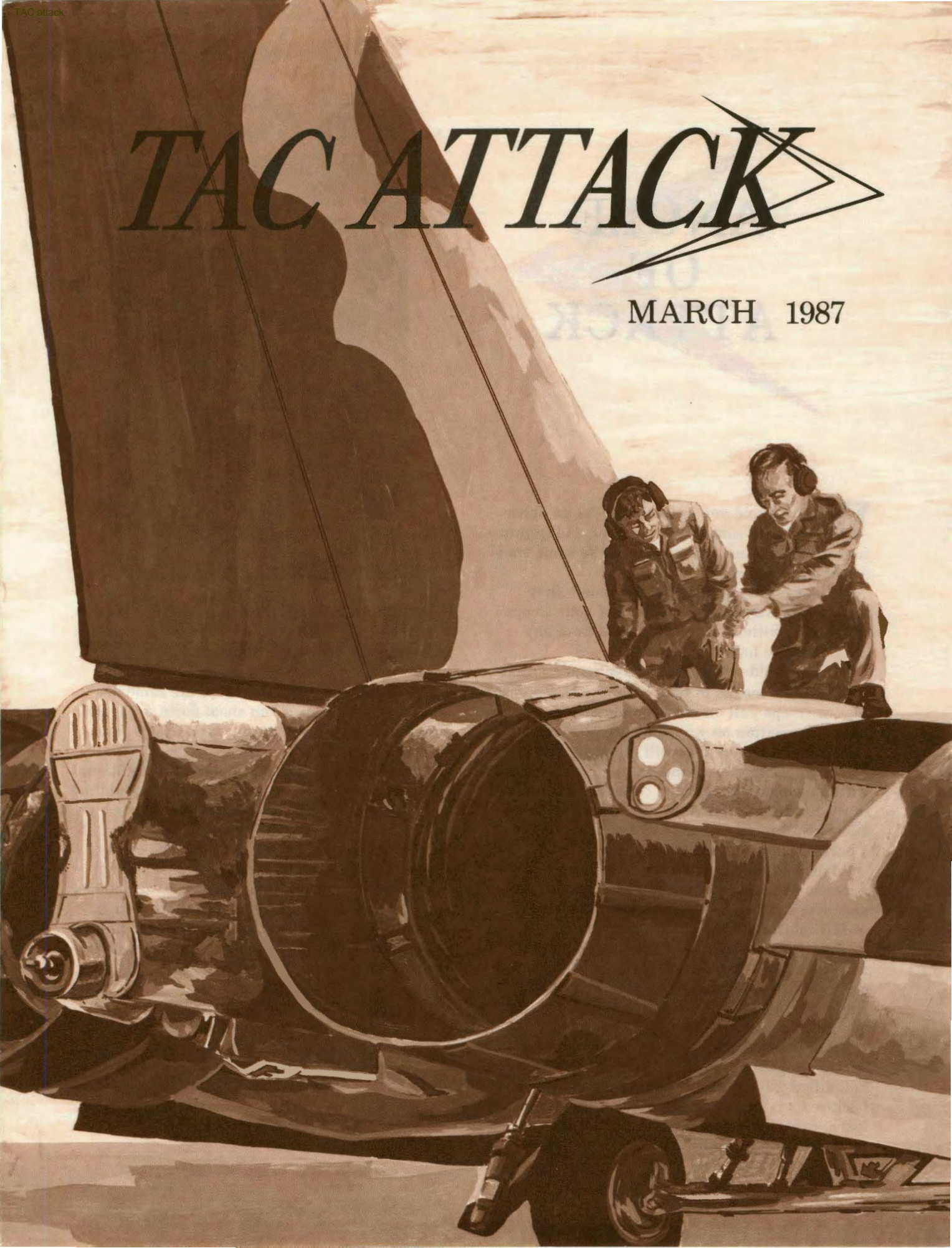


TAC ATTACK

MARCH 1987



ANGLE OF ATTACK

What if I told you jocks there was an opportunity for some of you to hone and improve your judgment and airmanship at the same time? Anyone interested?

What if I told you flight commanders that there was a way to observe more of your troops in the air—without stealing sorties from anybody? Anyone listening?

What if I told you squadron commanders that you have the means to really observe how some of your troops pull on the pole and also get first-hand information on why they are about to do something; a means that will allow your troops to access your experience and knowledge in the air with no embarrassing radio calls and not having to wait until debrief? As we all know, the most effective learning in our business is at the top of a barrel roll, not the bottom.

What if I told you wing commanders there was a means available (to many) to season the young and/or inexperienced without upsetting the MQT or MR continuation training program?

Nope, it's not magic—I gave up believing in magic shortly after I got this job—and I'm not recovering from a 10,000 foot freefall without a chute. No, my Golden Flow was A-OK. So, are you ready to listen?

All of these objectives can be accomplished with a simple policy of flying every jet with every hole filled. That's right; the unit strapping down back seats is also strapping down opportunities to learn, experience and track the art of airmanship. And airmanship, my friends, means



more than “hands on” the controls. Much more.

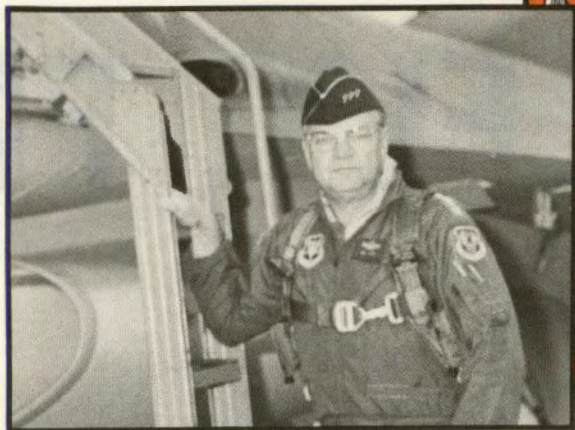
It's time we realize the advantages and bring into focus the real opportunity lost for every jet we fly with seats strapped down. I could list pages of advantages. Sure, there are some disadvantages; and after you shoot down pride and ego, the only ones remaining aren't worth mentioning.

To those of you screaming about the additional-duty list, paperwork, ground training, scheduling . . . I say, get your priorities straight. Our job is to Fly Smart and Fight Smart—in that order. If your priorities differ, you have two choices as I see it. One, you can use the leadership in your unit to get things back on track; or, two, you can sit back and wait for the mishap to rearrange priorities for you. Even to a dumb fighter pilot, only the first choice is the optimum angle of attack. What's yours?

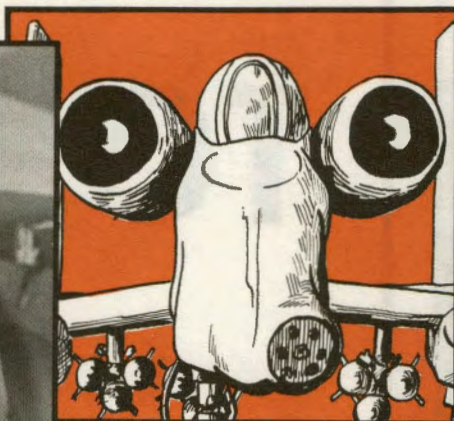
EDSEL J. DE VILLE, Colonel, USAF
Chief of Safety

TAC ATTACK

DEPARTMENT OF THE AIR FORCE



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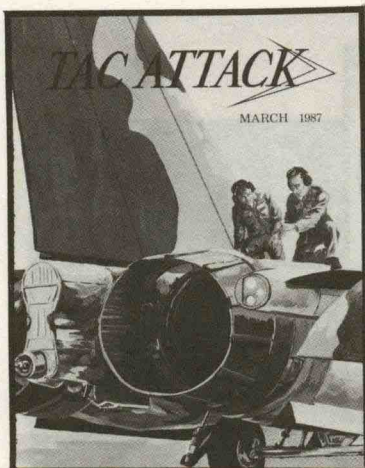
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EDWARD C. ALDRIDGE, JR.
SECRETARY
OF THE AIR FORCE

GEN ROBERT D. RUSS
COMMANDER



COL "COUPE" DE VILLE
CHIEF OF SAFETY

MAJ DON RIGHTMYER
EDITOR

STAN HARDISON
ART EDITOR

MARTY DILLER
WRITER-EDITOR

SGT KELVIN TAYLOR
STAFF ARTIST

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TO FLY, FIGHT

Lt Gen William L. Kirk
Commander
Ninth Air Force

All of us are familiar with the abbreviated version of TAC's mission statement, "To Fly, Fight, and Win"; however, very few of us have seen it with the added objective "Safely." Although not said, safety is very much a part of the mission—it's implied, it's inherent; because without it, you have no assets to do the flying, fighting and winning. While smart, aggressive tactics and high tech weapons may enhance mission success, safe flying is paramount to that success. The fact is, we can't penetrate enemy defenses, drop bombs on target, and shoot down MIGs while compromising flight safety. We just won't survive very long. Our peacetime mishap record bears this out. Let's look at some examples:

- Reacting to a simulated threat, a four-ship of A-10s has a midair. Result? Two aircraft lost; one fatality.
- Ignoring trapped fuel indications, an F-16 flames out. Result? One aircraft lost.
- An F-15 flight collides at the merge. Result? One aircraft lost; one fatality.
- Number two on an F-4

FIGHT SAFELY AND WIN...

night range mission becomes disoriented after flight split up, and impacts the ground. Result? One aircraft lost; two fatalities.

Why do these things happen? There are probably as many answers to that question as there are safety experts. However, after studying factors contributing to recent mishaps, I believe they're the result of:

- Unnecessarily complicated missions—failure to train

smart, and straying from or ignoring the basics of fighter aviation.

- Inattentive supervision—failure to perform entrusted management responsibilities.

- Complacency—failure to heed warning signals.

First, complexity. Today, I'm proud to serve with the best aircrews, flying the best aircraft in the world's best air force. We display tremendous dedication to duty, but some-

I'm proud to serve with the best aircrews, flying the best aircraft in the world's best air force.

times in an attempt to maximize combat ability we tend to deviate from the basics. We devise missions that are so inherently complicated that they're overly difficult to execute, tactically unsound, unsafe, and prone to failure. To me, that type of mission poses a high mishap risk.

We profess to fly and fight smart, but does smart necessarily mean complicated . . . does simple mean dumb . . . does best mean difficult . . . or aggressive mean unsafe? Of course not. We all know a smart flight leader develops plans that are both easy to understand and safe to execute. That is, within tactical considerations, the KISS principle always applies; simple equals smart.

A smart flight lead stacks the deck in his favor. He sets up the mission to succeed, and not so that he and his wingmen will have to dodge each other during tactical turns. He doesn't challenge his flight beyond their capabilities. He real-





TO FLY, FIGHT AND WIN...

SAFELY

fly, fight, and win safely

A smart flight lead stacks the deck in his favor.

"Those who ignore history are condemned to repeat it."

izes that a simple plan which results in a combat victory must also be a safe plan.

Second, supervision. Although supervision exists at various levels within flight operations, the most critical link in the supervisory chain is the flight commander. He's the backbone of the squadron. To the brand new fighter pilot, the flight commander is the leader, boss, trainer, big brother, etc., etc., all rolled into one.

In my opinion, there are four requirements for good flight commander supervision:

1. Flying experience.

There's no substitute for it. Preferably flight lead and/or instructor qualified.

2. Strong leadership traits. Managing his flight, he must be willing to make the tough decisions even if they're unpopular. Flight commander selection criteria cannot be based on rank, longevity, or the ability to write OERs and sign leave statements.

3. Personal involvement; knowing his people. Because he's closest to the action, he must be sensitive to changes which could adversely affect the performance and progression of his flight members. In other words, he's tuned in to the signals.

4. Professional judgement. Actively involved in the training and scheduling of his flight members, he establishes chal-

lenging goals which ensure realistic training commensurate with their proficiency. A member of the flight is not combat ready until the flight commander says he is ready.

My last point before leaving the soapbox is complacency. Lately we've lost several fighters during the so-called "routine" or "easy" part of the mission:

- An A-10 stalls on short final after a lengthy deployment.
- An A-7 lands gear up.
- An F-4 with single engine failure on takeoff goes out of control.

These mishaps indicate shortcomings in the aircrew's attitude toward some mission tasks. They point to weaknesses in training, knowledge, concentration, and attention to detail. In other words, they point to complacency. Although we may not enjoy sitting in a simulator flying instruments and watching the telelight panel light up, let's face it, a simulator flight teaches and reinforces the basics in a controlled environment. If done properly, a SEPT challenges our systems knowledge, tests our reflexes and is not just a square filler designed to absorb our free time. Finally, I've never heard of anyone being DNIF from writer's cramp filling out the weekly boldface, but I have been briefed on ma-



jor mishaps where the wrong boldface response was used. All three training vehicles are designed to help us handle emergencies as second nature. It's a small price to pay, and believe me, a lot less painful than an aircraft mishap.

We all realize how important it is to concentrate while we're flying, but do we appreciate that a moment's distraction could result in a gear-up landing? You've seen the bumper sticker that says "I'd rather be flying"? That sticker was designed for the guy who is sitting in the middle of the runway with his jet resting on its belly after a gear-up landing. Think about it; it can happen. We must give each mission task our full attention, from planning and briefing to flying and debriefing. As I've told units that have not recently

experienced a major mishap, "Beware—because your next mishap may be caused by the fact that you haven't had one for awhile, i.e., complacency."

So much for Monday-morning quarterbacking our mistakes. We can't change history, but as the old cliché states: "Those who ignore history are condemned to repeat it." We must learn from our mistakes and apply them to the future, and the future is here today. There may be a lot of approaches to conduct safe flying, but a simple and effective approach is this:

1. We must have KNOWLEDGE, TRAINING, and ABILITY. That is, the proper mental attitude and physical skills for the job. Most mishaps can be traced back to shortcomings in one of these three areas.

2. We must exercise DISCI-

PLINE to do the job right and INTEGRITY to do it when no one is watching. What some might attribute to luck is really a result of good discipline.

3. We must exercise CAUTION and GOOD JUDGEMENT. Call time out when we need to. This won't prevent every mishap, but it may be our last chance to avoid one.

Finally, in any future air campaign, we'll be facing tough challenges. We'll need every sophisticated fighter and every combat trained aircrew available. To do so, we must cut our peacetime losses and prevent needless mishaps. Therefore, my challenge to you is to train safely, realistically, and smartly; stick to the basics; and keep it simple. If you follow that approach, you'll get bombs on target and win. FLY SAFE!

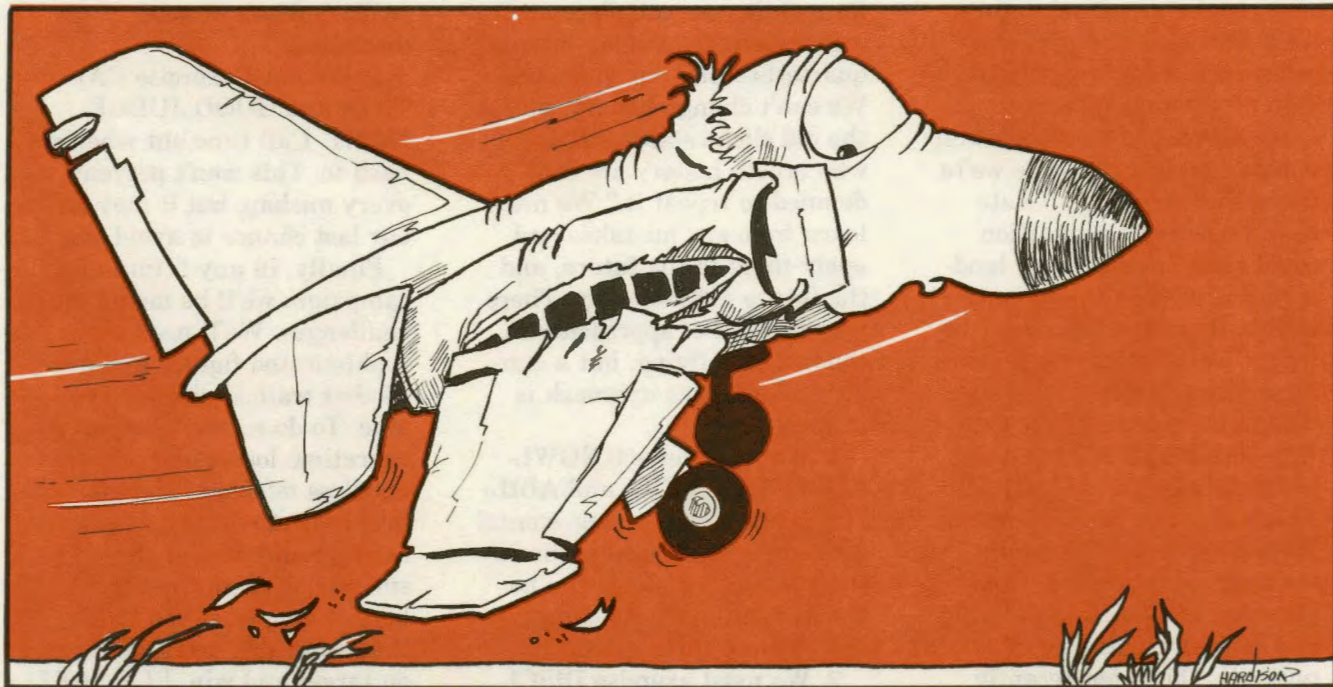
tips

Aircraft preflights are a perfect target for complacency to take root. After all, most of us have done them a hundred times or more and 99 percent of the time nothing earth shattering is found. A recent mishap illustrates the fact that in the flying game there is nothing we do that allows us the luxury of complacency.

end-of-runway inspection team also missed the problem.

The pilot taxied into position and lit the burners for takeoff. As the aircraft lifted off, the right wing folded and the jet rolled violently because the wing fold pin wasn't seated properly. A dual sequenced ejection was initiated by the backseater who departed the jet at forty-five degrees of bank. The frontseater departed at one hundred degrees of bank, approximately forty feet AGL. He didn't make it.

Next time you do your walkaround, ask yourself if it was good enough to bet your life on. It better be, because in a very short time you could.



Fod on legs

Can FOD be prevented? You bet it can. If you're watching for potential situations, problems can be stopped before they ever occur.

An F-111 crew stopped at a non-TAC base for a cross-country "gas and go." When they were ready to taxi, the transient alert crew chief's baseball cap was sucked down into the intake when he pulled the chocks.

Would you have noticed the potential FOD sitting on the crew chief's head in time to keep your engine from eating it? Be especially observant at bases that might not be familiar with your aircraft and its intake danger areas.

"... but I can clear my ears."

With the advent of the cold and flu season, many aviators are destined to have runny noses, congestion and sore throats. This will occasionally be followed by an aviator approaching the flight surgeon with the classic statement, "Hey Doc, I've got a cold, but I can clear my ears," inferring that the ability to clear the ears equates to the ability to fly. Unfortunately, that may not be true with the altitude and pressure changes encountered in flight.

Furthermore, there are 10 spaces in the skull that are subject to "Baro Trauma" from pressure or altitude changes. We have only a partial ability to equalize pressure in two of these spaces. Obviously, this leaves eight spaces not subject to clearing techniques such as the Valsalva Maneuver. When sinus or ear pressures cannot be equalized, a sinus or ear block will develop; and the aviator is faced with prolonged grounding. There are many cases where aviators have been permanently grounded with the more serious

complications of sinus and ear block because they went flying when they had colds.

The signs and symptoms of a simple cold are cause for grounding; the treatment of a cold is grounding. Don't get caught up in the idea that being able to clear your ears makes any difference.

Courtesy Lt J. A. Perciballi, U.S. Navy *Aircraft Mishap Bulletin*



I REMEMBER

I remember Jess

Maj Tom Dean
F-16 Functional Manager
TAC/DOO

To me, Jess has always been *the* fighter pilot's role model. He was a natural leader who made you want to explore your own limits—to be the very best you could. Around the squadron, Jess was kind of quiet, kept mostly to himself and seldom complained about the training rules. He used to say that he had too much to do to complain; besides, it wouldn't do any good, so why bother? Jess liked to tell us that the flying regulations were the foundation of our corporate knowledge. They were based on lessons learned from combat and peacetime training mishaps and we should respect that.

Jess had done it all—he'd been "downtown," flown over 200 combat missions in Southeast Asia and seen aircrews lost in combat, some needlessly. He retired several years ago; but if Jess was around today, his flight suit sleeve would bear ten stars, two of them gold.

To all of us young lieutenants, Jess was the essence of what we admired most, he was



ER, JESS

totally combat oriented—on the ground and in the air. He never spoke of inordinately complex air and ground threat training scenarios, for he knew from experience that it was not a complex array of weapons that would kill you, but rather a single 23mm shell or SAM. “You guys better be practicing AAA defensive maneuvers, SAM breaks and flying smart if you want to get the most out of your training,” he would say; “keep it simple—one thing at a time. You young bucks are always developing scenarios that just don’t exist 99% of the time.”

I can still remember the day he spoke up at an aircrew meeting after the flight safety officer briefed us on a fatal class A mishap involving a complex training scenario. “Remember this,” he said, “You guys who think that the next war will be anything like the scenario just briefed may be right, but I doubt it. We shouldn’t be spending 99% of our time training for 1% of the expected threat. We need to maintain the proper balance of readiness for all expected scenarios and not just the top end.” A lot of the men in the

room thought that Jess was out of touch with the current threats. Out of respect for him, they didn’t say anything in defense of the way training was currently being conducted in the wing. The squadron commander stood up and took the chill out of the air by agreeing with Jess and stressing the need for a safety oriented training program and we all got up and left.

Jess retired shortly after that. At his retirement party, he was given the customary chance to say his goodbyes. A hush fell over the room as he began to speak of friends that couldn’t be there because they had paid the ultimate price and that made him sad. I thought I saw a tear come to his eye when he suddenly looked up, totally in control. As the muscles in his face tightened, he said that they were good and capable warriors that he was proud to have called friends and if there was one thing he could change or do over again it would have been the attitude he had towards combat training. “Combat training scenarios should be realistic yet simple enough that they don’t task saturate our

aircrews to the point that they are unable to stay ahead of the aircraft,” he said. “If we orient our training towards scenarios that emphasize only a very small portion of the expected threat then we have failed ourselves and those who depend on us as leaders in tactical aviation.”

“What signal do we send to the other side when our mishap rate goes up? How prepared for combat are we when we lose aircrews and aircraft at an alarming rate? Our job in TAC is to be prepared and ready for combat. That means being able to bring well trained crews in sophisticated aircraft to bear against any foe in such a manner that he is deterred from aggression based on his knowledge of our readiness.”

In his closing words, Jess asked us all to remember the combat lessons he and his contemporaries had learned the hard way—fly smart, fly safe and be ready.

It’s been a long time since his retirement, but those words are just as appropriate today as they were then. And just in case he wonders if anyone listened that night—I remember, Jess. Thanks. ➤

TAC OUTSTANDING ACHIEVEMENT IN SAFETY AWARD

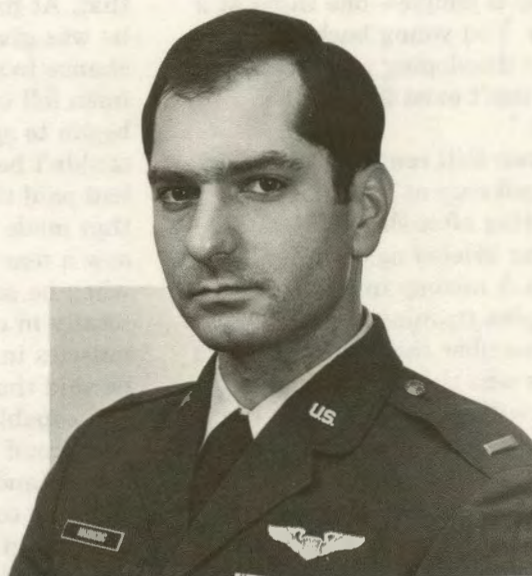
Major John B. Cooper and First Lieutenant Igor Maximciuc were aware that maintenance was unable to find what was causing an F-4E to have chronic weapons release problems, which varied from radar malfunctions to uncommanded ordnance release. Maintenance was unable to pinpoint the cause because the problem could not be totally duplicated on the ground. Recognizing the seriousness of the situation, Major Cooper and Lieutenant Maximciuc volunteered their services and ideas.

They began by suggesting a plan to fully duplicate the weapons release problem. All weapons systems were brought on line during a ground run, while maintenance technicians monitored the release signal outputs. Various bomb delivery patterns were simulated when Lieutenant Maximciuc noticed something wrong. Every time the bomb release button was depressed, the radar would revert to the "super-search" auto-acquisition mode. After a few search sweeps, the radar would lock on to the ground return and generate a release signal at the TER. The cause was two pins in a TER cannon plug that were short circuited together. When a bomb release signal was generated by depressing the "pickle" button, it would short to the radar and select radar autoacquisition mode. When the radar found something to lock and track, it would send an identical signal through the shorted TER and release a bomb. The time between signals varied greatly dependent upon how long it took the radar to find a target to lock on to.

By suggesting and implementing their plan to fully duplicate this weapons release problem on the ground, Major Cooper and Lieutenant Maximciuc eliminated the occurrence of another reportable mishap. They demonstrated high motivation, above-average dedication to duty and strong concern for safety. ➤



Maj John B. Cooper
108 TFW (ANG)
McGuire AFB, New Jersey



1st Lt Igor Maximciuc
108 TFW (ANG)
McGuire AFB, New Jersey

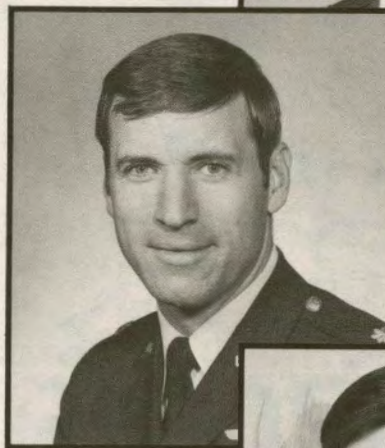
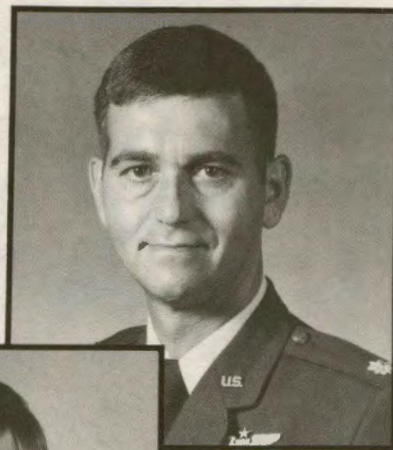
AIRCREW OF DISTINCTION

An EC-135 crew from the 6th Airborne Command and Control Squadron consisting of Major Robert Gole, aircraft commander; Major David Lott, mission pilot; Captain Matthew Oetken, navigator; and Technical Sergeant Patrick Ryan, boom operator, was four hours into their mission when a fire started in the communications area of the aircraft. Major Gole quickly coordinated communications team actions to shut down power to the radio equipment and initiated immediate return of the aircraft to home station.

As the initial emergency was terminated, Sergeant Ryan notified the pilots that hydraulic fluid was streaming from the rear of the aircraft. Cockpit indications confirmed the problem and the left hydraulic quantity and pressure dropped to zero despite emergency efforts by the crew. Majors Gole and Lott coordinated on the appropriate landing data and emergency procedures for landing a 190,000-pound aircraft without anti-skid protection and only reserve brakes and partial speed brakes available. Loss of the left hydraulic system also required manual extension of the landing gear.

While directing the return routing, Captain Oetken notified 6 ACCS of the mission abort, relayed information to the Supervisor of Flying and assisted in the extensive coordination required to handle the emergency. After the gear was manually extended, Major Gole brought the aircraft back for a flawless approach and landing; bringing the aircraft to a successful stop, using only partial speed brakes and reverse thrust.

Major Gole, Major Lott, Captain Oetken and Sergeant Ryan demonstrated exemplary crew coordination, professionalism and airmanship in safely recovering an aircraft and 32 crewmembers after dealing with multiple emergencies.



Maj Robert G. Gole
Maj David G. Lott
Capt Matthew C. Oetken
TSgt Patrick J. Ryan
6 ACCS, 1 TFW
Langley AFB, Virginia



WEAPONS WORDS

Sealant wasn't the answer

During the upload of an AIM-9P missile, the weapon load crew attached an umbilical connector retainer although the tech data stated that it was not to be used for a captive missile. The missile was later downloaded and moved to another aircraft by the same crew. During the download, the umbilical block and connector were knocked loose by the retainer.

When the load crew chief discovered the loose connector and block, he decided that it was only a minor problem so he pushed the connector down and applied a small amount of sealant. During the postload inspection, a supervisor noticed the wet sealant and had the missile removed from the aircraft.

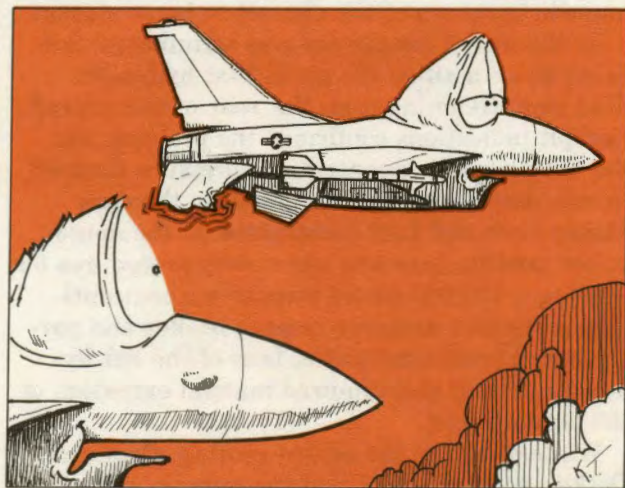
When the AIM-9 was finally returned to the missile shop, bent pins were discovered in the

connector as well as the unauthorized maintenance that had been performed while attempting to reseal and seal the umbilical connector to the block.

This load crew's lack of knowledge on proper load procedures and improper maintenance practices led to a missile being loaded that wasn't ready to do the job. In addition, a missile that could have been repaired locally had to be sent to the depot for repair.

Cover now, dropped object later

An F-16 was carrying six live MK-82s with tail fuzes on a surface attack mission. Nothing abnormal was noticed during the low level or weapons delivery, but damage to the right hori-



zontal stabilizer was noticed during the battle damage check. The aircraft was recovered without any further problems.

The shape and size of the damaged area indicated that the mishap was caused by a tail fuze cover which was not securely fastened and came off during flight. A similar incident years earlier had resulted in a procedure to ensure that the fuze covers were secured. The solution was to secure the tail fuze covers properly and then mark across each fastener with a bright grease pencil. This permitted easy inspection of the fasteners to insure that they were still secure after an inspec-

tion of the tail fuze had been made.

The fuze covers on this aircraft had not been marked in that manner. The practice of marking the fasteners on the tail fuze cover had been deleted from the local checklists since it was never required in any technical order or regulation. Instead of being deleted from local use, the problem should have been highlighted to ensure that the solution to the problem was available throughout the TAF. Are you aware of any similar problems and solutions in your local daily operations which should be disseminated throughout the command for wider use?

That's not what I meant

Two munitions maintenance specialists were sent out to perform a 30-day jettison check on an F-4 configured with a 600-gallon centerline fuel tank. When they arrived at the aircraft, the supervisor reviewed the aircraft forms, but there were no entries on the aircraft's arm/dearm status. The aircraft armament placard was also void of any entries.

The two-man team then began to perform the jettison check without physically checking the centerline cartridge breeches for impulse cartridges or noticing that the Aero-27 bomb rack safing pin was missing. The number two man

connected a PSM-37 meter to the appropriate point and relayed to the supervisor that he was ready to begin. The supervisor up at the cockpit depressed the stores jettison button. Of course, the impulse cartridges worked and the 600-gallon centerline fuel tank was jettisoned to the ground.

These guys looked for the indications of an armed aircraft but unfortunately missed the obvious. That's like taking a gun from your friend and pulling the trigger without doing the most important thing—checking the breech first to see if it is loaded.

A place for everything

An F-16 pilot taxied out to EOR for his last chance inspection where the arming crew removed the AIM-9P influence fuze cover, the arm/safe key and the radome cover. The fuze cover and arm/safe key were then placed inside the missile radome and transported to de-arm on the other end of the runway.

Upon flight completion, the F-16 pilot proceeded to the de-arm area. The de-arm crew reinstalled the fuze cover; but they failed to remove the arm/safe key from the radome cover before reinstalling it, shattering the radome as a result.

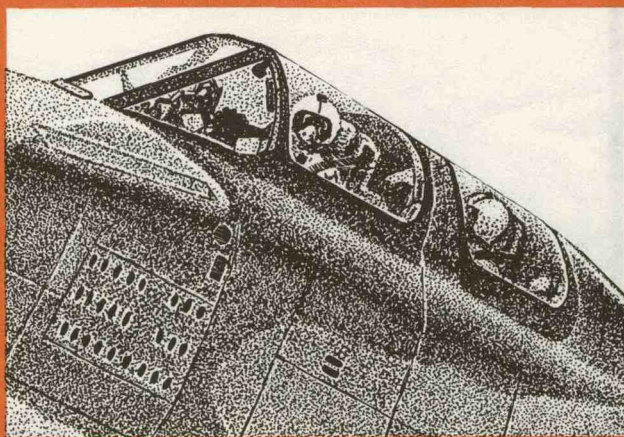
It was bad enough that the radome was broken but, even worse, the incident went undetected for five days. Poor postflight procedures on everybody's part.

HEADS UP

Next month, in the

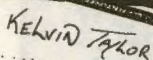
APRIL

issue of *TAC Attack*,
you will see Sgt Kelvin
Taylor's stipple drawing
of the F-105F Thunderchief
IN THE CENTER.



F-100D SUPER SABRE





MIXING IT UP WITH A



Maj Harley Davidson TAC Flight Safety

You're a fighter pilot aboard a commercial 747 when the stewardess quietly informs you that both the pilot and co-pilot "ate the fish" and are totally incapacitated as a result. She asks if you can fly the plane; and in accordance with your traditional fighter pilot image you answer, "Certainly, I can fly anything." As you slide into the left seat, the question is "Would you fly the 747 like you fly your fighter?" I think not. So, what about walking out to your aircraft when it's loaded down with external fuel and wall-to-wall ordnance? Do you fly it like you did the day before when it was clean? I certainly hope not.

Most of us fly our training missions in a "standard," relatively clean, lightweight configuration so we predictably fly and build our habit patterns within the allowable envelope for this "standard" configuration. But what happens when we add significant weight and drag to the equation? *The aircraft changes!* In some cases, it may even become a drastically different machine. Additional weight and drag reduce performance and CG changes introduce instabilities not often

HEAVYWEIGHT

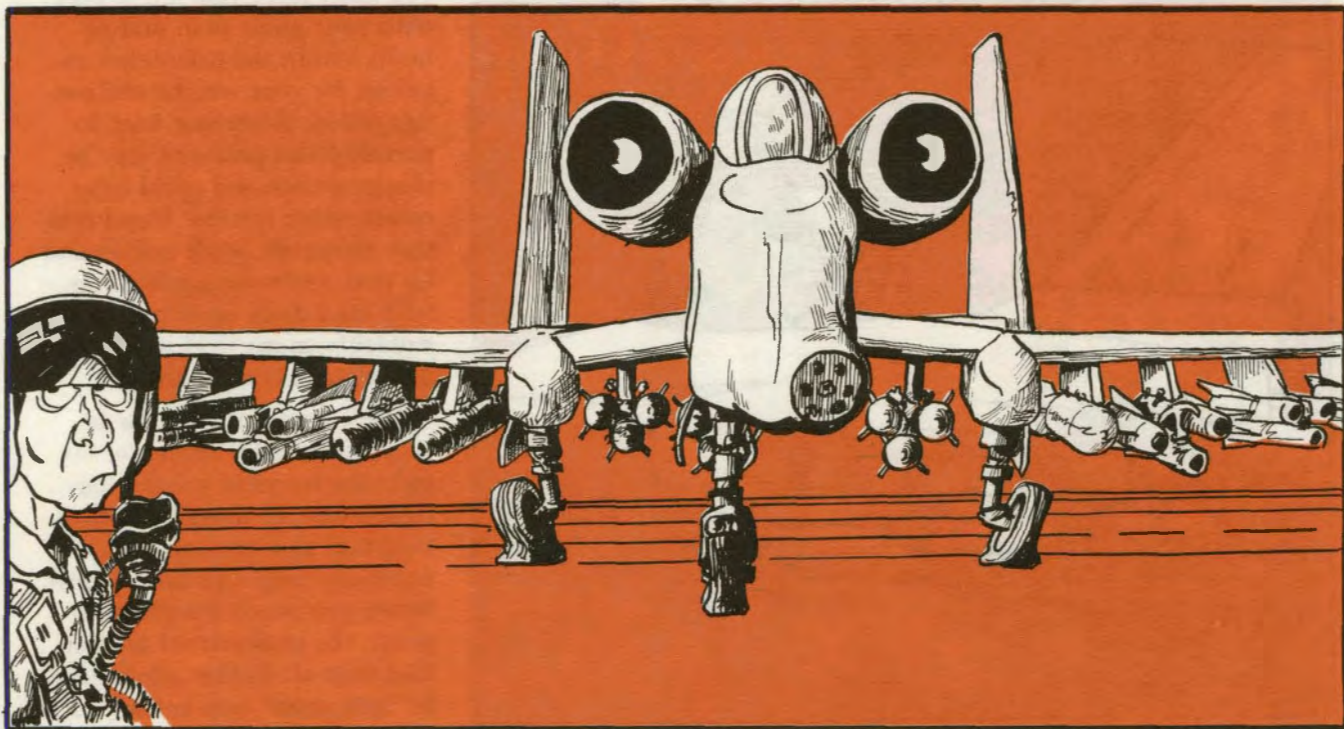
Heavyweight

encountered and possibly not well understood by the pilot. New aircraft limits come into play and obscure warnings, cautions and notes buried deep in the Dash One and Dash 34 suddenly become critical. If you step to the aircraft thinking this is just a "standard" mission, then you've just become the proverbial "accident waiting to happen."

Almost nothing is "standard" when you strap yourself into a uniquely configured, heavy-weight aircraft. Consider the following:

Planning. Think about the type of stores being carried. Then get your nose into the manuals and TOs that you don't normally read. You may have to talk to some squadron experts. Consider also the aerodynamic effect that the stores have on the aircraft. How will you alter your flying techniques to comply with store limits and restrictions? Do the manuals provide enough information about the stores to make you comfortable? If not, it may justify a "time out" until more information is ob-

tained. Have you considered how the takeoff and landing will be affected by the stores? Even things as basic as taxiing and arming might change based on the number of aircraft and types of stores involved. If you're deploying, have you considered how the configuration will affect your approach and landing at a strange field? What about emergencies? Have you thought about landing right after takeoff? Have you considered jettisoning the stores if necessary? What happens if the stores become hung?





MIXING IT UP WITH A HEAVYWEIGHT

These are just a few of the questions you need to consider during the planning phase.

Briefing. It's of little value for lead to have all the knowledge when it's number 4 that crashes. Everything "non-standard" that you've discovered in your planning must be disseminated to all flight members during your briefing. This may require additional time and patience to ensure that everyone understands.

Takeoff. Double check the data before you roll and be extra critical of engine performance. Minimum single engine takeoff and refusal speeds as

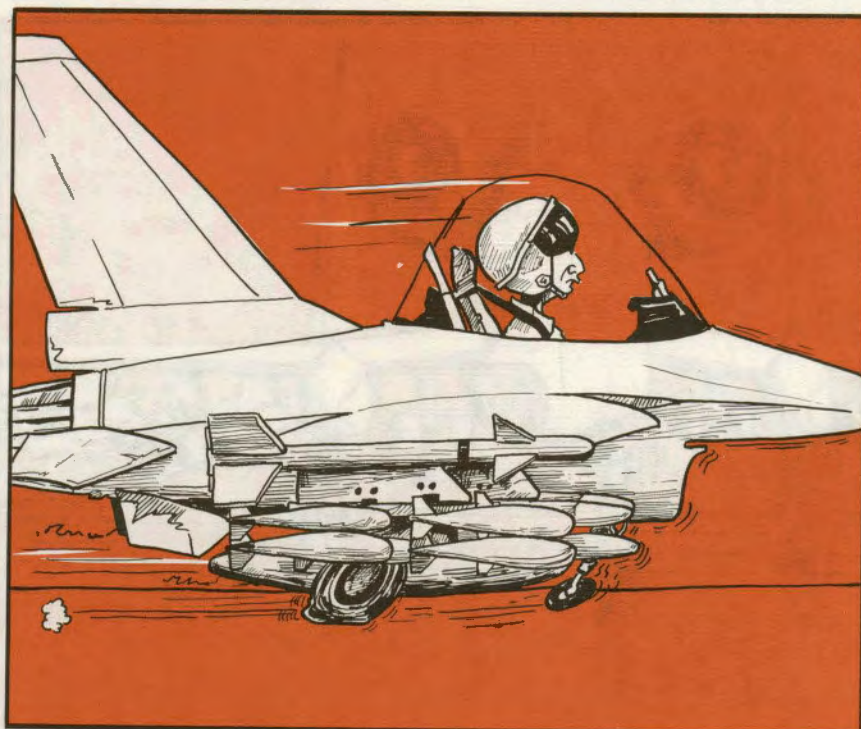
well as single engine climb parameters should be firmly in mind. Stores jettison is always a possibility, so knowing the limits on the ground, as well as airborne, is a smart move. Remember, some of the stores may not jettison (either by plan or malfunction) so asymmetric flight will bring new problems. Smooth and coordinated control inputs are a must in this situation.

Inflight. Your planning will give you an intellectual idea of how the plane will react to a given configuration, but in flight you'll get a firsthand look at the often subtle cues

which indicate that this is not the same machine you fly on a daily basis. How about the slight vibration that's not usually there, or the exaggerated yawing movement everytime you touch the rudders? What about all that aileron and nose up pitch trim not normally required for level flight? Isn't the aircraft trying to tell you something?

Because so many things are "nonstandard" while flying uniquely-configured heavy-weight aircraft, you may have to fight against your normal tendencies and habit patterns. Anytime the unexpected occurs, you must force yourself to stay with your game plan and remain within the calculated envelope for your weight and configuration. Reverting back to normal habit patterns may be inappropriate and could have catastrophic results. Those routine airspeeds, bank angles and Gs that you're so comfortable with on a daily basis may now suddenly cause your aircraft to depart controlled flight.

Don't forget about long deployments. After flying for six or seven hours in a ferry configuration, all those little cues that told you "this aircraft is squirrely" begin to feel natural. When you reach the pitchout point, the professional motivation that all fighter pilots have to "look good" may cause you to



revert back to old habit patterns. Unfortunately, the aircraft, with a different or heavy-weight configuration, may not be able to hack a "tiger pattern" that day. "It can't happen to me," you say, "I'm the world's greatest fighter pilot." Well, don't kid yourself. We've done it several times a year for the past decade and, often, it was one of the "world's greatest" sitting at the controls when it happened.

After the flight. What occurs after the flight is largely dependent upon the squadron attitude. That is, some squadrons

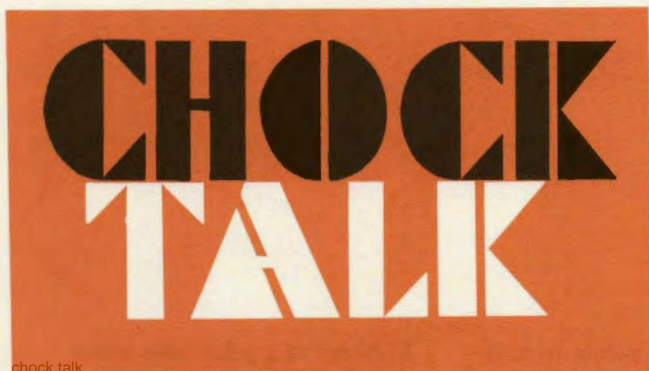
openly encourage pilots to talk about mistakes and lessons learned. These are the squadrons that pat young pilots on the back when they call a "knock-it-off," abort an unsafe bomb pass or go around from a bad pattern. These are the squadrons that place good judgement and flying safety above just "looking good."

Then there's the other kind of squadron where pilots refuse to talk about mistakes because of undue harassment or fear that supervisors are keeping secret lists. This is the squadron where even good natured

kidding of a pilot who went around from a bad pattern fosters an attitude of "Boy, I'll never go around again." These are the squadrons where accidents are waiting to happen.

Supervision, training, discipline and atmosphere establish an attitude that ultimately results in safe mission accomplishment. But, additional time in preparation and briefing is required by all when the weight and drag goes up. Make sure you're ready the next time you "see something unusual" under the configuration column on the scheduling board. ➤





Incidents and Incidentals with a Maintenance Slant

Make your efforts count

Two life support specialists had just finished putting parachute and survival kit assemblies back into an aircraft when they noticed that the right survival kit bracket wasn't fastened securely. As they tried to correct the problem, they lifted the kit too high, causing the parachute lanyard to be pulled. The result was a fired parachute delay cartridge which opened the parachute in their faces.

All of their hard work up to that point was wasted by one instant of inattention to detail and their failure to use proper procedures.



Note the difference

One F-15 unit discovered an aircraft in which a hydraulic seal (O-ring) had been used instead of the required radar waveguide seal. There is a big difference and the two should not be substituted.

The waveguide seals are conductive and serve a twofold purpose as a pressure seal and an RF seal. The hydraulic seals are not conductive and can only provide a pressure seal. Their incorrect use results in RF radiation leaking out of the waveguides and can cause such radar problems as no lock-on, weak detection, break lock and no targets. Arcing may also result within the waveguides and can shut the radar transmitter down.

Could this incorrect substitution happen in your unit?

Misguided enthusiasm

Capt. Allan Muller
325 AGS
Tyndall AFB, Florida

While the message describing how an eager airman had been killed as the result of an explosion caused by improperly servicing a nose tire with a nite-cart was still fresh in our minds, another potential incident was taking shape on the ramp of one of our TAC bases. A swing shift NCO from QA walked up on an airman changing an F-15 left main tire. The airman had removed the still-inflated tire and had laid it under the air-

craft. He was lifting the new tire into place when the NCO asked him to wait.

"Did you know you're supposed to deflate the old tire before removing it?"

"Yeah, but I just didn't do it."

"Where's the chalk mark to keep the brake rotors in line?"

Silence.

"Did you inspect the axle, like it says in the tech data?"

Again, silence.

"I see it still has the old grease; that would make it impossible to check correctly. Where's the new grease?"

"Uh, I don't have any."

"Did you know you were required by the TO to do all this stuff?"

Quiet sigh. "What am I supposed to do?"

"Well, you could start by opening and following that job guide you're using for a knee pad."

That's what being a supervisor is all about.

Lost canopy

An F-15 pilot was just reaching for the gear handle after takeoff on a cross country training mission when the aircraft canopy blew off. He immediately aborted the mission, dumped

fuel; and brought the jet back for a safe, but windy landing.

Before the sortie, maintenance personnel had secured a generator and aircrew bags inside bay 5 with unauthorized bungee cord. (For those unfamiliar with the Eagle, bay 5 is the space behind the seat in an F-15A/C which is the rear cockpit in an F-15B.) The bay 5 cargo container was not used, and the materials packed into the compartment didn't provide the required clearance inside the bay.

The pilot noted normal locked indications after lowering the canopy; however, one of the bags had moved forward between the "catcher's mitt" and the canopy remover when the canopy was closed. During takeoff, this condition allowed the canopy to unlock and move aft; removing the hooks from the rollers which secured the canopy. The canopy was then lifted by the canopy pressure seal into the airstream and blew off.

One cause for this canopy loss was insufficient maintenance training on the proper method for packing bay 5. More importantly, the pilot hadn't ensured that the bay was properly packed and secured before engine start. The result—a large and very expensive dropped object.

Remember—containers or baggage with hard sides may only be carried in bay 5 when inside a bay 5 cargo container. Only fabric intake covers or soft-sided personal baggage may be carried in bay 5 without a cargo container.



when the FOG

There is only one sure-fire way to avoid a fog-caused traffic accident. That's not to drive in fog. Reality tells us that's not possible. So, when you wind up in the fog, there are things you can do to minimize your chances of being involved in an accident. Here are some of them.

Lights and seeing. Your headlights won't penetrate a thick fog and won't help you to see very much, but they definitely should be on. Your headlights and taillights will help other drivers see you.

Be sure to turn your lights on low beam when driving in a fog. High beams will bounce off the moisture and cause glare. The low beams shine downward and give you better visibility.

Resist the temptation to hunch forward to see better—it doesn't help. Your focus will tend to be concentrated at the end of the car's hood. You'll have a better view of things ahead and to the side if you sit in a normal position.

Keep your windshield wipers and defroster going so moisture can't build up on either side of the windshield and cut down on



rolls in

your vision.

If you decide to get off the road and wait out the fog, turn your emergency flashers on. With your lights off, you're a sitting duck for some other driver who might decide to pull off the road or a driver who steers off the road by mistake. If you leave your regular lights on, other drivers might think you're on the road and follow your lights off the pavement.

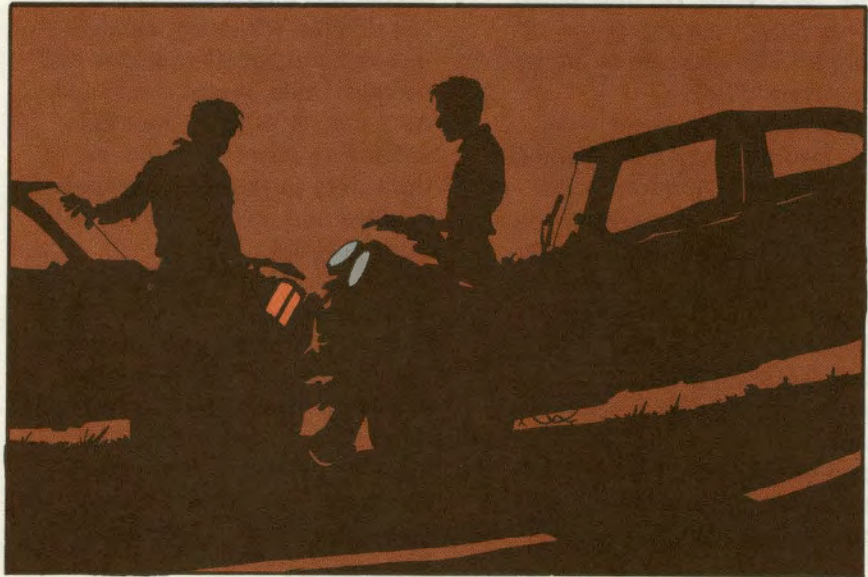
Hearing. Fog muffles sound, and the denser it is, the more sound it absorbs. So you can't rely on your hearing to help you locate other traffic. But hearing may compensate somewhat for your reduced ability to see. Roll your window partway down so you can hear road noises better.

Use your horn frequently to warn other drivers of your presence.

Speed. If you spot fog ahead, reduce your speed gradually. The key word is gradually. If you hit the brakes and slow down too suddenly, a driver behind you might not be able to react fast enough to avoid a rear-end collision.

If you proceed without reducing speed, and the driver ahead slows down suddenly, you could rear-end that vehicle.

Be alert for cars that are crawling along at a snail's



pace. If you're not prepared for these slow-moving vehicles, you can be right on top of them before you know it.

When you're able to see a vehicle ahead—even though only faintly—increase your following distance significantly.

When fog obscures landmarks and other points of reference, there is a tendency for a driver to lose all sensation of speed. So when you reduce speed in a fog, take a quick look at your speedometer to make sure you're actually slowing down to a safe speed.

Never try to pass in a fog. That's really asking for trouble. If another vehicle tries to pass you, reduce your speed to make it easier for the driver to get around you quickly and safely.

Studies indicate that the most common cause of fog accidents is overdriving—that is, driving at a speed at which you could not safely stop if a stationary object (a disabled vehicle, for instance) suddenly appeared out of the fog.

Your best bet for avoiding an accident when your vision is severely limited by fog is to remember these tips:

- Reduce speed.
- Be mentally and visually alert.
- Expect the unexpected and be prepared to deal with it.
- Use your lights to make yourself as visible as possible.

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Ground Safety Award of the Quarter

Sgt Rene J. San Nicolas' efforts earned the squadron the 1986 Wing Distinguished Unit Safety Award. Some examples of his excellent safety program follow.

Sergeant San Nicolas developed a Safety Management Book for all squadron work-center safety representatives. This reference includes up-to-date safety representative responsibilities, letters concerning safety, points of contact, policies, procedures, squadron programs, rosters to document safety briefings and commonly asked safety questions listing regulations and references.

He actively publicizes safety

throughout the squadron. As a result, his squadron of over 400 people has only experienced one driving-while-intoxicated incident during the quarter and no reportable on-duty mishaps. As a matter of fact, since Sergeant San Nicolas took over the safety program, his squadron has had no reportable on-duty mishaps.

Sergeant San Nicolas initiated a seat belt violator letter to be used during monthly seat belt checks conducted by on-base squadrons. He also tracks, through statistical data, high traffic-related accident rates and their location. By using this program, Sergeant San Nicolas identified a high threat



SSgt Rene J. San Nicolas
366 CRS, 366 TFW
Mountain Home AFB, Idaho

location on base and has put in a suggestion to the traffic management board to put up a stop sign.

Weapons Safety Award of the Quarter

As the NCOIC of the weapons standardization section, MSgt Rocky G. Medina is keenly aware of the potential for munitions accidents and has successfully ensured weapons safety is at the forefront of all weapons loading operations.

Sergeant Medina instills safety awareness right from the beginning by briefing all weapons specialists prior to their initial training. Then he scrutinizes daily training operations to ensure the safest possible environment. The result

of his involvement was underscored by the 1986 TAC Management Effectiveness Inspection. Sergeant Medina's well trained weapons loaders scored a 94-percent pass rate during integrated combat turn (ICT) operations. No safety violations were noted despite the intense environment of combat turn evaluations.

Handling more than 2500 air intercept missiles and hundreds of rounds of 20mm ammunition per year during loading and unloading operations, Ser-



MSgt Rocky G. Medina
405 AGS, 405 TTW
Luke AFB, Arizona

geant Medina's section has not had a single explosives incident in his four years of managing the weapons standardization section. He constantly observes flight line operations and corrects hazards on the spot. Developing traffic flow patterns for ICT support equipment, he has ensured a practically FOD-free environment and the

safety checklists he wrote have heightened safety awareness during ICTs. As a result, the wing's ICTs were rated "best seen to date" during a 12th AF Explosives Safety Inspection.

Renowned for his weapons safety knowledge, Sergeant Medina was recently appointed maintenance liaison technician

for an aircraft safety investigation of a midair collision. His expertise was instrumental in the success of the investigation. Performance statistics and inspection comments have clearly identified Sergeant Medina's profound effect on weapons safety operations in the 405th Tactical Training Wing.

Flight Safety Award of the Quarter

Captain Scott L. Wheeler is an enthusiastic and aggressive wing flight safety officer. His efforts have directly contributed to a significant reduction in flight mishaps.

As Chief of Flight Safety, Captain Wheeler implemented monthly squadron safety meetings instead of the usual wing-wide meetings. Now each squadron can address subjects unique to its mission. Wing safety meetings are held on a quarterly basis. This increased focus on squadron flight safety programs has been a resounding success and has created high interest in flight safety.

Captain Wheeler has established a strong maintenance liaison program. In order to keep the maintainers involved and informed, he regularly briefs current mishaps and trends to all four aircraft maintenance units at their respective commander's call. Additionally, he has increased recognition of their efforts by improving the safety awards program. He developed a streamlined nomination pack-

age that greatly reduces the efforts required of a supervisor to reward a job well done.

Captain Wheeler has increased the responsibility of the squadron assigned flying safety officers (SAFSO) by involving them in the wing program. Each SAFSO has been assigned specific areas within the maintenance complex. The SAFSO establishes liaison and becomes knowledgeable in the job and problems of each work center. The improved safety-maintenance interaction has benefitted each and has facilitated mishap investigations.

He instituted the use of a computer to develop better analyses of mishap rates and has incorporated IFE trending into the analysis program. The tracking of IFEs has helped to identify problem areas and to alert aircrews of potential difficulties. Captain Wheeler has strengthened the spot inspection program by improving the frequency and documentation of inspections. Also, the use of color on the inspection board to highlight satisfactory, follow-up



Capt Scott L. Wheeler
67 TRW
Bergstrom AFB, Texas

and after-hour inspections has helped to identify areas for concentration.

Captain Wheeler's contribution to the wing and to the TAC flight safety program has produced positive results. The wing has flown more sorties but experienced 64 percent fewer mishaps over the same period last year. Also, the wing recently completed three and a half months without a Class C mishap, which hasn't been accomplished in the previous ten years.



DOWN TO EARTH

ITEMS THAT CAN AFFECT YOU
AND YOUR FAMILY HERE ON
THE GROUND

Your safety belt will protect you— if you protect it

If your job requires the use of a safety belt or harness (we're not talking about seat belts found in motor vehicles), don't be tricked into a false sense of security. If you expect maximum results from personal protective equipment as vital as a safety belt, you must take care of it.

Inspect and test your belt and hardware carefully before use to be sure there are no defects. Use only a belt that you know is entirely safe.

Don't permit acids, caustics or other corrosive materials to get on leather or synthetic web belts.

Never weaken the belt or strap by cutting or rough-punching extra holes in it.

Handle your belt with care. Never drop it on the ground. Keep it away from sharp tools or other objects which might scratch or cut it.

Wipe a wet leather belt with a clean dry cloth;

let a safety belt dry slowly at a temperature no higher than your hand can bear. Do not expose any belt to extreme cold or heat.

Store belts in separate dry compartments or hang them so they will not be crushed, worn or creased.

Apply a light coating of neat's-foot oil occasionally to a leather belt, especially after it has been wet; use only special dressing on fabric belts.

Never use gasoline or other drying solvents to clean any belt. Thoroughly inspect all safety belts before each use. Supervisors are required to inspect safety belts—in use and in storage—at least every 6 months and document every inspection.

If the belt is accidentally cut or burned or otherwise damaged or appears to have excessive wear and tear, turn it in for repair or replacement.

Courtesy National Safety Council
Construction Newsletter

Poison prevention

Each year in March, we observe Poison Prevention Week; and each year nearly 3,000 people die from accidental poisonings and an additional 300,000 are disabled, according to National Safety Council figures.

Poison victims are usually small children because they put almost everything in their mouths. The Council recommends these steps to good poison prevention:

- Store all household cleaning products out of children's reach and move houseplants—many of them are poisonous.
- Keep all products in their original containers and be sure the content label is legible. Should you ever need to call a Poison Control Center, you will need the contents information at hand.
- Store medicines, including vitamins, separately from household products; and never take medicine in front of children—they may try to imitate your behavior. Likewise, never tell children that medicine is candy; they may go looking for more when you're not around.
- Keep syrup of ipecac on hand; you may be told to administer it.

What to do in case of accidental poisoning

1. Separate the child from the poison. Take away

the container. If it's a solid poison, such as pills, plants or mothballs, check inside the child's mouth and remove any pieces with a clean, wet washcloth wrapped around your finger. If it's a poisonous gas, take the child outside.

2. Maintain life support. If the child has stopped breathing, lay him on his back, hold his nose closed with your thumb and forefinger and breathe into his mouth. Use a regular rhythm—one breath every three or four seconds. If you're trained, and in your opinion the situation warrants it, begin administering CPR.

3. Call your local poison control center, hospital emergency room or family physician. Do not attempt to treat a poisoning or induce vomiting without professional advice. Following instructions on product labels may cause more harm to the victim.

4. Take the container, if any, to the phone with you and be prepared to answer these questions:

- What is the substance the child ate?
- What symptoms is he displaying?
- How old is the child and how much does he weigh?
- How long ago did this happen?
- Does the child have any health problems and is he taking any medication?
- Where are you located?

5. Stay calm and follow the instructions you are given precisely. If your child doesn't seem to be responding to treatment, call back.

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Don't give your car keys to a drunk

Capt Anthony M. Wener
Assistant Staff Judge Advocate
F. E. Warren AFB, Wyoming

An Army private was recently convicted of involuntary manslaughter and aggravated assault after he gave his car keys to another military member who he knew had been drinking alcohol and who subsequently struck two boys riding bicycles.

This court-martial result puts all military members on notice that they risk punitive consequences if they allow drunk drivers to operate

their privately owned vehicles.

Private Brown, who was both the accused and the owner of the car, attended an off-base party with his friend, Spec. 4 Robinson. He knew that Robinson had been drinking. Robinson asked Brown if he could use his car. Initially, Brown said no. Eventually, Brown said yes; and the two went for a drive. Robinson began driving erratically and soon struck two teenage boys riding their bicycles. One boy was killed, the other seriously injured.

The military court reasoned that Brown caused the accident by putting Robinson in charge of his "chariot of death." Brown disregarded the foreseeable consequences to others, and created a substantial and unjustifiable risk that Robinson might kill or injure others.

In short, Brown was criminally negligent when he gave Robinson the keys to his car. A reasonable person, realizing the risk involved, would have refused Robinson's request.

This case underscores the danger of attending a party without a designated driver. Giving your car keys to somebody impaired by alcohol is just as dangerous, and equally criminal, as driving drunk yourself.

Courtesy Air Force News Service





Safety and Occupational Health Statement of Principles

In all activities of the Department of Defense, the safety and health of our personnel, both on and off the job, should be a major concern. Our commitments to strengthen national security require that we emphasize the importance of our Safety and Occupational Health Program. The Department of Defense has a good safety record, but we continue to experience significant preventable losses each year due to accidents and occupational illnesses. We can and must do better. We must incorporate safety and occupational health principles into our daily decision-making processes and work habits. From the decisions we make to develop, procure, and employ new weapons systems to those that affect the working or living conditions of our personnel and families, safety and occupational health must be considered and given high priority. Of equal importance, we must also be alert not to take shortcuts in our operations or activities that would endanger the safety or health of the general public. It is essential that all military and civilian personnel realize that aggressive and comprehensive safety and occupational health programs are vital to our mission accomplishment and our combat readiness. As a result we protect our costly investments in people, training, facilities, and equipment; increase force sustainability by reducing unnecessary and preventable accidental losses in combat; and make our nation a safer and more secure place in which to live.

Please give these safety and occupational health principles your careful and personal attention. We are all ultimately responsible and accountable for their fulfillment. I look for your full and enthusiastic support to achieve a safer and more productive work environment for all our personnel.

14 July 1986

Date

A handwritten signature in dark ink, appearing to read "Joseph W. Kirkman".

Secretary of Defense



TAC TALLY

CLASS A MISHAPS
AIRCREW FATALITIES
TOTAL EJECTIONS
SUCCESSFUL EJECTIONS

TAC		
JAN	THRU 1986	JAN 1985
2	2	3
3	3	4
2	2	0
2	2	0

ANG		
JAN	THRU 1986	JAN 1985
0	0	1
0	0	0
0	0	2
0	0	2

AFR		
JAN	THRU 1986	JAN 1985
1	1	0
1	1	0
0	0	0
0	0	0

TAC'S TOP 5 thru JAN 1987

1st AF	
class A mishap-free months	
182	84 FITS
77	318 FIS
23	325 TTW
12	57 FIS
12	5 FIS

9th AF	
class A mishap-free months	
47	33 TFW
20	507 TAIRCW
18	56 TTW
17	1 TFW
11	31 TFW

12th AF	
class A mishap-free months	
45	366 TFW
29	355 TTW
27	27 TFW
27	479 TTW
23	58 TTW

ANG	
class A mishap-free months	
210	182 TASG
194	110 TASG
169	138 TFG
151	177 FIG
146	114 TFG

AFR	
class A mishap-free months	
77	482 TFW
76	301 TFW
67	924 TFG
55	906 TFG
51	442 TFW

DRU's	
class A mishap-free months	
190	USAFTAWC
124	28 AD
69	24 COMPW
3	USAFTFWC

CLASS A MISHAP COMPARISON RATE

(CUM. RATE BASED ON ACCIDENTS PER 100,000 HOURS FLYING TIME)

TAC	1986	3.2											
	1985	4.8	6.8	5.4	4.4	4.1	3.7	3.6	3.2	3.4	3.9	3.9	3.8
ANG	1986	0.0											
	1985	4.3	2.4	3.1	2.3	2.7	3.0	2.5	2.2	2.4	2.6	3.2	3.0
AFR	1986	23.1											
	1985	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	4.6	4.2	3.9

JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC

