I looked back at last year's December issue to see if there was anything I should share with you again. Then I thought, "No... people will just say, 'He isn't doing his work — he's just republishing it.'" But then I knew I was letting my ego get in the way. Who am I to suppose that you remember what was said last year in this column? So for those of you who do remember it, thank you very much; and for those of you who don’t, I would like to share some similar thoughts with you.

Most of us think of December as a joyous time of the year with Christmas and the upcoming New Year. But, for many of our people who are separated from their families (due to TDYs, being single, or being away from home for the first time), this can be a time of sadness or even depression because they feel very much “alone.” During this time of year, supervisors must be ever alert to what is going on with their troops. Don’t let one of your unaccompanied people accidentally spend the holidays by themselves. Instead, be sure your people are incorporated into the holiday activities sponsored by your unit. I would even encourage you and your people to consider including those who are alone in your family plans and get-togethers.

This is also the time of year we often have extra and sometimes unexpected house guests. For example, my son Joe and his roommate Blake from Texas A&M will probably invite one or more of their fellow Squadron Six Cadets to share the holidays with us. Having new faces around the home can easily impact our “normal” routine and may even be a distraction at times from our normal job. No, it isn’t time to hang out a sign saying “There’s no room in the inn,” but it is a time to acknowledge those distractions and admit to ourselves and others that things aren’t just “routine” this time of the year.

Has outstanding safety become just routine? Our past performance in flight, engine, and ground safety has been the best ever, and you have certainly been doing a lot of things right to bring that about. But can this very success lead to complacency and the troubles that gremlin brings? Normally, if a unit has a mishap or hears about one, their awareness level of that danger goes up for awhile, and the number of those types of mishaps decreases. But as good as we are doing, is our awareness level dropping or in danger of dropping? The dictionary shares that complacency is a self-satisfaction with an existing situation or condition, a feeling of security, often unaware of some potential danger. Are you or those around you experiencing one or more of those feelings? And if so, what is the best way to fight that complacency and keep it from taking root? I think enthusiasm and professionalism hold the keys for our continued success. Enthusiasm to do our jobs wholeheartedly. Professionalism to do the job right and on time, or to have it rescheduled if we lack the proper resources. It’s the professional who not only follows the checklist and standards, but who is instrumental in getting them updated if there is a better way to accomplish the mission.

Happy Holidays, Pardner.

Jack Gawelko
Jack Gawelko, Colonel, USAF
Chief of Safety

NOV/DEC 1989
Crew Coordination: From the WSO's Perspective - A Team Concept
Some practical pointers for pilots, WSO's, and EWO's.

Fleagle and Friends

Operation FRANTIC
2 June 1944 - The first U.S. shuttle flight.

Surviving the Holidays
The holiday season tends to be an especially dangerous time of year, are you ready for it?

Why a combined November/December issue? Because the commercial printer unexpectedly defaulted on the TAC ATTACK printing contract. A new contract with another printer is being negotiated. Paid subscribers will have their existing subscription extended by one additional issue.

TAC SP 127-1
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Crew coordination has been a continued topic of high interest throughout my 15 plus years in the Air Force’s tactical fighter community. It is an essential ingredient for success and survival in the multi-place fighter aircraft throughout the tactical air forces (TAF). With the phasing out of the F-4D/E, you might expect that “crew coordination” would slide out of the limelight. No way!! There will still be numerous RF-4s, F-4Gs, increasing numbers of tactical F-111s (as well as lots of EFs), and a host of F-15E Strike.
Eagles coming down the road, with a large group of WSOs and EWOs accordingly. While some of us WSOs will fade into the sunset, there are always more coming along to replace us. So, crew coordination is here to stay and remains just as viable a topic for aircrew consideration as it ever was.

My first day in F-4 RTU was interesting. A new class of about 10 or so pilots, fresh out of UPT and an equal number of aspiring fighterpilots, showed up at the training squadron for our initial briefing and orientation to the next six months of our lives. Interestingly, all of the pilots showed up in the mass briefing room in their green flight suits, while all of the navigators (WSOs-to-be) were dressed in their blue uniforms. So what, you might say, and I would agree, except for the mindset I saw develop in me and my fellow WSOs throughout TAC, PACAF, and USAFE over the next few years. More frequently than I would like to admit, WSOs seemed to develop a mentality of “this is my job; that is the pilot’s job—and never the twain shall meet.” The dichotomy in dress in that squadron briefing room seemed to symbolize the different perspectives the pilots and navigators had on the task of flying an aircraft. What I’ve discovered, ultimately, is that the crew of any multi-place aircraft, specifically a tactical fighter, must be just that—a crew, not two or more aircrew members operating in isolation from each other and the aircraft surrounding them.

**KNOW YOUR AIRCRAFT.** One of the key parts of being a fully qualified weapon systems officer (WSO) is knowing your aircraft. It’s easy to fall into the trap of thinking that you’ve got all you can handle with just knowing your own equipment and procedures in the right (or back) seat. As a new person coming into the WSO business, there’s certainly a lot to learn in the areas of INS/ARS/RWR/ECM/switchology, etc. However, that’s just part of your job. It’s also vital that you include the following subjects in your training/learning efforts as well: aircraft limitations, standard operating procedures, emergency procedures, and so forth. Make every aspect of your aircraft’s operation as well as its weapons systems your concern. While there are primary areas in the jet that are principally carried out by the pilot and others by the WSO, there is no such thing as the “pilot’s job” or the “WSO’s job.” It’s the crew’s job, and if you’re not actively involved in performing a specific task during the mission, you should be backing up the other person who is. In order to be able to do that, you need to make the entire Dash One and Dash Thirty-Four your textbooks for tactical fighter operations. Don’t find yourself in the place I did when the aircraft commander asks you a question about one of the systems, and you haven’t got the foggiest idea. The bad thing is, he may not either.

**COMMUNICATE.** Another important element of being a viable crew member is communicating. The word “communicate” has almost become a cliché in the Air Force, but it is still one of the most common areas where problems can occur. Good communication between the pilot and WSO is the absolute key to good crew coordination. One of the ways to establish a good basis for communication throughout a flight is to ensure that you know the plan—what’s supposed to be going on—before you ever leave the squadron; then make sure you also know what is going on during the course of the sortie. Knowing the plan is important to ensure that you don’t use up vital seconds later in the air to ask, “What are we doing?”

**COMPLEMENT, DON’T CONTRADICT.** Another important key to good crew coordination is to ensure that everything you say and do from the moment you begin the flight planning process until after engine shutdown complements the efforts and energies of the other crew member. What you’re doing or saying should contribute to the
success and accuracy of mission accomplishment, not the opposite. For example, trying to go over the upcoming approach procedures back at home base when the aircraft commander (A/C) is trying to accomplish the “Before Landing” checklist items you’ve just read off is probably not going to be very helpful at that time (or appreciated). You need to sit down and think through the different phases of the entire mission and determine what certain tasks/actions fit in best. One excellent way to do that is by sitting down with a pilot and asking him where certain WSO-specific tasks are best accomplished and most complementary to the things that he’s involved with. You can convey the same sort of things for areas of the mission where you’re heavily involved in weapons delivery procedures, etc.

One excellent way to hone your skills as a tactical fighter crew member is by flying with the same crew member a number of times to enhance your ability to work together. Depending on your aircraft and MAJCOM, there may be guidelines on how crew integration is achieved. Regardless, you can still work together with an A/C (or WSO if you’re a pilot) on your first flight together as well as on your 100th. The key is a good crew coordination briefing on the ground before you ever strap on the jet. Don’t just cover what will happen during each emergency situation, but also what each of you expects or would like to see from the other person during each phase of the mission: this includes radar trail departures, low level navigation, range events (visual/radar, conventional delivery, etc.), practice approaches, etc. When you’re adequately briefed on what to expect, certain verbal communications will never need to be made during the mission.

As a WSO/EWO, you’re a second set of eyeballs (and a second mind) on board the aircraft. I have always found it especially tragic when a multi-crew aircraft is involved in a mishap. Although some are totally out of the crew’s control, many operator-caused mishaps could be avoided, especially when there is more than one crew member on board. That’s why it’s vitally important for you to be fully informed, equipped and knowledgeable about your job. Then you’re prepared to be “in the know” and to detect any trends that might be taking you in the direction of a mishap. Ensuring mission success, accuracy and safety is just as much the WSO’s responsibility as it is the A/C’s.

In summary, good crew coordination is an essential element in tactical fighter operations. For both crew members, the ability to coordinate and work together as a team comes from knowing your own job responsibilities as well as the overall operation and tasks of your aircraft’s crew as a whole. It won’t come easy. You have to hit the books; get to know the aircraft, the weapon systems and the mission; and get to know the other folks you’re flying with. Give the job of being a great WSO/EWO your best. It will make a difference!
The superb airmanship displayed by Major Jan N. Pedersen, Jr., and Lt Colonel Robert D. Wendel, 144th Fighter Interceptor Wing, Fresno ANGB, California, allowed them to successfully handle a complex emergency not specifically addressed by the aircraft Dash-1.

Maj Pedersen was flying an F-4D on an intercept training mission approximately 70NM offshore, against a P-3 target at 5,000 feet, with Lt Col Wendel in the back seat. After completing a front missile attack, Maj Pedersen began to maneuver for a reattack when the Master Caution Light illuminated, accompanied by an electrical Bus Tie Open Light. They knocked off the intercept, began a climb toward the coast, and started through the checklist procedures. A few seconds later, the aircrew heard a series of loud bangs and observed the left (#1) engine RPM decaying rapidly, accompanied by strong airframe vibration. The engine was unresponsive to throttle movement; and with the vibration continuing, Maj Pedersen retarded the throttle to off. The aircrew continued their climb toward land, declared an emergency, and accomplished the Engine Failure In-Flight checklist. The #1 engine RPM stabilized at 12 percent, with the vibration making other cockpit instruments difficult to read. Their wingman, who had been split off for the intercepts, rejoined as the flight crossed the coast, visually checking Maj Pedersen's aircraft for external damage or indications of fire, and assisting with SOF coordination. The wingman observed that the wing tip was moving visibly from the force of the vibrations. Approximately 60NM from the divert field, Maj Pedersen noticed that the PC-2 hydraulic pressure was fluctuating and watched as it decreased to zero. The only hydraulic pressure now controlling the stabilator was PC-1 pressure, powered by the windmilling and still vibrating left engine. With no direct checklist guidance to cover this situation, the crew reviewed the Single PC Failure and Single Engine Landing with Utility Failure checklists. Realizing that loss of the windmilling PC-1 would result in an inability to control the aircraft, the crew reviewed the Ejection checklist and prepared for that eventuality. Maj Pedersen flew a straight-in approach at 230 knots in an effort to maintain windmilling hydraulics. Upon touchdown, the aircraft became airborne again, rising five to ten feet above the runway, then firmly settling back down. Maj Pedersen maintained directional control with the still operating utility hydraulic system, noticing that the stick stiffened and then froze as he slowed the aircraft to a stop.

The skillful actions which Maj Pedersen and Lt Col Wendel demonstrated prevented the loss of a valuable combat aircraft and have earned them the TAC Aircrew of Distinction Award.
I DON'T KNOW WHERE TO START TELLIN' THE PEOPLE 'BOUT STAN HARDISON.

HUUH, WHAT SAY, FLEAGLE?

SOME OF THE READERS OF TAC ATTACK MAGAZINE BEEN ASKIN' TO KNOW MORE ABOUT HIM.

NO STUFF.

YEAH, AND FER WELL, LET'S TH' LIFE OF ME. I SEE HERE I DON'T KNOW WHERE TO START.

WHY DON'TCHA START WITH SOMETHING ABOUT HIS BACKGROUND, WHERE HE'S FROM, SCHOOLS AND STUFF LIKE THAT?
THAT'S A GOOD IDEA.

MR. TALON, WHAT DO YOU KNOW ABOUT STAN HARDISON?

I KNOW HE'S FROM TH' LITTLE TOWN OF NEWPORT, NORTH CAROLINA. AFTER A HITCH IN TH' ARMY ON TH' TAIL IN OF TH' KOREAN THING HE WENT OFF TO COLLEGE AND TOOK UP STUDYING COMMERCIAL ART AND ADVERTISING.

WHERE'D YOU FIND OUT ALL THIS?

I READ A LOT.

DID YOU KNOW THAT STAN WORKED IN A COUPLE OF ADVERTISING AGENCIES RIGHT AFTER COLLEGE?

I BEEN SO BUSY WITH MY JOB HERE AT TH' AIR SERVICE AND WORKIN' WITH TH' TAC ATTACK FOLKS THAT I AIN'T HAD A HECK OF A LOT OF TIME TO KEEP UP WITH OTHER STUFF.

WELL, FLEAGLE, OLD STICK, ALLOW ROB AND ME TO GIVE YOU A HAND IN THIS LITTLE MATTER.

NOW STAN AIN'T NEVER BEEN ONE TO TOOT HIS OWN HORN, LIKE GOIN' AROUND TELLIN' FOLKS WHAT HE'S DONE. THANKS, TAKE IT ROB. GRiff.

HARDISON STARTED WORKIN' ON THE TAC ATTACK MAGAZINE WHEN IT WAS JUST OVER FIVE YEARS OLD.
In just a few short years he redesigned the publication and turned it into one of the leading military magazines. His easy to follow layouts, interesting illustrations and funny cartoons created a magazine with slumpin' fer everybody.

I think it was 'long about June of 1970 when Fleagle first appeared in the TAC Attack.

They's talking about me.

Fleagle was only suppose to be a one time thing, but the TAC Attack readers fell in love with him and Stan was stuck with a hit on his hands.

It sure looked that way.

For 10 years Fleagle was printed as a syndicated comic strip that appeared in a number of newspapers across the nation and...

Hold on, you two, before you go on about Fleagle, I thought this was about Stan Hardison?

Doria is right, Griff. We kinda got sidetracked. Fleagle does that to most.

Let me see if I can help you guys out a little.
Stan Hardison is a Rebel. He has defied all the ground rules for being a successful commercial artist and cartoonist. He was not born in the middle west, nor did he serve as an assistant to a well-known art director or strip cartoonist who taught him the tricks of the trade. Hardison entered the art field in the reverse order of the Bill Mauldins and others who came out of the wars with big reputations which they carried into civilian life. Hardison did his soldiering in the early fifties, became a civilian, and entered art school majoring in commercial art and advertising. He worked as an advertising art director for several years; and in 1966, he joined the staff of the TAC Safety magazine, TAC Attack.

Somewhere along the way, Hardison created the cartoon character, Fleagle. It was decided that this odd looking bird could be used to teach safety in a somewhat sneaky way. In no time at all, the editors and other Air Force folks saw in this scion of a ruddy duck and a common loon the potential vehicle for humor which could reach the general public.

Like most of us, Fleagle, broken beak and all, has tried and fowled out too many times; but he continues to give life his best shot and hopes that someday the great fitness report in the sky will not redline him again.

Of course, Hardison will not allow this to happen because it would crack the mirror held up to each of us in his incisive drawings. Read on — Fleagle’s escapades will be funny until up pops the one about you.
Sergeant William B. Strother identified a safety hazard for Air Force munition personnel worldwide who use the MHU-141 munitions handling trailer. Working with bioenvironmental engineers during the annual industrial hygiene survey, he noted that previous reports identified brake shoes for trailers as a source of asbestos dust contamination. Aware the asbestos hazard was not in the last previous annual report, and no procedures for protection of personnel were established, he brought this to the engineer's attention. The engineer stated the asbestos issue had been resolved years earlier when replacement shoes of non-asbestos material were introduced to the MHU-141 trailer's predecessor, the MHU-12/M trailer. Not satisfied by this reply, Sgt Strother continued to investigate the situation and discovered that the MHU-141 trailers do have asbestos material in their brake shoes and that there is a hazard for personnel performing maintenance on those brake assemblies. Procedures are being implemented locally to protect maintenance personnel and the "warning" on this hazard is being passed to the worldwide munitions community.

In recognition of his initiative and strong sense of responsibility in identifying this hazard, Sgt Strother has earned the TAC Outstanding Achievement in Safety Award.

On 23 June 1989, Sergeant Patrick W. Moore was the supervisor of a defuel crew for an F-16 aircraft at Luke AFB. The crew was to defuel 400 gallons of JP-4 from the aircraft’s internal tanks, and then transfer fuel from the external centerline tank into the aircraft so the tank could be down loaded. Four hundred gallons of fuel were defueled from the aircraft without incident. Sgt Moore disconnected the defuel adaptor from the jet and as he did this, the seal at the defuel point in the aircraft gave way. Jet fuel began pouring out of the aircraft onto the ramp. Sgt Moore unsuccessfully tried to reconnect the defuel adaptor to stop the leak. Realizing the seriousness of the situation, he immediately took control. He had the fire guard shut down the external power applied to the jet, relieving pressure to the system. He also ensured the individual in the cockpit shut off aircraft power. These steps greatly reduced the risk of an explosion. Meanwhile, fuel continued to pour from the defuel receptacle and the potential disaster was still present. Sgt Moore quickly climbed up on the aircraft and depressurized the system through the depressurization valve located on the backbone of the aircraft. This critical step reduced the fuel flow from a pressurized flow to a gravity fed leak which could be collected in a fuel bowser. Sgt Moore's accurate and timely decision prevented a bad situation from getting worse and earned him the TAC Outstanding Achievement in Safety Award.
I didn’t know that!

The F-4D taxied out for a functional flight check after coming out of phase inspection. The quick check crew detected a small hydraulic leak in the nose wheel well area and informed the aircrew. The pilot taxied forward and began a right turn. When he tried to straighten out, the nose gear steering did not respond. Checking the hydraulics, he noticed the utility hydraulic pressure decreasing rapidly through 1,000 psi. Meanwhile, the aircraft continued its right-hand turn. Both the normal and emergency brakes were tried from both cockpits, but to no effect. The pilot signaled the quick check and arming crews to get out of the way as the Phantom continued through 180 degrees of turn. The pilot shut down both engines, but the aircraft continued on a perfect intercept towards a Coleman tug on the adjacent parking ramp. While the Coleman did stop the runaway jet, at $28,000 per stop (damaged right wing and right intake), it probably shouldn't become a recommended procedure.

Investigation revealed the utility hydraulic line failed, due to fatigue, at the fitting where it attaches to the emergency brake accumulator. The accumulator is located in the nose wheel area and, in this instance, had been removed and replaced during the phase inspection. How many times the line had been disconnected and reconnected over the years could not be determined. So why did both the hydraulics and the emergency brake system fail at the same time? Good question. It turns out that the line/fitting is a single point failure for both the utility hydraulic system and the emergency brakes. So if it fails, you lose normal brakes, emergency brakes, and also nose gear steering.

Fortunately, this single point failure seldom occurs. But if you ever abort for a hydraulic leak in the nose gear area, you may want to replay this scenario in your computer before you “routinely” taxi back.

Adapted from message by Lt Col George P. Schuler, 184 TFG, McConnell AFB, KS
At 0630 the pilot left the briefing room and walked across the dusty field towards his fighter. The temperature was rising and a thin layer of black dust from nearby Mt Vesuvius was scattered on both men and machines. Drops of sweat made small white channels on the pilot's face, and he was looking forward to getting airborne — not only to fly the mission, but also to feel the cool bite of the thin air. The crew chief confirmed the ship was topped off with gas and ammo, and it was ready to go. The pilot completed the walk around and climbed into the cockpit. No ejection seat to preflight nor electrical computers to program. The 1,450 horsepower V-12 Packard-Merlin engine roared to life, and the pilot taxied his P-51 out for a very unusual escort mission. The section takeoff was normal, and 69 Mustangs from the 317th, 318th, and 319th fighter squadrons, climbed sunward towards the scheduled rendezvous point.

The story was rudely interrupted by a phone call, and I waited patiently for my father-in-law to return. He really was a P-51 jock; and as he spoke, you could see in his eyes the blue skies of Italy during WW-

II. I knew the stories were authentic, because they never started with "there I was ..." and he never once "won the war" all by himself. He just shared a sortie from his old log book — so routine then, yet so alive now.

He returned saying Sue had just called and needed some things from the store. He asked me if I wouldn’t mind going out to get them. I could take his car, and we would reminisce some more after I returned. He gave me the keys and I headed out the door.

I thought to myself, “You better be careful and not ding your father-in-law’s new car.” It had less than 600 miles on it and enough “gee-whiz” lights and gadgets to even keep a fighter pilot entertained. As I turned on the ignition, I heard a soft whirring sound as I watched the shoulder harness slide into place. What will they think of next? Well, now that I’m all buckled in, let’s see what this baby can do.

It wasn’t until four months later that I learned I really wasn’t “buckled in.” I was reading a message which described a recent mishap in TAC. The driver was wearing the “so called automatic safety belt,” but was still thrown out of the auto when it flipped during the mishap. Why? Because like my father-in-law’s car and over 28 other makes and models, the “shoulder harness” is automatic,
but you have to fasten the lap belt manually. In this mishap the driver had not used the manual lap belt. But doesn’t the “automatic shoulder harness” provide adequate protection? In theory — yes.

However, recent empirical data indicate the theory needs some reexamination! If the car overturns, or there are any side forces during the collision, there is a greater potential to be thrown from the vehicle if only the “automatic shoulder harness” is used, vice using both the manual lap belt and the “automatic shoulder harness.” In another recent TAC mishap, the driver used both the manual lap belt and “automatic shoulder harness” and received only minor injuries, while the passenger in the same car used only the automatic shoulder harness and received severe injuries.

So, how did I make out in my father-in-law’s new car? Great, mission accomplished without a scratch. And what about the P-51 escort mission?
A wingman called out “Big Friends right four o’clock, low.”

The Mustangs started an easy right turn to join with 130 B-17 Flying Fortresses from the 5th Bomb Wing. The Mustangs remained high in flights of four and weaved gracefully back and
P-51 MUSTANGS
325 FIGHTER GROUP
The U.S. Army Air Corps leaders believed that bombers taking off from England and Italy, striking distant targets, and recovering at bases in Russia would pay great dividends to the Allied war effort.

forth to stay with the slower bombers. The target area was now two hours away.

The mission was classified "TOP SECRET" and had its beginning eight months earlier. The U.S. Army Air Corps leaders believed that bombers taking off from England and Italy, striking distant targets, and recovering at bases in Russia would pay great dividends to the Allied war effort. In October 1943 the U.S. Military Mission to Moscow discussed the possibility of these shuttle bombing raids with the Soviet air and army officials. The Soviet Foreign Minister acknowledged "approval in principle" for the shuttle flights which were called project FRANTIC. The Americans were soon to discover that the Soviet usage of approval in principle was substantially different from the American understanding of the phrase. During November and December, the Americans could not persuade the Soviets to translate their approval into action. By January 1944, Generals Eisenhower and Spaatz were both unsuccessfully urging the Soviets to begin tangible preparations for the project. Finally in February, U.S. Ambassador Harriman was able to discuss the issue directly with Stalin. The potential advantages of shuttle bombing and how it would help the progress of the Red army were carefully explained. With the Soviet leader's personal support, work finally began in earnest at preparing three bases near Kiev. However, our then Soviet Ally still arbitrarily limited the number of U.S. support technicians to 1,200 and often held up their initial movements to the airfields for undisclosed reasons.

As the end of May 1944 approached, the Russian bases were considered adequately prepared to handle the large U.S. bombers. Gen Spaatz assigned the responsibility for the first FRANTIC mission to Gen Ira Eaker the commander of the U.S. 15th Air Force in Italy. Gen Eaker elected to personally lead the first shuttle flight, and rather pointedly told the fighter escort commander, "Protect the bombers at all costs!"

Security was exceptionally tight, and only five men in the 325th Fighter Group knew of the FRANTIC plan. The day before the mission, some of the fighter ground crews were driven by truck over to the bomber fields. The ground crews had been issued new uniforms and they were quite happy, being convinced they were headed to England or back to the States. The next morning the P-51 ground crews found themselves boarding B-17s headed for Russia — via a live target run over German occupied Europe.

Shortly after 0900 on 2 Jun, the bombers and fighters approached Debrecen, a city in the eastern part of Hungary. The adrenaline was flowing and the Mustang pilot's eyes roved the horizon. He wondered if this would be an unopposed "milk run," or if the Germans were just patiently waiting. He and the Luftwaffe pilots both knew the P-51s would not escort the bombers on the actual target run. The fighters could offer no protection to the bombers against the anticipated dense flak from the enemy anti-aircraft artillery (AAA). But he
knew that the other side would not intentionally fly into the flak area either. He blocked the morning sun with his clenched hand and strained to catch the silhouette of an ME 109 or FW 190. If the Nazis suspected the raid, this would be their last chance to intercept it before the bombers had completed their work. The bombers were now headed inbound from the IP to the target. The P-51s split to the left and right to stay well clear of the AAA guns on the ground.

He felt uneasy — something was wrong. He stared at the bombers in the distance and then he knew. Where was the flak? The intel briefing said the target was defended by AAA. Had the Germans decided to withhold their fire to allow their own fighters to attack unopposed? Our bombers are sitting ducks! We're too far away to get there in time! What if the AAA opens up as we arrive?

One Fort in the lead element explodes — trailing smoke and fire. Why can't I see them? Even if they attacked from the other side, I should be able to see them! The bombs form long streams towards the railroad marshalling yards below. Why hasn't someone spotted the bandits and called them out? We've still got our empty wing tanks! But the radio is ghostly silent, the normal static just barely audible over the sound of the engine. Clouds of smoke begin to rise from the target. The Mustangs move in closer towards the bombers. The tracks and buildings are now obscured by the smoke and fires. The crippled B-17 continues to burn as it drifts slowly earthward. Still no tally, no flak, no radio calls. We are across the city now, and over an open area. How long has it been since I checked Six? Who is parked back there? No, it's clear. Chutes are blossoming behind the burning B-17. Later I would learn that one of those chutes carried a P-51 crew chief safely to the ground. The formation continues unopposed towards the secret bases in Russia.

The tight security had paid off, the city defenders were caught totally unaware and failed to return a single burst of flak. The Luftwaffe was noticeably absent, thanks to the element of surprise and also the growing shortage of high octane aviation fuel for their fighters. The only loss for the Americans was the single bomber which had exploded for undetermined reasons.

Upon reaching the Soviet Union, the three lead bombers formed into a victory "V" formation and headed for their two bases. We peeled off towards Piryatin, a small strip on the Dneiper river east of Kiev. There was a solid 2,000 ft overcast which made navigation difficult, especially with the poor quality maps the pilots had brought with them from Italy. Visibility below the ceiling was good, and the lead pilot finally spotted Piryatin, which consisted primarily of an American "duce-and-half" truck and some Russian P-39s on a grassy area. The P-51s quickly landed, and the crews received a warm welcome from both the American detachment and the Russians.

Inclement weather prevented the American force from flying as many missions as originally planned from the Russian bases. But Gen Spaatz still directed that the U.S. bombers remain in Russia to pose an additional threat to Germany, as the Allies began the Normandy invasion on 6 Jun 1944.

Sergeant Cross' superior job knowledge is exceptional for an NCO of his rank and time in service. He is very proficient in every aspect of his job. He used his knowledge to thoroughly train everyone in the section on the proper procedures to monitor and upkeep supply point records. He made a positive impact on the Munitions Branch by ensuring the maintenance of AFR 50-21 munitions was accomplished in accordance with the proper safety and maintenance standards. He rewarehoused 40 percent of the munitions assets in a more efficient manner, thus increasing the space available for additional storage by nearly 20 percent. His efforts safely increased the explosive storage capability by 53,000 pounds of net explosive weight. On several occasions, Sgt Cross identified compatibility violations resulting in the elimination of explosive hazards previously unnoticed for extended periods of time. Sgt Cross can take credit for the favorable comments and “zero defects” ratings for accountability and safe storage practice made by the Maintenance Standardization Assistance Team. The procedures noted by the evaluators far exceeded the standards of both HQ TAC and the Air Force. During his tour of duty in the Combat Support Unit, he maintained a 100 percent pass rate on quality assurance evaluations because he strictly adhered to technical data and safe munitions storage practices.

Sgt Cross’ achievement is indicative of his professional qualities and concern about safety awareness. His superior performance has earned him the TAC Weapons Safety Award of the Quarter.
As the Vehicle Maintenance Shop Safety Monitor, Technical Sergeant Philip K. Shew has implemented an excellent internal safety program that works. During the past eight months, the shop personnel have worked an average of 50 hours a week to meet mission requirements. In spite of the heavy workload and long hours, the section has not experienced a single lost-time work related injury. Sgt Shew's strong, informative weekly safety briefings are entertaining, interesting and effectively convey safety issues to the troops. To help all personnel stay focussed on smart mission accomplishment, he has a policy that anyone can share lessons learned or suggestions for better ways to increase mission effectiveness. Sgt Shew always goes the "extra mile." He has developed an excellent AFOSH training outline which was used as the example for writing other shop outlines. His procedures for documenting this training is also an example for other shops to follow. He is also the most knowledgeable person available in the squadron when it comes to the safe handling and disposal of hazardous waste. Sgt Shew's influence and outstanding contributions had a tremendous impact on the Vehicle Maintenance Shop and the entire squadron. His attention to detail has made Vehicle Maintenance and the unit's Mishap Prevention record truly impressive. Sgt Shew's outstanding contribution to safe mission accomplishment have earned him the TAC Ground Safety Award of the Quarter.

Technical Sergeant
Philip K. Shew
823 RHCES
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INTERESTING ITEMS, MISHAPS WITH MORALS, FOR THE TAC AIRCREWMAN

Pumping iron what, me lift weights?

Maj Hobbs
HQ TAC/DOO
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What, me lift weights? I do my arm curls at the bar. That’s good enough for me! Have you ever heard that comment before? Well, I have and though one might have been able to get away with that ten years ago, it may not be good enough for today’s fighter pilot. The days of the macho fighter pilot painlessly bending the wings off his jet with one strong pull on the pole have evolved to the days when one strong pull on the pole can painlessly bend the brain to unconsciousness.

So, have I told you anything new yet? No, and that’s because there’s nothing new to tell ya. All the facts are out. Weightlifting does strengthen the pilot and increase G-tolerance.

Now, I’m not going to tell you how to lift weights. You can read that in the August ‘89 issue of this magazine. It laid out the specifics of how to set up a weight program. What I am going to do is suggest that we need to get smart on physical conditioning and change our fighter pilot attitudes toward the necessity of routine weight training. My objective is to pump you up on pumping iron.

Since the August TAC Attack came out, an F-15 jock was forced to eject from his Eagle jet that was in an unrecoverable spin. During the spin, the centrifugal force pinned the pilot forward in the cockpit. When it was time to eject, he was strong enough to pull himself upright before ejecting. The ejection was uneventful and the pilot uninjured. It’s conceivable that had he not been an avid weight lifter, he may have ejected while still pinned forward resulting in possible spinal compression fractures. Additionally, the pilot’s large amount of muscle mass may have prevented spinal injuries. Was it luck, or was this fighter pilot physically prepared?

How about this one. Have you ever had to ease up during a break turn because you were losing tally of the bandit? The old neck just couldn’t hold up your head. Meanwhile, the bandit was then able to pull lead for a gun solution. If your answer is yes, maybe a regular weight training program would have allowed you to keep that bandit in lag by pulling that extra few Gs.

The bottom line is we know that weightlifting increases one’s physical capabilities in the air. If you could have a faster jet, you’d want it. If you could have a better missile, you’d take it. So if you want a stronger body, you have to make it!

Flight commander involvement is critical to the overall success of this “new” concept in training. Their example can help establish a new commitment to physical conditioning by all fighter pilots. No matter how you look at it, today’s fighter pilot needs some type of resistance training to better equip himself for the ever increasing physical demands of flying fighters.

Well, hopefully, I’ve provided incentive to “pump you up.” Come on, go put on one of those “He-Man” leather belts. Put on some of those fashionable gloves with no fingers and head to the gym. You’ll feel better, look better and, more importantly, fly better.

NOV/DEC 1989
TAC LOSSES ON THE GROUND
(FY 89)

OFF-DUTY MISHAPS

Automobiles:

Motorcycles:

Pedestrian:

Drowning:

ON-DUTY MISHAPS

AF Motor Vehicle:

ACFT Ground:

Industrial:
Much sooner than we believe possible, the holiday season is once again upon us. Unfortunately, it also tends to be an especially dangerous time of year for our Air Force people. Some of the journeys to friends and relatives are short, but many of us will be on the road traveling for extended periods of time. Those who don’t travel for the holidays will host or participate in parties, office functions or other gatherings that may include the serving of alcoholic beverages. So, in either situation, you’ll be exposed to potential dangers. Here are some suggestions to make your 1989 holiday trip or party successful and accident-free.

**TRIP PLANNING**

If you’re traveling make sure that your vehicle is in good safe operating condition. This includes:

- Tire condition (snow tires if you expect to travel in the snow and tire chains for really bad areas). Don’t forget your spare tire. Make sure it’s properly inflated.
- Steering (check both condition and fluids).
- Brakes (check fluid, and if there’s doubt about condition have them checked).
- Heating systems (for cold country, check water and antifreeze).
- Exhaust systems (carbon monoxide kills silently). Have system checked by a qualified mechanic if in doubt.
- All glass areas (dirty windows/windshield are hard to see through and cause glare at night).
- Shocks (important for stability; especially with added weight).
- If a roof top carrier is used, remember this can change your vehicle's center of gravity and cause your vehicle to become top heavy.
- Road hazard kit for coping with vehicle breakdowns, including engine drive belts (fan, alternator, etc.), flares and games for the children.

- "Nice to have" items to make your trip more pleasant such as applicable maps, a current weather/road condition forecast.
  Taking the time to plan your trip will be time well spent to avoid delays later because you forgot something. If you have car trouble, there may be no vacancies at the motel where you planned to stay. Decide how much time will be needed to safely make the round trip. Rushing to get home is dangerous and can lead you to exceed the speed limit, drive while fatigued, and become preoccupied with getting back in time. It's always better to get an extension of your leave than to jeopardize you and your family.

Using appropriate safety equipment such as seat belts and child restraints cannot be overstressed. This is your insurance in case you're involved in a mishap. Maybe you're a very safe driver, but you could be a victim of the other guy who isn't. In many states, you can receive a citation for non-use of restraints, especially child restraints.

Alcohol should not be consumed in any amount during your trip. You're really placing yourself and your family at risk as well as the possibility of a DUI/DWI. Wait until you reach your holiday destination before you begin celebrating, and then only in moderation.

**HOME PLANNING**

If you're staying at home over the holidays, there will also be a number of dangers to avoid. Trips in the local area will be shorter, but there too you must be alert and watchful for the bad or drunk driver. With the number of parties going on, your chances of a vehicle mishap are high. The same defensive, alert driving is needed and the use of safety restraints is as equally important.

**FOR THE HOST**

- Use the "Dedicated Driver" approach so only sober, nondrinking persons are driving. As a host in states with a dram law, you could be subject to legal consequences for the conduct of your guests.
- Stop serving alcohol at least two hours prior to the end of the party.
- Serve food or include a breakfast as a party climax.
- Offer a variety of nonalcoholic beverages.
- Be a party monitor. To do so, you need to remain sober and look for those who may have exceeded their capabilities. You need to be a friend and stop their drinks to ensure they get home safely. Many will resist, but it is better to have a mad, but alive, friend. If it's a small gathering, consider having guests remain overnight, use taxis as a transportation source or even rent a large carryall that will accommodate the number of people attending. There are a number of alternatives that you may choose from.

If you're attending a function somewhere on base, most units have a "Ride Home" program and no names are taken. If you have any doubt about your condition to drive, we suggest you contact agencies such as the clubs, security police or motor pool taxi service to see if they will provide a ride home or arrange for one. Many bases provide such services and can be used without negative repercussions. This may not prevail if you become belligerent or destroy property, so be on your best behavior.

These are a few of the possible ways to survive the 1989 holidays. Only YOU can make it happen! Remember, WE CARE about you.
Captain James E. Eaton was flying an OV-10 as number two of a two-ship. He returned to the George AFB traffic pattern after a routine forward air control (FAC) mission. On downwind, Capt Eaton noticed that his right main gear indicated unsafe (barber pole, light on in the handle, and hydraulic pump still running). He immediately pulled the hydraulic pump circuit breaker to prevent overheating the pump, and informed flight lead of the problem. Flight lead repositioned to a chase position while Capt Eaton referred to his checklist. The chase aircraft was unable to confirm gear down and locked, but the right main appeared to be down all the way. Capt Eaton pushed in the hydraulic pump circuit breaker to provide hydraulic pressure on the gear and maneuvered for a straight-in. He landed on the left main first, and upon lowering the right main, the aircraft appeared to collapse to the right. Capt Eaton immediately initiated a go-around. He left the gear down and proceeded to the holding area. The mishap pilot tried to lock the right main into place by pulling Gs. The right main gear still indicated unsafe.

Capt Eaton elected to try another landing. He followed the same procedure as before, and this time the right main definitely began to collapse. Once again, the mishap pilot executed a go-around. As he went around and was coordinating for a gear-up landing, Capt Eaton noticed the right main indicated safe and the light was out in the handle. He elected one more try, and this time a successful landing was completed.

The second attempted landing by Captain Eaton was sufficient to jar the reluctant gear into position. Maintenance replaced the faulty strut assembly and the aircraft is flying again. It took more than "book" knowledge to handle this problem. Common sense and a feel for the aircraft were also required. It is this level of exceptional airmanship that has earned Captain Eaton the TAC Aircrew of Distinction Award.

Captain James E. Eaton
27 TASS, 602 TAIROCW
George AFB CA
Life's a gamble

Cal Faile
HQ TAC/SEG

The dice were thrown. Everything depended on the results. Jeff had been up most of the night partying and gambling in the local casinos with friends, but only had the proverbial "couple of beers." He was tired, dead tired. As time passed, he thought of his wife and two children back home. If he could only be with them for just a little while. These long TDY's were getting him down and he needed to relax. He believed a night on the town was just what he needed. "Gambling was not so bad," he thought, "if you could afford to lose." Even if it was a gamble. So what if you lost once in a while — there was always tomorrow. He had lost before, but always recovered. But this time, he bet all he had. He knew if he lost, he would lose everything. But, in the mood he was in, he didn't give it a second thought. He was extremely confident that he could win. Nothing could go wrong. He looked around, the lights were bright, and the glitter and excitement surrounded him. It seemed as if time stood still. Everybody was looking at him waiting on the outcome and his reaction. Suddenly there was silence as someone said, "Snake eyes, you lose!" He slowly opened his eyes and there were flashing lights all around — blue, red, and white. He was confused. He called out to a man in a blue uniform just a couple of feet in front of him, but received no answer. He walked up to him and realized it was a police officer. "Sir, what happened?" he asked. The officer seemed to ignore him and continued to stare at something behind him. He turned slowly to see what was commanding the officer's attention. He was startled to see the remains of a car which had smashed into a fairly large tree with a mangled human body protruding through the windshield. The car looked familiar. As he walked closer, he realized the car and body were his. As the cold and darkness closed in around him, he heard the officer say: "He bet his life on a few beers. Speed, fatigue and failure to wear seatbelts doubled the bet." Do not be your life, you too could lose. The odds are against you, and death is a cheat. It will permanently take away your life, family and friends. Protect it because it's too precious to lose.
OUR TAC AND TAC-GAINED

(FY
UNITS' LOSSES IN THE AIR

89)
Captain James L. Henderson graduated from the Flying Safety Officer's Course at Norton AFB, California, in February 1989. Since his return, he has managed a truly superior program. The 522 TFS was the only squadron to receive an outstanding rating during its annual wing safety inspection. Capt Henderson was also selected as an advisor to a flight related ground mishap investigation board. Because of his keen insight into flying and maintenance operations (having served four years as a crew chief) and his flying safety expertise, he proved an invaluable asset to the investigation board. Capt Henderson was responsible for presenting the April 89 Quarterly Wing Flying Safety meeting. Through a blend of unique humor and visual aids, the meeting was an overwhelming success.

Capt Henderson served as the primary FSO during the squadron's recent deployment to Boscombe Down, UK. He immediately contacted the local fire services and organized required aircraft familiarization and aircrew extraction training for the fire fighters. The deployment was a complete success from an operations and safety point of view. Capt Henderson presented the safety portion of the deployment briefing during Phase I of the TAC IG ORI. His briefing received many extremely favorable comments from the IG team.

Capt Henderson was tasked in March of this year to investigate the origin of new seat cushions that were appearing in the supply system at Cannon AFB. These cushions were found to be a safety of flight hazard due to possible interference with the control stick, as well as being extremely uncomfortable to crew members. After three months of intense investigation and research, it was discovered that the manufacturer of the seat cushions had used the wrong material in the production of the cushions. This information came to light after many hours of telephone calls to the Chiefs of Safety at Pease and Plattsburg AFB, the Chief of Flying Safety at Mt Home AFB, the F-111 Life Support Engineer at Norton AFB, and the F-111 Escape Capsule Project Engineer at McClellan AFB. The Project Engineer at Sacramento Air Logistics Center (SMA-ALC) personally contacted the manufacturer who admitted that the wrong material was used in the seat cushions. As a result, the manufacturer began recalling the cushions from the field. Capt Henderson immediately sent out a Safety Crosstell to notify all units that may have received the new cushions about the inherent danger associated with them. In the interim, Capt Henderson received permission from the Project Engineer at SMA-ALC to locally modify the bad cushions that were already installed in our aircraft. This modification consisted of cutting the cushions in half. He personally modified all the faulty cushions in the 522 TFS aircraft prior to the overseas deployment. After learning that another squadron's aircraft was involved in a High Accident Potential (HAP) containing an unmodified seat cushion, Capt Henderson personally modified all of that squadron's faulty cushions also. He then ensured that all wing aircraft had the old or modified cushions installed. Capt Henderson is currently having selected crew members fly with a new cushion recently received from SMA-ALC. This new cushion meets the original design specifications and was introduced into the supply system at the end of October.

Capt Henderson's performance has been truly outstanding. His dedication to the 522 TFS and the 27 TFW safety programs is extremely commendable. Most remarkable has been his tenacity and determination in identifying and correcting the safety of flight hazard involving an improperly manufactured F-111 seat cushion. Capt Henderson's dedication to duty and sustained performance have earned him the TAC Flight Safety Award of the Quarter.
### TAC TALLY

#### CLASS A MISHAPS
- **Aircrew Fatalities**
  - **In the Envelope Ejections**
  - **Out of Envelope Ejections**

#### TAC'S TOP 5 thru OCT 1989

**1st AF**
- **Class A Mishap-Free Months**
  - 110 FIS
  - 45 FIS
  - 24 FIS
  - 325 TTW

**9th AF**
- **Class A Mishap-Free Months**
  - 530 TAIRCW
  - 1 TFW
  - 4 TFW
  - 347 TFW
  - 354 TFW

**12th AF**
- **Class A Mishap-Free Months**
  - 25 COMPW
  - 22 355 TTW
  - 21 366 TFW
  - 19 405 TTW
  - 13 388 TFW

**ANG**
- **Class A Mishap-Free Months**
  - 227 TASG
  - 202 TFG
  - 184 FIG
  - 179 TFG
  - 143 TRG

**AFR**
- **Class A Mishap-Free Months**
  - 110 TFG
  - 100 924 TFG
  - 88 906 TFG
  - 62 507 TFG
  - 49 917 TFW

### CLASS A MISHAP COMPARISON RATE

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