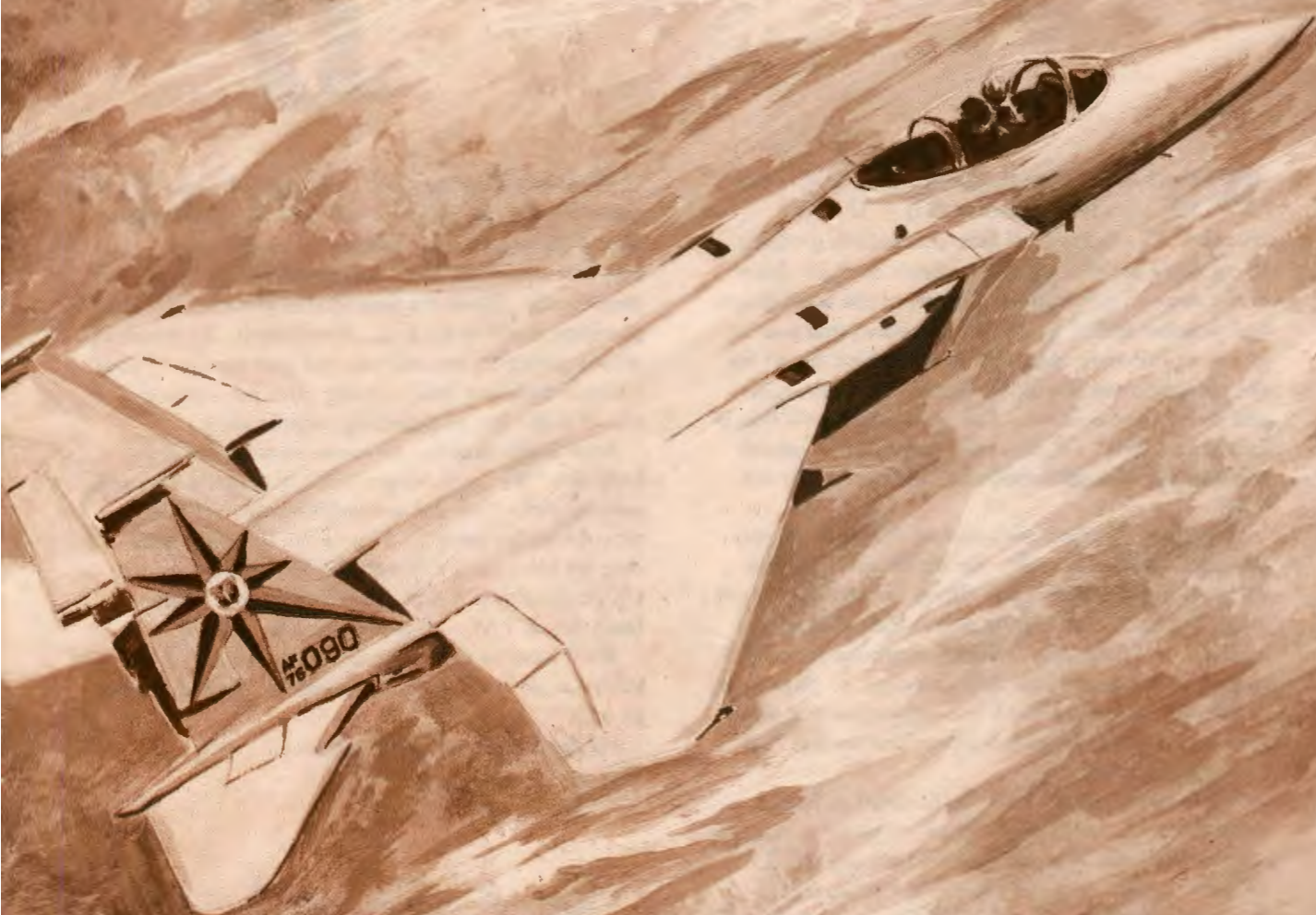


TAC ATTACK

FEBRUARY 1989



ANGLE OF ATTACK

We've been talking and talking about it. Now February is here and with it — *the bad weather*. As a matter of fact, this month tends to bring some world-class bad weather with it. Now is *the time* to put into practice all of the appropriate bad weather techniques and procedures that you've just been thinking about up to this point. Don't let the gloomy, overcast days; dark skies; snow, rain and sleet get you down. The good news is — this is as bad as it gets. So, make the most of this month and coping with its unwelcome weather while it's here.

Speaking of inclement weather, this time of year provides an excellent time for daydreaming about warmer, sunnier places and times, doesn't it? That's great, but don't do it while you're flying, driving missiles out to the bomb dump, working your BITS rounds or whatever your daily routine is. Save your daydreaming for the snack bar where you and your co-workers are telling each other "war stories" on how great you are.

While you fliers are looking forward to better weather, the thought might come to go to a warm weather base for some off-station training (OST). Before you launch off, do you know what regulations and rules apply for OSTs? Do you know how to help the transient folks turn your aircraft and ensure it is airworthy each stop along the way? Be prepared.



We've been back awhile from the holidays. We all made a big push for safe holidays and our first few days back on the job. Earlier, in January, our emphasis was on preventing problems due to lack of proficiency. Now the potential is great for the complacency mode to kick in. *Don't let it.* Be aware of what's going on around you and stay on top of your attitude and how you're doing your job. Being aware is the key to defeating complacency.

Now is the time for everyone to work hard to keep our "We Care About You" program active and meaningful. You did *magnificently* over the recent holiday period. This is the first time ever that we have gone through the Thanksgiving/Christmas/New Year's period with no off-duty fatalities in TAC. You did great work!!

We'll have an interview in an upcoming issue with one of our *future* TAC leaders. Look forward to it.

Happy Presidents' Day, pardner.

Jack Gawelko
JACK GAWELKO, Colonel, USAF
Chief of Safety

TAC ATTACK

DEPARTMENT OF THE AIR FORCE



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TACSP 127-1

TAC Attack is not directive in nature. Recommendations are intended to comply with existing directives. Opinions expressed are those of the authors and not necessarily the positions of TAC or USAF. Mishap information does not identify the persons, places or units involved and may not be construed as incriminating under Article 31 of the UCMJ. Photos and artwork are representative and not necessarily of the people or equipment involved.

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volume 29 number 2

VOLUME 29 NUMBER 2



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CREW IS NOT TWO-



Capt Earl H. McKinney, Jr.
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**The lack of good
 communications seems to
 be an important factor in
 many recent mishaps.**

Most of us think crew coordination applies only to two-seaters. But, ask yourself if that is really true. Isn't the wingman of a two-ship part of a crew? In fact, good coordination between the flight lead and number two may be more critical than coordination between a pilot and a weapon systems officer (WSO) because of the limited opportunity lead and two have to communicate once they step to their airplanes. The lack

COORDINATION JUST FOR -SEATERS



of good communications seems to be an important factor in many recent mishaps. Although crew coordination is of obvious importance to mishap prevention, most of us receive little formal crew coordination training. In this article, I hope to pass on several useful tools that have proven to make a difference.

Crew, or flight, performance is based on many factors, including individual skills and attitudes, the nature of the mission, stress, and the extent of coordination between the crews. Most of us rely on our individual abilities on routine flights to meet the requirements of the mission. However, a serious emergency can quickly task our individual abilities to the limit. Without strong coordination practices, this leaves us with little safety margin. Here are four techniques toward better coordination.

Acknowledge



Working together efficiently has several elements. First, pilots must respond to questions or comments. Sounds obvious, right? In fact, pilots already acknowledge in-flight checks and radio channel changes. These requirements are designed to reduce uncertainty between controllers, pilots and wingmen. Greater use of this acknowledge-

ment technique between aircraft and between cockpits will further reduce uncertainty and confusion. Unfortunately, this communication link can break down quickly in an emergency. For example, during a recent out-of-control situation, the pilot failed to respond to the WSO's repeated questions asking if the pilot had regained control. The WSO was left with no choice but to eject the crew. In an F-16 mishap, a disoriented wingman did not respond to questions about his preflight checks or his in-flight position once he separated from the formation. Unfortunately, the scenario ended with ground impact. In these two cases, the pilots were relying on their own abilities and not responding to others who were in a position to assist them.

Speak Up

Another key to good coordination is to know the importance of being assertive. Knowing how to

Knowing how to express concern is as important as knowing when to express it.



CREW COORDINATION IS NOT JUST FOR TWO-SEATERS

express concern is as important as knowing when to express it. One tragic example was the well-publicized 1982 crash of a Boeing 737 into the Potomac River. According to the National Transportation Safety Board mishap report, the copilot noted several problems with engine performance and acceleration. He stated these concerns as "subtle advisories" to the pilot who did not respond.

Professional courtesy is one reason pilots don't speak up. Professional courtesy is not taking control, or not being directive, because you *assume* the other guy has the situation under control. This attitude can have tragic results. Recently a single-seat fighter, piloted by an operations officer, was permitted to take off despite an obvious fuel leak. Other members of the flight and ground crew personnel *assumed* the pilot knew the severity of the leak and did nothing to discourage him. In an F-16 mishap, the flight lead failed to ensure completion of an emergency procedure checklist by the wingman. The wingman's

aircraft ran off the end of the runway, resulting in a Class A mishap.

Be Specific

A third component of good coordination is precise communication. A recent out-of-control mishap could have been avoided with better communication. The student front-seater stated the boldface and accomplished the first two steps of the three-step boldface procedure. The instructor in the backseat assumed the drag chute was deployed (step #3). In fact, the chute was never deployed and the aircraft was

Other members of the flight and ground crew personnel assumed the pilot knew the severity of the leak and did nothing to discourage him.

lost. Another example shows the importance of good coordination with ground controllers. Just before the crash of an Eastern L-1011 into the Florida Everglades, the controller noticed the aircraft's steady descent. Wishing to alert the crew, he broadcast "How are things going out there?" The crew *assumed* he was referring to their gear malfunction and responded "OK." *Precise* communication precludes uncertainty and confusion.

Be Positive

Finally, the proper attitude is critical to effective coordination. In a survey of airline pilots, the attitude of the captain was determined to be the key to good crew coordination. Interestingly, this attitude can be accurately measured by a questionnaire. The two most important questions were:

"My decision-making ability is as good in emergencies as in routine flying situations." – (Superior pilots disagree.)

"Captains should encourage First Officers to question procedures during normal flight operations and in emergencies." (Superior pilots agree.)

Coordination involves front-to-backseat communication, lead-to-wingman communication, and pilot-to-controller communication. It involves not only good talking, but also good listening.

Remember these four basic rules:

1. Acknowledge.
2. Be assertive.
3. Be precise.
4. Be positive.



A blow hard

A flight of A-7s was taxiing to the arming area when the lead pilot determined that a maintenance truck was parked too close to the yellow taxi line for proper wingtip clearance. Instead of having the truck moved, the flight leader simply steered around it and continued on to his arming spot. The other flight members followed lead's example, but number three made his turn much tighter around the truck than the first two. As he made the turn, the A-7 pilot applied power and the force of his exhaust pushed the line truck 40 feet sideways.

When an irresistible force (your exhaust) hits a movable object (anything sitting or lying around behind you), guess which one will lose. Work smart. Don't compromise safety and established procedures for expedience. If a line truck, maintenance stand, power unit or anything else is in your path, have it moved. It's a lot easier and smarter to move them than to clear your own wingtips while venturing away from the yellow line.

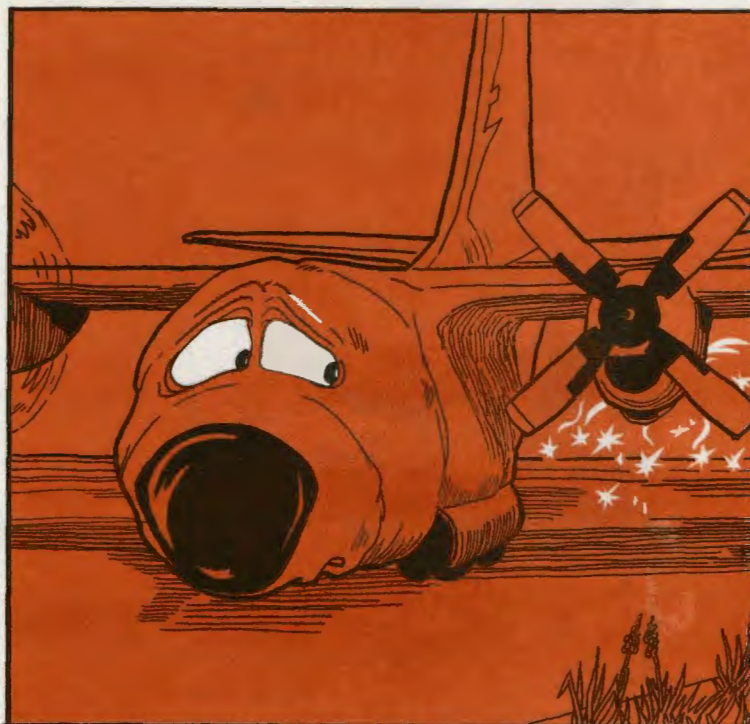
Ice alert

During these winter months, be alert for icing alerts from the meteorological folks and use your anti-icing equipment whenever it's appropriate to ensure that ice is prevented from forming in the first place.

A C-130H required a couple of maintenance runs on the number two engine to correct a utility

hydraulic system leak. The first engine run lasted for 15 minutes and the second one was an ops check that lasted only until the engine stabilized on speed. When the leak ops checked good, the crew prepared the aircraft for departure.

Before the number two engine was started during the pre-departure phase, 45 minutes had elapsed. During the start process, the loadmaster noticed sparks coming from the exhaust and the engine was shut down. Close inspection revealed that ice had formed in the engine inlet and a piece had been ingested. Pieces of undigested ice were discovered in the second stage compressor stator vanes.

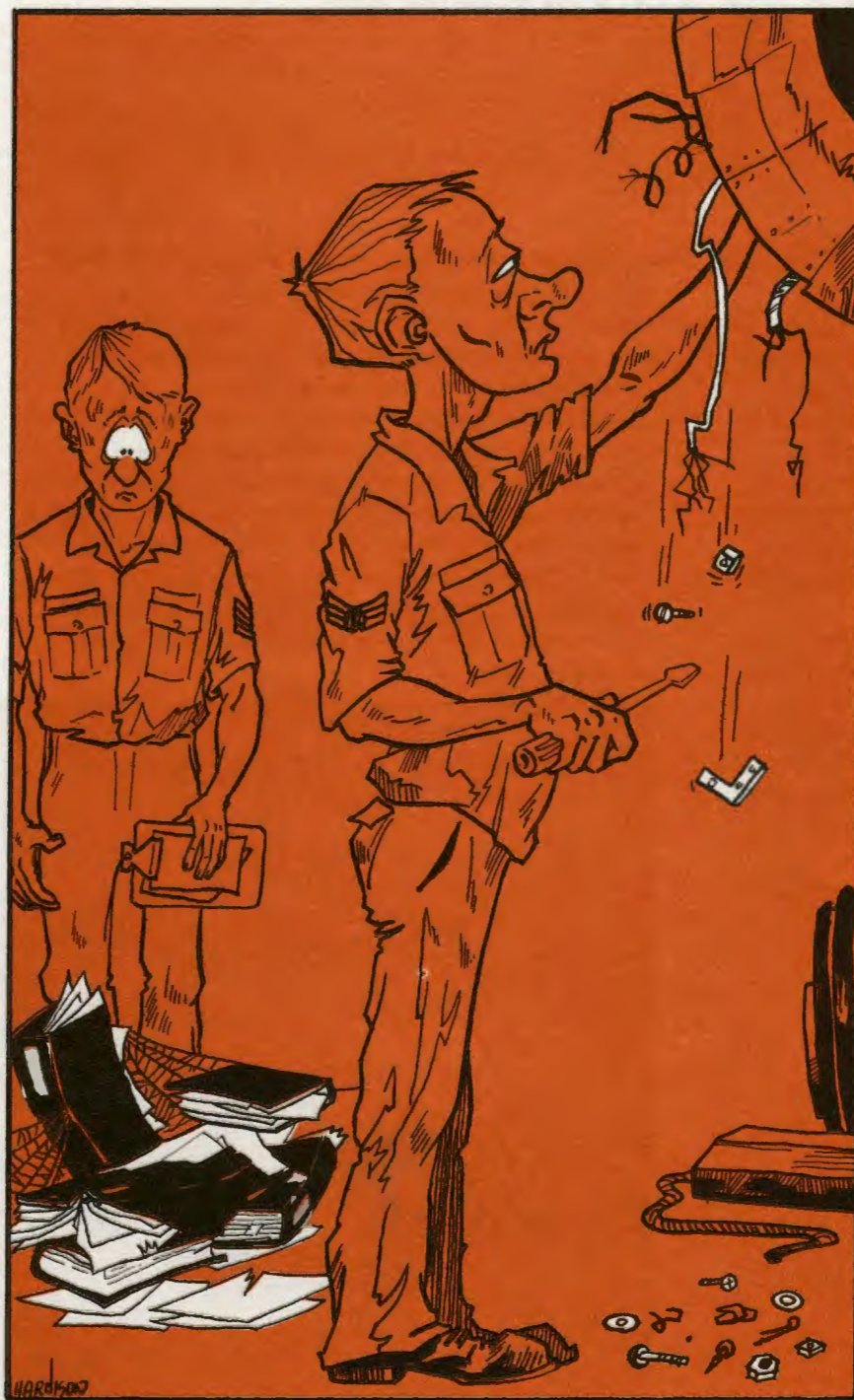


EXPERIENCE VERSUS

Capt Robert Ethridge
82 FTW/MAOS
Williams AFB AZ

How many times have those of us in the aircraft maintenance career field had to rely on the years of experience that our technicians have garnered in order to get the mission done? Too many times to count. And how many times have we looked the other way when our people were performing a maintenance action that wasn't exactly in accordance with the technical order to get the mission accomplished? Probably more times than we care to mention. As a result of those practices, how many times have we had to answer for mistakes made by our subordinates who relied too much on their experience to get the job done, their memories weren't quite up to speed, and they forgot a vital repair step? How many times have we had close calls where we barely avoided disaster because of the practice of performing a critical maintenance task based on experience and memory alone?

This practice occurs as the result of complacency and over-familiarity with the job. Aircraft maintenance is such a diverse and ever-changing field that none of us can afford to become complacent or overconfident in our knowledge of a task or our ability to perform it. As maintainers, we must be just as diverse as the aircraft maintenance career field in order to



TECH DATA

keep pace with it. Because of the need for flexibility and diversity, we cannot afford to let ourselves or our people stagnate or become complacent. We must take advantage of all available aids (such as on-the-job training, formal schools, inspection work cards and technical orders) to broaden our abilities and accomplish the Air Force mission. Our subordinates must be given the opportunity to diversify and broaden their knowledge and skills whenever possible, and it is vital that we set the example by making use of all available aids, tech data, regulations, ex-

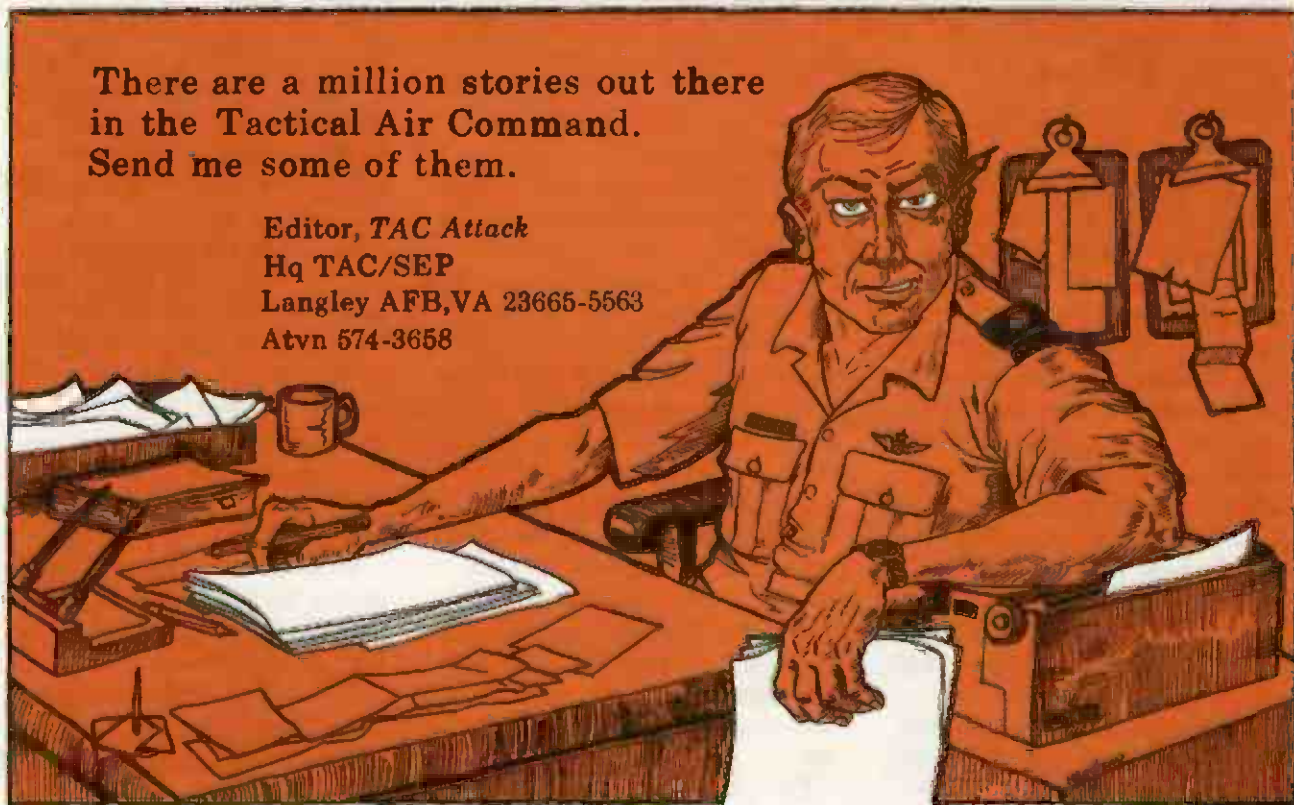
perience and so forth to get the mission done. Finally, we supervisors must follow-up on our people, provide them with positive guidance and strictly enforce the use of all available maintenance tools, particularly tech data.

If the tech data is in error, don't ignore it and press on; elevate the problem to the proper level for guidance and use the AFTO Form 22 to submit appropriate changes. Don't become one of those people who loses sight of the mission or allows people to fall into the trap where sortie production takes precedence over quality, professional-

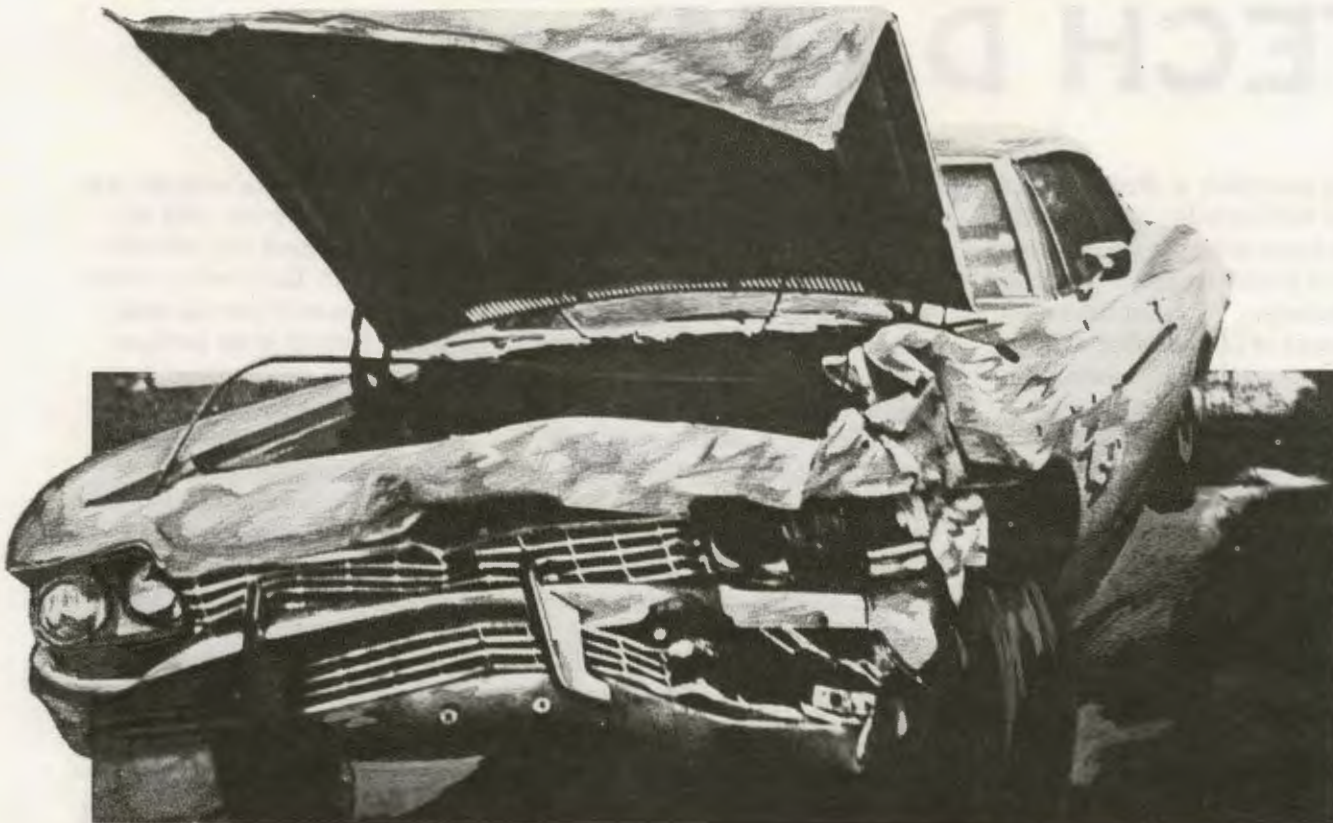
ism and safety. Our mission is to fly and fight. We can only do that by providing safe, reliable aircraft to fly the needed sorties. And we can only provide safe, reliable aircraft if we perform high quality, professional maintenance which results from our maintenance technicians using both their experience and the available tech data together to do the job right the first time. For a maintainer, there should be no problem answering the question "Experience versus Tech Data?" The answer is "Experience in combination with Tech Data!" ➤

There are a million stories out there
in the Tactical Air Command.
Send me some of them.

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I'M A BELIEVER



AIC Lacy E. Garrett
TAC/DPROS

It's strange how humans feel harmful things will only hurt the other guy. I used to be like that—that is, until one morning several years ago when the “other guy” almost became me!

My brother, two friends and I had planned on a day in a nearby town. That might not cause excitement for those of you who live in towns, but we lived in the country and a trip to town was “big doings.” We met at 6:30 that morning, gassed the car and headed out—fastening our seat belts was the farthest thing from our minds.

I was driving along the county road at my usual “over the speed limit” speed with the radio blar-

ing our favorite music—four friends out for a good time. Occasionally, I slowed enough at intersections to ensure nothing was coming, then put the “pedal to the metal” and went on about my business. Coming upon a particularly bad intersection, something told me to obey the stop sign and I did. I looked both ways, not once, but several times before starting across. Seemingly out of nowhere, an auto slammed into my side of the car and sent us spinning. It's odd, but I remember the four of us bouncing around in my car as if we were moving in slow motion. I also remember thinking we looked like the steel balls in a pinball machine—slamming into the sides, seats, top and floor of the car.

The car spun about 150 de-

grees to the left before coming to a stop in the middle of the road. My brother suffered a gash above his lip that required several stitches but none of us were badly hurt. The other driver wasn't hurt, either.

I was ticketed for unsafe movement and non-use of seat belts. As soon as my folks learned we were relatively uninjured, I caught the brunt of my Dad's ire—not only for the accident, but because I didn't **make sure** everybody buckled their seat belts.

Although nobody was seriously hurt, I gained a lot of respect that day for seat belts and how they can save lives.

Come on—let's be **seat belt conscious**. It's not only smart, but buckling up can save a lot of money. ➤



AIRCREW OF DISTINCTION

Capt George S. Siter and Maj Wayne R. Maricle, OV-10 instructor pilots, were 300 feet above the ground, executing a low approach, when they experienced significant, increasing drag on the right side. While countering the yaw with rudder, Capt Siter noted that the right engine was failing. An oil seal in the propellor governor was leaking oil, causing the propellor to automatically go toward the feathered position, even though the engine was still running (a double fire hazard). Capt Siter quickly shut down the engine and feathered the propellor.

Capt Siter was able to keep the aircraft flying straight, but only in a slight descent, so he jettisoned the 230-gallon centerline fuel tank and two empty rocket pods. After jettisoning the stores, level flight was achieved, 350 feet above the ground, at just above the minimum safe single engine speed. Due to the temperature and density altitude, the aircraft would neither climb nor accelerate.

Two miles past the end of the runway, the crew decided to do an opposite direction landing. Maj Maricle coordinated with tower personnel to clear the pattern, while Capt Siter maneuvered the aircraft into a shallow bank turn into the good engine. Maintaining minimum safe speed in the turn cost the crew 50 feet of altitude, but a suitable final approach was established. Descent for the single-engine



Capt George S. Siter



Maj Wayne R. Maricle

landing was established by lowering the landing gear over the overrun.

The superb airmanship demonstrated by Capt Siter and Maj

Maricle resulted in the safe recovery of a valuable TAC combat aircraft and earned them the TAC Aircrew of Distinction Award.



SSgt Donald R. Dahl
832 CSS/OTA
Gila Bend AAF, AZ

Have you ever experienced
one of those days when
you seem to fly along on

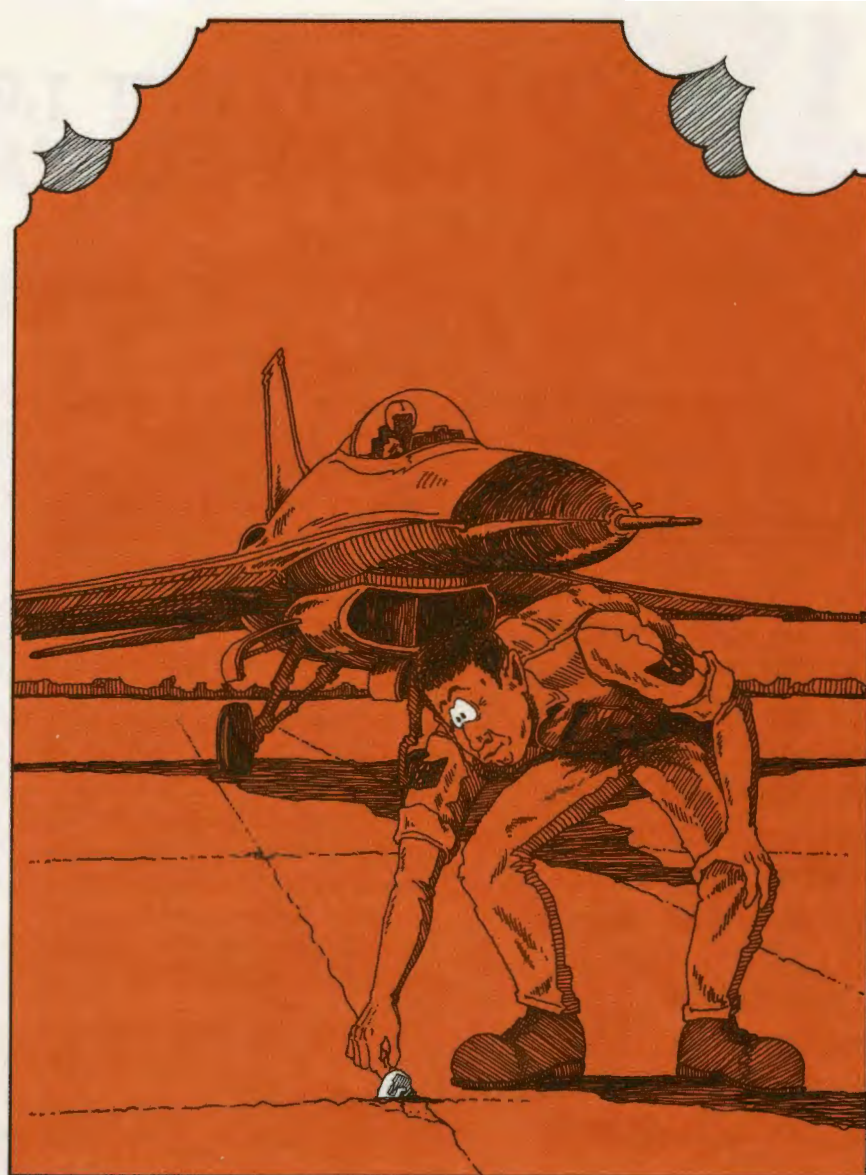
autopilot, and everything is go-
ing great? Then all of a sudden,
like a bolt out of the blue,



something happens that utterly turns your stomach into knots. I'd like to share with you a day like that which I recently experienced.

When it came time to pull the emergency power unit ground safety pin, I moved around to the right side of the aircraft intake and my gut-wrenching ordeal started.

Not two feet from the engine intake was a stone that had not been there just five minutes before.



Our unit provides crash recovery/transient alert services for aircraft that utilize a nearby Air Force gunnery range, but our primary mission is to respond to in-flight emergencies. One morning recently, an F-16 Falcon, based at Luke AFB, AZ, declared an in-flight emergency and landed with hung ordnance. Since our field has an 8500-foot runway, handling him was no problem. The recovery was normal, and he shut down in the north turnaround area. Maintenance at Luke was called to respond to his particular problem, and

several hours later, he was refuelled and prepared for takeoff.

A FOD inspection was completed prior to cranking his engine, and then I got on the headset and gave the pilot the "all clear" for engine start. Run-up was normal and all indicators checked good (Great, I said to myself) so we proceeded with the checks particular to this jet, and again, everything was normal. When it came time to pull the emergency power unit ground safety pin, I moved around to the right side of the aircraft intake

and my gut-wrenching ordeal started.

Not two feet from the engine intake was a stone that had not been there just five minutes before. Could things get any worse, you may ask. You bet—scattered in a four-foot wide area about the lip of the intake were several more foreign objects, and I thought to myself "This just can't be happening." But it was!

Unfortunately, the worst of my nightmare was yet to come because just in front of the intake, where the force of the F-16's enormous appetite for air



BE AWARE: DON'T LET FOD TAKE YOU BY SURPRISE

creates a powerful vortex, a four-inch hole had appeared in the asphalt.

A subsequent investigation revealed that the asphalt was not as resistant to fuel spills as it should have been, and upon examining the area just forward of the intake, it was discovered that an old fuel spill had deteriorated the asphalt from underneath the sealant, leaving virtually no visible indications.

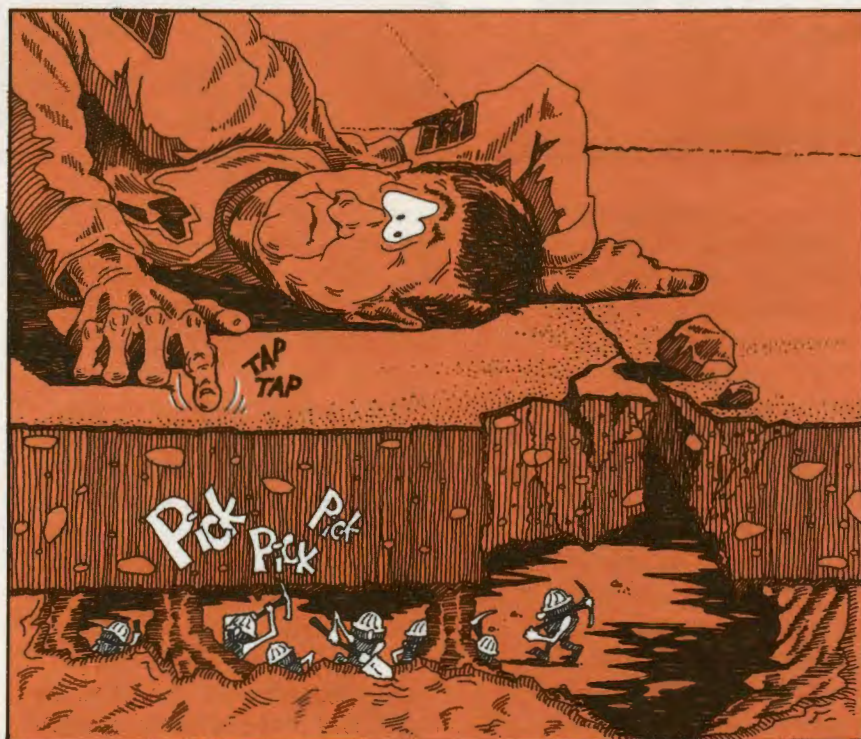
About that time, the pilot decided to go cold mike. So just as he was calling Tower, I flashed him the universal hand signal to cut the engine, but Nooooo, that wasn't good enough, because he just sat there with this incredulous look on his face. Cut!—Cut!—Cut! I repeated the signal urgently. The pilot then rolled back the throttle, and my ordeal was over. The next thought that entered my head was, "Where am I going to come up with the million dollars that

it's going to take to repair this engine?" A subsequent investigation revealed that the asphalt was not as resistant to fuel spills as it should have been, and upon examining the area just forward of the intake, it was discovered that an old fuel spill had deteriorated the asphalt from underneath the sealant, leaving virtually no visible indications. Still this story ends on a good note. The maintenance folks from Luke performed a 50-hour inspection on the engine and, to my relief, confirmed that it had not suffered any foreign object damage. The force of the vortex had slung the FOD

around, but had not sucked it up, as I had feared. I had gotten to it in time.

As you can imagine, all of this happened in much less time than it takes to read this article. My experience may apply to you. It is a good idea to go out on your flightline and check those asphalt turnarounds, or ramp areas, for any signs of deterioration or damage. Check to see that you are not parking an aircraft over an old fuel spill. JP-4 is insidious in the way it works through asphalt.

Believe me, I'm convinced. FOD awareness pays off. Don't let FOD take you by surprise. ➤





TAC EXCEPTIONAL PERFORMANCE IN GROUND SAFETY AWARD

This award honors ground safety members who have made meaningful contributions to their unit's mishap prevention program.



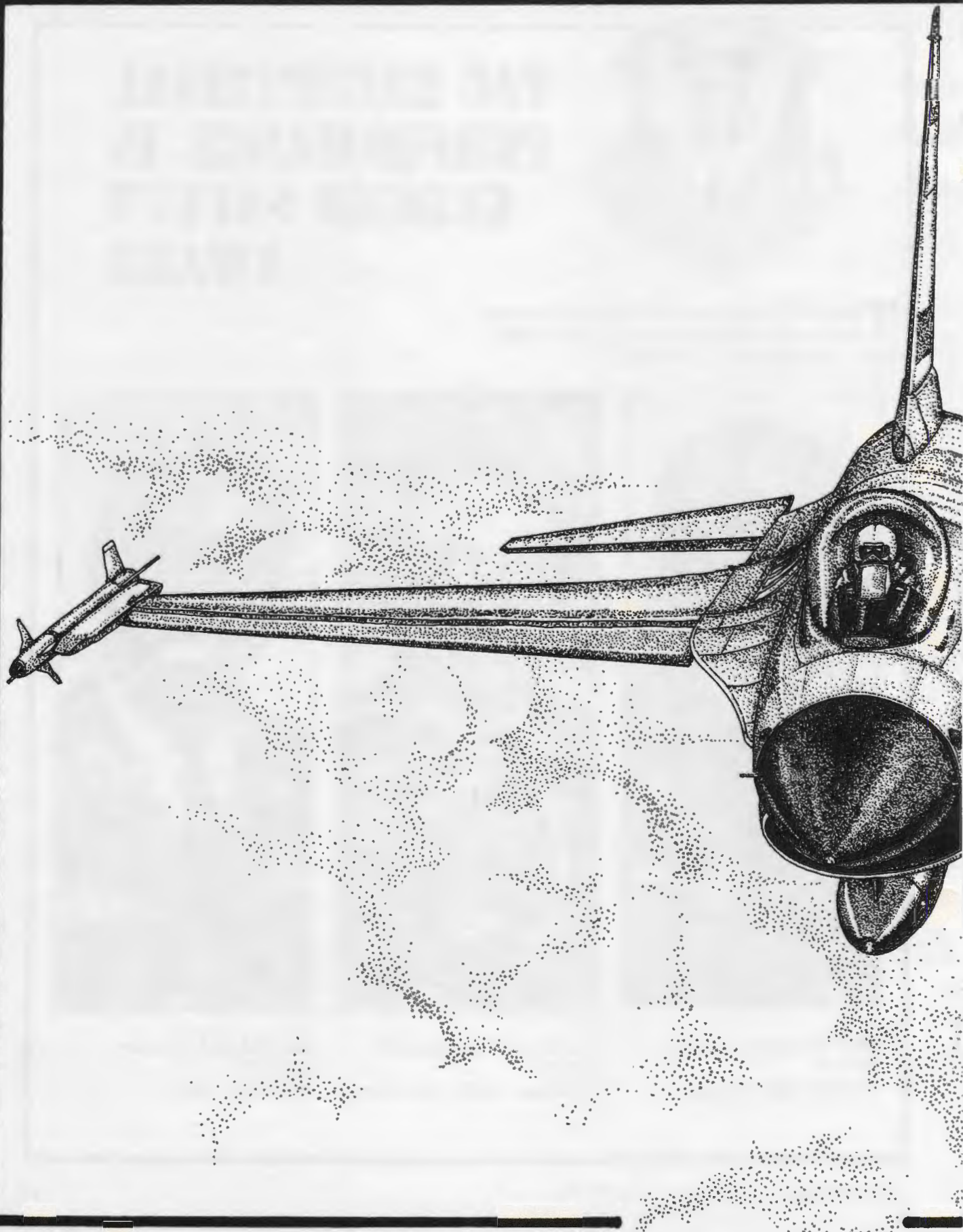
SSgt Rolando A. Jacobs
56 TTW
MacDill AFB, Florida



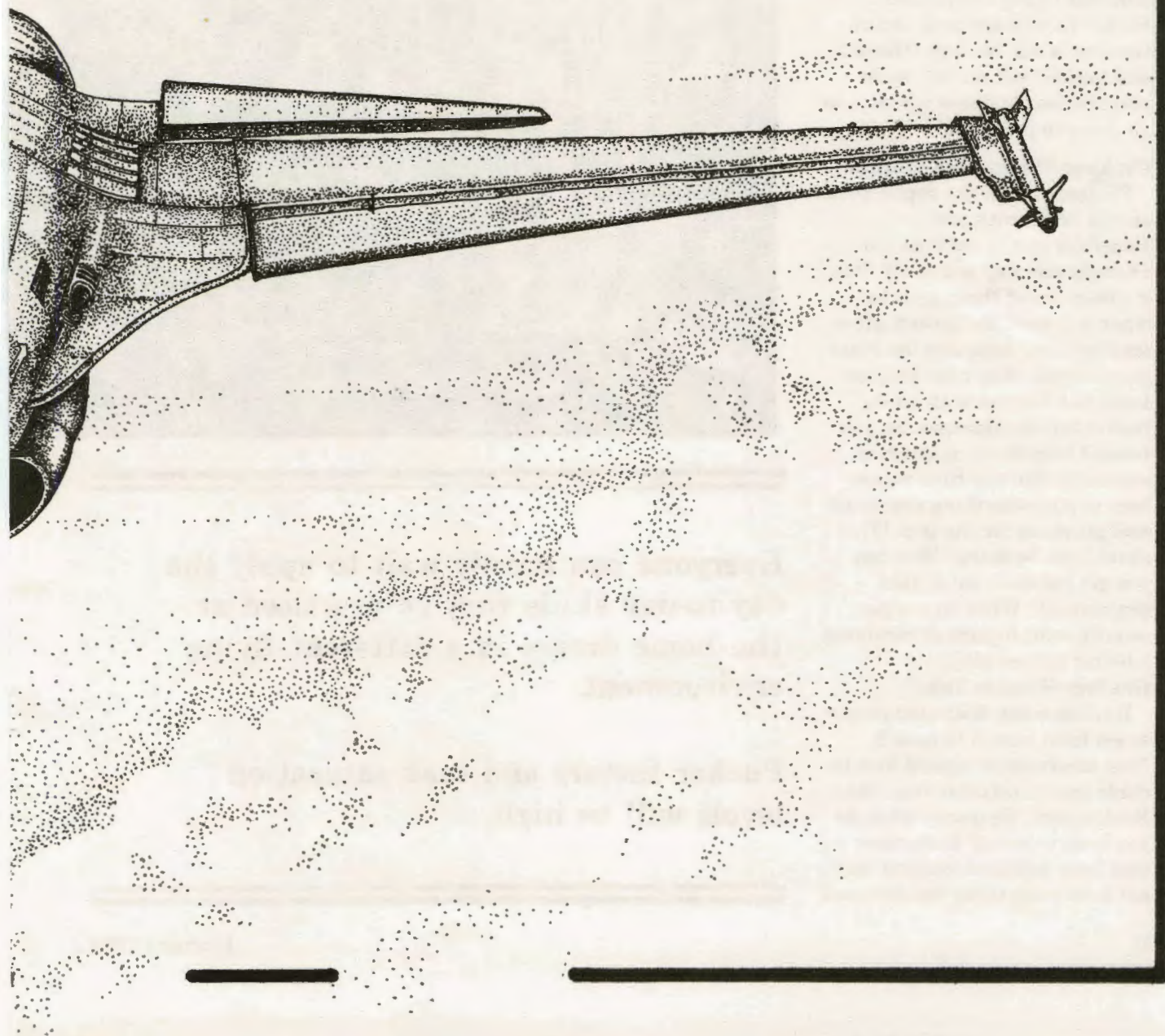
Mr. Jerry P. McDermott
833 AD
Holloman AFB, New Mexico



SSgt Eddie L. Thomas
388 TFW
Hill AFB, Utah



F-16 FALCON



Capt Joey Kindelin
61 TFTS
MacDill AFB, FL

Finally, that deployment you have always wanted to go on is just around the corner and the squadron has been preparing for months to get the most out of it. It has been a while since you and your fellow fighter pilots have packed up part of the squadron and left Momma home with the kids for a couple of weeks. Everyone can hardly wait to apply the day-to-day skills they've practiced at the home drome in a different flying environment. Pucker factors and task saturation levels will be high. Threats and targets will require more preparation. And now it's time to go. Are you prepared?

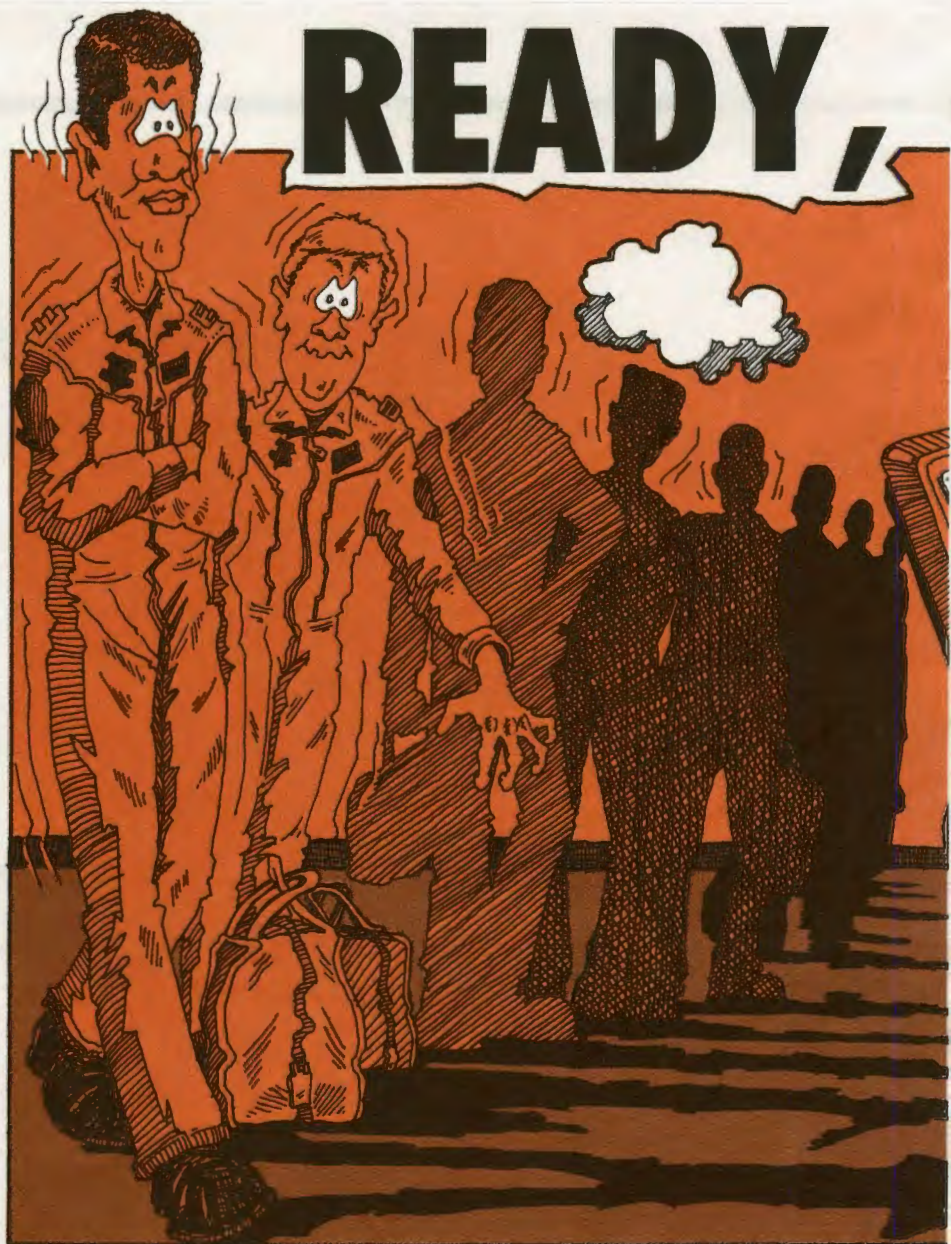
On Your Mark—Preparation

Preparation for the deployment should begin with you.

Hopefully you've assisted the Detco in any way you could. But, it's been one of those months when you were the project officer for the wives' tour, and the other guys in your shop have been on leave and left you with an in-basket full of suspenses. So, you haven't helped out as much as you could. But the time is now here to put everything else aside and get ready for the trip. What should you be doing? How can you get the most out of this deployment? What do you personally want to gain in becoming a better fighter pilot?

Get Set—What to Take?

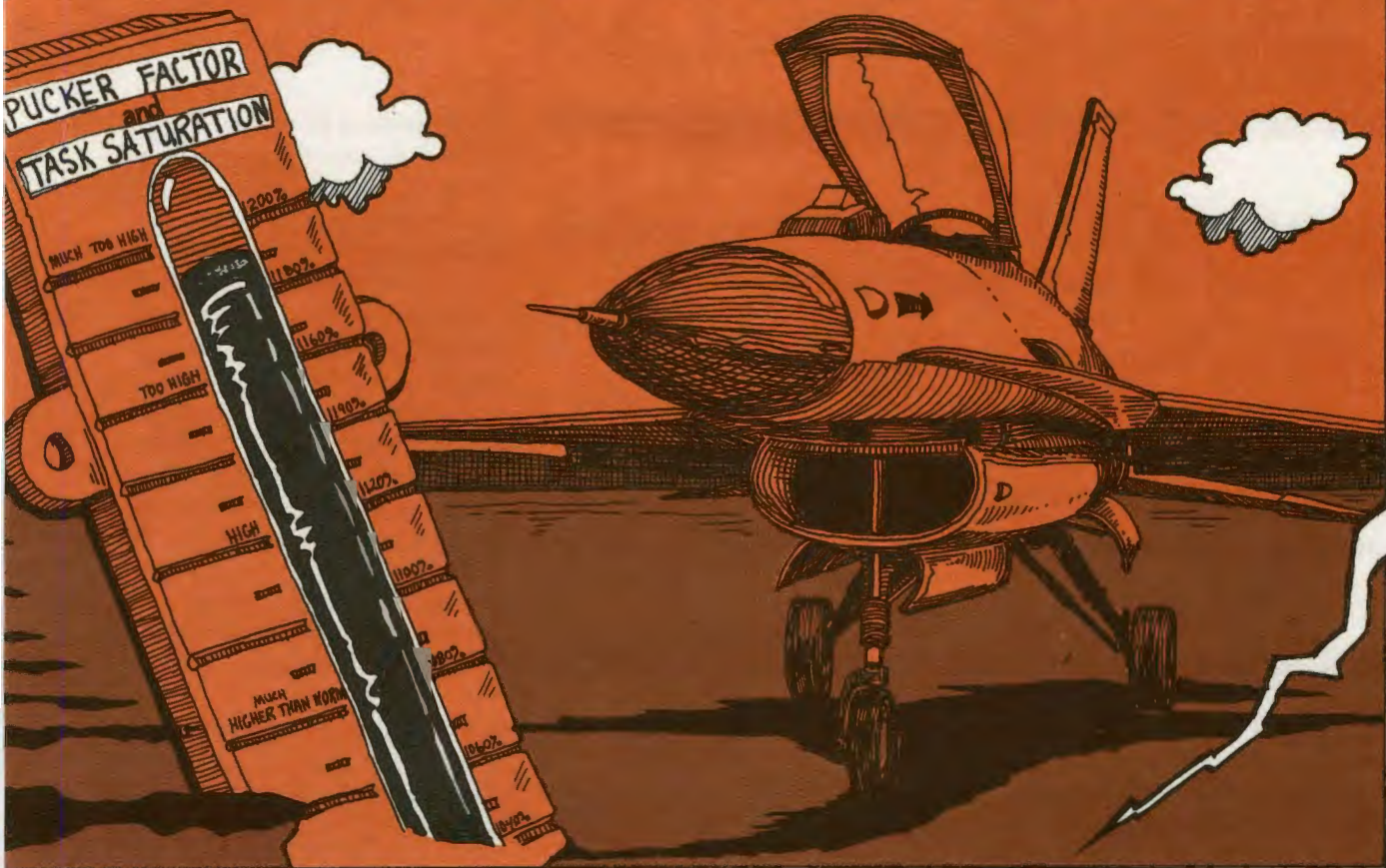
It takes many dedicated people to get from base A to base B. Your involvement should first include your functional area. Stan Eval, Safety, Weapons—what do you need to bring? Remember that your deployed location may not have everything you are used



Everyone can hardly wait to apply the day-to-day skills they've practiced at the home drome in a different flying environment.

Pucker factors and task saturation levels will be high.

SET, GO: ON DEPLOYMENT!



to operating with back home. Review the deployment checklist for your area of responsibility and determine what items to bring (or leave behind). Are facilities parallel to your own squadron or is it a bare base operation? Too many items might not all fit in the mobility bins. Nice-to-have items will depend on how much space is available to you. Review your plans with the mobility officer to ensure required items are identified and brought along. Regulations, briefing guides, deployment guides, and life support

equipment lists should be reviewed to ensure you don't get somewhere and say "I should have packed that."

So, it's your lucky day. You are one of the few chosen to fly a jet to the deployed location. Flight lead has divvied up all the essential tasks—flight planning, map making, divert base selection, air refueling, and coordination—in order to involve all members of the flight. Don't assume everyone knows as much as the flight lead. You have to get involved and know all you can about every aspect of the mission. How

long is the flight—4, 6, 10 hours? How are the fuel computations? Navigational coordinates all correct on the line-up card? Is necessary info on divert bases—INS coordinates, TACAN channels, GCA frequencies, runways, and barrier information—easily accessible? How about flight fallout plans and who will divert with whom? Is a duckbutt available if it's a pond crossing? Tanker abort plan, weather—the list goes on and on with many questions that need to be answered. Ocean crossings and cross-countries can be a breeze if



READY, SET, GO: ON DEPLOYMENT!

Are facilities parallel to your own squadron or is it a bare base operation?

Too many items might not all fit in the mobility bins.

Nice-to-have items will depend on how much space is available to you.

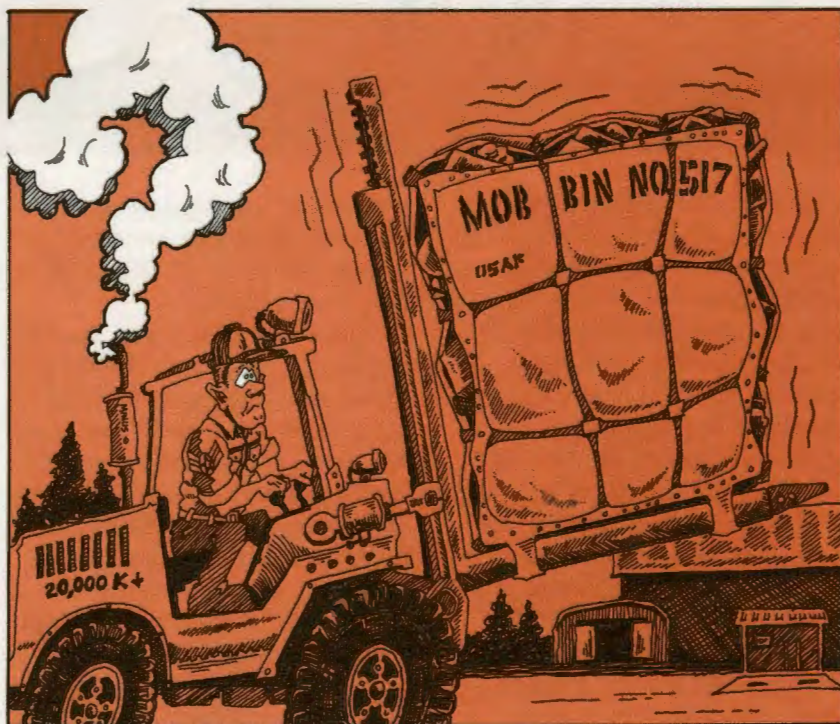
nothing goes wrong. But, things sometimes do go awry, especially when you are 400 miles from the nearest piece of concrete and your engine(s) starts to sound a bit unfamiliar to you. But, if you were smart, you got involved with every aspect of the flight and prepared yourself for the worst. This information might not fix your engine in-flight, but you are more confident if you're armed with all the information available to get your jet back on the ground.

Go—The Flight

Mission planning has been completed. All your bags are packed. Maps, pubs for the entire route, in-flight meals, water, piddle packs; everything you can think of, you're bringing. What time is takeoff? Your biological

clock needs to be adjusted, especially if it is crossing many time zones. Cumulative/acute fatigue can be avoided if you prepare yourself earlier than just the day prior to departure.

Now it is time to go. You ate the meal of high fiber/low residue food, recommended by your flight surgeon, prior to the flight. Now you are at the top of the ladder ready to get into the jet. What do you do with all the necessary items for your flight? If you were flying a jet big enough to carry the Mormon Tabernacle Choir, space wouldn't be a problem. Since you aren't,



you need to think about where to put everything. Cockpit arrangement is essential when space is limited and your pooppy suit and survival vest will also cut down on usable space. Condense *everything* you can. Put non-flight essential things in the travel pod. Be as organized as you can before strapping on that multi-million dollar jet.

Now it is **really** time to go. The engine(s) is cranked and you are ready. Flight lead checks the formation in, and everyone sounds great. The weather is in your favor and join-up with the tanker after departure is no problem. Everyone is feeling good. The first two refuelings went well. Another few hours and "TDY here we come." Mom and the kids will be OK. The bills have all been paid, but the advance you got might not last. (That's OK, bologna and cheese sandwiches will do fine if you run short. Right?) The comfort level



is high—cruising along with nothing to worry about.

Suddenly you hear the concerned voice of the number 3

man in the trailing element. Sounds like he's got a problem. You try to compose yourself, hoping something like this doesn't

Condense everything you can. Put non-flight essential things in the travel pod.

Be as organized as you can before strapping on that multi-million dollar jet.



READY, SET, GO: ON DEPLOYMENT!

happen to you. Number 3 will have to divert. To where, you ask? You aren't sure because you haven't kept up with the tanker who has been navigating, and your VFR divert map is crumpled in your G-suit pocket since you used it as a napkin. But the number 4 man is sharp; he takes control and assists his number 3 man to the closest divert base only a few miles behind you.

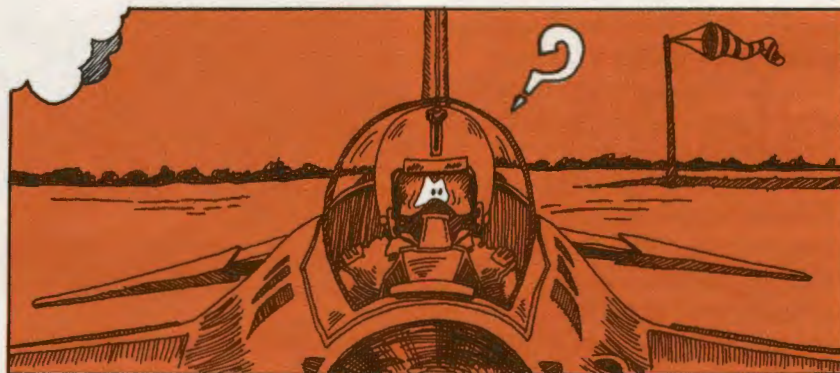
Nothing else can go wrong now (you hope). TDY times are still a few hours away. Your formation position is a bit sloppy, but you are still tally a few dots on the horizon. You accept your sloppy position, but the flight lead has other ideas. Now you're in position, trying to avoid a round at the O'Club. You are ahead of the flight plan and the flight is going better than it did earlier. The TDY base is getting closer. No boredom or complacency problems yet. Before you know it, the flight is ready to split for individual approaches. Gear check on final appears normal—three green, down and locked? You check again because you know the probability of landing gear-up is higher after a long flight. Confirmed—three green.

As you taxi in to park, you get a feeling that everybody has experienced. Did I forget anything? You're sure something was overlooked. You're safely marshalled into the ramp area you'll call home for a few weeks. Chocks in, pinned and shut down. The flight

As you taxi in to park, you get a feeling that everybody has experienced.

Did I forget anything?

You're sure something was overlooked.



has been somewhat successful with a few glitches along the way. A cold refreshment from the ADVON team greets you before the ladder is hooked onto your jet (a welcome sight after the long trip). You are deployed! Your flight members and squadron buddies are ready to make the most out of each complex mission that awaits them in the days ahead.

But, as you and your flight members pile into the rental van to go to your rooms, the strange

feeling that you've forgotten something still lingers in the back of your mind. You try to convince yourself that you've done everything you could possibly think of. Relax, if each person has put the necessary effort into the preplanning and execution of the deployment plan, hopefully you've remembered everything necessary for a successful and enjoyable deployment. If so, you're off to a great start. Have an equally great deployment. ➤



TAC DISTINGUISHED FLIGHT SAFETY AWARD

This award honors a person who has made significant contributions to an established unit, intermediate headquarters, TAC or USAF flight safety program.



Capt James B. Shaw
33 TFW
Eglin AFB, Florida



SMSgt Roy L. Thompson
363 TFW
Shaw AFB, South Carolina

TAC DISTINGUISHED WEAPONS SAFETY ACHIEVEMENT AWARD



This award honors a weapons safety member who has made a significant contribution to

an established unit intermediate headquarters, TAC or USAF weapons Safety program.



SSgt Jeffrey S. Dutcher, Sr.
388 TFW
Hill AFB, Utah



SMSgt Jerry L. Gibson
12 AF
Bergstrom AFB, Texas



DOWN TO EARTH

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

WAYS TO FALL-PROOF YOUR HOME

Man has been falling ever since he stood up on two legs. He falls off ladders, on ice, into holes, from trees, over pets and out of bed.

Usually he is lucky. He gets up, yells, brushes himself off and goes about his business. But sometimes he isn't lucky. Falls are the second leading cause of accidental death—only traffic accidents kill more people—and more than half occur in the home.

There are ways to fall-proof your home. The following suggestions are based on what has caused people to fall in their home.

In the Bathroom, skid-proof the tub and shower stall. Water, soap and smooth surfaces make a slippery combination. Use suction-type rubber mats or safety decals in the tub and shower. Tubs can now be purchased with slip-resistant bottoms. If you install grab bars, fasten them securely into the wall studding, not just into the plaster. Use the soap holder; if the tub doesn't have a soap holder, install one—stepping on the soap is danger-



ous. Wipe lotion, shampoo and water spills up immediately, and if you hang clothes in the bathroom to dry, make sure they drip into the tub, not on the floor.

In bedrooms, arrange children's rooms carefully. Never place a child's crib or bed in front of a window, and don't allow youngsters to sit or play on window sills. Straighten the bedroom before go-



ing to sleep. You might get up during the night and stumble over clothes, shoes or objects left lying around. Have a lamp or light switch within reach of the bed. That way, you can see what you're doing if you must get up at night. If nothing else, keep a flashlight handy. Clear the pathways. Keep access to the bathroom clear of furniture and use a nightlight. Wear proper footwear—floppy slippers can fall off. Get up slowly. If you get up too quickly, you could become dizzy.

In the kitchen, keep the floor clean. Wipe up all grease and spills at once. Arrange the cabinets so that heavy utensils are stored on low shelves to



avoid off-balance or awkward reaching. Keep lighter, seldom-used items on high shelves.

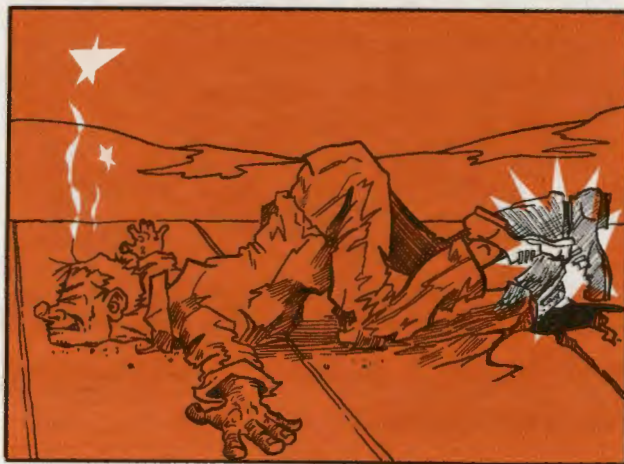
In the living room, keep traffic areas clear. Don't force people to make detours around furniture. Pick up toys, books, magazines and newspapers. Likewise, don't trail extension cords or telephone wires across traffic lanes. Mend tables and chairs that are wobbly. Try not to rush to answer the phone or doorbell.

On stairways, keep them clear. Don't use them for temporary storage. Stairways should have handrails on both sides. Don't camouflage the steps. Choose a carpet pattern that doesn't obscure the edges of the steps. Be extra careful if you're wearing socks—socks are slippery against wood or carpet. Don't block your vision by carrying so

much that you can't see the stairs. Use light switches. You can't avoid what you can't see; so make sure there are light switches at both ends of the stairway. Beware of single steps and changes in step level. Ideally, all stairs should have at least three risers and all the same height.

Other walkways, buff floors well. Some people think a highly polished floor is slippery; in fact, buffing makes wax less slippery. Better yet, use no-skid polish. Keep rugs flat. Smooth out wrinkles and folds. If the corners curl, secure them with carpet tape or turn the rug so the curl is out of traffic. Use skid-proof rugs. Small scatter rugs can slide and are especially hazardous near stairways. If you use area rugs, make sure they have slip-resistant backing.

Outdoors, use the right ladder. Check for loose or broken rungs first, and don't stand on the top rung or step. Keep walkways in good condition. Patch or replace broken concrete and fill in uneven



spots. Put tools, toys and the garden hose away. Don't leave them where people can trip over them. Likewise, don't leave the garden hose stretched over the lawn. Dress properly. Wear comfortable, well-fitting shoes and clothes for outdoor work. Mind the weather. Remove ice and snow from sidewalks and porches and wear boots. Use salt or sand to reduce slipperiness. Equip balconies and porches with railings and keep them in good repair.

—Courtesy, *National Safety and Health News*

THE RIGHT STUFF - THE RIGHT ATTITUDE ABOUT WEAPONS SAFETY



**Major Martha J. M. Kelley
TAC Weapons Safety**

As a weapons safety officer (WSO), you have a very difficult job, especially when done right. To be effective, you must take the initiative and be aggressive. It's easy to sit in your office and rationalize, "I've got to read or catch up on this paperwork." That's not to say that paperwork isn't important, but there is a bigger challenge in getting out into the operational

**Maybe you think the supervisor has been unfairly cited in many mishaps when you read:
Cause - lack of supervision.**

I really believe that the "worker bees" do exactly as much or as little as their supervisors demand.



areas – the workplace, flight line, munitions storage area, egress, etc. Ensuring the workers include all aspects of safety in their daily operations is a must and sometimes a very difficult task.

“Whose responsibility is it?” you ask. Everyone has heard so much about the important role the supervisor plays in a safe operation. Maybe you think the supervisor has been unfairly cited in many mishaps when you read: Cause – lack of supervision. I really believe that the “worker bees” do exactly as much or as little as their supervisors demand. They look up to that person to set the standard. If you have supervisors with the **right stuff**, it really makes your job much easier. If, however, the right attitude and emphasis on safety aren't there, your work is cut out for you. It's your responsibility and it's up to you. If you've got the right stuff, you won't bend under pressure nor will you give up. You'll keep at it and see that the job gets done.

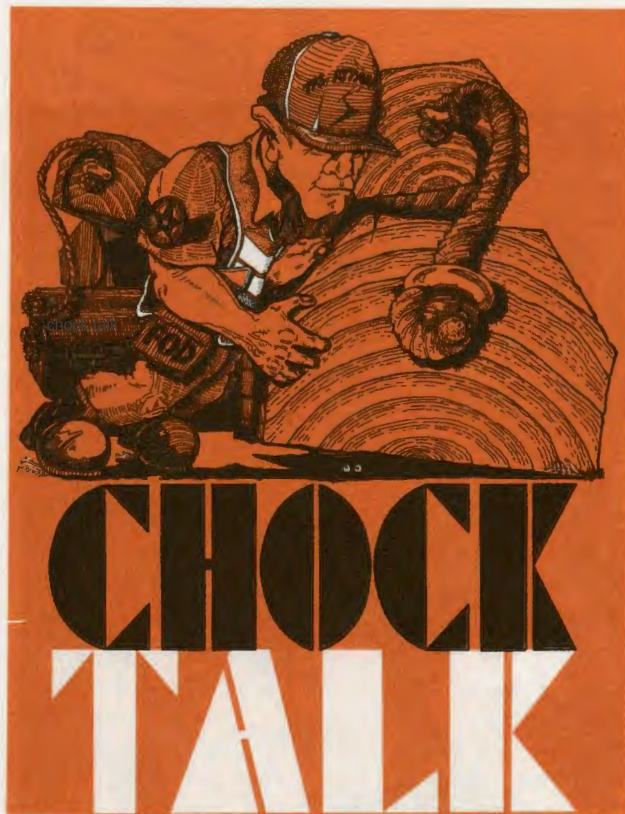
I remember a video tape I saw at Lowry AFB, Colorado, entitled “General Patton on Safety.” You may have seen it as well. This tape apparently was not an official production because of the strong language it contained, but I

Speak up when safety is an issue.

Granted, sometimes the people at these meetings may not agree and may let you know that in no uncertain terms.

appreciate the attitude portrayed in that tape, “We're going to go out there and we're going to catch those violating _____ !!!!”

As a weapons safety officer, you need to have a similar attitude. You need to get involved and make your presence known at meetings and planning conferences. Speak up when safety is an issue. Granted, sometimes the people at these meetings may not agree and may let you know that in no uncertain terms. You must be persistent and not shy away after such encounters. If you're a new, inexperienced WSO, you make some mistakes. That's OK. Admit your mistakes, learn from them and go back out there. Keep after'em. I say “never give up.” It's your job and your responsibility to do it right – the right way, with the right attitude and with the “right stuff.” ➤



noticed some snow and ice on the top and rear of the left wing. That was removed with deicing fluid and the rest of the walkaround didn't turn up anything out of the normal. No other snow or ice were noticed during the flight control or slat/stall warning checks either.

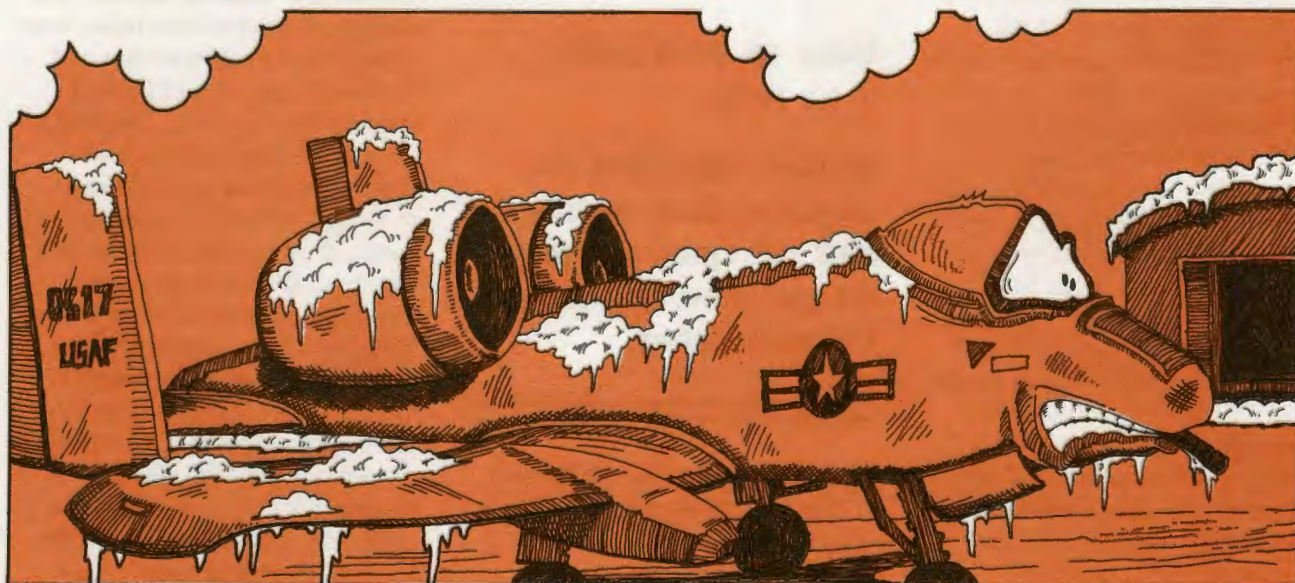
During takeoff, the Warthog pilot followed his leader at a ten-second interval. About a thousand feet down the runway, he heard a slight pop and began to feel aircraft vibrations. He checked his engine instruments and continued his takeoff to rejoin on his leader's wing. Power was brought back on each engine alternately, and the pilot found that his right engine was causing the problem. He then brought the jet back for a successful landing.

The person in the runway supervisory unit had noticed some snow or ice coming off the leading edge of the right wing and going down the engine intake during the takeoff roll. A thorough check of the engine's insides found six fan blades that were damaged beyond repair. Apparently, the aircraft had looked as though it was free of snow or ice, except for the left wing. No special attention had been given to the other side of the aircraft because it *appeared* that the sun had already melted everything off. As a result, ice underneath the slats went unnoticed and subsequently came off during takeoff roll.

Don't slight your preflight or deicing procedures when weather requires added precaution. In the winter, you might find ice hiding underneath flight controls and other hard-to-see places where the sun doesn't shine.

Sneaky ice

Snow had fallen on and off for the last five days. Temperatures had hung around the freezing mark just enough to turn some of the solid white stuff into liquid and back to ice later—typical weather for many TAC bases during the winter months. During his preflight, an A-10 pilot





TAC DISTINGUISHED GROUND SAFETY ACHIEVEMENT AWARD

This award honors a ground safety member who has made a significant contribution to an established unit, intermediate headquarters, TAC or USAF safety program.

TSgt Steven W. Bowman
823 CERHS
Hurlburt Field, Florida



TAC ANNUAL UNIT GROUND SAFETY AWARD

This award honors units with an effective mishap prevention program.



27 TFW
Cannon AFB, New Mexico



823 CERHS
Hurlburt Field, Florida



TAC TRAFFIC SAFETY AWARD

This award honors units with effective traffic safety programs for operators of privately owned vehicles. Air Force motor vehicles, and special purpose vehicles.

823 CERHS
Hurlburt Field, Florida



CHIEF MASTER SERGEANT PAUL A. PALOMBO AWARD FOR DISTINGUISHED GROUND SAFETY NEWCOMER

This award honors a ground safety member who is new to the ground safety career field

and has demonstrated above average performance.



SSgt Clifford D. Tebbe
366 TFW
Mountain Home AFB, Idaho



MSgt Richard J. Tracy
56 TFW
MacDill AFB, Florida



TAC TALLY

CLASS A MISHAPS
AIRCREW FATALITIES
• IN THE ENVELOPE EJECTIONS
• OUT OF ENVELOPE EJECTIONS

• ISUCCESSFUL/UNSUCCESSFUL

Total			TAC			ANG			AFR		
DEC	THRU DEC		DEC	THRU DEC		DEC	THRU DEC		DEC	THRU DEC	
	FY 89	FY 88		FY 89	FY 88		FY 89	FY 88		FY 89	FY 88
2	5	6	1	4	5	1	1	0	0	0	1
0	1	2	0	1	2	0	0	0	0	0	0
2/0	3/0	5/0	1/0	2/0	4/0	1/0	1/0	1/0	0/0	0/0	0/0
0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0

TAC'S TOP 5 thru DEC 1988

1st AF		9th AF		12th AF	
CLASS A MISHAP-FREE MONTHS		CLASS A MISHAP-FREE MONTHS		CLASS A MISHAP-FREE MONTHS	
100	318 FIS	70	33 TFW	39	35 TTW
47	325 TTW	43	507 TAIRCW	33	474 TFW
35	57 FIS	23	23 TFW	25	37 TFW
14	48 FIS	18	1 TFW	21	49 TFW
		14	4 TFW	15	USAFSO

ANG		AFR		DRUs	
CLASS A MISHAP-FREE MONTHS		CLASS A MISHAP-FREE MONTHS		CLASS A MISHAP-FREE MONTHS	
217	110 TASG	100	482 TFW	17	USAF TAWC
192	138 TFG	90	924 TFG	9	USAF TFWC
174	177 FIG	78	906 TFG	3	28 AD
169	114 TFG	52	507 TFG		
133	155 TRG	39	917 TFW		

CLASS A MISHAP COMPARISON RATE

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

TAC	FY 89	1.7	2.7	2.4									
	FY 88	6.4	3.4	3.0	2.7	2.6	3.3	3.0	3.1	3.3	3.2	3.0	3.4
ANG	FY 89	0.0	0.0	1.5									
	FY 88	0.0	0.0	0.0	0.0	0.9	2.2	2.5	2.7	2.9	3.0	3.5	3.2
AFR	FY 89	0.0	0.0	0.0									
	FY 88	0.0	10.6	7.7	5.9	9.5	7.9	6.7	5.8	7.5	6.8	6.0	5.5
Total	FY 89	1.2	1.8	2.0									
	FY 88	4.3	2.9	2.4	2.2	2.5	3.2	3.1	3.1	3.4	3.3	3.3	3.5
MONTH		OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP

Fleagle

