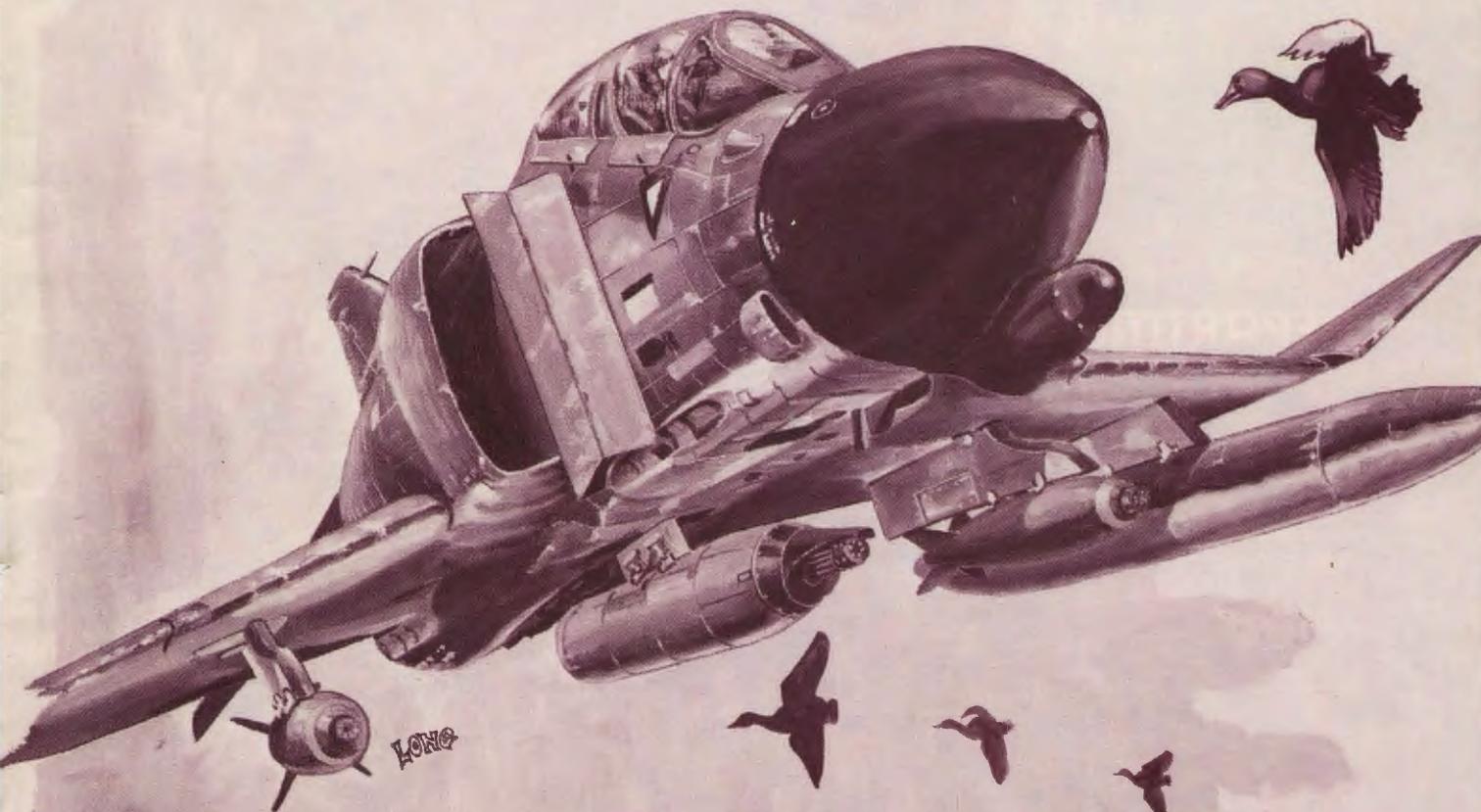


# TAC ATTACK



JANUARY 1976



BIRDSTRIKES... Pg 4

# JAN

FOR EFFICIENT TACTICAL AIR POWER



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### TACRP 127-1

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# Angle of ATTACK

# SALUTE- GOOD ON YA'

COL. J.D. MOORE  
Chief of Safety

## Happy New Year!

That greeting is offered with considerable relief. It feels like we may have escaped from 1975 more than anything else. Put another way, 1975 appears to have been a lousy year with respect to the Safety business. With 26 major aircraft accidents, our rate was 6.1 - higher than any year since 1969 and almost double the 1974 rate. Ground Safety performance was improved in all areas except civilian disabling injuries. Everything else in Ground Safety was down from 1974. The real shining light in this cursory survey was Explosives Safety. We experienced some dumb accidents, but there were only seven, and that shows steady improvement.

You may notice the use of cautious words like "appears" and "cursory." And for a special reason! When you take a closer look at our performance in 1975, you will see that it was a much better year than statistics indicate.

In 1975, as mentioned, we had 26 major aircraft accidents. Ten of those were definite materiel failures. Three more were most probably materiel failures, but there was not quite enough evidence available to allow us to pin it down that fine. We are confident enough, though, to say here that we had 13 materiel failure accidents. Subtract those from our 26 total accidents and we are left with 13 that resulted from deficiencies in areas we can directly influence and even control - operations and maintenance.

In 1974, a banner year for TAC, with a rate of 3.2 and 2 important safety awards, we had 19 major aircraft accidents. Only 5 of those were materiel failures, which left 14 we should have been able to prevent.

So, if we take the liberty of discounting materiel failure accidents in both 1975 and 1974,

the number of accidents left for both years compares favorably. Thirteen in 1975 versus fourteen in 1974!

Now, discounting materiel failures for both years and recomputing rates, 1975 produces 3.0 and 1974 drops to 2.3. But, if we also take away the pad provided by the comparatively accident-free transport flying hours recorded in 1974 and early 1975, the rates are 3.3 for '75 and 3.3 for '74.

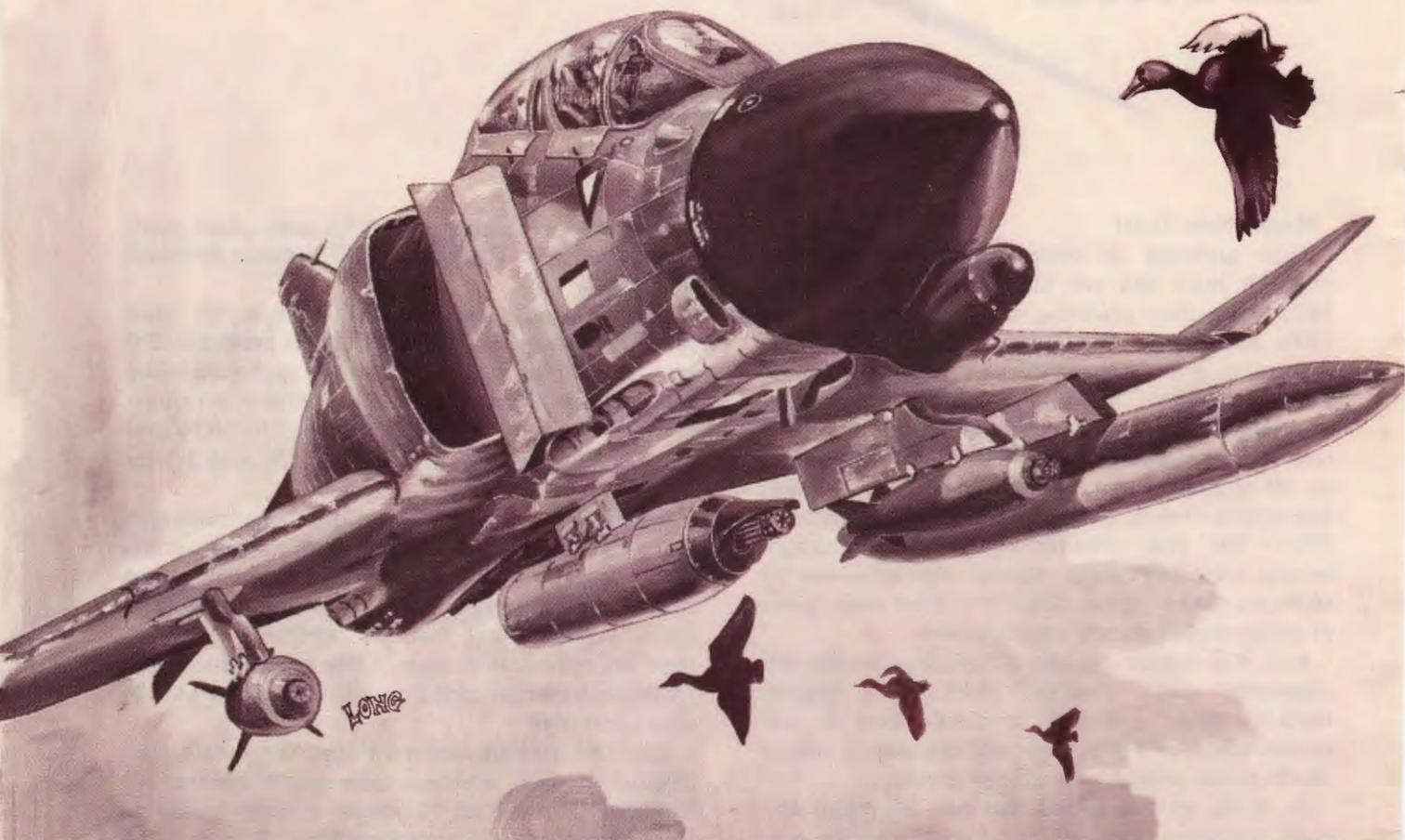
Reflecting once again on the improvements made in explosives and ground safety areas together with our "corrected" version of flying safety performance, we see a better picture. While we still feel that we survived '75 more than we defeated it, your safety record insofar as those factors you could control is a good one. A very good one!

Our TAC-gained reserve forces were also successful in their accident prevention efforts. Air National Guard had 14 major aircraft accidents for a rate of 5.2. Five accidents less than in 1974 and only two more than their best year out of the last five. Our Air Force Reserve partners turned in the best performance of all with one accident and a rate of 2.4.

We at TAC proudly salute you folks doing the job. We believe that the record truly reflects conscientious effort and close teamwork dedicated towards accident prevention. In other words - good on ya! Successful safety programs will continue to demand maximum effort. You should not expect nor accept less from yourself or those you work with. The mission - safely - must remain our goal in '76.

Have an extra good one!

# Birdstrikes...And the Ejection Seat



**By Mr. Michael R. Grost  
Martin-Baker FSR, PACAF**

Unfortunately, the sky is not man's natural domain. Each year a large number of our feathered friends prove this fact beyond any doubt by slamming into aircraft which are in flight. In 1974 alone, there were 465 reported birdstrikes in the USAF and since 1969, the rate of these encounters has at least doubled! While certain measures can be undertaken to help reduce the likelihood of these engagements, in the end, much must still depend upon the pilot's readiness to react correctly, should a birdstrike occur. This, of course, is an easy

statement to make, but many questions remain unanswered. How, for example, can one be completely prepared at all times for this type of eventuality, or could anyone possibly estimate the damage which might be caused? These points are valid, as the prevailing circumstances for a birdstrike are fairly unpredictable. But a great deal of disturbing facts are already known. For instance, the impact force of a 2-pound bird at 250 knots equates to over 17 million foot pounds of devastation. The effects of such a hazard are apparent. Therefore, all a flight crew

can really be expected to do is to comply with all safety directives insofar as potential geographical birdstrike areas, etc, and of course, know as much as possible about what actions should be taken if a birdstrike occurs. With this in mind, let's take the subject of birdstrikes and look at it not only from the vantage point of what it is like to have that feathered object come crashing into your cockpit. Let's also review some safety reminders of how such a happening could affect your escape system.

Recently at Clark AFB, another birdstrike statistic was etched into the historical records, when a white medium size bird (with its wings folded) collided with the cockpit area of an F-4D which was on a range mission. Fortunately, both crewmembers escaped serious injury and the aircraft was landed safely. Here is the aircraft commander's story:

... "We were about 100 miles out from shore in a basic spread formation, with our aircraft as flight lead. At this time, we were traveling at 420 knots and were about 500 feet above the water. At about 35 miles from the target I was getting ready to push it up, when I looked out to my 11 o'clock position and I noticed this white blur. I don't know why, but I knew right away it was a bird. It was too small and fast moving to be very far away or anything else and I had just about enough time remaining to move my head a little bit to the right. I didn't have time to move the airplane drastically and I was too close to the water to do anything much. It's difficult to say how far out in front it was when I first saw it, maybe a matter of 20-30 feet, it was just like that - Zap! I also knew it was coming in. It was just too close to miss me. I didn't even have time to mutter Oh -O!x\*\* or anything, when it hit the left quarter panel of the windscreen. I did not see it actually hit because I guess I blinked and flinched, and it was through.

"We were still doing about 420 knots and my backseater had his head down in the radar scope, so he had no idea what happened. He later told me that when he saw all the feathers flying round, it wasn't hard to guess what had happened. However, he became worried about whether I was still alive or injured in the front seat. I heard him ask me three times at increasing volume levels if I was OK. About the second time he put his hands down on the stick and throttles. Meanwhile the aircraft was fairly

steady and although he could feel me on the controls, he still asked a couple of more times to be sure. While I could hear him, he couldn't hear my answers for some reason. The intercom was working, but I guess it was the loud sound in the cockpit affecting the microphone or head-phone system. Consequently, my first words were severe to him.

"I eased back on the throttles just a bit and started the nose up about 5-10 degrees in a really gentle maneuver. We were still close to the water and I did not want to be in that position or going that fast, in case something else went wrong. At the same time, I didn't want to make any drastic motions. There was a crack in the windscreen from the left base quarter which ran all the way back from the hole to the first cavity well. It was a pretty big ol' crack, which looked like it might lead to a third or a half of that left quarter panel coming out and falling in. So naturally, I figured that if I was going slower it would not have such a good chance to do it. After getting a little more altitude, I had more time to think things out, but I still did not know if the backseater was OK. Although he kept asking about me, I still didn't know whether he was hurt.

"The windblast really didn't bother me too much and it was a little like driving on a highway at high speed with the windows open. Once or twice I looked through the hole to check it out, but did not make a habit of it, in case something else flew through! I kept looking around the outside of the aircraft, but could not see any other birds. Being out front in the flight you can generally see a flock, but in this case I did not see any. About this time, it became much easier to talk to one another. Control was no problem and we began to head back towards base.

"The next thing that really bothered me was that after I had told my backseater I was OK. I began to have real doubts about my condition. It was a strange feeling which I have never had before, but I seemed to know that if I was hurt really bad I might still not know about it. Consequently, I was afraid to really look around too much, particularly at my left shoulder where I had felt most of the pieces hit. Most of the bits had felt like small particle-type debris, but I could have amassed a larger hit and not realized it. This doubt was unnerving. To a degree, it had the sensation that I had walked through a cactus, with the little fragments of plexiglas act-

ing like the spines. As time passed by, I dared a few looks around, and moved my left hand up and down like a throttle motion. My fingers, hand and arm all seemed to work well. Next, I moved the stick around a little with my right hand to see if it responded normally and again everything seemed fine. At this point, I finally looked across at my left shoulder and there was blood leaking all over the place. Everything looked really messy, but knowing that my limbs functioned, I was all the more convinced that I was OK and that everything was just bird debris.

"Meanwhile the rest of the flight had pulled up with me. Maybe they thought that I had pulled the target pop-up about 80 miles early! My number two was also getting in close to see what was wrong, so I told three and four to continue on to the target and for two to come back with me. Our speed by then was about 250-275 knots, not because of anything I had remembered from Safety Supplements or the like, but more because of the noise. I could talk on the radio better and communicate with my backseater. Of course, there was still the same concern about the crack in the windscreen. We pressed on back, but I still knew that if the windscreen went, we could be in serious trouble.

"On the way back, we notified everyone of our emergency, how much fuel we had, where we were headed and what was happening. The transmissions generally had to be made more slowly and spoken very carefully; if I talked too quickly they lost some of the words. About 15 minutes had now transpired since the birdstrike occurred and at 15,000 feet I had regained confidence. However, I still considered that the more flying time we took, the worse we would be, so I requested a straight-in GCA. I had also asked for egress to be out there at the end of the runway where I was landing, just in case there was a slim chance something had lodged itself in the seat. The landing was then more or less uneventful.

"I pulled off the runway and as we had left the canopies down throughout our landing checks, everything was now ready for egress to check us. They carefully inspected both the firing linkage mechanisms of our ejection seats, and having verified that they were clear, told me to shut down the engines and open the canopies. Although I had a few bruises in my left shoulder, they were very minor and neither of us were injured. Mine mainly consisted of little black and

blue splotches which I think were caused by the plexiglass. As for the bird, I think they figured it was a 2-3 pound sea bird, like a tern. One definite thing I did do later - my helmet previously had a single sun visor, which I had down at the time of the birdstrike, but the helmet had not been modified to a dual visor. Now it has dual visors - one visor will always be down from now on ..."

Little can be added to this interesting narrative, except to re-emphasize again that debris from a birdstrike in the cockpit can produce a serious FOD potential to critical ejection seat firing linkages. If you sustain a birdstrike, please consider these points:

a. Immediately after the impact, communication problems may occur from the intruding airstream. Determining crew injuries is important, but may be difficult.

b. Upon verifying that control is still being maintained, insure that you are in a good position to eject, should the need immediately arise.

c. With cracks present in canopy or windshield sections, airspeeds may need to be slowed to reduce the possibility of further debris implosion.

d. Appearance of bird remains splattered across you and the cockpit can definitely be unsettling. Be prepared for these shock-inducing effects.

e. After a normal landing, under no circumstances should crewmembers unstrap from their ejection seats or raise either canopy until seat firing linkages have been visually checked by competent personnel, such as egress.

f. Evaluate your own flying helmet and its capability to protect you at all times. A dual visor may protect you and save your sight, as did the visor being used by the jock in the above incident. That's really worth thinking about.

g. Be knowledgeable of birdstrike preventive measures and use standard precautions whenever possible.

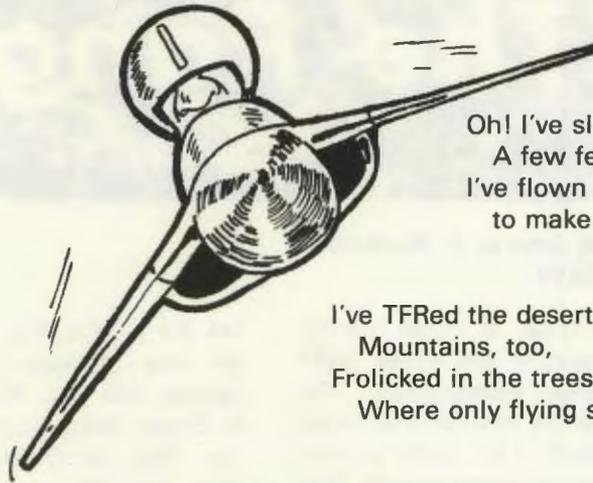
Oh, did you know, that Starlings have been known to congregate in a flock of 15-20 million birds - that the highest birdstrike occurred at 37,000 feet - that a chicken was hit at 800 feet AGL - or that the heaviest birds which fly weigh in excess of 20 lbs? Now let's see, a 2 lb bird equals 17 million foot pounds, divide 2 into 20 x 17 million .....!!

Protect yourself against BIRDSTRIKES - as much as possible. ➤

# LOW FLIGHT

*None of which is calculated to enhance one's career or increase one's longevity. . .*

**By Capt Bill Sadler  
390th TFS  
Mountain Home AFB ID**



Oh! I've slipped through swirling clouds of dust,  
A few feet from the dirt,  
I've flown the Aardvark low enough,  
to make my bottom hurt.

I've TFRed the desert, hills and valleys,  
Mountains, too,  
Frolicked in the trees,  
Where only flying squirrels flew,

Chased the frightened cows along,  
Disturbed the ram and ewe,  
And done a hundred other things,  
That you'd not care to do.

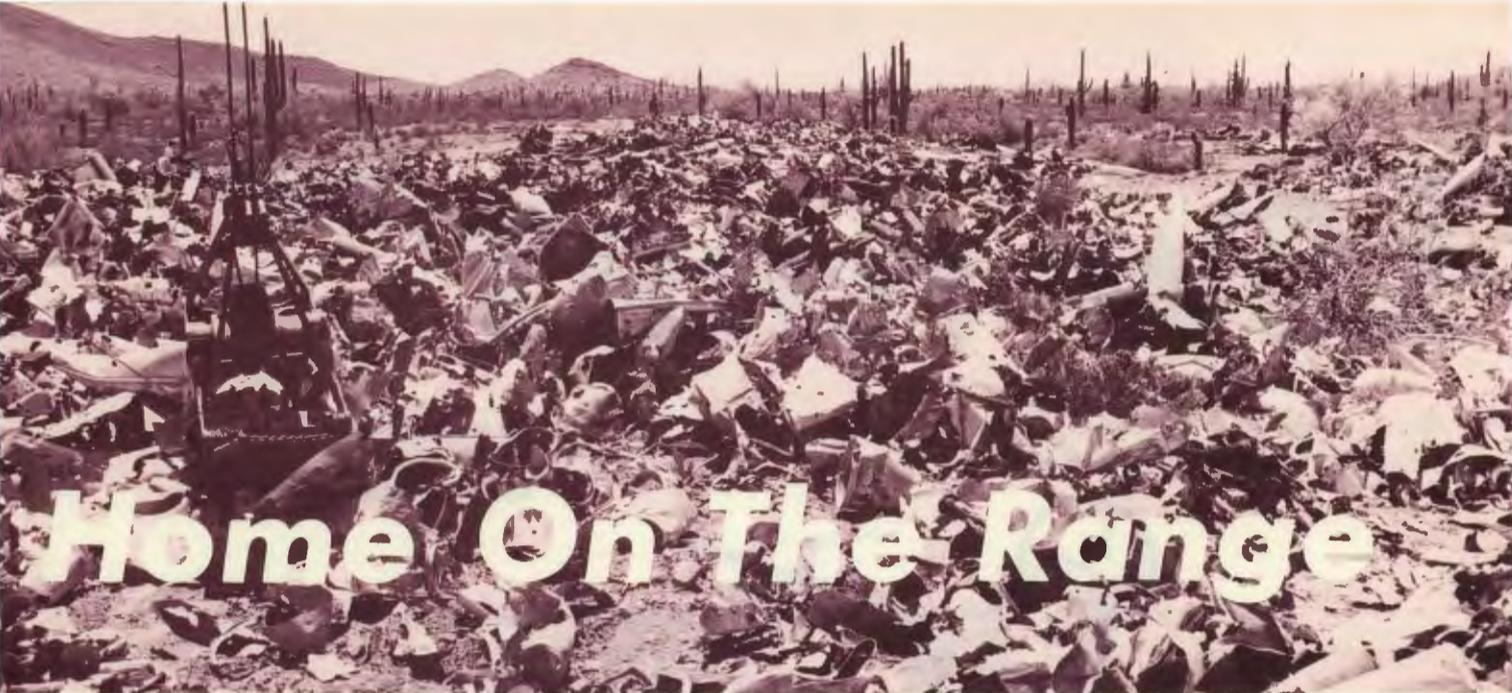
I've smacked the tiny sparrow,  
Bluebird, robin, all the rest,  
I've ingested baby eagles,  
Simply sucked them from their nest.

I've streaked through total darkness,  
Just the other guy and me,  
And spent the night in terror of  
Things I could not see.

I've turned my eyes to heaven,  
As I sweated through the flight,  
Put out my hand and touched,  
The Master Caution Light.



*With deepest apologies to John Gillespie Magee Jr.*



# Home On The Range

Home on the range

By Maj John N. P. Reisbick  
TAC/SEW

**A** certain cowboy movie star once popularized a western song, "Home on the Range." He spent hours rounding up strays - cattle and wayward citizens - all over the Southwest. No doubt some of the range he roamed is now occupied by two of TAC's largest land areas: Luke Range complex at Gila Bend and the Nellis Range complex at Indian Springs.

TAC employs a great number of modern day "cowboys" engaged in the roundup of

modern strays at these two locations and at the other eight TAC range complexes. The strays are the tactical munitions items which TAC units expend on the ranges each month. This article is dedicated to the people who round up these strays.

Tactical munitions come in all sizes, from MK-24 flares and 2.75" rockets to AIM-9 and AIM-7 missiles. Add bombs of all sizes and types, from MK-106 and BDU-33 (5-25 lbs) to

MK-84 (2,000 lbs) and you get an idea of how cluttered the ranges can get. What happens to these items once expended? Are they removed? Who gets that job? These are points to ponder and the point of this story.

As mentioned earlier, TAC has 10 range complexes of various size and scope. Consider, for example, the Nellis complex, operated by the Tactical Fighter Weapons Center. This is TAC's test range



where many of the newer munitions are tested in a tactical environment. This range also includes manned/scored gunnery targets used by TAC active and reserve forces and naval aviation units. Most of the range is divided into tactical targets.

TAC also has two other large range complexes which are primarily training ranges. Avon Park in central Florida serves Ninth Air Force and Luke at Gila Bend serves Twelfth Air Force. Both ranges include manned/scored gunnery targets as well as numerous tactical targets. The remaining seven range complexes are used for training. TAC-gained reserve forces also have ranges that are used for training - 13 in all.

Back to my point. What happens to all the aluminum, brass, iron, lead and other metals that are dropped, fired, and deposited on our ranges? In some cases, the metal has been allowed to accumulate for years. Headquarters TAC has recently established the frequency of range clearances. All ranges either have cleared their target areas, are currently clearing the range, or have target clearance scheduled. In some cases, operational re-

quirements -- the need to crank out aircrews to fight the bad guys -- have delayed range clearance and maintenance. In other cases, the ranges were cleared but the junk (munitions residue) was handled as shown by the photos.

You may ask, "Who does the work?" Well, AFM 50-46/TAC Sup 1 sets the rules. Support bases, or combat support squadrons in the cases of Nellis, Gila Bend and Avon Park, provide operational control and maintenance support. Explosives Ordnance Disposal (EOD) support is provided by the local EOD detachment. Range maintenance personnel handle most of the manned/scored target maintenance and assist EOD during range clearance operations.

Unless you have visited a TAC range or participated in a range clearance operation, you may not appreciate the scope of the problem. Ask someone who has spent days trodding through the muck of Avon Park, Dare County; or Claiborne Ranges, or the sand and dust of Gila Bend, Indian Springs, or Melrose. Troops assigned to the ranges earn their pay. It is hot, dirty, unglamorous work to keep the ranges in shape -

necessary work - and our hats are off to them.

A few words of caution to you who work on the ranges or supervise operations. In your efforts to get the job done, sometimes a few corners get cut. During recent visits to some of our ranges, we noted a number of soft spots in range safety programs that detract from all the fine work accomplished. If you supervise or participate in range maintenance and clearance operations, you may notice something that will improve your safety program and make your job easier and certainly a lot safer. Take a look at the following "quickie" checklist.

Is a range explosives safety program in effect? Is it published in an appropriate directive?

Are range clearance operating procedures published?

Is an additional duty range safety NCO appointed? Is he trained?

Is munitions residue inspected by EOD prior to being handled by range personnel?

Are range personnel briefed by EOD upon initial assignment to range duty and quarterly thereafter?

Are range personnel familiar with hazards they may encounter on the range?

Are targets, impact areas, and residue burial sites posted? Are they identified on range master plans?

Yes, range clearance and maintenance is hard work, but it can be made easier and safer by conscientious management and planning. Get the proverbial "handle" on the situation at your home on the range. Do the job the right way - the safe way.

Have a good roundup. ➤



# big mother can kill



There was a time when a good many pilots' philosophy could be expressed as "everybody's trying to kill me." Sound paranoid? Perhaps. But a lot of people survived World War II simply because they believed it, and acted accordingly.

They didn't believe that a wartime aircraft company could find 35,000 additional highly skilled assemblers by placing an ad in the paper. They couldn't accept the idea that their 19-year old crewchief, fresh off a farm in Arkansas, had matured into a combination master mechanic and flight engineer in three months. Or, that the weather briefing officer has been transformed from a bank teller into a first-rate meteorologist in a similar length of time. They were skeptical of everything and everyone, regardless of position, rank or credentials, and they often found that skepticism was justified.

Between then and now, aviation has become a highly sophisticated business. Aircraft and hardware have been developed to an undreamed of degree. Freed from the exigencies of war, a highly trained body of specialists has taken its place in the aviation field. And most significantly, FAA (Federal Aviation Administration) has developed from a few sleepy individuals tuning communications receivers in radio range stations into a huge authoritarian complex with an air force of its own, a representative in every neighborhood, and a mandate from a nervous air traveling public to keep pilots on a safe and narrow path from takeoff to landing.

Nowadays pilots engaged in their normal duties of getting a highly vulnerable conveyance from point A to point B interface with a whole body of experts and specialists who not only are qualified by regulation to advise, but many of whom, as FAA representatives, are charged with making sure that advice is adhered to, as in the case of air traffic controllers.

Unfortunately, after just so much coping with "Big Brother," the tendency is to begin to see

# you

By Captain Marshall Hydorn  
Courtesy TWA "LANCET"

"Big Brother" as "Big Mother," and eventually to be found sucking at the breasts of the regulatory agency. "everybody's trying to kill me" is supplanted by "they couldn't lie to me. They're there to help me." Or, "they wouldn't allow the carriers to operate an unsafe airplane."

The truth is that FAA is just people, and people have a measurable failure rate. Particularly in dealing with controllers, pilots must retain the natural wariness that has proven successful in the past. Skepticism is indicated, even necessary, when on the ground or in the air in the terminal area.

In an increasing number of recent accidents the National Transportation Safety Board (NTSB) has found controllers to be causal factors. Could it be that the real trend developing is an attitude of complacency and a decline of skepticism on the part of pilots?

Recently, a TWA flight awaiting takeoff observed a near-miss between a light plane and an air carrier aircraft taking off. The TWA plane was then cleared to take off only to have another light plane taxi across the runway in front of it after the takeoff clearance had been issued. An observing FAA controller riding in the cockpit told the crew that the flight plan situation around Denver was, in his opinion, "out of control" and more than ATC could handle. Two light plane midair collisions have occurred in the Denver area in recent months.

Criticism of control practices is found in the NTSB report of an accident at St. Louis: "Through the use of radar incapable of displaying different levels of precipitation echo intensity, controllers vectored several aircraft through a solid squall line which contained severe thunderstorm and tornado activity . . . in our opinion this was a very dangerous practice because the controller's radarscope display did not indicate whether the line of echoes contained a severe thunderstorm or tornado."

A Boeing 331-C cargo aircraft suffered major damage recently while landing in conditions advertised to be Category I by the tower. The tower neglected to issue a new RVR (runway visual range) to the flight as conditions worsened and RVR fell to 1,800 feet during the approach. As a result, the captain, who had already made it known that he would divert if conditions worsened, was led unknowingly into attempting a landing on a Category I runway, with Category I landing aids in actual Category II conditions. The controller also failed to inform the crew of the fact that an air carrier aircraft, lost on the fog-shrouded taxiway, had actually parked on the high-speed taxiway the TWA flight would most likely have used, just feet short of the runway.

No need to belabor the point, but it's common knowledge that the O'Hare tower was found to share in the responsibility for the collision between a taxiing aircraft and one in the process of taking off from the field.

If you've gotten the idea that this is a diatribe against controllers, forget it. Controllers are a highly trained and able body of men whom pilots respect and admire for their professionalism. The key here is that pilots need to remember that controllers are men. That voice crackling in the headset doesn't issue from some sacrosanct, infallible embodiment of the agency. Controllers, like ILS components, are subject to failure - but they don't display warning flags. Like pilots, controllers have marital difficulties, grow older, occasionally forget, can be distracted and are definitely overworked.

And by the way, when you make the list of all those who are "trying to kill you," don't forget to include an occasional dispatcher, the maintenance foreman who thinks his job description includes salesmanship, and last, but not least, the guy in the other seat. But that's another story. ➤

# TAC TIPS

The wise may learn many things from their foes.

Aristophanes

## ***ALONE, UNARMED, AND UNPROTECTED***

An RF-4C was holding in the published holding pattern at a Southwestern naval base. While in the pattern, the pilot noticed another jet diving and climbing through the holding pattern airspace. This ruffled our aviator's tail feathers, and when he got back home he talked to his safety officer who sent a message to the NAS about the incident.

Investigation revealed that the holding pattern for the approach is not coincidental with a federal airway, but the holding pattern and approach portion of the TACAN procedure are located within an "Alert Area" ... "airspace which may contain a high volume of pilot training activities or an unusual type of aerial activity." These areas are marked on low altitude charts prefaced with an "A" (e.g., "A-201A"). The Phantom was on an IFR flight plan, but operating in VMC below FL 180. Therefore, the other aircraft was perfectly legal. In fact, he could have done acrobatics through the holding pattern airspace since it wasn't on an airway!

It's the same old story, guys ... when you are in VMC, keep the eyeballs moving. Even if you are on an IFR clearance, you're only guaranteed separation from other IFR aircraft, even if you are within a designated holding pattern.

interest items,  
mishaps  
with morals,  
for the  
TAC aircrewman

## ***FIRST THE GOOD NEWS***

A "Chicken" model F-4 pitched out for a full-stop landing. Final approach and touchdown were normal. Approximately 400 feet after touchdown, the left main tire blew.

Nose gear steering was engaged, anti-skid disconnected and tailhook was lowered. Aerodynamic controls and light opposite braking were used to keep the aircraft on the runway. The jet stopped with 5,500 feet remaining and 25 feet left of centerline.

Why include this in a TAC Tip? We don't often get a chance to show what happens when an aircrew does everything right. This aircrew did, and the aircraft was stopped on the runway with minimal damage. Here was a perfect example of a crew who knew what they were going to do before the emergency occurred. Their response was cool, professional and correct. Moral? Know your aircraft and procedures. Then, when you have an emergency, apply them. It works.

## ***PUT PRIDE IN IT'S PLACE***

A flight of four Phantoms was returning from a range mission. While descending in preparation for landing, the leader split the flight into two elements because of weather at the home drome.

While being vectored to avoid weather, the lead element encountered heavy rain showers

and light turbulence. The flight had been in the rain about 5 seconds when the lead WSO stated that he lost sight of number two. A thump was felt and the WSO stated they had been hit by two. Lead asked the wingman if he was OK and received an affirmative response. The flight then broke out of the clouds, performed a controllability check and landed. Fortunately, damage was limited to a bent stabilator and dented drop tank.

What caused the collision? The wingman delayed executing the lost wingman procedure when he lost sight of lead. Why? No one knows for sure, but pride could be a part of it. Everyone knows that when pride was handed out, fighter pilots took most of it. That is good - if worn properly. But sometimes, it can get you between a rock and a hard place. No pilot likes to be told he can't hack it, but there's no stigma to using that lost-wingman procedure. If anyone says there is, he's a fool - and he may cause an accident. Let's put pride in its place - temper it with good judgement and common sense.

## **GEAR CHECK**

Here's one for all you guys flying two-holers. A T-38 IP was startled during nose wheel touchdown after a normal landing when the red light came on in the landing gear handle. Then the nose gear and right main gear retracted. The aircraft slid in this configuration until departing the runway, 3,800 feet from the runway threshold. Examination revealed the rear cockpit landing gear lever in the down-position and the front landing gear lever in the up-position. What happened? The landing gear control interconnect cable failed.

The IP, flying the aircraft from the rear seat, lowered the gear and flaps. Three green were checked in the rear cockpit and the student confirmed three green in the front cockpit. However, the stud in the front seat did not check the actual position of the landing gear lever - which had stopped at an intermediate position. When the nose wheel touched down, the front cockpit landing gear lever moved to the up-position and the nose and right main gears retracted.

*Moral: If you fly an aircraft with more than one landing gear lever, make sure you check the positions of both landing gear handles as well as checking for three in the green.*

## **OUT OF TRIM HUN**

During the rejoin with the tanker, the F-100 pilot found that the aft stabilator trim was inoperative (slab leading edge down). The Hun was trimmed for 370 KIAS and considerable stick force was required to maintain level flight below 300 KIAS.

The jock attempted to set takeoff trim, but this feature was also inoperative. Half flaps were selected and the stick forces lightened enough to maintain control. A straight-in approach and uneventful landing were accomplished. After landing, the stab trim began working normally again.

The culprit was the trim actuator motor. The motor would operate intermittently - occasionally failing to operate in one direction or the other. This trim motor was an older type that is no longer in stock and is replaced on an attrition basis.

Trim problems can be serious in fighter aircraft and this jock did a good job in analyzing the problem and making a nice landing - even with control difficulties. Know your jet, its limitations (and yours) - it'll pay big dividends.

## **ANAS STREPORA ATTACKS PHOTO PHANTOM**

An RF-4 was on a night low-level mission at 1200 feet AGL and 420 knots when a loud thump and shudder were experienced. A left climbing turn was initiated and the pilot noticed the number two engine EGT at 700 degrees at military power. Engine power was reduced and an uneventful RTB and landing were made.

Post flight inspection revealed that a Gadwall Duck (ANAS STREPORA) had ricocheted off the number two engine vari-ramp and impacted inside of the right intake duct.

This was the second time during a 3-day period a Photo-Phantom was involved in midair with a bird during a low-level mission. Both occurred in the Southern United States where birds migrate in the winter. Whenever you're doing low-level work, extra attention should be paid to your route of flight. Routes should be designed to avoid areas where birds nest or feed heavily -- such as swamps, lakes, rivers, etc. If large flocks of birds are noted, report their location so this area can be avoided by other pilots.



# CHOCK TALK

chock talk

*...incidents and incidentals  
with a maintenance slant.*

## **LOAD CREWMEMBER GETS BOMBED**

The munitions load crew had completed four aircraft loadings. They were in the process of loading the fifth with BDU-33 practice bombs in a SUU-21 and on the left inboard TER. The BDU-33 were positioned under the left inboard pylon and a load crewmember installed a bomb on station 2 of the TER. He thought the bomb was locked in and gave it the shake test, pulled the cotter key safety device and began to tighten the forward sway brace. While tightening the sway brace with one hand, he reached down for the rack safety pin with his other hand. At this time, the BDU-33 fell off the TER station.

The signal charge activated upon contact with the ramp. The flame struck the airman on the right side of the body and head, igniting his hair and the right shoulder of his fatigue jacket. The other members of the load crew responded immediately and extinguished the blaze.

This airman was lucky. He only received minor burns and was released from the hospital the same day. It could have been a lot worse. Members of load crews have lost fingers and eyes because of not following Tech Data while loading practice bombs. The BDU-33 is only a practice bomb, but the spotting charge is powerful enough to injure or cripple you. When working with them, use caution. Handle them the same way you would handle a MK-82 - and use the Tech Data.

## **CONTAMINATED FUEL**

The O-2 was being fueled for its first flight when the crew chief noticed a peculiar odor coming from the left main tank. Later, he checked the left main sump and drained one to two quarts of clear foamy liquid from the tank. The fuel sample was analyzed and found to be 115/145 AVGAS contaminated with JP-4. Samples from the other tanks were taken and found to be within specifications for 115/145 AVGAS. The fuel truck was checked and it contained AVGAS.

What happened? The location where the O-2 was being fueled had just switched from JP-4 to AVGAS five days earlier and this was the first refueling from the truck. The truck's tanks had been purged - but its overwing pump had not been properly purged. Result? Contaminated fuel.

Thanks to a sharp crew chief, an aircraft incident (or disastrous accident) was averted. Hell of a good job, Chief!

## **DON'T SIGN IT OFF UNLESS IT'S DONE !**

The F-4E was on missed-approach from a practice GCA. When the flap lever was raised, trailing edge flaps did not move. The master caution light and check hydraulic gauge read zero. The gear and flaps were lowered pneumatically and a GCA approach and approach-end barrier engagement were made.

Investigation revealed that the cause of the utility failure was materiel failure of the left wing flap upline. TCTO 1052, which calls for the replacement of the aluminum flap upline with a steel line, had not been complied with. The aircraft records, however, indicated that the TCTO had been completed 8 months earlier at another base.

This is the second time in a month that investigations have uncovered signed-off work which had not been accomplished. The first was discovered during a major aircraft accident investigation. Whether the problem results from sloppy administrative procedures, poor inspection techniques, inadequate supervision or simple pencil-whipping, we must put an end to it. *If the job is not done and done right, don't sign it off!*

## SUNGLASSES AND CRASHES

During the early morning hours, the driver of a one-ton van was dispatched to pick up a worker on the flight line. He entered the ramp and made a left turn at the entry point. He then proceeded straight ahead and impacted the right trailing edge wing fold of a parked F-4. The driver stated that he had not seen the aircraft.

How could anyone not see such a large obstacle? The driver was wearing sunglasses prior to sunrise. By the time he saw the Phantom, it was too late.

If that doesn't scroll your nurd, try this one:

The airman was in the process of making a U-turn around a power pole in the parking area of a weapons storage site. As he came around the pole, he struck a supporting guy wire. Why didn't he see the wire? The sun was shining directly in his eyes. He wasn't wearing sunglasses.

Let's try and use common sense. When it's dark out, don't wear sunglasses - even if it does look cool. When the sun's out, use them. Sunglasses help reduce glare and reduce the possibility of getting momentarily blinded by the sun.



# FLEAGLEGRAM

## RESPONSES FROM THE FRONT

Fleag -

The F-4 Dash-One states that CNI operation on ground power is limited to 10 minutes total in a 1-hour period. Crews carefully adhere to this restriction, even when the loss of communications by turning off the CNI is very inconvenient.

However, maintenance types claim this is unnecessary. Communications technicians claim they leave the CNI on with just ground power for long periods while repairing radios. They claim the 10 minute limit only applies if the radar is on. Since aircrews never turn the radar on unless the engines are running, there is no need for a CNI limit on ground power.

So ... EITHER

a. Aircrews need not worry about CNI operations since the radar is off on ground power and the restriction is just another useless number.

OR

b. Maintenance types are overheating the communications gear and creating more radio problems

and associated emergencies than they are curing.  
What's the straight word?

Safety Officer

Dear SO,

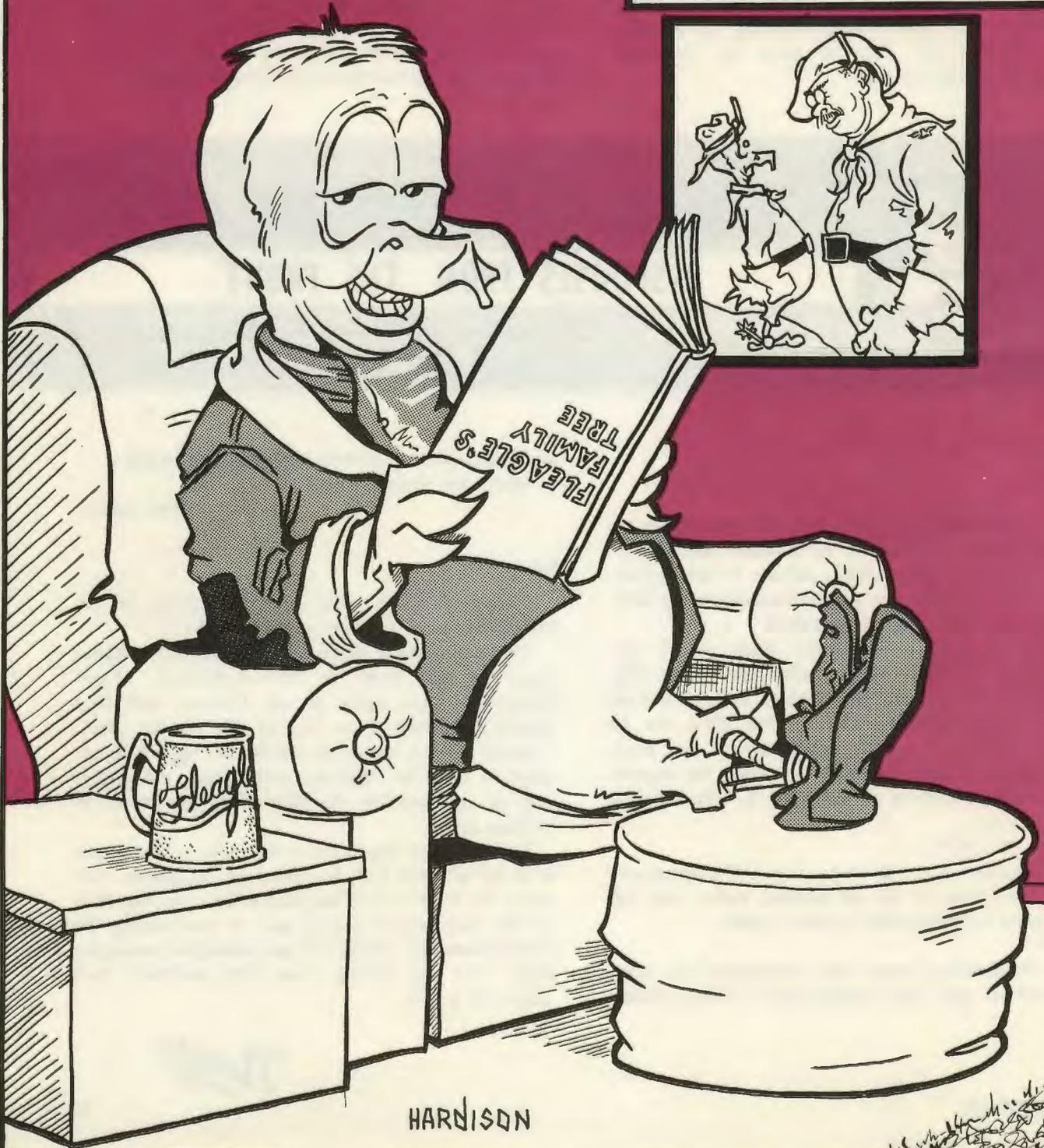
Rob and Griff were sent scurrying to the maintenance nest to check out your squawk.

The maintenance manual that covers CNI limitations for the F-4E is TO 1F-4E-2-14. (These limitations also apply to the Chicken and Dog Model Phantom). Para 2-23 of this manual states: "During ground operation, cooling air should be applied to the CNI. Without cooling air, the system may be operated for 10-minute intervals spaced 50 minutes apart."

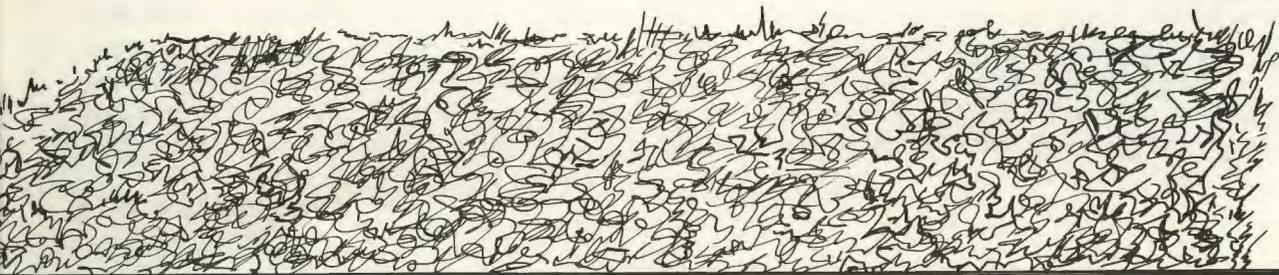
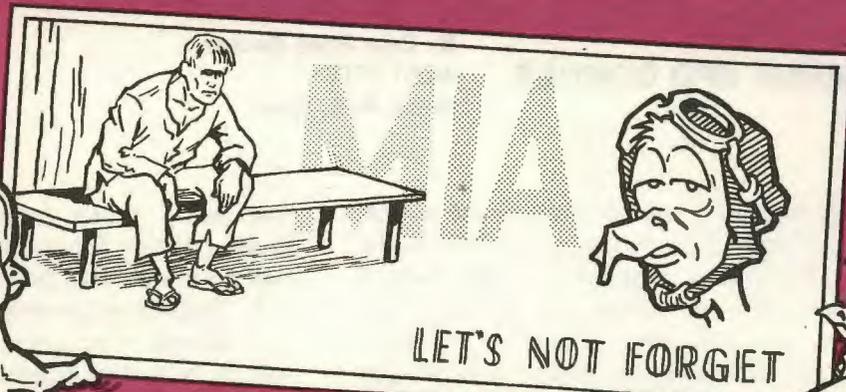
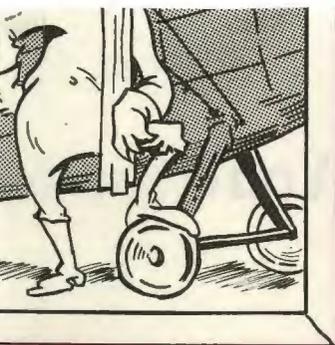
As far as the operation of the radar is concerned, it is not affected by CNI operation. It appears that either the Rumor God has gotten loose on your base or the maintenance troops may be overheating the communications, navigation and identification equipment. Are you having more CNI problems than other F-4 wings?

*Fleagle*

FLEAGLE



HARDISON



# Flight Control Disconnect Switch-What Does It Mean To You?

**F-111 GUEST SPO CORNER**

By Capt Ross Becker  
442d TFTS  
Nellis AFB, Nev

**W**hat does the flight control disconnect switch mean to you? Does it really disconnect the flight controls as the name implies? Is it the switch you will scramble for when the ol' Aardvark decides to do its own thing? Checklist procedures for unscheduled pitch, roll or yaw maneuvers ignore the flight control disconnect switch. How can you ignore a red-guarded switch? Well, let's look at the functions of the FCDS (one more acronym, please) and attempt to give it the priority it deserves.

Functions of the FCDS can best be described by stating its purpose for being in the aircraft. It provides a means of alternatively deactivating those features of the flight control system which are not protected by triple redundancy. Before

discussing those features, let's start with the flight control functions upon which the FCDS has no effect. The Dash-One lists:

1. Stability augmentation.
2. Series trim while the auxiliary pitch trim switch is in stick position.

This means that the FCDS has little effect on how the F-111 flies! Stability/command augmentation encompasses 90% of the "magic" of the flight control system. Take a look at the figures in the Dash-One labeled Pitch, Roll, or Yaw Channel Electrical Schematic (TYPICAL)! Notice that the FCDS is always an input signal to the computer - not an output. Follow the line out of the computer and name the switch that interrupts the signal to the damper. That's right -



## Attitude Problem?

By Capt Dan Brown  
HQ TAC/SEF

During 1974, a Voodoo, recce type popped into a 900-foot ceiling on a locally required noise abatement climb. Upon terminating AB, the attitude indicator indicated an uncommanded pitch attitude increasing through 20 degrees, nose high. Disorientation resulted and the pilot successfully ejected just before the aircraft smote the ground a mighty blow. Voodoo drivers beware - 101s have experienced additional failures during the last year. The most recent occurred in November when the attitude indicator rolled 90 degrees when ABs were lit on takeoff roll. How quickly can you find and interpret the STANDBY ADI?

Non-Voodoo drivers - every aircraft in the inventory has some history of ADI/MM-3/J-8 failures indicating the world is round in a different direction. Don't get caught IFR with your crosscheck down.

the damper switch. When the computer gets sick, the "OFF" position of the damper is the cure.

For those still in doubt, let me be more specific. Pitch and roll autopilot, roll trim, TFR climb/dive commands, auxiliary pitch trim inputs to the pitch damper, AYC and pedal shaker commands are all deactivated by placing the FCDS to OVRD! This list is considerable but, unfortunately, it does not include everything. Such failures as hardover pitch, roll or yaw dampers, runaway parallel or series trim and TFR 3-G fly-ups are unaffected by the circuitry under that red guard.

In the case of the flight control disconnect switch - you literally "can't tell a book by its cover." It's a very useful switch - providing you with a means of deactivating certain functions of the flight control system without sacrificing stability augmentation. It will not, however, guarantee the termination of an unscheduled maneuver. The way to reduce the wizardry of our flight controls to a simple mechanical linkage is through the damper switches. Keep this in mind the next time your Aardvark decides to bolt for the stables.



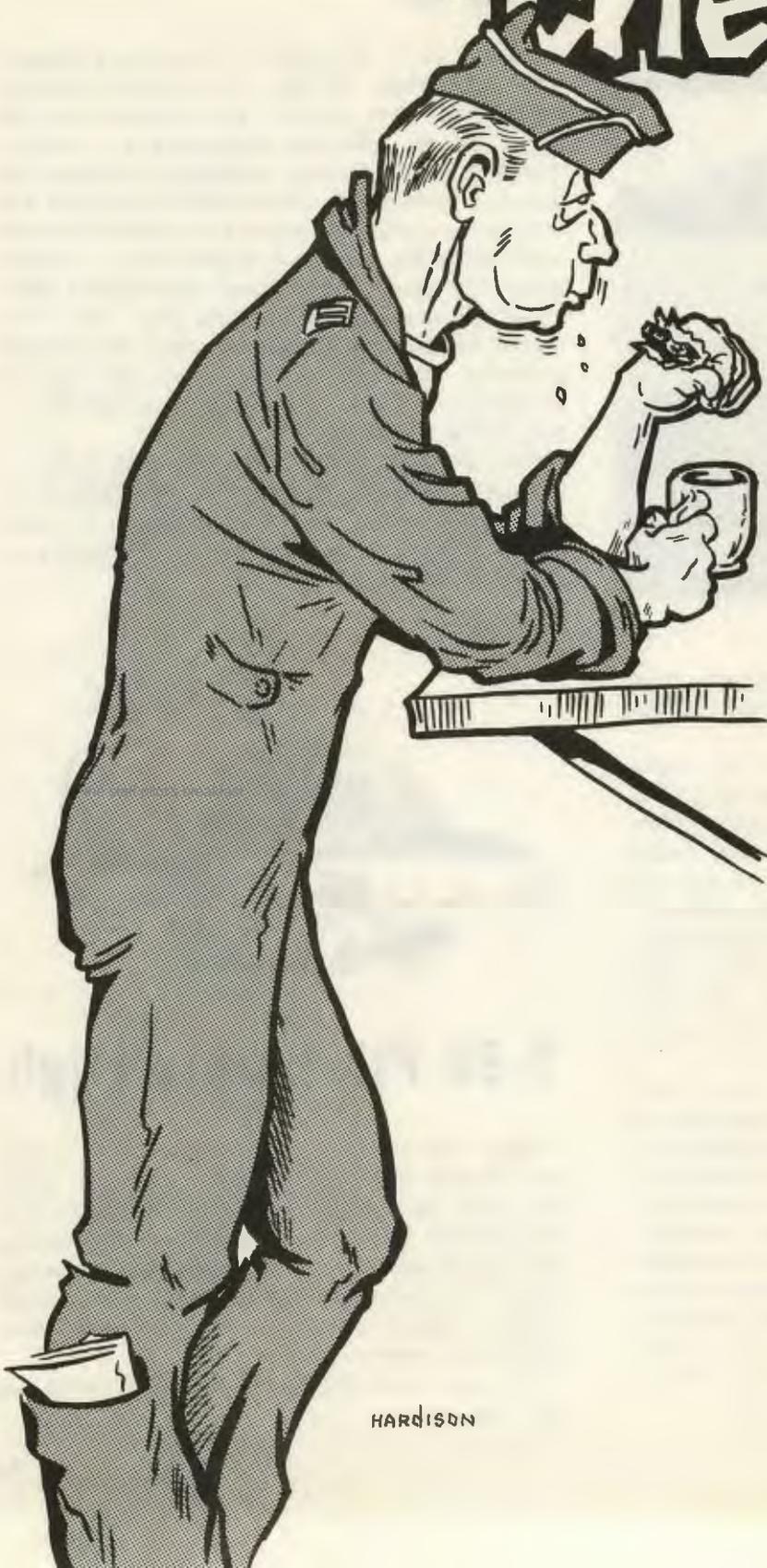
## T-33 Pilot Gets High

Nope, not self-medication, alcohol or grass, but 28,000 feet high. Finger numbness, dizziness and blurred vision got his attention and brought him back down to earth - both literally and figuratively. Cause - hypoxia due to a defective regulator. Moral? (1) Pull a thorough oxygen system preflight and (2) know your hypoxia symptoms.

This jock knew his and it probably saved his life. >

# the staff

By Capt George E. Nolly  
18th TFW/DOT  
Kadena AB, Okinawa



HARDISON

Anyone who's been around tactical aircraft very long has heard of -- and probably occasionally tried -- the Fighter Pilot's Breakfast. Well, once the fighter jock trades in his helmet for a headset, when the inevitable "career broadening" assignment comes his way and flying is done in support aircraft on weekends, he's ready for the Staff Pilot's Breakfast.

The ingredients are quite simple: a candy bar, a cup of coffee and a MARF. And a what? A MARF, the abbreviation (where would the Air Force be without its acronyms?) for Master Answer Reference File. In reality, it's your completed and annotated Master Question File -- you know, the pamphlet you memorize once a year at checkride time. Now, way back, even before the Air Force planted silver wings on your chest, you learned that the pilot is responsible for everything in the Dash One. That's true. Yet, with the exception of diagrams, virtually everything that's important from a safety standpoint is in the MARF. It's kind of like having the Dash One outlined for you.

Now, you will never catch me

JANUARY 1976

# pilot's breakfast

saying you should not study your Dash One, but I'm a realist, especially after flying with other staff pilots for two years. Normally, we staff weenies have the best intentions regarding studying our Flight Manuals (remember the paving on the road to hell). But just about the time we get to "wingspan: 44 feet 6 inches," the colonel walks into the office and hands us a priority project due yesterday . . . and there goes the Dash One study. And the Dash One is best studied in longer sittings - - say an hour at a time -- rather than 5-minute spurts.

Brief time periods, though, are where MARF study really yields benefits. You are reading, assimilating, and digesting a bare fact, with all the frills left off. Read the stem of the question, the correct answer, and then go on to the next question. For example: "Q: If the electrical master switch is turned off during an abort, the pilot should be prepared to use . . ." "A: His emergency brakes." That's a nice thing to know, and now it's right at the forefront of your consciencousness when you fly today. In a 5-minute period, you can refresh your memory -- assuming you learned the facts previously - on about 60 questions and answers.

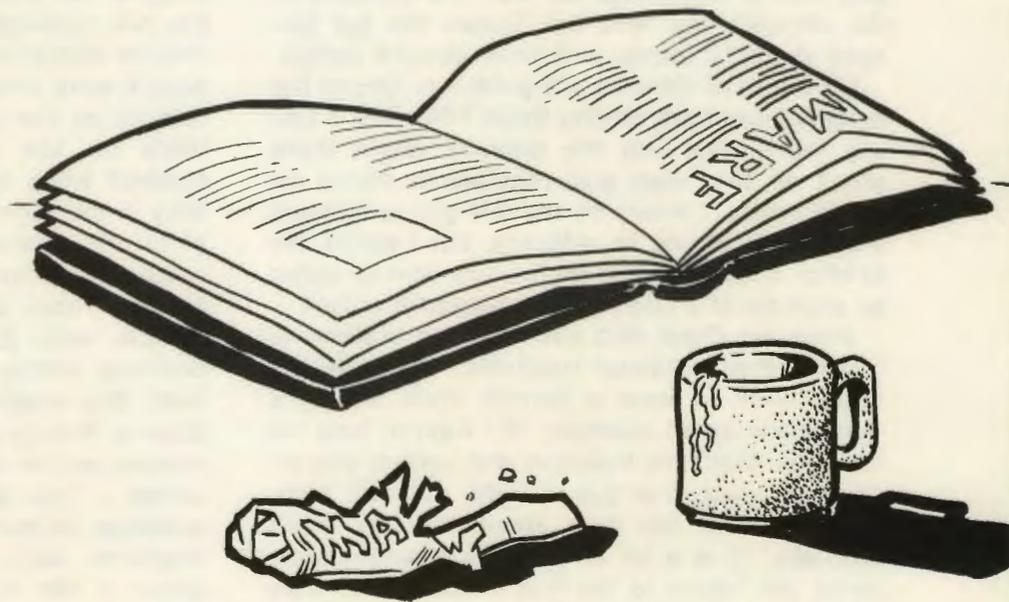
One of the best spinoffs of

this breakfast is that you are already thinking about flying. By the time you get to the airplane, you should be up to speed. You've just added another factor of safety to your flight by insuring you're well ahead of the aircraft. In 5 or 10 minutes, you've reviewed all the easy-to-forget normal procedures, all the emergency procedures, and maybe a few other things, like cold-weather

procedures.

The Staff Pilot's Breakfast will never (nor is it intended to) be a replacement for thorough study and knowledge of the Flight Manual. It is, however, a good way to get up to speed when you haven't flown in a while or if you don't fly) often.

The Staff Pilot's Breakfast: try it, you'll like it. By the way, the candy bar and coffee are optional. ➔



# DOWN TO EARTH



Recently, two people died in a tragic accident while hill-climbing in their 4-wheel drive vehicle. They had attempted to climb a 300 foot, 40-45 degree hill when the Jeep CJ-5 lost traction, overturned and rolled about 280 feet down the slope. Their bodies were found the following day. Both individuals had their seat belts on. Both had good driving records and were conscientious and highly motivated people. The driver knew his vehicle well - in fact, he had driven it in the same area almost every weekend since its purchase. Although the jeep was equipped with a substantial roll bar, the collapse of the vehicle's rear end had forced the bar forward about 10 inches and down about 6 inches.

Off-the-road vehicles are great fun. One of the biggest kicks from driving these FWD RVs is taking them back into the boonies where there aren't all the rules and regulations found on public roads. I would be the last guy to suggest that things should be different, but I would like to offer a few thoughts on this accident by citing an example of a different, but related problem.

There are those who say that "big brother" is limiting their personal freedoms. They cite the requirement to wear a helmet while driving a motorcycle as an example: "If I want to bust my backside, that's my business and nobody else's!" Up to a point, this guy is right, but he's completely out of the park about "nobody else's business." It is a lot of people's business. How about the hazard to the first motorist who risks his life stopping to assist the victim on a busy road? How about the dangerous high speed run made by the police car and ambulance to the

scene - and the traffic hazard caused while they give the cyclist emergency treatment and/or load him into the ambulance? How about the valuable time spent by the busy doctor in the emergency ward trying to save the guy's life and if this fails, the time and expense spent on the autopsy? How about the cost to the insurance company and the resulting increased premium costs passed on to other policy holders? How about the loss to the Air Force which trained him and needs his skills? Most of all, how about lingering costs, both monetarily and emotionally, to the next-of-kin? What you do with your body does affect other people - a lot of people.

By now, it may seem I've gone off on a tangent, but what I've said so far does apply to the hill-climbing accident. Why do most states require motorcyclists to wear helmets? Because people were killing themselves in motorcycle accidents as the result of head injuries. Why is there no law requiring full roll cages and helmets while hill-climbing and brush-busting? Why is there no Federal law prohibiting the use of off-the-road vehicles from operating off the roads? One answer to these last two questions is simple. There probably will be such laws if people who participate in these activities continue killing themselves in alarming numbers. The image of a helicopter patrol chasing down a Bronco or Blazer sneaking its way into a remote section of a salmon stream gives me the willies - how about you? If we are going to continue enjoying our ever decreasing public freedoms we'll have to do something positive about it. We must treat our environment with respect and prevent personal injury by using the good sense that God gave us. It's important to everyone. >

# ...FLEANAK PREDICTS



**Our omniscient soothsayer is back again to predict TAC accidents for 1976. His missives have been kept in a "Golden Flow" receptacle in TAC Safety's basement since Thanksgiving. Here goes:**

There will be five midairs in TAC in 1976 resulting in loss of eight aircraft and two aircrew members. Three will involve aircraft in formation, the other two will involve civil aircraft.

Four TAC aircraft will be lost for undetermined reasons. Two will occur during night range missions.

TAC will lose three aircraft during unauthorized maneuvers -- buzzing, unofficial airshows, etc.

Two aircraft will be lost because maintenance troops failed to follow Tech Order procedures.

Two aircraft will be lost because of engine materiel deficiencies in new aircraft.

Twenty aircrews will attempt to eject. Unfortunately, six won't make it -- attempting to eject outside the envelope.

One aircraft will crash as the result of a

birdstrike on a low-level training mission.

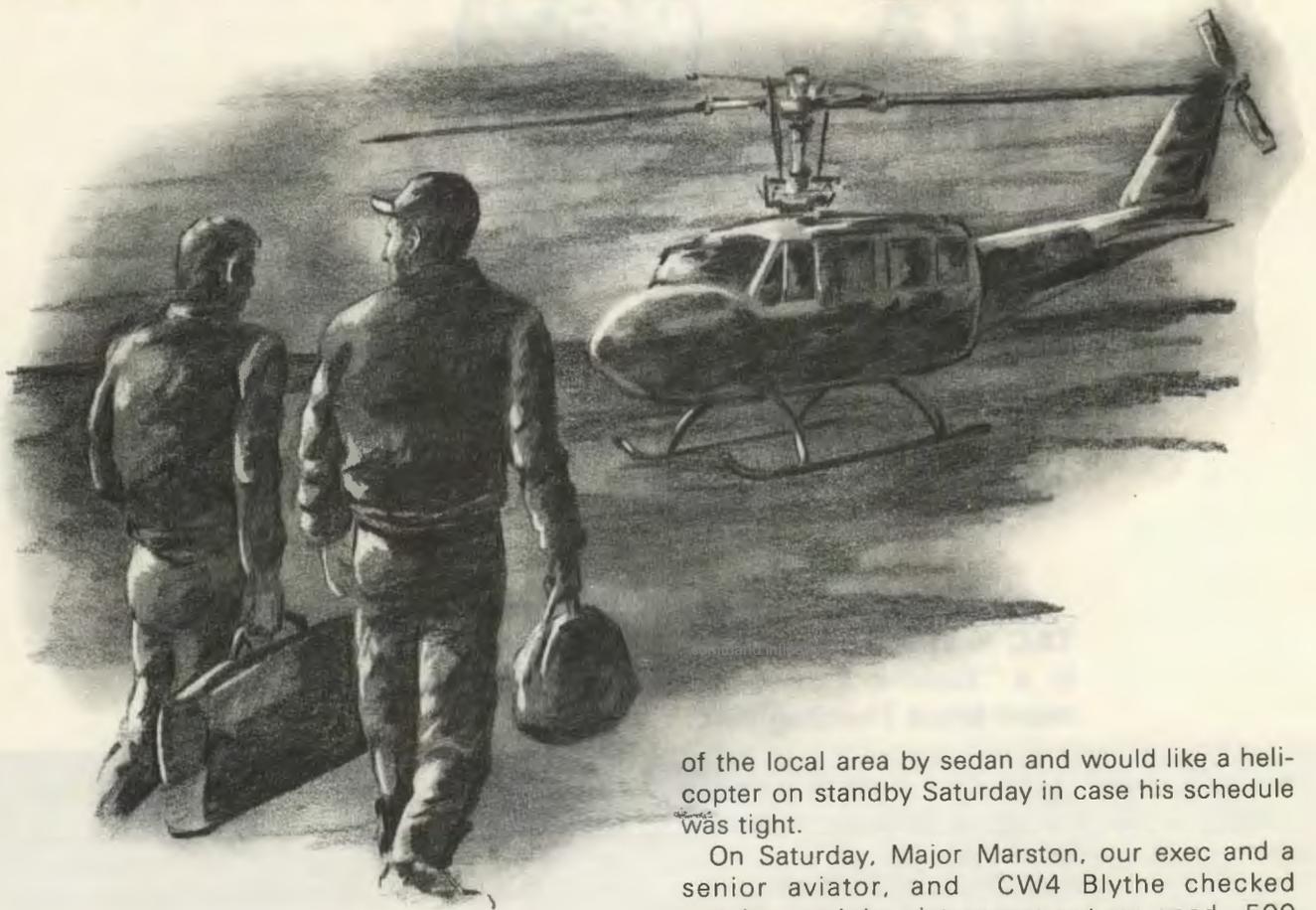
TAC will have two minor accidents as a result of blown tires on landing. One will be caused by the pilot, the other because of a faulty anti-skid system.

There will be four drone accidents -- one operator-caused and three from materiel failure of recovery system.

\* \* \* \*

No way, you say? May a randy gnu lock horns with your Kawasaki! These forecasts are based on a combination of past history and WAGs. Last year, the great Fleanak batted about 75%. Hopefully, this year we will ruin his average by not having the "preventable" accidents. It's up to you. May happiness be yours in the New Year. ➤

# COMMAND



The aviation detachment was situated outside a large city. The location was ideal and so was the mission; strictly VIP flights in plush U-8Fs and UH-1s. The unit, headed by a lieutenant colonel, was made up of some of the most experienced officers and warrant officers in the command.

The "old man" had been commended personally for a job well done early in the week and he had declared a training holiday on Friday and Saturday, with minimum crew on standby.

Friday afternoon we got word that the commanding general would be making an inspection

of the local area by sedan and would like a helicopter on standby Saturday in case his schedule was tight.

On Saturday, Major Marston, our exec and a senior aviator, and CW4 Blythe checked weather, and the picture was not so good - 500 feet overcast with 1-1/2 miles visibility, dropping in the afternoon. They proceeded to preflight and review the general's inspection route.

After 1530 we learned that the general was to be picked up at a place about 15 minutes from the airfield and transported back to his headquarters 30 miles away.

CW4 Blythe was concerned about the weather. His years of experience told him this was not time to be flying. The weather was intermittently 100 feet overcast, with 3/4-mile visibility. He told Major Marston how he felt but the Major said they should try it anyway.

They strapped in and began the runup checklist. Halfway through the checklist, Major

# INFLUENCE ?

By CW3 Raymond Watts, Sr.  
Couresty FLIGHT FAX US Army

Marston agreed with Blythe that the flight should not be made. He left the helicopter and called the unit commander and told him the situation.

The commander arrived at the airfield about 15 minutes later and after a quick discussion told them the detachment was to support headquarters on all missions and that he would replace CW4 Blythe on the flight.

Although there were IFR facilities in the area, and the aircraft was instrument-equipped, the mission required VFR weather and landings at small helipads.

The commander, a master Army aviator, and Major Marston departed low level to the pickup site. The weather forced them to fly low over the route and the commander was heard to comment over FM at operations.

"I hope we can get over that damn pass into the valley; then we're home free."

At approximately 1715, 45 minutes after the flight departed, operations was notified that the general was proceeding by sedan back to headquarters because the helicopter had not arrived.

About 1815 a ground search was initiated. The wreckage was found and all crewmembers were dead. The commander was still on the controls.

Cause? You guessed it. Trying to maintain VFR in IMC. The reason? Command influence . . . or just damn fools? As I looked down into the crushed cockpit and saw two pairs of aviator

wings, one master and one senior, I wondered how many other crews take unnecessary risks when the mission could be accomplished in other ways. ➤



# PHYZ-BIZ

## To Exercise...Or Not To Exercise

Illustrations by Jim Long



By Lt Col Harold Andersen  
HQ TAC Physiological Training Coordinator

### TRUE or FALSE?:

1. Vigorous, prescribed exercise promotes a healthy heart.
  2. Jogging could be a form of mass murder.
  3. Strenuous exercise delays or prevents heart disease.
  4. Exercise can modify the structure of the coronary circulation (i.e., improve collateral circulation).
  5. The ECG (electrocardiogram) customarily given as part of your annual physical is effective in assessing your fitness to do strenuous exercise.
  6. Golf, fishing, billiards, pool, croquet and bowling are suitable substitutes for jogging.
- If you answered questions 1, 3 and 4 as

FALSE, you have been brainwashed by the anti-exercise crowd. If you answered TRUE to 2 and 6, they've really gotten into your head!

Conversely, if you answered 1, 3, and 4 as TRUE and 2 and 6 FALSE, then the exercise mob has gotten to you. (You may have noted that both camps agree on number 5 being FALSE; more about that later).

And so the controversy rages! The pro-forces are led by an ex-AF type, former Lt Col (M.D.) Ken Cooper who has published several paperbacks dealing with Aerobics. The con-forces have no such clearly defined leadership, but number several outspoken physicians in their ranks. So who can you believe? What can you believe?

Well, let's start with one of their few points of agreement: the ECG customarily given as a part of your annual physical is not an effective tool for predicting your fitness for strenuous exercise. It is taken while you are in a state of rest and has little capability to uncover defects which would impair function and survivability under conditions of strenuous (or even perhaps mild) exercise. In an article from a recent issue of "Money's Worth," the anti-jogging author points out (and this is verified by medical sources) that "...the ECG customarily given as part of a so-called 'complete physical' can show no abnormalities in your heart function even if one of your coronary arteries is totally blocked. (It is even possible for you to feel no symptoms of heart trouble with two blocked coronary arteries.)" They further indicate that to be of value, the ECG should be taken while the subject is working on a treadmill, bicycle ergometer, or some other such device. This permits observation of heart function under stress conditions similar to those experienced while jogging. Dr. Cooper's program, which was started at the School of Aviation Medicine, Brooks AFB, Texas, in the early 60's, gradually evolved to include a treadmill evaluation of participants. So much for the common area of agreement.

The bone of contention lies with Dr. Cooper's basic premise that "... in sufficient quantities, running improves the lungs' efficiency, expands the supply of blood for conveying oxygen to the body, extends the vascular system and lowers blood pressure. ... improves general muscle tone, relaxes the digestive system, lowers tension and, most important, strengthens the heart by making it more efficient at slower rates and by extending the vascular system that supplies the heart with blood." An article in the Wall Street Journal adds, "Improved fitness also correlates with the reduction of coronary risk factors of blood levels of glucose, cholesterol, triglycerides and uric acid - and reduction of body fat, weight, blood pressure and heart rate." Now that's quite a bag full of goodies for an investment of only 15 minutes, four times per week.

The defect in the program comes from the fact (say the anti-joggers), that "no proof exists to show that strenuous exercise does anything to delay or prevent heart disease." Two physicians, Meyer Friedman and Ray Rosenbloom, in an article entitled, "Type-A Behavior and Your Heart," claim, "There is nothing to indicate

directly that any form of exercise modifies the structure of the coronary artery." They really lay it on Dr. Cooper when they state, "No one ever made a diseased coronary artery more 'physically fit'." Even more explicit are statements that, "Anyone who leads you to think otherwise is committing a serious, perhaps murderous, act of fraud" and "jogging could be a form of mass murder." (MONEY'S WORTH, Aug 75). And if that isn't enough, another "anti-," Dr. Alvin Kanegis, a New York expert on sports podiatry (foot doctor) cites jogging as detrimental to your foot health; shin splints and flat feet result from jogging on hard surfaces.

So, back to the two questions posed earlier in this article: "Who and what can you believe?" Well, at this stage of the game, you make your choice and take your chances! If Dr. Cooper is right, and you delay your participation, the deterioration which sets in as a result of inactivity may be irreversible by the time you get smart enough to pick up on his program. On the other hand, if he's wrong, you might become a casualty statistic in the AF Biometrics section.

Some years ago, at the "request" of the Air Force (based on advice Dr. Cooper to the then Surgeon General of the AF), we all started to jog as part of a program to attain those desired physical and physiological ends claimed by Cooper. The program has caught on fairly well - well enough so that there are two clearly defined camps in the AF, just as there are among civilians. At this point in time, no one can (or has) come up with the data which can either prove or disprove Cooper's hypothesis. Dr. Cooper is in the best position to do so, based on data he collected at Lackland AFB, Texas, and at his clinic in Dallas. In past years, I have had any number of heated discussions with Dr. Cooper about his program (we both worked in the Physiology Section at Brooks AFB). I wish I had the data necessary to prove the safety aspects of the aerobics program, but so far, these numbers have not been available. In all fairness, I must say that casualties from Cooper's AF Program have been very low and I believe that his hypothesis is basically a sound one. Of course, he and I could both be wrong. We may not be benefitting from all our efforts - may indeed be committing suicide - but I, for one, intend to proceed with my "Aerobics" program in a judicious manner. I intend to be extremely careful - after all, I'd hate to blow out a tennis shoe while going even 15 mph! More next month.... ➤

# Safety Creed

## WE BELIEVE ...

... that every man bears the unalterable responsibility for keeping out of harm's way. This he owes to himself, his family, his fellows and his job.

... that no man lives or works entirely alone. He is involved with all men, touched by their accomplishments, marked by their failures. If he fails the man beside him, he fails himself, and will share the burden of that loss. The true horror of an accident is the realization that a man has failed himself - and more - that his fellows have failed him.

... that accidents are conceived in improper attitudes, and born in moments of action without thought. They will cease to be only when the proper attitude is strong enough to precede the act - when the right attitude creates the awareness that controls the act.

... that the prevention of accidents is an objective which crosses all levels of rank, organization and procedure.

... that freedom from harm is not a privilege but a goal to be achieved and perpetuated day by day.

... that the elimination of injury and pain through accidents is a moral obligation upon which the final measure of our performance directly depends.

- American Society of Safety Engineers.



# TAC

## SAFETY AWARDS

### Maintenance Safety Award

Master Sergeant Danny F. Puckett, 23d Field Maintenance Squadron, 23d Tactical Fighter Wing, England Air Force Base, Louisiana, has been selected to receive the Tactical Air Command Maintenance Safety Award for this month. Sergeant Puckett will receive a certificate and letter of appreciation from the Vice Commander, Tactical Air Command.



MSGT PUCKETT

### Crew Chief Safety Award

Airman First Class Keith L. Berger, 35th Organizational Maintenance Squadron, 35th Tactical Fighter Wing, George Air Force Base, California, has been selected to receive the Tactical Air Command Crew Chief Safety Award for this month. Airman Berger will receive a certificate and letter of appreciation from the Vice Commander, Tactical Air Command.



A1C BERGER

# TACTICAL AIR COMMAND

## AIRCREWMAN of DISTINCTION



**Major Thomas P. Mahan, Jr.**  
**309th Tactical Fighter Squadron**  
**31st Tactical Fighter Wing**  
**Homestead AFB, Fla**

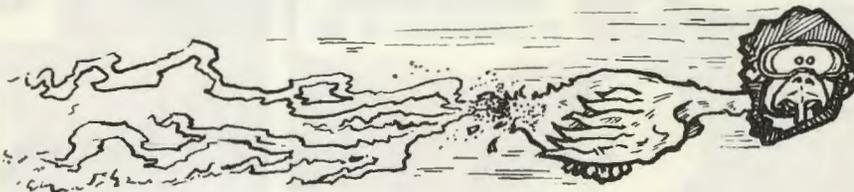


Major Thomas P. Mahan, Jr., was leading a two-ship flight on an F-4E BFM instructor upgrade mission. After takeoff, the left main gear indicated unsafe. A visual check by the wingman confirmed that the left main gear was jammed against the lower fuselage. Major Mahan lowered the gear and received down and locked indications. Gear position was reconfirmed by the chase aircraft. Deteriorating weather conditions dictated dumping fuel and landing as soon as possible. A normal straight-in landing pattern was flown and upon touchdown, the aircraft began listing sharply to the right. Fearing directional control problems and the possibility of a blown tire, Major Mahan immediately initiated a go-around. Technical assistance from Ogden ALC at Hill AFB was initiated to determine if internal components within the strut had failed. The chase aircraft reconfirmed all gear fully

extended with no evidence of a blown tire. A rapidly approaching thunderstorm and fuel now at divert minimums forced Major Mahan to begin an approach. A flawless GCA approach and a successful barrier engagement were accomplished without further incident.

Investigation revealed that the failure of a hydraulic seal prevented the main gear strut from compressing during touchdown. Had Major Mahan elected to complete the initial landing roll-out, severe directional control problems would have undoubtedly been encountered followed by the possible loss of aircraft and crew. The professional judgement and airmanship of Major Mahan prevented serious aircraft damage and possible personal injury. His actions qualify him for this month's Tactical Air Command Aircrewman of Distinction Award. ➤

# TAC TALLY



TOTAL ACFT. ACCIDENTS ▶
MAJOR ACFT. ACCIDENTS ▶
AIRCREW FATALITIES ▶
TOTAL EJECTIONS ▶
SUCCESSFUL EJECTIONS ▶

TAC		
NOV	thru NOV	
	1975	1974
1	27	20
1	25	16
0	20	9
1	15	15
1	12	13

ANG		
NOV	thru NOV	
	1975	1974
2	16	19
1	13	19
0	7	8
2	8	10
2	7	8

AFRES		
NOV	thru NOV	
	1975	1974
0	0	6
0	0	4
0	0	2
0	0	2
0	0	1



FIGHTER/RECCE WINGS		
ACCIDENT-FREE MONTHS		
78	33 TFW	TAC
44	127 TFW	ANG
41	31 TFW	TAC
29	56 TFW	TAC
22	27 TFW	TAC

OTHER UNITS		
ACCIDENT-FREE MONTHS		
155	130 SOG	ANG
124	136 ARW	ANG
116	143 SOG	ANG
104	DET 1, D.C.	ANG
80	135 TASG	ANG

**MAJOR ACCIDENT COMPARISON RATE 74-75**  
(BASED ON ACCIDENTS PER 100,000 HOURS FLYING TIME)

		74	74	74	74	74	74	74	74	74	74	74	74
		75	75	75	75	75	75	75	75	75	75	75	75
TAC	74	4.5	5.4	5.6	4.5	4.0	3.6	3.1	3.2	3.0	2.9	2.8	3.2
	75	7.9	5.4	3.6	2.6	3.1	3.5	5.2	6.4	6.0	6.5	6.3	
ANG	74	7.2	8.6	8.2	5.7	6.0	6.3	7.6	6.6	6.3	6.4	6.9	6.4
	75	5.3	2.8	5.3	3.7	4.7	6.8	5.9	5.1	5.1	5.4	5.3	
AFRES	74	0	16.4	8.9	8.8	6.7	5.3	5.8	5.0	4.3	3.8	3.5	3.3
	75	0	0	0	0	0	0	0	0	0	0	0	

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

FLEAGLE

PHYSICAL FITNESS IS IMPORTANT TO ME.



THAT'S WHY I'VE STARTED JOGGING.



J-J-JOGGING puff IS ONE OF puff puff, THE B-B-BEST WAYS TO-TO STAY IN SHAPE. puff ...



BOY...puff pant, WILL I FEEL G-GOOD puff pant pant, AFTER THIS.



WELL, HE MADE IT.

YEAH, ALL 20 YARDS.

