determining the consequences of extended operations with critical systems offline. With the left side engine. generator, and hydraulic pump offline for the next two hours, we had to understand impacts to other systems performing double duty. Others researched suitable airfields, identifying the best fit. Finally, the tanker crew gathered real-time information aiding us in quickly recovering the aircraft and became the de facto command and control team. They served as the link in the event the situation worsened. Everyone was employed and dedicated to getting the bad aircraft down safely.

Unlike most fighter emergencies, where limited fuel and ample options of suitable airfields lead to quick landings. this emergency offered a long period of collaboration. Through the crew resource management process, we selected Travis AFB. California as the best location to recover the crippled F-22. By leveraging the fuel remaining on the KC-10, and coordinating with air traffic control, we secured airspace above Travis AFB, and planned to hold the tanker and remaining F-22s at altitude. This gave additional airborne support for contingencies. As land on the West Coast became visible, the situation worsened.

as another F-22 experienced a malfunction. The second F-22 had lost a generator, and would need to land soon. With minor reorganization, both degraded aircraft now prepared to land at Travis. The remaining F-22s and KC-10 would hold above the field to provide additional relief. Our plan had proven resilient to contingencies.

The last phase involved my landing first, with my wingman chasing me and backing me up through the arrival. My wingman then would go around and perform a similar landing; however, while on downwind. I noticed new cockpit indications: My display now showed high temperature in both the Auxiliary Power Unit (APU) and the Airframe-Mounted Accessory Drive (AMAD) section of the aircraft. This indication can be the first signs of an impending

Knowing that the aircraft had been flying for over two hours in a contingency mode laden with the extra weight of the ferry configuration, we modified the plan one last time. I communicated, dropped the gear, and began a reduced-thrust landing from my current position.

The maneuver resembled a landing from base position in a closed traffic pattern. Fortunately, I was slightly higher in altitude, which was valuable given the reduced thrust. Within two minutes of initial indication. the aircraft was safely on the ground. My wingman followed me, went around, flew his approach, and landed. With both aircraft on the ground, we said our goodbyes to airborne cell and the team continued home to Langley.

A year later, I reflect on the experience. First, I have a deep appreciation for those in the F-16 and F-35 who cross the ocean exclusively on one engine. Next. I am thankful for the professionalism and teamwork of the flight mates and KC-10 crew. With any major aircraft movement, planning and practicing for the worst goes a long way. Every person was material to preventing the situation from escalating, and we were able to respond rapidly to new circumstances and move forward. In aviation, we always must be ready, leverage the team and resources, and if possible, develop a plan that can satisfy multiple contingencies.



Photo by SrA Katelin Britton

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EDUCATION & TRAINING — the Same but Different



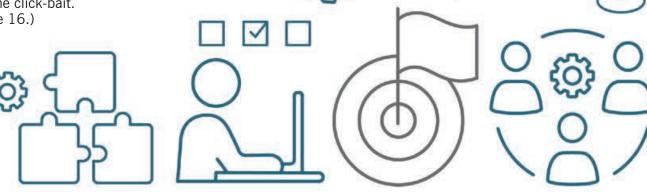
raining has become something ... different. The requirement for obtaining 3 Continuing Education Units (CEU) a year remains, but meeting it has changed. TDY lodging has become your home, and "included breakfast" has become your morning coffee and bowl of cereal. The meeting venue is now a video conference from your "home office," while you struggle with connectivity, kids, and the cat.

If training is still a requirement, how do you go about

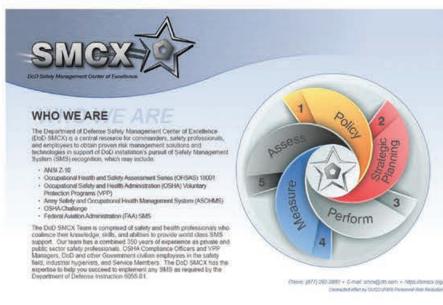
it? For the past two years, I've been pushing webinars provided by Honeywell, NSC, Grainger, and other organizations that promote safety. Quick, one-hour presentations from across the internet. You should register, even if you cannot attend on the scheduled date and time. The sessions are offered as links to recorded events that you can view at your

offered as links to recorded events that you can view at your convenience. You also can start with Google, and see what you get. When looking for free training (because we do like *free*); you get 897 million hits, more or less. There are free and low-cost training opportunities available if you scrub the list a bit to get rid of the click-bait.

(Continued on page 16.)







as well as find past events by selecting the "Past Courses" link on the Training Sessions page. Webinars are presented as

training and educational tools, with topics based on client and stakeholder requests, regulatory changes or updates, and prominent SMS criteria gaps continually identified during onsite assessments.

Workshops offer interactive training opportunities that help with fulfilling SMS criteria gaps, and take a hands-on approach to completing documentation, accessing useful resources, and applying the information learned.

At Sheppard AFB, Mark Schaffer has for the last few years offered in-residence, face-to-face, and online OSHA training via the OSHA Training Institute at Arlington, offered for no tuition. You have to cover the TDY and per diem if attending in person. If taken online, it truly is free. Taking enough of these courses could earn you one or more Operational Training Infrastructure certifications such as the SSH (Specialist in Safety and Health). Mark will post these opportunities on the Safety Professionals portal page when available, so be looking for them. OSHA Training Institutes are located throughout the country, generally associated with a University or college.

The **DoD Safety Management Center of Excellence (SMCX)** offers Virtual and On-Site Training. For information, go to www. smscx.org/pages/training.aspx. To see the full schedule and register. use the » Virtual Training or » On-Site Training drop-down menus in the left navigation pane.

Virtual Training – The DoD SMCX develops and presents free, virtual training events in a wide array of Safety Management System (SMS) topics. These events require no special login or software, and can be viewed with mobile devices. DoD personnel can use the SMCX website to sign up for webinars and workshops,

















Salety Spotlight Improving Worker Protection Programs Featured Course: 700 Introduction to

This is not OSHA as we know it. but they play on the letters for their business name (oshatrain.org). Training can be totally free—sort of. Follow the link and you will find 175 technical skills training presentations, from medical specific to OSHA standards. It is FREE to take these courses and get the materials; however, if you want the certificate you'll have to pay for that, and that's the "sort-of" part. I've taken multiple courses and credit them in prepping me and my success with the Board of Certified Safety Professional SMS and Associate Safety Professional certifications.

As the parent organization for most things regarding safety, the National Safety Council (nsc.org) is a valuable resource, but it comes at a price. Like many others, they have a large online library of training opportunities—97 pages of courses. Although there is a fee for training, many of the seats are very affordable. For example Access to Medical and Exposure Records for Employees (US) at \$4.95 a seat, compared to the OSHA 30: Construction Industry Outreach training at \$159. Really worth the time to explore.

For those who need less structure than is found in a formal class, there is an alternative. Owning a phone, Kindle, tablet, or similar device opens up the world of books. There are multiple sources to explore, and Audible (audible.com) is perhaps one of the larger. A quick search for "safety" will yield 270 results of books you can read, or audio books to which you can

audible

Another published source is SafetyRisk (safetyrisk.net). Their Free Resources dropdown provides free safety books and more: free downloads. safety work statements, ethics, telecommuting checklist, and more.













In closing, there's one more resource I'd like to add: Safety Awakenings (safetyawakenings. com). This site says it is "The Largest Library of OnLine Interactive Training." They have an e-book library of over 30 free safety E-books from which to choose.

The pool of training opportunities is far deeper and wider than this simple article can illustrate. Perhaps you have



sources you can contribute to the community. If so, do participate in this process.



BY MSGT KENNETH CLARK

hen it comes to dealing with explosives, whether small arms or heavyweight munitions like bombs or missiles, there is no room for complacency. Similar to handling a firearm, dealing with these types of munitions requires personnel to be properly trained, and aware of their surroundings at all times. They always must take every precaution to

prevent a mishap. The extreme temperatures that characterize the munitions and two thousand 25 summer months in Las Vegas can be grueling, and can shift one's focus from performing duties to trying simply to stay cool. Nevertheless, unfavorable working and avoid complacency by conditions are no excuse for letting one's guard down while on the job, because explosives safety takes no days off.

The Lightning Weapons section didn't let a little heat stop them from maintaining a proper mindset of safety while they were busy generating 553 sorties that

resulted in the expenditure of 132 mm rounds—while maintaining a 100% munitions release rate with zero mishaps. They were able to achieve these accomplishments following these ten simple rules for guaranteeing safe explosives handling:

- 1. Ground yourself before and during the handling munitions.
- 2. Remove all rings, watches, and jewelry prior to handling munitions.

- 3. Ensure munitions are secured prior to transport.
- 4. Perform a functional check of the weapons system.
- 5. Verify munitions match mission requirements.
- 6. Use correct Personal Protective Equipment.
- 7. Don't alter or modify any munition from its intended use.
- 8. Know your target and the surrounding area.
- 9. Be mindful of the munition's blast radius.

10. Keep non-essential personnel out of the area.

The Lightning Weapons Section followed these rules each and every time, and thereby identified eight unsafe fuze settings. They were able to adjust the bombs prior to flight, which averted an in-flight explosive mishap and safeguarded the aircraft and the lives of pilots. Their attention to detail and quick actions led to the successful completion of sixteen live-munitions close-air support missions for the 6th Weapons

Squadron. This ensured syllabus requirements were met, and powered weapons officer student upgrades.

There is never any room for complacency, whether it's a 9 mm round or a 500 lb bomb. Following the safety rules, technical orders, and flight manuals ensures that personnel who handle explosives keep themselves and those within the vicinity of the area safe, because

Explosives Safety Takes No Davs Off!

Photo by A1C Zachary Rufus

2nd Quarter FY22 Awards



232

Aircrew Safety
Capt Brendan M. Moran &
1 Lt Christian C. Constantino
34 FS/DOS
Hill AFB, UT



Aviation Maintenance Safety
TSgt Tyler J. Hardin
461 MXG/MXQ
Robins AFB, GA



Explosives Safety
9 CES/DEC "Dragon Sharks" &
9 MXS/Hydrazine Response Team
9 CES/DED
Beale AFB, CA



Flight Line Safety
Weapons Standardization Flight
432 MXG/MXL
Creech AFB, NV



Pilot Safety
Capt Tyler N. Samp
357 FS/DOW
Davis-Monthan AFB, AZ



Safety Career ProfessionalMr. Ryan P. Hennessy
99 ABW/SEG
Nellis AFB, NV



Weapons Safety TSgt Christine E. Budzynski366 FW/SEW
Mountain Home AFB, ID



Unit Safety Representative
Capt Robert K. Ashcroft
30 RS/SE
Creech AFB, NV



Unit Safety 23d Wing Safety Staff 23 WG/SE Moody AFB, GA



For 75 years,
American Airmen
have excelled as
they execute the
Air Force mission
to fly, fight, and
win — delivering
airpower
anytime,
anywhere in
defense of our
nation.

Airmen are called to "Innovate, Accelerate and Thrive" as the U.S. Air Force and Department of the Air Force approach their 75th anniversaries on Sept. 18, 2022. Airmen will always be there to provide America with the airpower it needs to defend the nation. deter or defeat our adversaries, reassure our partners and allies, and help diplomacy proceed from a position of strength.





INNOVATE

Innovation, fueled by Airmen, is our heritage. Airmen continue to push technological and cultural boundaries which make America the leader in airpower and spacepower. Innovation is an integral part of how we train and employ our squadrons, develop our capabilities, and continue to move toward an even more effective Air Force.

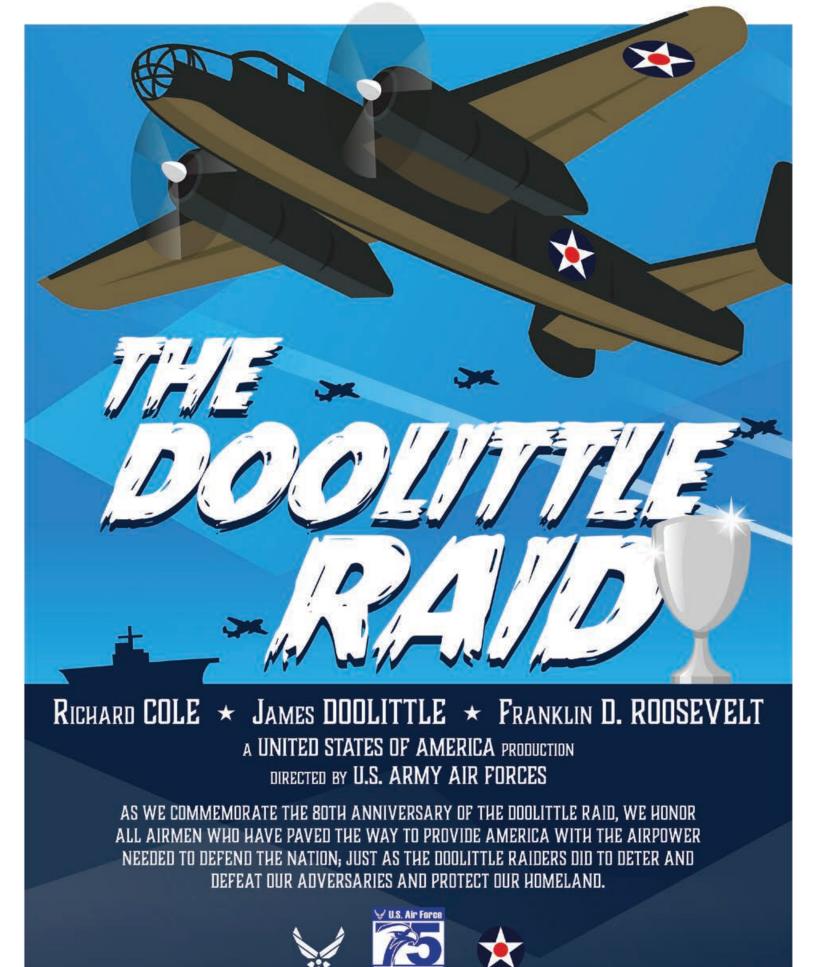
ACCELERATE

From their inception 75 years ago, the U.S. Air Force and Department of the Air Force have excelled at keeping pace with rapid changes in technology and in the demands placed on the Air Force's five core missions: air superiority; global strike; rapid global mobility; intelligence, surveillance, and reconnaissance: and command and control.

THRIVE

We are the world's greatest Air Force because of those who have gone before us — particularly those who weren't afraid to break barriers. Empowered Airmen are the competitive edge we have over our adversaries and the reason we are the world's greatest Air Force.

22 www.acc.af.mil/home/acc-safety 23



INNOVATE * ACCELERATE * THRIVE

FY22 Flight Thru 30 June 2022						
	Fatal	Aircraft Destroyed	Class A Aircraft Damage			
15 AF	0	•	+ ★			
16 AF	0	0	0			
USAFWC	0	0	0			
ANG (ACC-gained)	0	*	*			
AFRC (ACC-gained)	0	0	0			
AFCENT (ACC-gained)	0	0	Ť			

FY22 Occupational								
	Class A Fatal	Class A Non-Fatal	Class B					
AFCENT	0	0	0					
USAFWC	0	0	0					
12 AF	0	0	0					
15 AF	5	0	2 ,1					
16 AF	0	0	0					

FY22 Weapons Thru 30 June 2022								
	Class A	Class B	Class C	Class D	Class E			
ACC	0	0	1	1	4			

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 had only one Class A mishap in the 3rd Quarter of 2022, which is a major improvement from last quarter. However, this Class A still brings our MAJCOM yearly total to six. Human factors can hinder our Airmen's outstanding ability to maintain and fly. And thus, we should always train toward and be ready for the unexpected; it's how we can maintain the upward trend of "excellence" in safety. Also, non-tactical phases of flight remain the leading area of mishaps, so let us all—on the ground and in the air—remember to focus on the administrative basics that keep us safe. Fly safe and Check 6.

Occupational Notes

Air Combat Command Occupational Safety sustained four Class A mishaps during the 3d Quarter of 2022. Three mishaps involved 4-Wheel vehicles, while the fourth involved a 2-Wheel vehicle. Excessive speed, poor decision-making, poor risk management, lack of training, and lack of seat belt usage factored into these mishaps. This brings our Total Class A mishaps to five so far in

While we cannot eliminate risk, we can take measures to decrease the likelihood of the next mishap. As we enter the fall, we should pause to remember those we have lost to preventable mishaps. Additionally, we should amplify our mishap prevention efforts and work to intertwine risk management principles into our daily lives, both on and off-duty.

Supervisors and peers remain critical in preventing these types of mishaps. Training is the first level in mishap prevention. As such, supervisors should ensure that identified motorcycle operators complete all required training. Peers play an important role as well, since peers are often present when members display unsafe behaviors. Vehicle operators should be mindful they carry the greatest burden in preventing mishaps. The ultimate outcome depends on the actions operators take and the decisions they make. Be safe!

Weapons Notes

During the third quarter of FY22, ACC experienced one Class C and two Class E Mishaps. The Class C was the result of a rocket catapult being mislabeled as fired/ expended before it was shipped. The catapult was still a live munition, and exploded at a Defense Logistics Agency facility, injuring two contractors with second- and thirddegree burns. The first Class E was the result of a 20 mm round being punctured during a loading operation. The second Class E was from a BRU-47 breech blowout, which caused extensive damage to the bomb rack. Attention to detail is key when handling explosives. Ensuring all details, no matter how small, are done correctly can help prevent a future explosives mishap.





TIPS FOR A HEALTHY AUTUMN

Prevent the Flu

Get the flu vaccine each year in the fall. Stay home if you get sick.

Get Smart

about **Antibiotics**

The common cold and the flu are viral infections, not bacterial. Antibiotics don't help; avoid taking them needlessly.

Have a Safe and Healthy Halloween

Make festivities fun, safe, and healthy for trickor-treaters and party guests.

Wash Your Hands

Avoid getting sick and spreading germs.

Wash your hands with soap and water for at least 20 seconds.

Keep Seasonal Food Safe

Fall means holiday cooking – Take care to keep your kitchen safe.

Separate foods to void cross-contamination.

Cook all food to proper temperatures.

Refrigerate leftovers promptly - within 2 hrs.



For more information, visit the U.S. Department of Health & Human Services: hhs.gov



AUTUMN FIRE SAFETY

by SSgt Steven C. Nowlin 99 MDOS. Nellis AFB. NV

by Centers for Disease Control and Prevention

INFORMATION FOR HUNTERS & NON-HUNTERS

SCHOOL BUS SAFETY by National Safety Council

HURRICANE PREPAREDNESS

HQ ACC/SEM, Langley AFB, VA

by Dr. Richard E. Cook

Let's Talk Turkey

by Forest Service, U.S. Dept. of Agriculture



Riding Boots. (Kevlar Shin and

Ankle Guards)



s we change from the scorching temperatures of summer to the cooler days of autumn, with leaves dropping all around us, it's important to keep a few safety tips in mind for the fall season. Fire safety can be a real issue when the weather turns cold. Many people find themselves spending more time indoors, using fireplaces, space heaters, and furnaces to stay warm and cozy. These heating devices can cause a real hazard if not treated with appropriate caution. With appropriate precautions and safety measures in place, you and your family can enjoy the autumn season with peace of mind.

Keep your furnace serviced and up to code. Call your local heating/cooling company to come out and ensure your furnace is functioning properly. Besides the fire hazard, furnaces can leak carbon monoxide, an odorless, deadly gas.

of people's dumping ashes in their back yards, and unintentionally starting large scale fires from single hot embers. Make sure the fire is completely out before you go to bed, and never leave a fire unattended.

Space heaters come in many different shapes and sizes. Be sure to read all instructions thoroughly. Some space heaters require venting to the outdoors. If that's the case, make sure you have that in place.

Never use your stove or oven to heat your home. Both gas and electric stoves present a fire hazard, and gas stoves bring the added danger of carbon monoxide poisoning.

Portable kerosene heaters are inexpensive and popular, but they can start fires if placed near draperies or other flammable materials. Again, don't leave them unattended, especially if children are in the home.

deck where it belongs.

A good habit to practice when Daylight Savings Time begins is to change all the batteries in smoke alarms and carbon monoxide detectors when you turn your clocks back an hour. Also, check the expiration date on fire extinguishers, and replace them if needed.

Many of us love the smell of pumpkin spice- and apple/cinnamon-scented candles, but candles are one of the leading causes of fires. According to the National Candle Association and the National Fire Prevention Association, almost 10,000 home fires start with improper candle use. Be sure to extinguish candles and all other open flames before you go to bed, and keep them out of the reach of pets and kids.

By keeping these important safety tips in mind for the upcoming holiday season, you will protect not only yourself, but also your family and others.

HURRICANE PREPAREDNESS

BY DR. RICHARD E. COOK

e're right in the middle of the Atlantic
Hurricane Season, which runs from June
1st through November 30th. Hurricanes
are not just a coastal problem. The high
winds and heavy rains can wreak havoc
many miles inland, and people often are
left without electricity or water for weeks or months. The
damage caused by hurricanes can be catastrophic: In
southeastern North Carolina, where I was raised, they still
talk about Hurricane Hazel (1954). The best way to get
through a hurricane is to prepare for it in advance.

Make an Emergency Plan

Make sure everyone in your household knows and understands your hurricane plan. Discuss the latest guidance from the Centers for Disease Control (CDC) regarding COVID-19, and how it may affect your planning

Know your Evacuation Zone

You may have to evacuate quickly when a hurricane comes, with little time to prepare. Learn your evacuation route. Practice with your family, including vour pets. Follow instructions from local emergency managers.



In this NOAA satellite image from Sept. 15, 2020, Hurricane Sally approaches the U.S. Gulf Coast, Hurricane Paulettte creates storm waves far out in the Atlantic, and Tropical Storms Teddy and Vicky lie near the coast of Africa. Two tropical depressions are also developing; one of them is not visible in this image.

Space in public evacuation shelters may be limited, and therefore may not be the safest choice for you and your family. If you don't live in a mandatory evacuation zone, make a plan to take shelter in your home, if it is safe to do so. If you cannot remain at home, make plans to stay with friends and family, where you will be safer and more comfortable.

- Note that your regular shelter may not be open this year. Check with local authorities for the latest information about public shelters.
- If you must evacuate to a public shelter, try to bring items that can help protect you and others, such as hand sanitizer, cleaning materials, and two cloth face coverings per
- Review the CDC's guidelines for "Going to a Public Disaster Shelter During the COVID-19 Pandemic."

Those with Disabilities

If you or anyone in your household has a disability, determine whether you will need additional help during an emergency.

Prepare your Business

Make sure your business has a continuity plan to remain in operation when disaster strikes.

Recognize Warnings and Alerts

Make sure to have several means of receiving alerts. Download the FEMA app and receive realtime alerts from the National Weather Service. Sign up for community alerts in your area, and be aware of the Emergency Alert System (EAS) and Wireless Emergency Alert (WEA).

Review Important Documents

Make sure your insurance policies, driver's licenses, other forms of identification, and other legal documents are up to date. Make copies, and keep them in a secure password-protected digital space. Keep copies of medical information such as vaccinations (including COVID), allergies, and chronic or serious conditions.

Strengthen Your Home

Be sure all drains and gutters are clear. Bring in outdoor furniture, and consider installing hurricane shutters.

Get Tech Ready

Keep your cell phone charged, and purchase backup charging devices to power electronics.

Help Your Neighborhood

Check with your neighbors, especially senior adults. Learn who may need additional help, and ask how you can be of assistance to others.

Gather Supplies

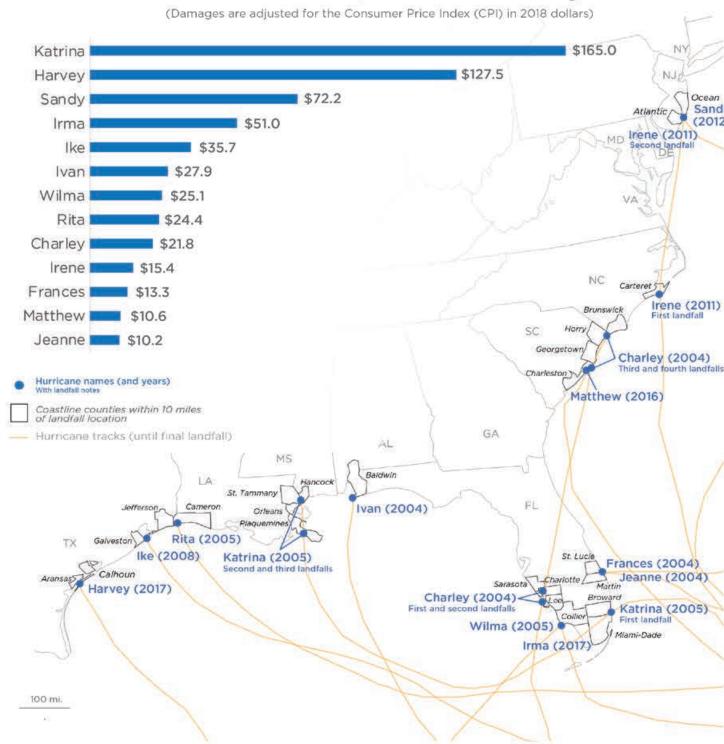
Gather enough supplies to last your entire household for several weeks. These include medication, disinfectant, and pet food. Store them in your bag or the trunk of your car. This will allow you to address minor issues wherever you are, and will ease the burden on urgent care centers and hospitals.

The key to surviving any natural disaster is preparedness. Thanks to weather radar and other early-warning systems, there usually is ample time to get ready for hurricanes. Never try to "ride it out"—it's not worth the risk. Make a plan, protect your family, and stay safe.

Impact of Atlantic Hurricanes

From 2000 to 2017, 13 hurricanes that made landfall in Atlantic and Gulf of Mexico coastline counties caused more than \$600 billion in damage in the United States. Seven of those hurricanes occurred in two successive years, 2004 and 2005.

Hurricanes That Caused \$10 Billion or More in Damages



Sources: National Climatic Data Center < www.ncdc.noaa.gov/billions>; National Hurricane Center < www.nhc.noaa.gov/data>.



U.S. Department of Commerce Economics and Statistics Administration



Information for Hunters & Non-Hunters



ational forests are refuges for wild animals of all kinds, which makes recreational activities like hunting and wildlife viewing possible. Hunting is a seasonal activity. State regulations for seasons, dates, and licensing apply on national forest land. Hunters can pick up U.S. Geological Survey (USGS) quadrangle maps at Forest Service offices to see national forest boundaries and avoid venturing onto privately owned land.

Safety Information for Hunters Visiting National Forests

- Check weather reports before visiting the forest.
- Tell someone where you will be hunting, and when
- Be familiar with the area you want to hunt.
- Dress properly, and be prepared for the worst possible conditions.

- During certain seasons, hunters must wear hunter orange, viewable from all directions.
- If accompanied by a dog, the dog should also wear hunter orange or a very visible color on a vest, leash, coat, or bandana.
- Check hunting gear before and after each outing and maintain it properly. Familiarize yourself with its operation before using it in the field.
- Carry a spare set of dry clothing. Use layering techniques to prevent moisture while retaining body warmth. Always bring rain gear.
- Carry a first aid kit.
- Clearly identify your target before shooting. Prevent unfortunate accidents or fatalities.
- Put hunting plans in writing (dates, times, location, and expected time of return). The Coast Guard recommends putting boating plans in writing; leaving one at home and one on your

Safety Information for Non-Hunters Visiting National Forests

- Wear bright clothing. Make yourself more visible Choose colors that stand out, like red, orange, or green; and avoid white, black, browns, earth toned greens, and animal-colored clothing. Orange vests and hats are advisable.
- Don't forget to protect Fido. Get an orange vest for your dog if he/she accompanies you.
- Make noise. Whistle, sing, or carry on a conversation as you walk to alert hunters to your presence. Sound carries well across mountain basins, and hunters should be listening for any sounds of animal movement.
- Be courteous. Once a hunter is aware of your presence, don't make unnecessary noise to disturb wildlife. Avoid confrontations.
- Make yourself known. If you do hear shooting, raise your voice and let hunters know that you are in the vicinity.
- Know when hunting seasons are. Continue to hike, but learn about where and when hunting is taking place.
- Know your own comfort level. If hunting makes you uneasy, choose a hike in a location where hunting is not allowed, such as a national park or a state park, or schedule your outings for Sundays.

Be alert when hunting near developed areas and trails. Other recreationists are in the forest as

 Avoid wearing white or tan during deer season. Wear hunter orange or another highly visible color.







LAP AND SHOULDER BELTS MAKE THEM EVEN SAFER

ome 25 million students nationwide begin and end each day with a trip on a school bus. Designed for safety, with flashing lights, giant mirrors, stop-sign arms, and that bright yellow color, students are 70 times more likely to get to school safely when taking a school bus than when traveling by car, according to the National Highway Traffic Safety Administration (NHTSA). School buses are designed to protect students through compartmentalization – closely-spaced seats and high, energy-absorbing seat backs. Seat belts protect students, too.

In 2015, the NHTSA stated its support for lap and shoulder belts on buses, and NSC has joined in support of this position to ensure the safest ride for children.

Tips for a Safe Ride

School buses are the safest way for students to travel. Nearly two-thirds of school bus-related fatalities of school-age children occur outside of the school bus. Children need to do their part to stay safe both in and around school buses. The American School Bus Council offers the following tips:

At the Bus Stop:

- Arrive early at the bus stop at least five minutes before the bus is scheduled to arrive.
- Stand 6 feet (or three giant steps) away from the curb while waiting for the bus.
- Supervise young children.

Around the Bus

- Cross in front of the bus at least 10 feet (or five giant steps) away and make eye contact with the driver before crossing.
- Never walk behind the bus.
- If you drop something near the bus, do not pick it up; tell the bus driver instead.

Getting On/Off the Bus

- Wait until the bus has stopped and the door opens before approaching the bus or standing up on the bus
- Use the handrail when getting on or off the bus.
- Secure any loose or hanging objects like straps on a backpack or drawstrings on a hood.

Behavior on the Bus:

- Buckle up if seat belts are available.
- Stay in your seat, keeping head, arms, and papers inside the bus, and talk quietly.
- Keep aisles clear of books and bags.

National School Bus Safety Week

National School Bus Safety Week, held during the third full week of October each year, focuses on the importance of school bus safety. The theme for 2022 is "1 Bus + 1 Driver = A Big Impact on Education"

source: National Safety Council