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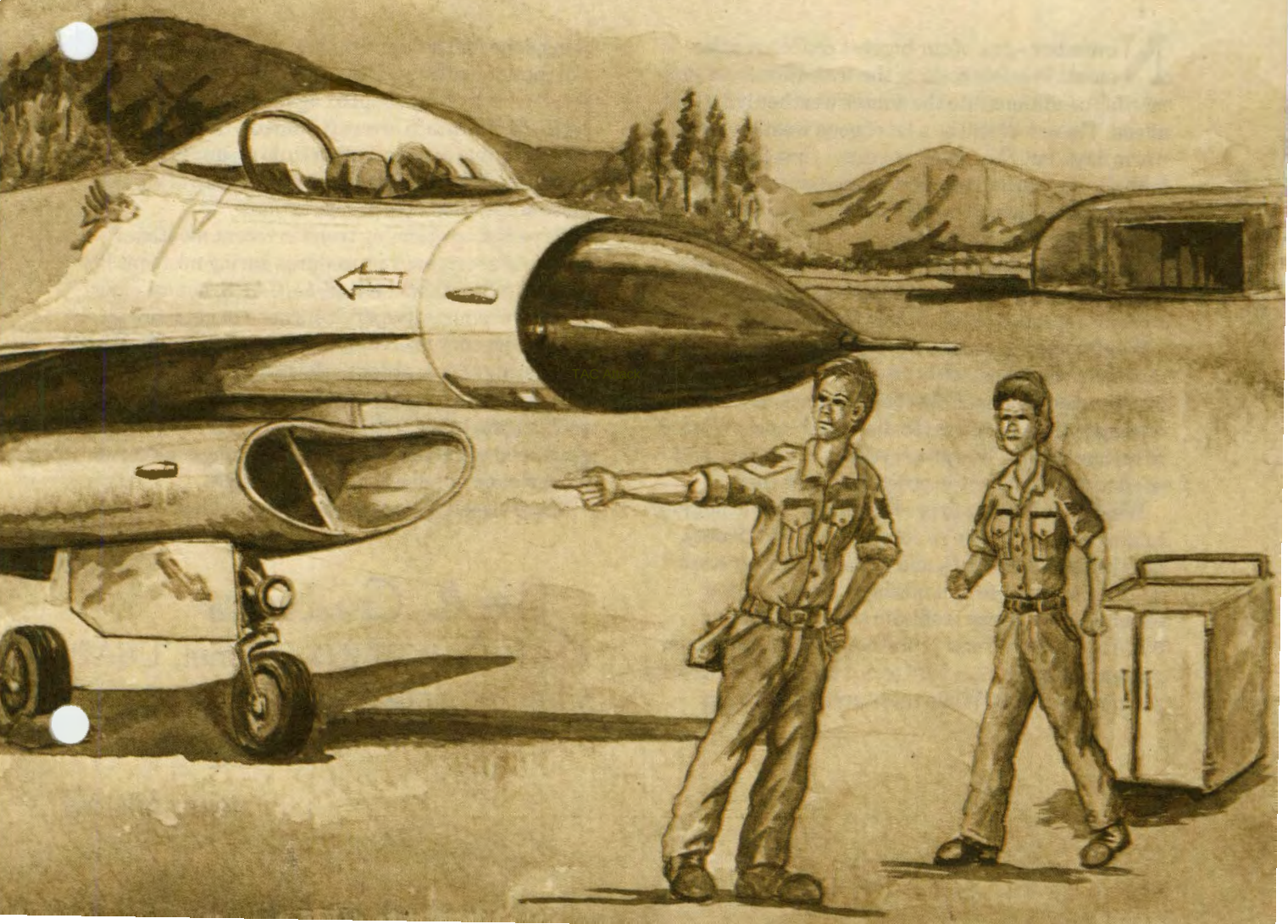
TAC ATTACK

NOVEMBER 1988



ANGLE OF ATTACK

November – one of our biggest challenges this month is safely making the transition from summer/fall conditions into the winter weather lying just ahead. There will still be a lot of good weather and warm days, but November is a great time to make both the mental and physical changes into the winter mode of operations. Those of you who have the benefit of seeing mountains during your sorties can see for yourselves how much snow is already accumulating. Those who don't have mountains near can see on the weather reports how much snow we have **already**.

We also need to be aware of the number of human factors mishaps that we have experienced. Over the last 10 years, at least 67% of our operations Class A mishaps in TAC have had findings and causes related to human factors. We can prevent such mishaps and need to work smarter in order to reduce them.

What is TAC doing to prevent mishaps? I'm not just talking about what we're doing here in TAC Safety, but the folks in DO, LG, and DR as well. They are *all* working to help prevent mishaps. Here are a few examples: the ground collision avoidance system (GCAS), improved anti-G protection, flameout team, system safety groups, F-16 tech data review and cockpit improvements. While there are a lot of things being done for the aircrew, they are all useless, and will continue to be so, *if* the aircrew forgets the basics. Yes, I'm back on my soapbox again. Let's review the BASICS. **Maintain aircraft control.** Once you've done that, and are continuing to do so, **analyze the situation**. When you've taken proper care of both of those steps, then take proper actions.

We've had an alarming trend in recent months of improper emergency procedures during mishaps. I'm not just talking about **boldface/CAPS**, but *all* emergency procedures. Supervisors need to get more involved in emergency procedures training in the unit. I'm not suggesting this in order to check up on the young guys, but so they can lend their personal experiences and insights to the training process. Our more senior guys need to get involved with the younger aircrews. **Experience not used isn't worth much.**

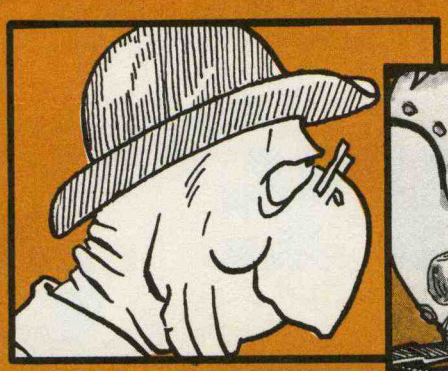
Have a good Thanksgiving Day, pardner.

Jack Gawelko

JACK GAWELKO, Colonel, USAF
Chief of Safety

TAC ATTACK

DEPARTMENT OF THE AIR FORCE



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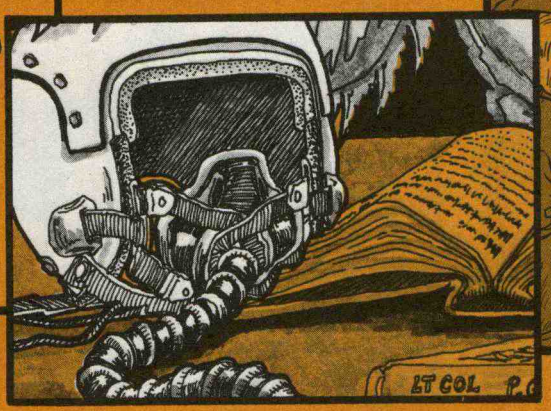

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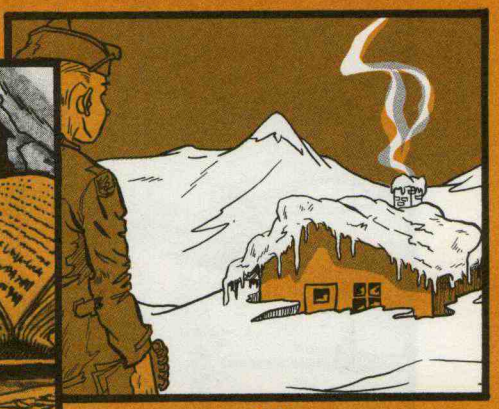

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features

departments

TACSP 127-1

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Distribution F(X) is controlled by TAC/SEP through the PDO, based on a ratio of 1 copy per 10 persons assigned. DOD units other than USAF have no fixed ratio; requests will be considered individually.

Subscriptions for readers outside DOD are available from the Superintendent of Documents, Government Printing Office, Washington, D.C. 20402. All correspondence on subscription service should be directed to the Superintendent, not to TAC/SEP.

VOLUME 28 NUMBER 11

TAC ATTACK
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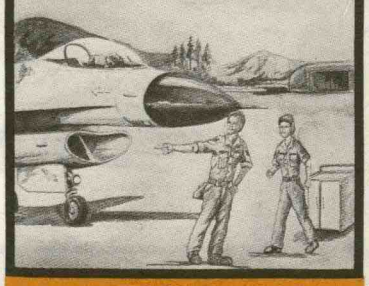
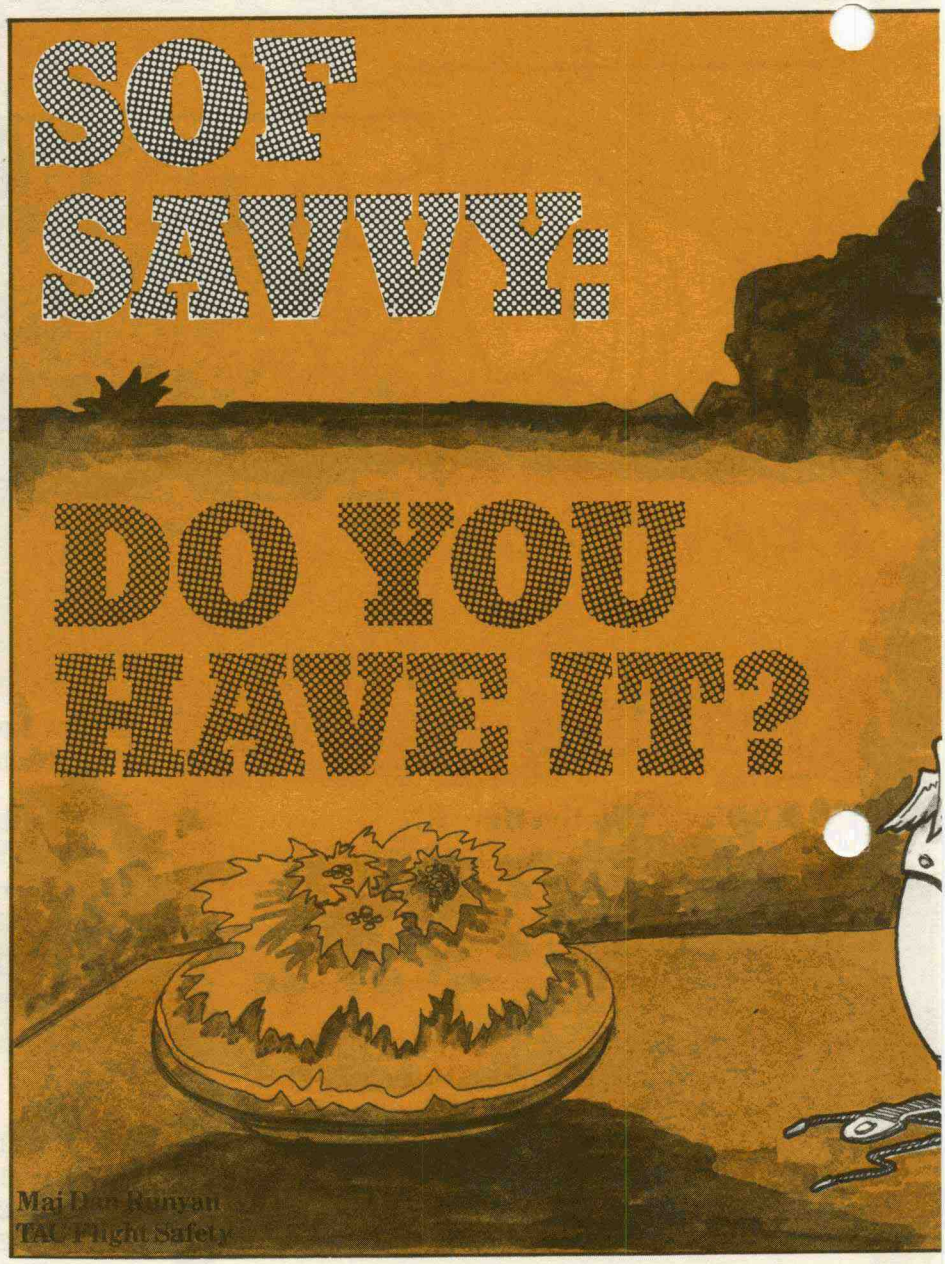


TAC Attack (ISSN 0494-0380) is published monthly by HQ TAC/SEP, Langley AFB, VA. POSTMASTER: Send address changes to *TAC Attack*, TAC/SEP, Langley AFB, VA 23665-5563. Second-class postage paid at Hampton, Virginia, and additional mailing offices.

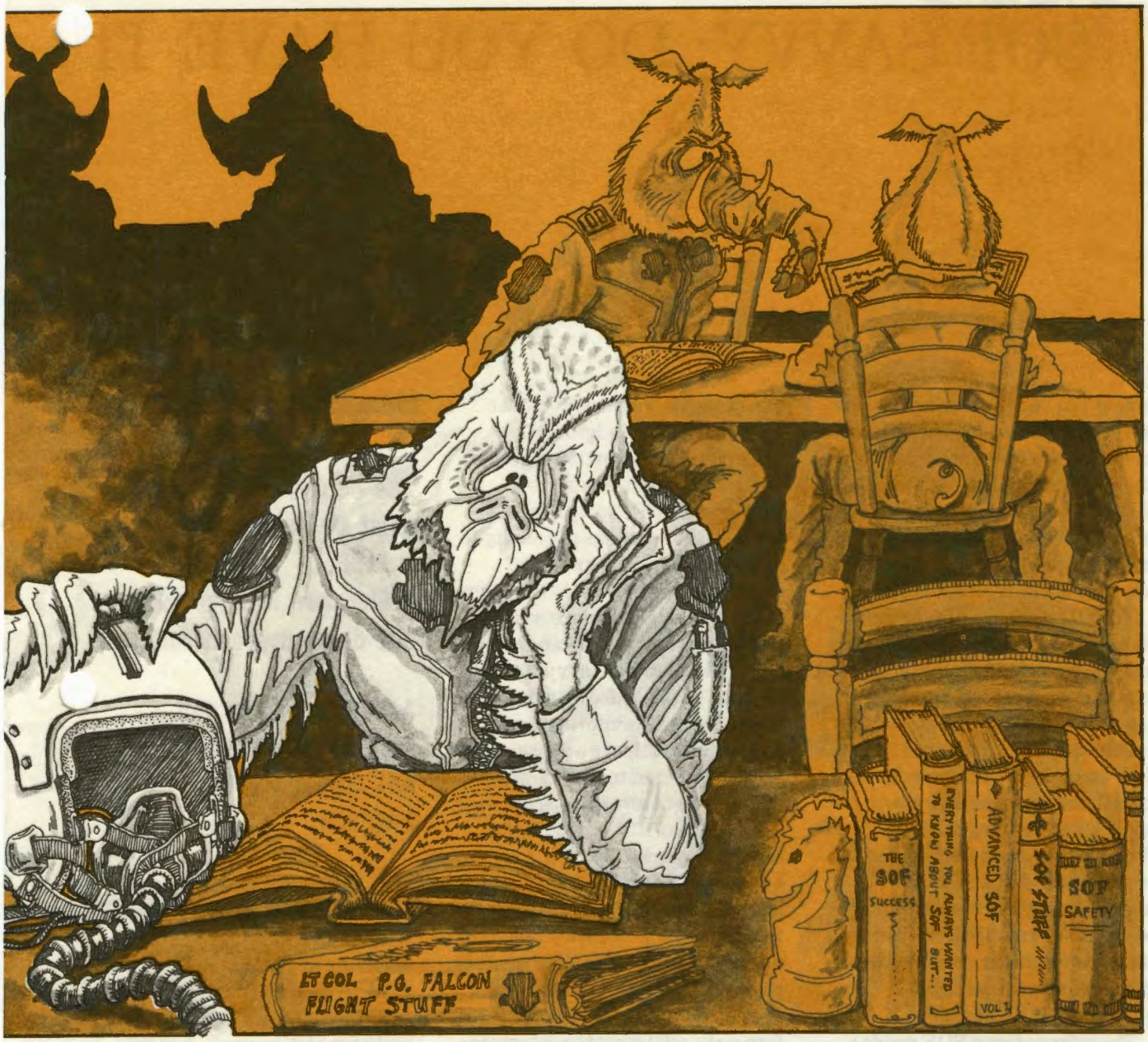
SOF SAVVY: DO YOU HAVE IT?



Maj Don Runyan
TAC Flight Safety

Safety magazine articles usually reflect concern about adverse trends in recent aircraft mishaps. This article is different. It is about a positive trend that has been seen in recent mishaps – the absence of findings or causes related to supervision, specifically, supervisors of flying (SOFs). This indicates that our TAC SOF s are doing their job well, but a good track record can lead to complacency and mistakes. This article will offer some techniques and a large dose of philosophy concerning what it takes to be a good SOF. It should be of primary interest to new or upgrading SOFs, but it's also good continuation training for "older" heads as well.

The key to the continuing success of TAC's SOF program is the quality of the people involved. Simply put, only the cream of a wing's talent should be SOFs. SOFs should not be chosen based upon



age, rank, or position, but rather upon their knowledge, experience, and ability to shoulder responsibility and perform well under stress. For most aviators, pulling a SOF tour is the most stressful peacetime duty they will ever perform. The ability to make correct decisions under this stress is what separates the good from the mediocre SOFs.

The authority and latitude given to SOFs in making decisions varies

Knowledge comes from experience and study, and SOFs are personally responsible to ensure they are up to speed.

A SOF has to know his aircraft, the local flying procedures, and all applicable flying regulations.

SOF SAVVY: DO YOU HAVE IT?

among TAC wings. Some decisions can be deferred to higher authority, and when the time and situation allow, they should be. This article is about those situations where, for one reason or another, the buck cannot be passed and stops squarely at the SOF's console.

No SOF can make proper decisions without knowledge and information. Knowledge comes from experience and study, and SOF s are personally responsible to ensure they are up to speed. A SOF has to know his aircraft, the local flying procedures, and *all* applicable flying regulations. When in the tower, the SOF is the expert, *period.* If a SOF doesn't have the knowledge (such as may be the case in multi-aircraft wings), then he must know where to get the necessary knowledge quickly when it's needed.

The information a SOF needs comes from many sources and is often very challenging to obtain and use. Weather forecasters and observers lead this list of sources, followed by tower, RAPCON, and ARTCC controllers, contractor technical experts, airfield managers, RMU observers, RCOs, airborne pilots, divert field SOFs, squadron supervisors, commanders, and so on. Orchestrating and analyzing this flow of information, which is often sketchy and conflicting, requires patience, perseverance, and a lot of judgment. Putting this information together and using it is the essence of developing SOF "savvy." In this context, savvy means the ability to make shrewd (i.e., correct and smart) decisions in the SOF tower. Unfortunately, there are no magic techniques that can be taught on how to develop this savvy. Making the best possible decision based on the best possible information is more of an art than a science and is strongly related to the knowledge and judgment already discussed.

The meat of a SOF's job is the safe and orderly launch and recovery of unit aircraft. Weather and inflight emergencies (IFEs) are the SOF's greatest obstacles in accomplishing this job. Handling weather requires total situational awareness about field conditions and forecasts, pilot weather categories and minimums, runway conditions, divert field conditions, fuel states, etc. A SOF can never assume somebody else is checking or monitoring these things. Options should always be kept available in order to react to changing weather environments, including cancellation or diversion of aircraft. One golden SOF rule is "never press the weather!!," particularly for peacetime training missions.

For handling IFEs, there is an old flying adage that says the first thing to do in an emergency is to "wind the clock." This holds a lot of truth for SOFs as well. A SOF's position usually allows him some time of reflection on what to do. A SOF can study the Dash One and consult with experts. And he can do this analysis in the relative calm and comfort of the tower vice the cockpit. This time should be used to quickly gather information and make a game plan. But once a decision is made – stick by it. Nothing is worse than an indecisive SOF or one who changes his mind frequently. The control of an IFE

The control of an IFE must be carefully balanced - give what assistance is necessary, but don't overcontrol.

A SOF is not in the cockpit, so he should not try to fly the airplane.

If you consider yourself a good SOF, take pride in the fact that it's a challenging job requiring unique skills.

must be carefully balanced – give what assistance is necessary, but don't overcontrol. A SOF is not in the cockpit, so he should not try to fly the airplane. SOFs should confirm what is wrong, make sure it was analyzed properly, and then lend assistance only as the pilot needs or requests it. Remember, a SOF's concern is for the safe recovery of all the wing's aircraft, not just the IFE. There must be a plan to get all the aircraft down safely!

As a final note, a SOF tour should be thought about, planned, and "chair flown" as extensively as any demanding sortie. From the first step on the tower stairs until the tour is signed off, a SOF must have a good game plan. This game plan is based upon total situational awareness, or the "big picture," of the wing's flying activities. It means knowing when aircraft are launching, who is flying them, where they are going, what they are going to do once they get there, and when they will recover. Daily flying schedules may not have all this information so ask a lot of questions – a good SOF has to be nosey! Once developed, this plan should be constantly "what if'd" for the worst situation that could happen. A response to each "what if?" should be mentally prepared and ready for use. This will minimize the chances of any big surprises during the tour.

This article only scratches the surface of what it takes to be a good SOF. Hopefully, it has stimulated some interest and thought on the subject. Remember, if it were an easy job, everybody would be able to do it. If you consider yourself a good SOF, take pride in the fact that it's a challenging job requiring unique skills. So good luck – and keep up the good work!!

A Note From Col Jack Gawelko, TAC Chief of Safety

One vital ingredient necessary for supervisors of flying (SOFs) to do their job successfully is good SOF/DO communications and understanding. By knowing how the unit's senior leaders think, the SOF can have confidence that they will back him up in the decisions he makes. This sort of confidence and communication *does not* begin the minute you get word of an incoming emergency, but long before that, during your periodic SOF/DO meetings. In a gathering of all unit SOFs, the DO can convey his philosophy and viewpoints on unit flying operations. By discussing particular types of emergencies and establishing a wing game plan on how they will be handled, every player involved in the SOF business can ensure that they're all "reading from the same piece of music."

TAC tips

INTERESTING ITEMS,
MISHAPS WITH MORALS,
FOR THE TAC AIRCREWMAN

TAC tips

In its own time

An F-16 Falcon driver was flying out of home station on a surface attack mission with three BDUs on a TER and six practice bombs in a SUU-20. After entering the bombing range, the pilot made three attempts to release the BDUs from the SUU-20 station. On the first attempt, the BDU released successfully. On the second and third passes, the bombs didn't come off but the SCP counted down, indicating release signals were actually sent to the bomb dispenser.

After departing the range, the wingman made a visual bomb check and reported five bombs still present. Later, in the end-of-runway safing area, there were only four bombs left. Somewhere en route, one of the BDUs decided to part company with the jet.

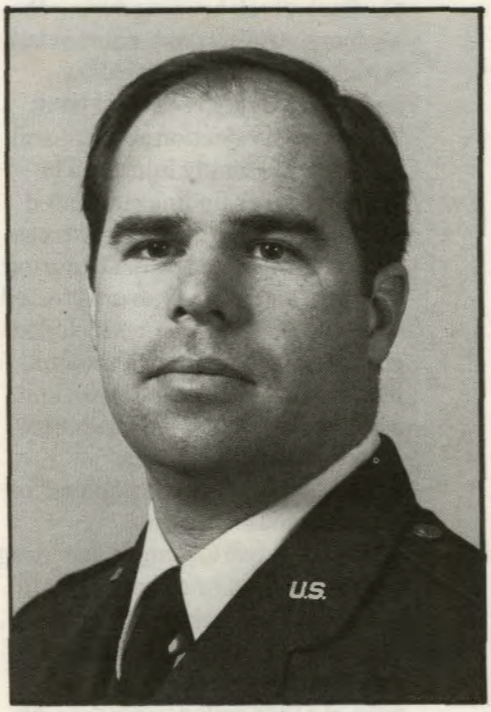
Maintenance inspection revealed that the cart had fired on the missing bomb station, but a slow burn resulted and didn't produce sufficient gas pressure to open the bomb retaining arms. During the hung bomb pattern, however, the bomb came off. That's a great reason to steer clear of everything when you're driving home from the range with a hung bomb. You don't know whether the reason for your "no release" is malfunctioning equipment or a slow burn cart, just that you told the bomb to leave your aircraft. Do your best to make sure there's nothing under you to hit if it does come off unexpectedly.

AIRCREW OF DISTINCTION

Captain Douglas A. Dean was returning to base after leading a successful night F-16 sortie of air refueling and surface attack range work. As he lowered the landing gear handle on final approach for a full-stop landing, he noticed the red light illuminated in the gear handle and no green down-and-locked indicators. Immediately making a go-around, he notified the SOF of the problem and went through the appropriate checklist procedures. When those efforts were unsuccessful, he attempted the alternate gear lowering method by slowing the aircraft to 170 KIAS and pulling the alternate extension release handle. Indications showed that both main gear were down, but the nose landing gear was still up. This configuration was confirmed by both ground and inflight chase observations.

When Capt Dean was still unable to get the nose gear down after further efforts, he burned his fuel down to 1500 pounds and landed from an ILS approach. His successful approach and landing were especially noteworthy since the landing light is inoperative with the nose gear up. After touchdown, he shut down the engine and gently lowered the aircraft's nose to the runway. The aircraft skidded straight down the runway on the centerline fuel tank and the nose gear door. While skidding, the nose of the centerline fuel tank exploded, erupting in flames and throwing pieces of metal across the runway. The fire department extinguished the fire immediately after the aircraft stopped. Capt Dean attempted to ground egress, but was unable to get the canopy open electrically. When the fire department hand cranked the canopy open, he was able to climb out uninjured.

Capt Dean's skillful airmanship and outstanding situational awareness enabled him to minimize damage to his aircraft and the potential loss of a valuable combat resource. His actions have earned him the TAC Aircrew of Distinction Award.



Capt Douglas A. Dean
62 TFTS, 56 TTW
MacDill AFB FL

HISTORY REPEATS ITSELF - ALMOST

Lt Col Scott Wales
ANG/AFRES Advisor
TAC Office of Safety

The mishap pilot was number two in a three-ship night surface attack mission. The flight completed all weapons deliveries with flare illumination provided by the lead aircraft. While approaching the final attack heading during the weapons strafing pass, number two struck the ground at a shallow angle with 56 degrees right bank. There was no ejection attempt and the pilot was fatally injured. The mishap board's findings indicated the pilot failed to adequately cross-check his flight instruments during the turn, and entered an undetected descent. Possible reasons included channelized attention, perceptual illusions, distraction in the cockpit and possible decreased awareness due to medication effects.

Another mission was planned for conventional ordnance deliveries – two low-angle, low-drag passes followed by a range orientation pass. The mishap pilot, who was also the flight lead, made a turn to downwind after his last pass. He then rolled to a 70 ° to 90° bank, and maintained this bank angle, allowing the aircraft to descend. He had just started a normal slow rollout for the downwind leg at impact. The aircraft hit rapidly rising terrain and was destroyed. There was no ejection attempt. The board determined that the pilot became spatially misoriented due to a visual illusion and channelized his attention away from his flight path. His radar altimeter was set at 100 feet, too low to provide sufficient warning. No specific parameters were set for the orientation pass.

At some time during the low-level route, the mishap pilot did not adhere to minimum terrain clearance standards, and struck a tree.

The mishap aircraft was number one of a four-ship Maple Flag mission. The planned mission included a 500-foot level dry delivery on a manned emitter site. The actual pass resulted in a shallow dive (3-4°) with a pull to level after the "pickle." Following this pass the pilot made a right check turn to look for his wingman, and his aircraft struck the trees. Initial reports indicate distraction and channelized attention were among the suspected causes.

The mishap pilot was lead of a two-ship weapons delivery mission which included a low-level route to the range. At some time during the low-level route, the mishap pilot did not adhere to minimum terrain clearance standards, and struck a tree. The pilot was highly experienced, well qualified to fly the mission, and had plenty of recent low-level experience in the 100-300 foot regime. The factors identified in the mishap report suggest complacency and visual illusions as primary cause factors.

Sounds like a trend, doesn't it? Consider the similarities; all aircraft hit the terrain or terrain features; all appeared to be operator-related mishaps, with similar factors listed as cause. All were single-seat A-7 aircraft involved in or on their way to a range mission; all aircraft appeared to be "green machines" (that is, aircraft operating without any mechanical difficulties). There were no new cause factors – self-medication, misorientation, distraction and channelized attention are all familiar as causes.

Fortunately, there were some important differences between the first and the last two mishaps. Despite similar circumstances, the last two pilots are alive and well; aircraft damage was "only" Class C for the third mishap and the fourth was below Class "C" reporting criteria. The first two occurred several years back, but are so similar to the last two which are current mishaps as to cause concern. Safety problems appear in cycles of approximately two to three years. The lessons of the past are forgotten – even those written in blood. Commanders and supervisors change; people forget the problems which brought us grief such a short time ago. Although these incidents all involved ANG A-7s, the ANG and the A-7 aren't the only command or aircraft to experience such mishaps. Other similar ones have occurred in the active Air Force and the Air Force Reserve. Mishap aircraft included the A-10, F-4, F-15 and F-16. (Editor's Note: Two more tree strikes have occurred since this was written – one involving an F-4 and one an F-16.)

A quick review of the statistics is clearly frightening:

- In recent mishap history, the largest single category of A-7 mishaps is collision with the ground. This includes 19 fatalities and 20 aircraft destroyed.
- Since 1983, mishap experience in the A-10 indicates over half were due to collision with the ground; 80% of the A-10 fatalities were controlled flight into terrain (CFIT) mishaps. All five A-10s lost in FY 87 were due to collision with the ground.
- During fiscal year 88 so far, nine TAC Class A mishaps involved controlled flight into the terrain. Losses so far are one F-4, three F-16s, three A-10s, one F-111, and one A-7.

The point here is just to make everyone aware of how close tragedy was averted in the most recent mishaps. For a variety of reasons, these pilots were not looking where they were going, or did not perceive the danger. Low-level navigation and range work are

At the speeds and altitudes we fly today, it doesn't take long to ruin your whole day.

The margin for error is typically only a few seconds, sometimes even less.

risky and tremendously demanding missions, no matter how routine they have become. At the speeds and altitudes we fly today, it doesn't take long to ruin your whole day. The margin for error is typically only a few seconds, sometimes even less. There is no reason for inattention or complacency. It has been said that close only counts in horseshoes and hand grenades. You might want to consider adding low-level navigation and surface attack to those first two "sports." Fly too close to the ground and you may be *in* the trees. Fly smart and fight smart – don't let your next flight be your last. Don't allow history to repeat itself – again.

looking back

Cal Faile
TAC Ground Safety

In October 1981, the *TAC Attack* staff placed memorabilia of the period in the wall of their newly renovated office. The "time capsule" remained there, undisturbed, for almost seven years.

In May of this year, another renovation project began to upgrade the building. When I found out about the time capsule, my curiosity got the best of me and I asked the contractor to preserve the contents for me, not knowing at the time what surprises might be hidden inside. (Eat your heart out, Geraldo Rivera!) Shortly after that, he brought me the contents – two copies of *TAC Attack* magazine, vintage 1981.

"You have to be kidding me!" I exclaimed. "That's all there was in there?"

"No," the contractor replied. "There were also some drawings on the interior walls, but they were destroyed when the walls were torn down."

Well, I thought, *those cheapskates could have at least put some 1981-vintage money in there.* As I looked at the two magazines, fully contemplating putting them in file 13, I realized that they may be worth more than money. They would give me the opportunity to look back into TAC history and relive a little bit of it.

As I thumbed through the pages, I noted that Gen W. L. Creech was the TAC Commander at that time, Lt Gen T. H. McMullen the Vice Commander and Col R. K. Ely the Chief of Safety. As I scanned the articles, I remembered the old axiom that, "If we don't learn from the past, we are destined to repeat it." The articles in those two issues addressed several near miss or actual mishaps during both on-and off-duty activities. Failure to follow technical data, inattention to task performance, inadequate supervision/training, exceeding physical capabilities, lack of communication, inadequate planning, speeding, alcohol, and failure to wear seatbelts were considered primary or contributing cause factors to the mishaps. Sound familiar?

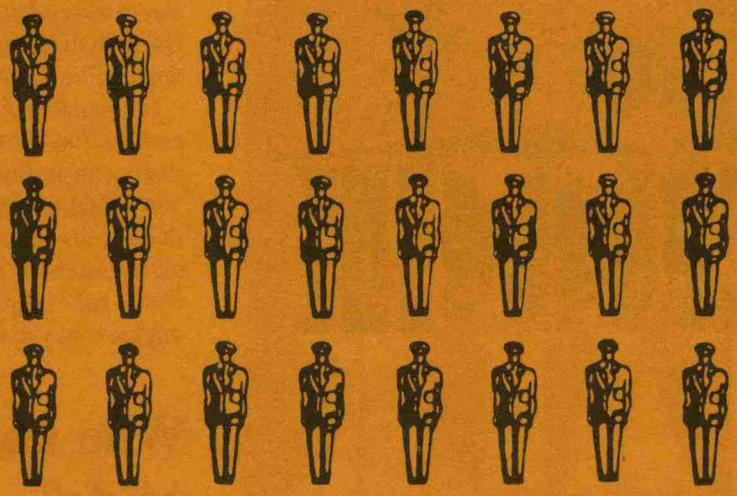
Looking back can help us do a better job of looking forward into the future, especially in planning for it. Planning for the future is what has made our country and Tactical Air Command second to none. Proper planning involves eliminating unnecessary risks and losses in both human and material resources. It's just not Safety's responsibility; it's a responsibility that rests with each one of us. MSgt Raymond C. Chisholm, 347 TFW/SEG, said it best in the October 1981 issue of *TAC Attack* when he asked the question, "Who is Safety?" The main point of his article was that "the real 'who' in safety is indeed Y-O-U. It's people, all of us as individuals, who take the time to make sure the job is done the right way the first time."

Even though you folks in *TAC Attack* didn't leave me any money, I really appreciate the opportunity to revisit TAC's past for just a few moments. We in Ground Safety will think of you when we insert our time capsule in the new wall with the hope that it will provide insight and a measure of wisdom to those who find it in the future.

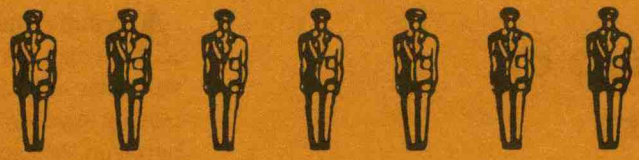
TAC LOSSES ON THE GROUND
(FY 88)

OFF-DUTY MISHAPS

Automobiles:

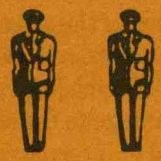


Motorcycles:

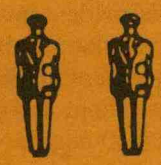


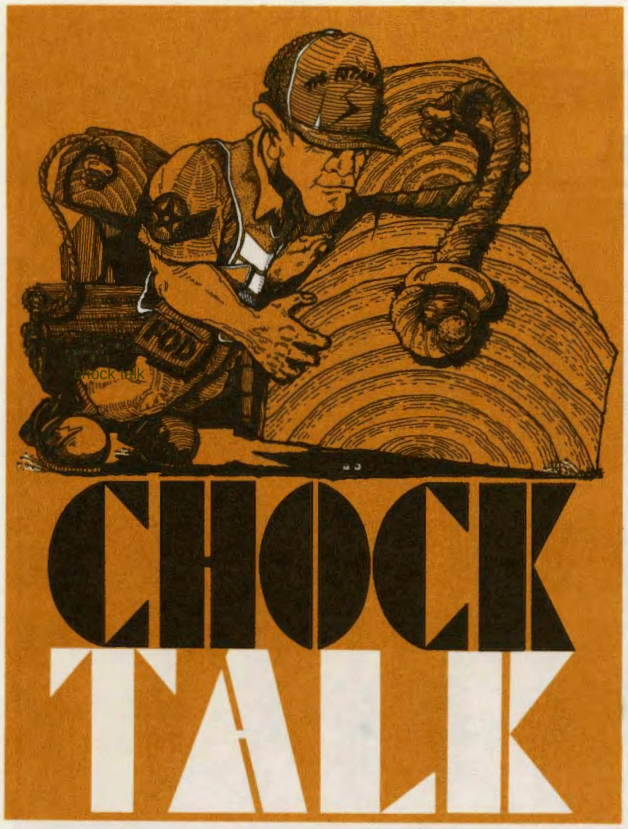
Pedestrian:

Drowning:



Private Aircraft:

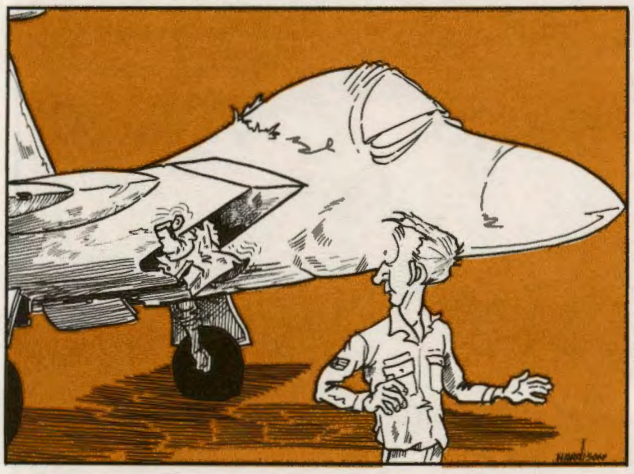




Being aware of the suction

An F-15 Eagle was being ground run to work an engine problem. As the supervisor was under the aircraft checking the engine bay area and another worker was checking the aircraft forms, a third worker was dispatched to an adjacent aircraft. Carrying his field jacket over his shoulder, the worker decided to take a shortcut just behind the number two engine's intake.

As the man went under the engine, the individual



inside the cockpit advanced the engine to 80 percent power. The field jacket was immediately sucked from the worker's hand and ingested into the engine. When the man in the cockpit heard and felt the engine "cough," he immediately shut it down.

It should be obvious that everyone should work to ensure that the area around the aircraft is kept clear during an engine run. Aside from that, everyone working around jet aircraft must be aware of the dangerous suction present near engine intakes, particularly on the F-15 and F-16. A good rule of thumb is: Don't take *anything* near the intake of a running engine that you don't want sucked in. That includes you.

Who knows what to do?

An individual was bending over the canopy sill of an aircraft vacuuming the cockpit when he inadvertently activated the cockpit canopy switch. The canopy lowered on the individual's back, pinning him between the canopy sill and the canopy. The initial attempts to free the person were unsuccessful because the folks trying to help him did not understand the operation of the canopy manual release system. On this particular aircraft, the canopy release system will not operate unless the canopy is fully closed. After continued rescue attempts failed, the pinned person removed the safety pin and pulled the canopy jettison handle. Wrong! Because the canopy was not fully closed, the canopy remover shot through the canopy transparency and struck an individual working on the back of the aircraft. The impact of the remover did, however, release the individual who was pinned.

This mishap resulted in personnel injury and costly damage to the aircraft. Activation of either the external or internal canopy switch would have raised the canopy and released the individual quickly with no damage to the equipment. What type of aircraft did this incident involve? It doesn't really matter. Cockpit egress familiarization is given to personnel to provide an understanding of the functions and limitations of the canopy and egress systems. If you work around aircraft equipped with egress systems, make sure you know how the system works.

Sucked in

An F-16 crew chief was preparing his aircraft for the second launch of the day when he was asked to perform an engine run on another aircraft seven parking spots away. In order to do the job, he grabbed the necessary tools and a 6-volt lantern from his toolbox before going to the new aircraft.

The engine prerun check was started according to the tech order. When the crew chief had completed the intake inspection, he crawled out of the intake and laid his flashlight down on its inside "lip." He then put his tools in the 781 box and went back to his own aircraft to get his headset. Upon returning to the aircraft, he climbed into the cockpit and performed the engine run.

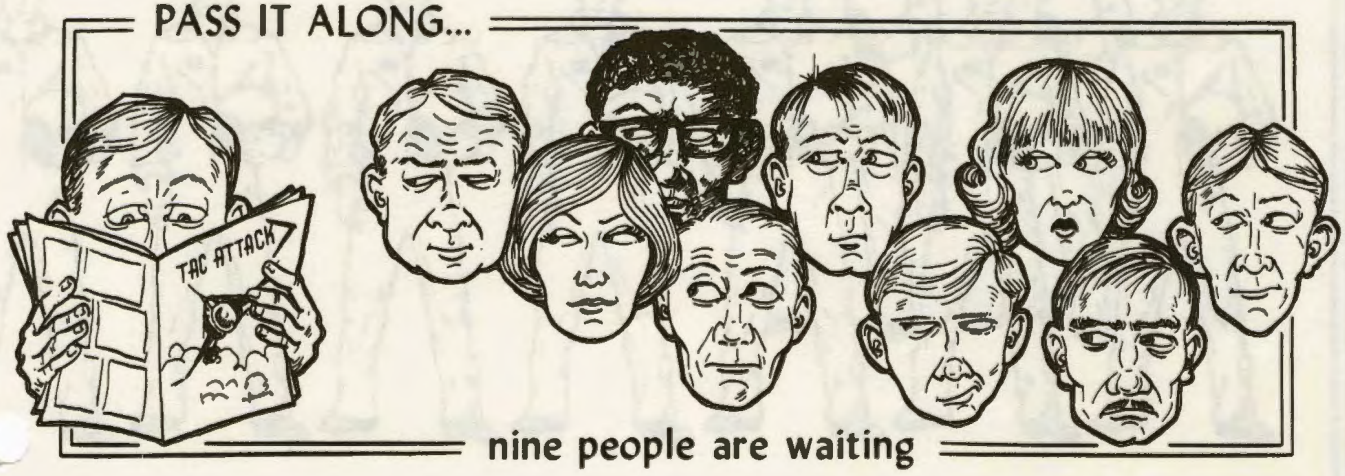
After all the required checks were accomplished and the engine shut down, the crew chief couldn't locate his flashlight; so he informed the production supervisor. Of course, when they looked inside the engine intake, the flashlight had left telltale evidence of having been there by the extensive damage it caused to the first stage fan blades.

Any break in your routine or normal pattern of work should be a warning sign that you may be about to overlook or forget something important. If the crew chief had taken his toolbox with him and inventoried it before running the engine, the missing flashlight would have been obvious. Do you think he would have left his flashlight lying around if it had been a $20,000 check (the cost of the engine damage)?

The spring in this thing

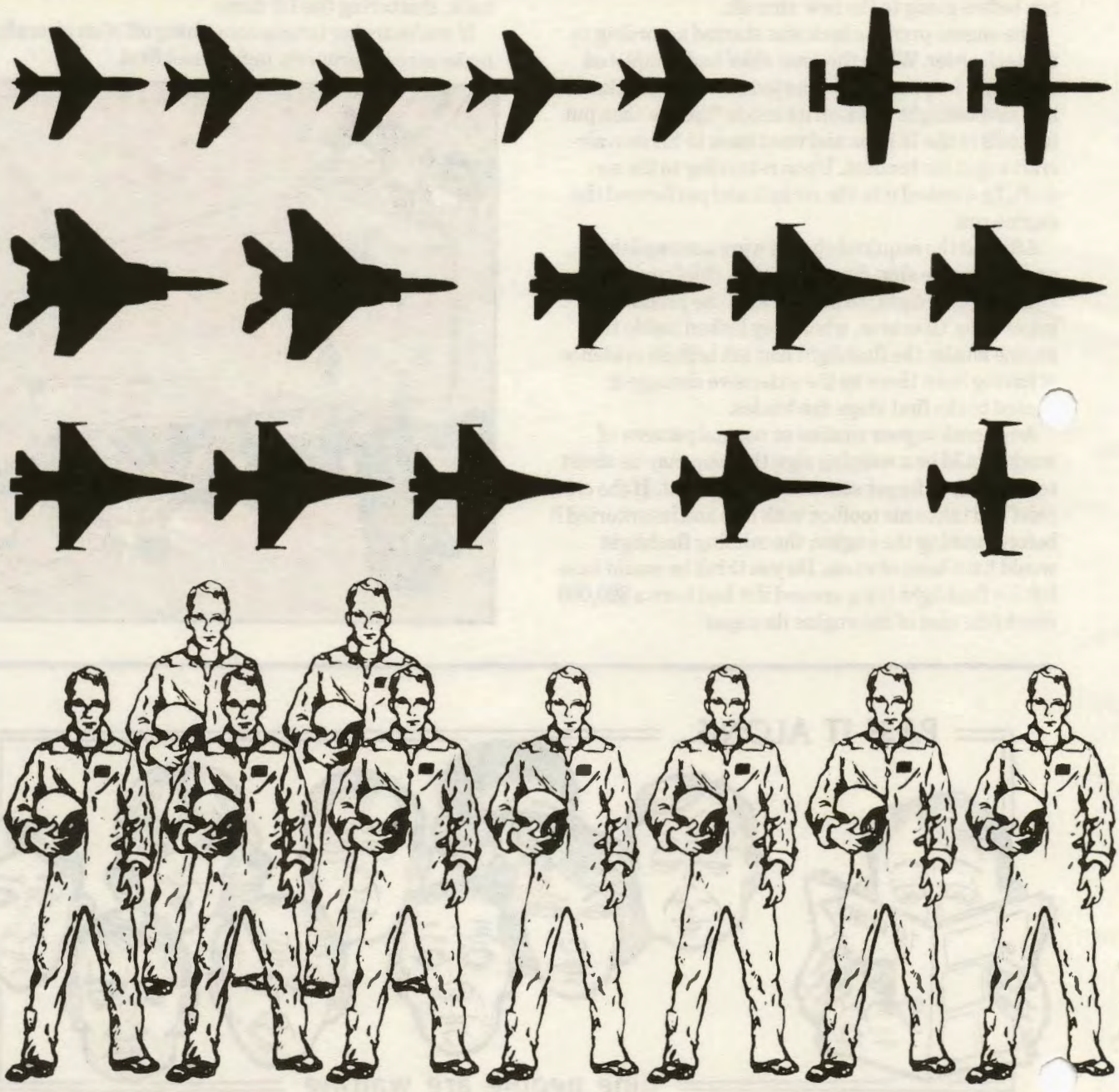
After power was applied to their F-4, the crew asked the crew chief to pull the protective cover from the AIM-9 captive missile to check for gyro erection. The cover, still secured by two bungee cords, slipped out of the crew chief's hands as he pulled it back, shattering the IR dome.

If you're trying to take something off of an aircraft, make sure it's properly unfastened first.



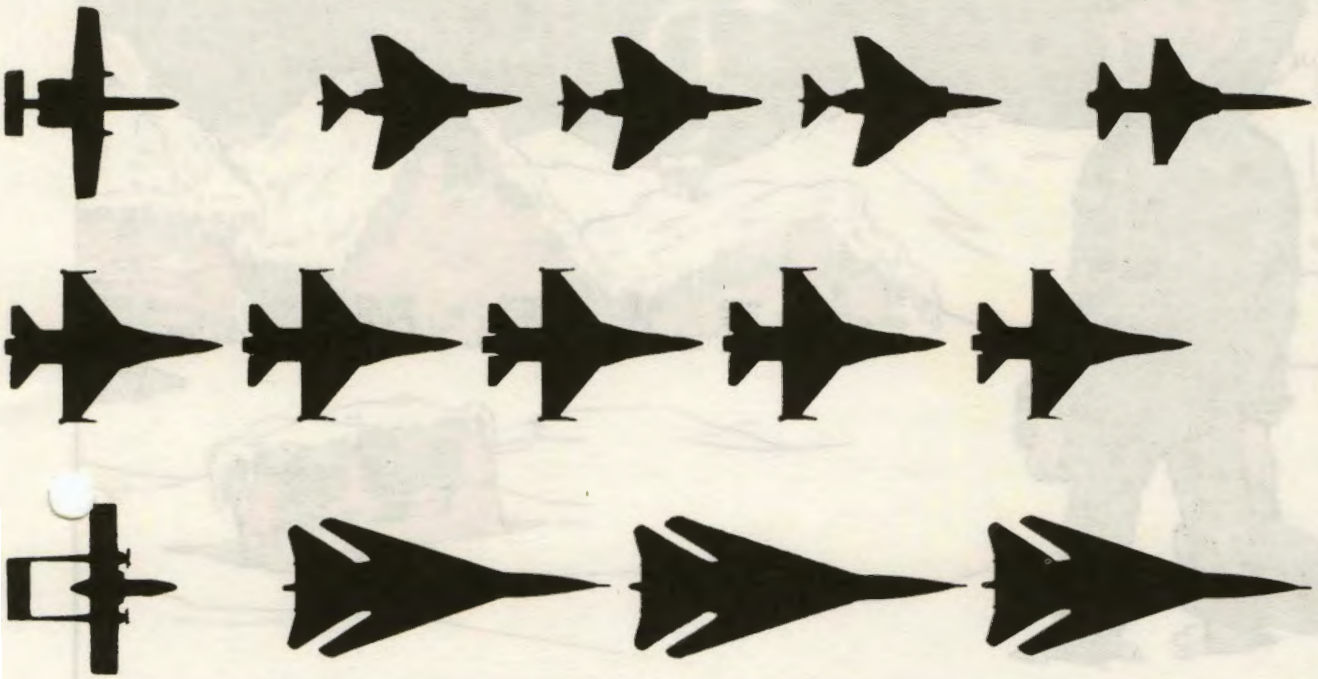
OUR TAC AND TAC-GAINED

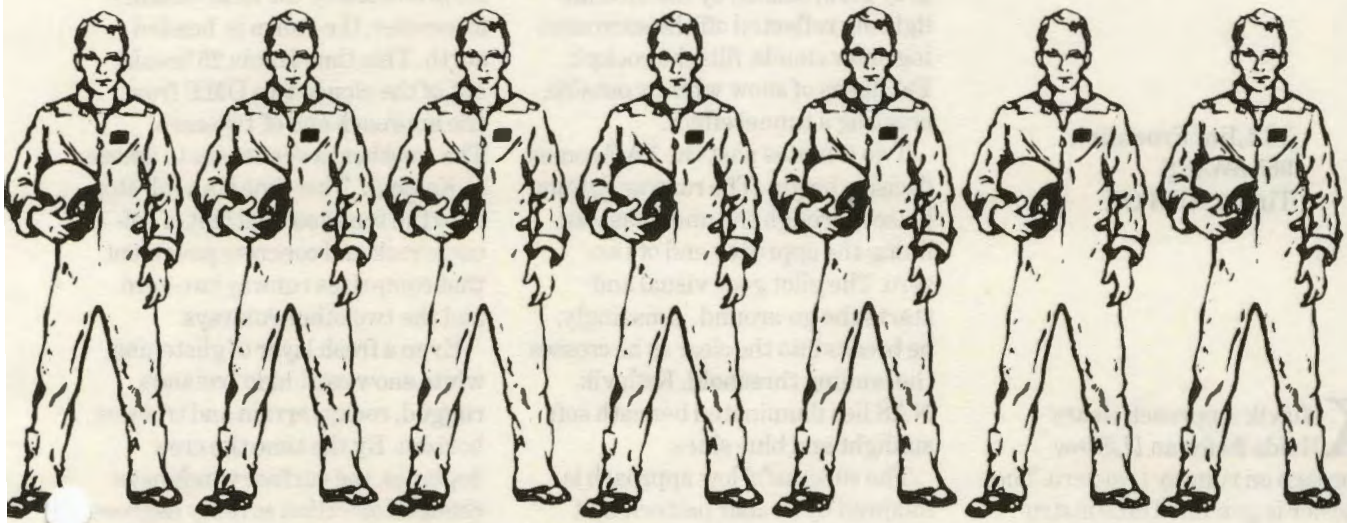
(FY



UNITS' LOSSES IN THE AIR

88)





SAFE & SOUND

1 Lt Jim Froehlich
965 AWACS
Tinker AFB OK

Keflavik Approach clears Haida 25 for an ILS low approach on runway two-zero. The weather is genuine IMC (instrument meteorological conditions). A gray glow, caused by the aircraft lighting reflected off the surrounding snow clouds, fills the cockpit. Fat flakes of snow whiz by outside, creating a tunnel effect.

Two minutes past the FAF comes decision height. The runway lighting blazes through the undercast outlining the approach end of two-zero. The pilot goes visual and starts the go-around. Amazingly, he breaks into the clear as he crosses the landing threshold. Keflavik NAS lies illuminated beneath soft sunlight and blue skies.

The successful low approach is followed by a radar pattern that takes the E-3 back into the soup. As predicted by the local weather forecaster, the storm is headed north. This time Haida 25 breaks out of the clouds two DME from the approach end of two-zero. The weather never ceases to amaze at Keflavik. This time it's a full stop onto the ten thousand feet of volcanic rock and concrete pavement that comprises runway two-zero and the two other runways.

Even a fresh layer of glistening white snow can't hide Iceland's rugged, rocky terrain and treeless horizon. By the time the crew deplanes, the surface winds have changed direction seventy degrees What had been a mild ten-knot

in Iceland

wind has turned to thirty knots with gusts up to forty-five. The ambient air temperature remains steady at thirty degrees Fahrenheit, but the strong winds have dropped the wind chill factor to ten below zero.

Patches of ice have begun to form on the taxiways and the ramp. Every step is measured carefully.

At 1600 local time, the crew finishes up their debriefs. Outside a bus waits to drive them back to the alert facility. The sun has already set. The darkness, combined with blowing snow and slick roads, makes for a slow, careful ride home.

Two TAC flying units operate from Keflavik NAS. The 57th Fighter Interceptor Squadron (FIS) handles air defense intercepts over the North Atlantic and the 960th Airborne Warning and Control Squadron (AWACS) performs surveillance and weapons control in support of that activity. Together with several other support units, they form Air Forces Iceland (AFI), also a TAC asset. AFI is the air component of the Icelandic Defense Force (a joint Air Force-Navy command) providing round-the-clock air defense and antisubmarine operations in the North Atlantic theatre.

In addition to providing an operational defense challenge to TAC assets, the North Atlantic theatre offers insights into successful safety management under environmentally harsh conditions. When scarce resources, bitter climate and austere living conditions add stress to an already demanding situation, how do safety programs adapt to the needs of the mission and its people? That question uncovered several interesting safety philosophies from TAC safety officers in Iceland.

Major Rob Hughes, Chief of Safety for the 57 FIS, believes safety begins with education. Since the majority of personnel coming to Iceland previously enjoyed a friendlier environment, troops must be made immediately aware of local safety hazards. But what he says could apply to any safety program.

"If we can hit our incoming personnel fast and hard with indoctrination training when they come off that rotator from the States or other overseas bases, we can clue them in on the hazards they'll be facing on a twenty-four hour basis. If we can convince them that they are dealing with something serious that can sneak up and get them, then we have the problem licked."

New personnel are the most impressionable and usually the most cautious. Lessons that start early will likely become deep-rooted safety habits. However, as a unit member becomes familiar and, therefore, more comfortable with his or her surroundings, safety ideas need to be reinforced. Thus, as complacency replaces unfamiliarity, reminders replace lessons.

Lessons that start early will likely become deep-rooted safety habits.

"Later on we find problems with people who let their guard down." Maj Hughes points out, "Complacency sets in, they're in a hurry, or maybe they 'just forget' but they find themselves out on the flight line without the proper cold weather gear." Wind chill will always be a problem in Iceland just as heat stroke will be in Texas. "So, safety awareness has to be reinforced by the line supervisors and the intermediate supervisors."

The FIS's educational program emphasizes historical weather data and past crew experiences. Psychological factors related to prolonged periods of light and darkness are covered. Once a unit member leaves the safety of a heated building, what can he expect to encounter and how can he be prepared?

Along similar lines, Capt Rex Anderson, AFI Chief of Safety, stresses situational awareness. He points out that accidents can usually be traced back through a chain of events.

After a long work shift or a particularly demanding mission, people have a tendency to let their guard down. People may take for granted that they have a dangerous job, but they tend to disregard the hazards that await them on their way home from work. The chance of an incident occurring during recreation increases for the same reasons. Relaxation is not supposed to be dangerous.

Thus, Capt Anderson says, the majority of safety incidents occur

SAFE AND SOUND IN ICELAND

Relaxation is not supposed to be dangerous.

off duty. "People tend to take shortcuts when they're away from the supervised, structured work atmosphere. Maybe they've had a long week and they decide not to use a sidewalk, instead they'll cut through a snow-covered field or hop over a ditch. In Iceland, there might be some mighty big rocks they won't see. We've had a couple people slip and break their legs here."

Capt Anderson says, "Our message is – think about what you're doing and the consequences of your actions. If it doesn't look good to you, it must not be a good idea."

He also noted the importance of "being out and about." Annual and spot inspections play an important part in AFI's safety plan. Capt Anderson stressed going beyond what is required by regulation. "Be looking at things. Find things that aren't right or that should be corrected or might need to be changed. What we try to do is go out and find things before they go wrong."

Situational awareness grows out of a familiar and controlled environment. Capt Mark Lewakowski, 960 AWACS Chief of Safety, points to individual and crew discipline as the keystone to safe operations. "I believe the goal in safety is to instill a disciplined attitude toward

Situational awareness grows out of a familiar and controlled environment.

anything we do. If we're disciplined and we are following the rules, then we'll have a reasonable chance of safely accomplishing the mission."

He cites a recent incident involving a three-engine landing (the problem was caused by a fire detection loop malfunction) and subsequent ground evacuation as an example. "A disciplined flight crew took control of a situation that was potentially severe, landed the

plane and evacuated twenty crew-members without a hitch. It's important in an emergency that everyone knows his or her role and performs it. There's no room for an uninformed individual, and we let our people know that. In our safety meetings and crew orientation briefings, we stress knowing and following the rules. When we do see a discrepancy, we correct it right away."

Maj Hughes agreed with his AWACS counterpart and went a step further. "The credibility of the safety staff within the squadron is another important aspect of a strong safety program. The safety staff should be the cream-of-the-crop; the best it can be. It needs to be that way. When we've got the best talking to someone who holds a supervisory position, what gets said counts for something. The supervisor is more likely to listen to someone whose work he respects and trusts."

Maj Hughes proudly referred to his ground and weapons NCO's as two of the top men in his squadron, and there was no shortage of praise among the other safety chiefs for the NCOs on their staffs. Safety in Iceland is obviously a team effort.

Maj Hughes stayed on the subject of people. "Something I learned from my former Air Division Commander in Kadena," he said, "if you don't take care of your people, you can't fly and fight. That's what the mission of the Air Force is all about; taking care of each other is a team effort. Safety is the cutting edge of that sword. You can't sacrifice safety and still take care of your people. That's the attitude I've taken in managing this safety shop. In the long run, it's paid off."

The importance of physical fitness and recreation was addressed by all three safety officers. Increased stamina and a clear mind help conquer restlessness and complacency. Programs that many stateside might take for granted take on added importance in Iceland. Distractions such as shopping malls, travel, and fine restaurants are not plentiful. It's easy to make the rounds quickly, then fall into a rut. Use of the gym, USO, MWR tours and involvement with the chapel and other on-base organizations are always encouraged. Keflavik's relative isolation merely magnifies everyone's healthy need to enjoy themselves.

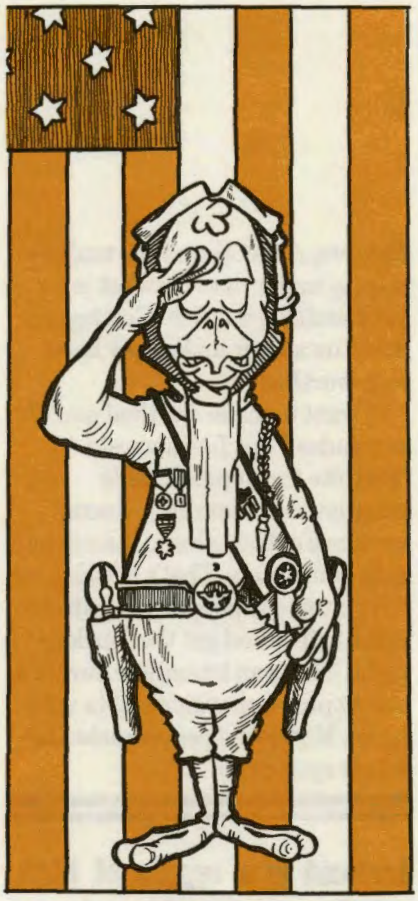
Job satisfaction also comes from the operational mission performed by TAC forces in the North Atlantic theatre. Maj Hughes talks about an aspect of the intercept mission: "Flying over the North Atlantic at a thousand feet AGL, watching chunks of ice float by in the surf and swells makes one happy he's wearing five layers of thermal clothing," he says matter of factly. His words are filled with common sense; their overall meaning clear – **the reasons for safety are everywhere. Just look around.**

"In some ways, flight safety takes care of itself," says Capt Anderson. "Crew members know the hazards and are extra cautious. On top of that, the adrenalin really flows during an active air defense scramble. Everyone works together – the fighters, AWACS, and the tankers all play major parts in what is a very exciting mission. Getting a 'hack' on a Bear makes any hardship worthwhile."

"I want to make one final point," concludes Capt Lewakowski. "Despite the unpredictable weather, and some of the inconvenience of living here, the mission gets done safely. That's because we have a team of people motivated to think safety and get the job done right. That's an intangible part of a safety program which starts with pride. Motivated people make the whole system go."

Iceland is a region of high winds, severe cold and rocky terrain; unique conditions which can make a trip outside to the mailbox fraught with danger.

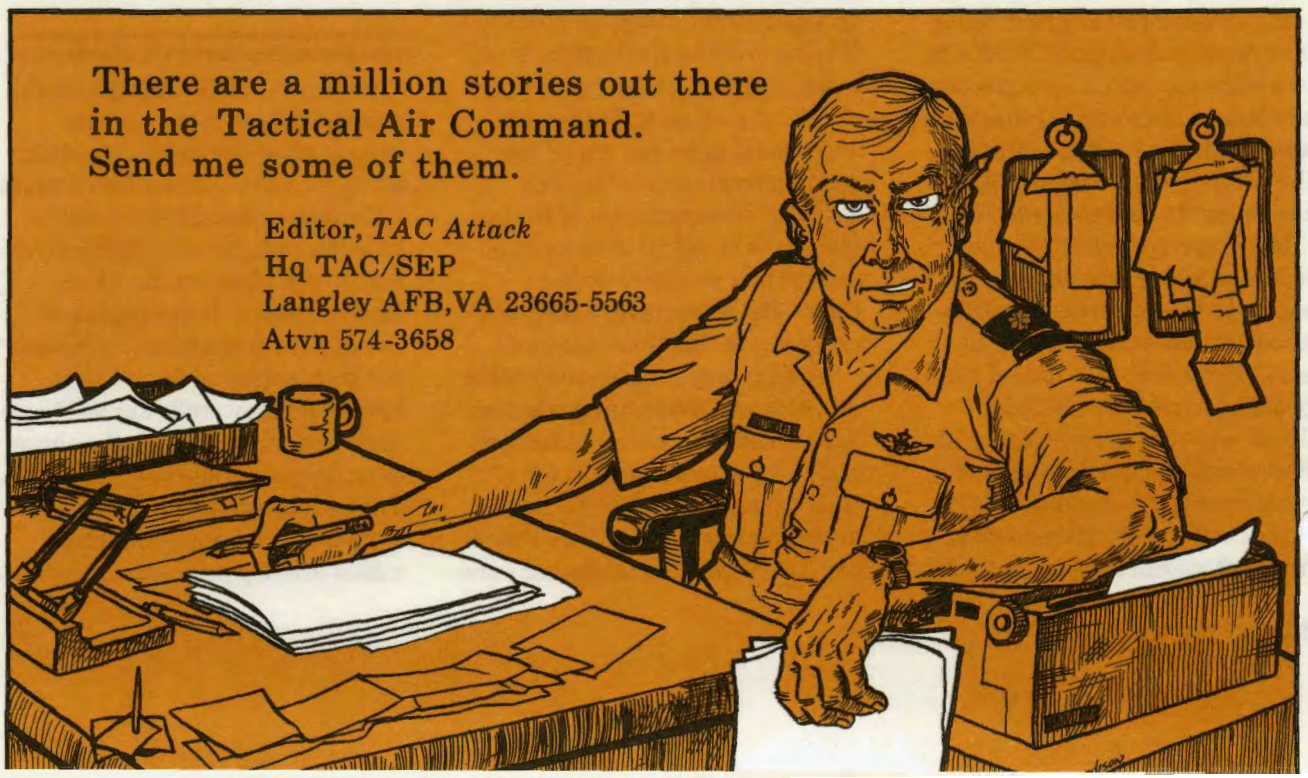
Iceland is a region of high winds, severe cold and rocky terrain; unique conditions which can make a trip outside to the mailbox fraught with danger. In addition to these hazards, isolation and boredom can lead to complacency. Accidents wait to happen. Exercise, entertainment and awareness help keep the body and mind fit and alert. Safer habits naturally follow. People don't perform well when they have to worry about their personal safety. That's the bottom line. Given a safe environment, people turn their minds to being productive. →



TSgt Mark W. Clark, an F-16 crew chief in the 116 CAMS, 116 TFW, Dobbins AFB, GA, was assisting with the leak and operational check of a newly installed integrated drive generator (IDG) as part of a ground maintenance run on an F-15. After a normal start and warm-up period, he performed the required checks as well as a thorough visual inspection and leak check of the IDG. Everything appeared normal and he informed the engine run operator that he was clear to begin shutdown procedures. As Sgt Clark gave the underside of the aircraft one additional check, he noticed something dripping from the IDG compartment. Looking closer, he realized that melted wire insulation was dripping from the IDG area, so he opened the access panel and saw flames inside the compartment. Immediately notifying the engine run operator to terminate the engine run and egress the aircraft, Sgt Clark used a fire extinguisher to prevent serious damage to the aircraft.

Sgt Clark's keen observation, sound judgment and quick reactions prevented the loss of a valuable aircraft and earned him a Fleagle Salute.

Capt Mark W. Lechner, 353 TFS, 354 TFW, Myrtle Beach AFB, SC, was returning to home base after completing an A-10 night range mission. During the recovery, the weather began to deteriorate with inflight visibility dropping to less than three miles. Following flight split-up, smoke began to rapidly fill the cockpit. Capt Lechner immediately accomplished the required checklist items, including dumping cabin pressure and selecting RAM. After turning off all nonessential equipment, the smoke was still so thick that aircraft control became difficult, since both his flight instruments and outside references were obscured. Just as he was about to jettison the canopy, the smoke began to slowly dissipate and he was able to reorient himself on the approach, declare an emergency and safely recover the aircraft. During the post-flight inspection, maintenance discovered that the AGM-65 TVM had shorted, causing a cockpit electrical fire. Capt Lechner's outstanding airmanship and professionalism have earned him a Fleagle Salute.




Eagle
?
WHAT TH'HECK IS THIS THING ANY-WAY?
CAN'T SEE TH'NAME.
GET SOME LIGHT ON THIS THING.
©STAN HARRISON 1988
BRRRIIIIPPP!!
BRRRIIIPPP!
CRASH!
HARRISON
HOW WE GONNA SPLAIN THIS TO TH'FIREPEOPLE WHEN THEY GET HERE?
THEY WOULD NEVER BELIEVE IT LET'S SET TH' BUILDING ON FIRE AND LEAVE.

I'M NOT THE REGULAR CREW CHIEF, BUT...

Anonymous

Back in the old days of the early 70's, the tactical aviation force of the United States Air Force was primarily made up of the venerable F-4 Phantom. Virtually every base had seen the Rhino – unless you were assigned to USAFE. Oh, the joys of going cross-country to an approved non-USAFE base – the beaches of Rimini, the history of Copenhagen, perhaps a round of golf at St. Andrews – all well-planned, thought-out and approved by the appropriate authorities. But all that planning was for nothing when Jerry Control came up on frequency and said, "Sponga 61, you divert immediately to Grossetto. Aviano, she's a closed."

Panic ensued in the rear cockpits, "Where's Grossetto?"

"Beats me!"

Jerry Control says again. "Sponga 61, you divert immediately to Grossetto. Aviano, she's a closed."

IFR charts are stretched out in the RCP, and autopilots engaged as fingers skip frantically through the IFR supplement. Success, the coordinates! Spin the wheels on the INS. Put the big "S" on the lubber line. Only 200 nautical miles to Grossetto via INS direct.

"Two, Alpha check – Grossetto, 200 miles south."

"Two – agree."

Let's see now, fuel computations, no sweat, at the initial approach fix with 2500 lbs. Find the appropriate approach plate, study the runway diagram and approach.

Whew! An uneventful trip until we taxied in to park. That's when the fun began. English may be the international language of aviation, but all bets are off when the chocks are in, the engine(s) are off and you're standing on the ramp.

Strange, the crew chief doesn't converse in English. The refueler shows up and he doesn't speak any more English than the four of us speak Italian. Now, how do we go about turning the jets? No

problem, Transient Alert will handle that. But, not so fast. This particular base hadn't seen an F-4 on the command's cross-servicing program in the recent past. I'm NOT the regular crew chief, but we have to turn our jets – gas, drag bags, etc., etc.

Thanks to the foresight of an old, old captain flight commander (he must have been 29 or 30 at least), it was a piece of cake. I still remember his words, "Kid, tomorrow you head out on the flight line and find Sgt Smith, follow him like a puppy and do what he tells you to do, and no gripes. Got that?"

"Yes sir." What an education. Truck to ground, aircraft to ground, truck to aircraft, connect the fuel line here (it's got to lock into place). Open this valve, go to the wheel well, and find the Refuel/Defuel switch. Switch it to Refuel – don't worry it's just like a battery master switch. Start the gas pumping. Now turn the Refuel/Defuel switch to the neutral position.

What's the moral of my story?

More than one time in my flying career I've been diverted to a strange field where no one was "the regular crew chief" and it was up to me to get my jet turned.

"Hey kid! If you leave the switch in Refuel, the battery goes dead, then the motor won't start." So many things to remember, so little time. But thanks to the dedication of a great crew chief, **the kid** got several great lessons – how to gas up the jet, pack a drag chute, service the LOX bottle, the oil, pneumatics, etc., etc., etc. Was I a qualified crew chief? No way; however, I knew enough about the basics to service the jet, park it for two days until the weather broke and then safely recover to home base.

What's the moral of my story? More than one time in my flying career I've been diverted to a strange field where no one was "the regular crew chief" and it was up to me to get my jet turned. I've sat in the cockpit as I fired up the engines and departed for the home drome as my fellow divertees wandered aimlessly in ever decreasing concentric circles wondering, "How am I going to get my jet turned?" The bottom line is that we won't always land at home drome – particularly if the balloon goes up. As aviators, we owe it to our country to at least have a rudimentary knowledge of how to get our airplane refueled and back into the air. You can't rain death and destruction on the enemy if your trusty steed is on the ramp with no gas in it and the regular crew chief is nowhere in sight. *YOUR* name is on the canopy rail. Have you spent a day on the ramp with your jet? Have you seen how it gets turned and serviced? You owe it to yourself, your Air Force and your country to understand the workings of your jet. I'm not the regular crew chief, but . . . just a fighter pilot.

WEAPONS WORDS

Isn't this good enough?

The main body and computer control group (CCG) of a GBU-12 bomb had been uploaded on an F-111 during a local exercise. The load crew chief prepared to string the bomb arming wire while the number two man fastened the fins to the bomb. Because of a shortage of normal safety pins, the previous load crew had used a piece of arming wire to safe the battery firing device (BFD). That works fine when the safety wire is put in the proper hole.

On this incident, the safety wire had been incorrectly installed in the bottom hole of the BFD where the arming wire was supposed to go. When the load crew chief prepared to route the arming wire, he first removed the substitute safing wire from the BFD without a safety device in the upper hole. What happened? The battery device fired just as advertised.

This was the second load crew that worked on the munition since it had been removed from storage. The bomb had already been loaded and unloaded once that day due to a frag change. Because of that, at least two separate crews had the opportunity to notice the discrepancy and correct it before a serious problem occurred.

Working together as a team should be a relationship based on trust, but it also requires that we look out for each other and ensure that someone else's mistake doesn't sneak up and bite us. When you accept a job from someone else, give the area a good once-over to make sure something obvious hasn't slipped through the crack. The question isn't "Who made the mistake?" but "How can I make sure that this job is done correctly in the future?" Make sure you're part of the answer, not the problem.

TAC OUTSTANDING ACHIEVEMENT IN SAFETY AWARD

As TSgt George O'Brien and Sgt Anthony Roberts were preparing for an engine run on an E-3 aircraft while at a deployed base, they noticed that a flight line sweeper vehicle had caught fire and was blocking a primary taxiway. At the same time, an F-15 had just aborted an end-of-runway check and was taxiing back to its parking spot on the same taxiway. The F-15 was within 25 feet of the sweeper when the vehicle caught fire, placing the vehicle driver, the F-15 pilot, and his aircraft in imminent danger. The F-15 could not taxi further forward due to the fire and could not turn around because the taxiway was too narrow.

Recognizing the hazard, Sgt Roberts ran to the burning vehicle to ensure the driver had gotten out safely while Sgt O'Brien notified the Supervisor of Flying, Maj Stephen Wallingford, of the situation. Together they towed a fire extinguisher to the scene and Sgts O'Brien and Roberts used it to fight the fire while Maj Wallingford requested the tower to notify the fire department. By the time base fire fighters arrived, the fire was out and the situation was well under control.

The immediate reactions of Sgts O'Brien and Roberts as well as Maj Wallingford prevented major damage to a host nation's asset and potential injury or damage to US personnel and resources. Their actions have earned them the TAC Outstanding Achievement in Safety Award.

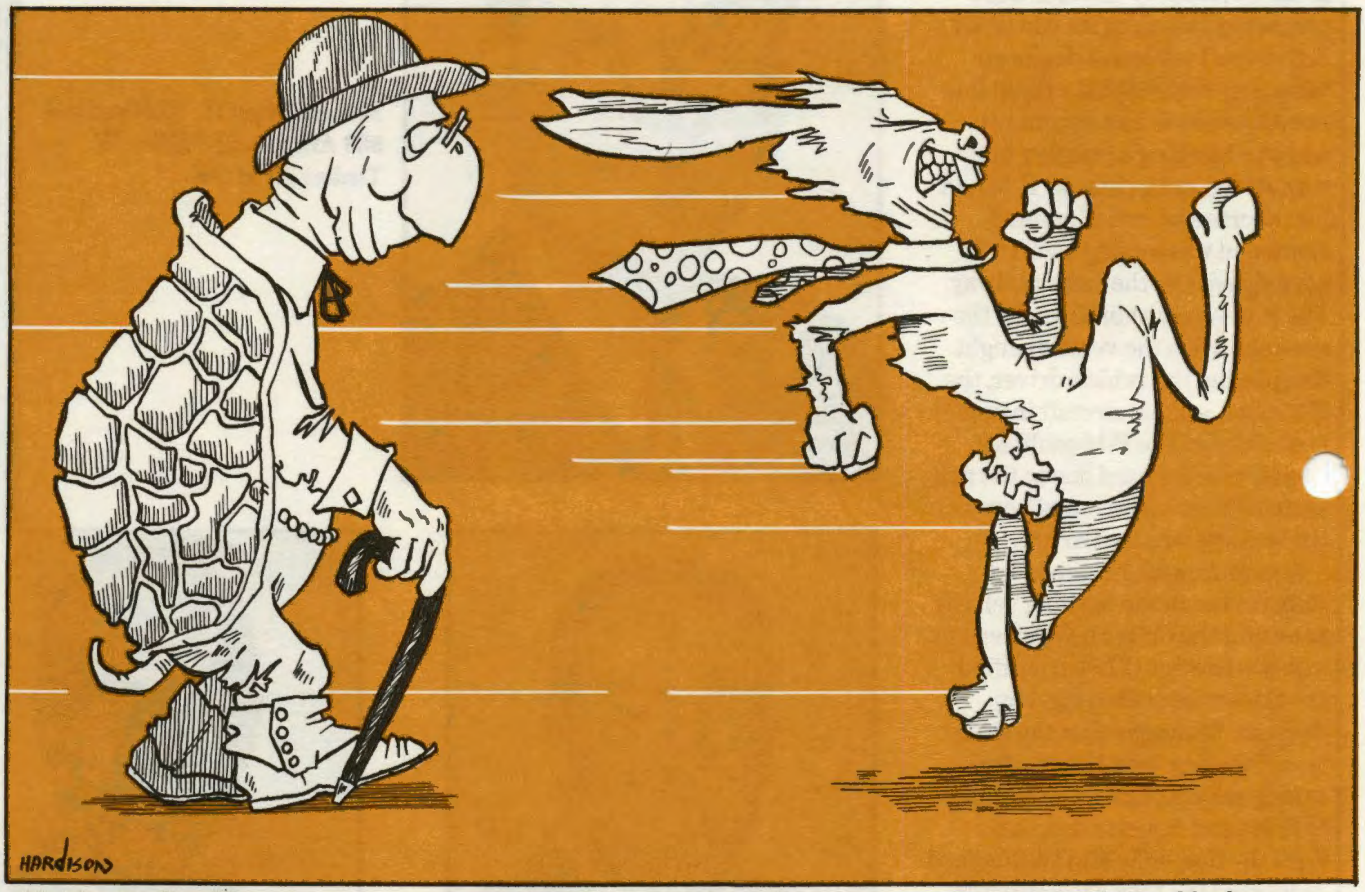
Maj Stephen H. Wallingford
963 AWACS, 552 AWACW
Tinker AFB OK

TSgt George J. O'Brien

Sgt Anthony C. Roberts

552 AGS, 552 AWACW
Tinker AFB OK

THE TORTOISE AND THE HARE:



Maj Sandy Croushore
1912th Computer Systems Group/DO
Langley AFB, VA

The tortoise and the hare both left their offices at 1700 one bright, sunny afternoon and headed for their cars, which were parked next to each other. As usual, the hare leaped into his car, the motor roared to life, and he sped away. The tortoise, being very careful as always, checked his rear view mirror and looked behind him before backing out of his parking place. He saw the pedestrian the hare almost ran over and waited for him to pass before slowly backing out. After coming to a complete stop, he started forward, not at the breakneck speed of the hare, but at a more tortoise-like 10 mph. He stopped behind the hare, who was still trying to get out of the parking lot.

The hare finally saw his chance, swung out into traffic, and hit the accelerator. The tortoise watched as the hare pulled out, causing the oncoming driver (another hare) to slam on his brakes to avoid a collision. The tortoise pulled up and waited for his chance to enter traffic without interrupting the flow. Seconds later, it came, and he smoothly pulled into the right-hand lane and slowly accelerated. He was on his way.

At the traffic light, he saw the

a modern-day fable

hare three cars in front of him, creeping forward every few seconds, anxiously awaiting the green light. When the light finally turned green, the hare sped away. The tortoise was also moving, albeit at a slower pace. The tortoise kept to the speed limit (25 mph) and even waved cheerfully at the hares who passed him every few seconds (traveling at 35-50 mph).

The tortoise and the hare ended up next to each other at the light just outside the gate. The hare was revving his motor, anxious to get home. The tortoise calmly watched the traffic, mentally keeping track of the other vehicles that might cause him problems. Again, the light turned green. The hare raced off, leaving the tortoise in his dust. The tortoise watched the hare weaving in and out of traffic, trying to find the fastest lane. The tortoise steadily moved in the right-hand lane, alert to the traffic around him. Several miles down the road, the tortoise and the hare met again.

The tortoise got into the turn lane in front of the hare. He glanced in his rear view mirror as the hare kept creeping forward, nearly running into his bumper. When the turn signal finally turned green, the hare was caught off guard, and it took several seconds for him to realize he could turn. Meanwhile, the tortoise was already around the corner. Down the road, the hare was fuming at the tortoise's slow speed (35 mph – the speed limit) and passed the tortoise as soon as he could see no oncoming traffic. Unfortunately, the place he chose was just before a curve in the road. He roared past the tortoise, rounded the curve, and saw a truck heading towards him. He quickly veered into the right-hand lane, with inches to spare. As the tortoise approached the truck, he saw the dazed, pale face and shaking hands of the driver.

The hare continued his leaps and starts, roaring past other vehicles, and idling at traffic lights. He finally made it home, hopped out of his car, and ran inside, complaining to his wife about the "idiot drivers" on the road. Fifteen seconds later, the tortoise pulled into the driveway next door. Whistling, he greeted his wife with a kiss and told her about his wonderful day.

A fable? Pure fiction? Unfortunately, this tale is true and it happens every day. The moral of the story? Please drive safely – it doesn't take that much time.

TAC OUTSTANDING ACHIEVEMENT IN SAFETY AWARD

When Airmen First Class James D. Meyer and Jimmey E. Thorson discovered a fire at a building within the munitions storage area, they immediately asked the maintenance operations center to call the fire department as they proceeded to contain the blaze. After fully expending the two fire extinguishers available on their truck, they continued to fight the fire until fire department personnel arrived on the scene.

The quick and determined responses of Airmen Meyer and Thorson prevented the fire from spreading to dry grasses and other munitions storage facilities within the area. Their professionalism and perseverance under adverse conditions saved valuable resources and prevented a disastrous situation from occurring.

AIC James D. Meyer

388 EMS, 388 TFW
Hill AFB, UT

A1C Jimmey E. Thorson

TAC TALLY

	Total		TAC		ANG		AFR	
	SEP	THRU SEP	SEP	THRU SEP	SEP	THRU SEP	SEP	THRU SEP
		FY 88 / FY 87		FY 88 / FY 87		FY 88 / FY 87		FY 88 / FY 87
CLASS A MISHAPS	4	35 / 32	4	23 / 21	0	9 / 7	0	3 / 4
AIRCREW FATALITIES	0	16 / 26	0	11 / 17	0	4 / 5	0	1 / 4
* IN THE ENVELOPE EJECTIONS	3/0	24/0 / 24/1	3/0	17/0 / 16/1	0/0	6/0 / 7/0	0/0	1/0 / 1/0
* OUT OF ENVELOPE EJECTIONS	0/0	0/5 / 0/7	0/0	0/4 / 0/2	0/0	0/1 / 0/2	0/0	0/0 / 0/3

* (SUCCESSFUL/UNSUCCESSFUL)

TAC'S TOP 5 thru SEP 1988

1st AF	
CLASS A MISHAP-FREE MONTHS	
97	318 FIS
44	325 TTW
32	57 FIS
11	48 FIS

9th AF	
CLASS A MISHAP-FREE MONTHS	
67	33 TFW
40	507 TAIRCW
26	354 TFW
20	23 TFW
15	1 TFW

12th AF	
CLASS A MISHAP-FREE MONTHS	
43	58 TTW
36	35 TTW
30	474 TFW
22	37 TFW
18	49 TFW

ANG	
CLASS A MISHAP-FREE MONTHS	
214	110 TASG
189	138 TFG
171	177 FIG
166	114 TFG
130	155 TRG

AFR	
CLASS A MISHAP-FREE MONTHS	
97	482 TFW
87	924 TFG
75	906 TFG
49	507 TFG
36	917 TFW

DRUs	
CLASS A MISHAP-FREE MONTHS	
14	USAFTAWC
6	USAFTFWC

CLASS A MISHAP COMPARISON RATE

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

		OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
TAC	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
	FY 87	7.5	5.8	5.1	4.7	4.2	3.7	3.3	2.9	2.9	3.1	2.8	2.9
ANG	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
	FY 87	4.0	6.6	4.7	3.5	2.8	4.5	3.8	3.3	3.4	3.0	2.7	2.5
AFR	FY 88	0.0	10.6	7.7	5.9	9.5	7.9	6.7	5.8	7.5	6.8	6.2	5.7
	FY 87	21.8	11.7	8.5	12.6	10.2	8.3	7.0	12.2	10.8	9.6	8.5	7.8
Total	FY 88	4.3	2.9	2.4	2.2	2.5	3.2	3.1	3.1	3.5	3.3	3.3	3.5
	FY 87	7.3	6.3	5.2	4.8	4.1	4.1	3.6	3.4	3.4	3.4	3.1	3.0

UNITED STATES PRINTING OFFICE: 1987 - 1988 625-031/11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