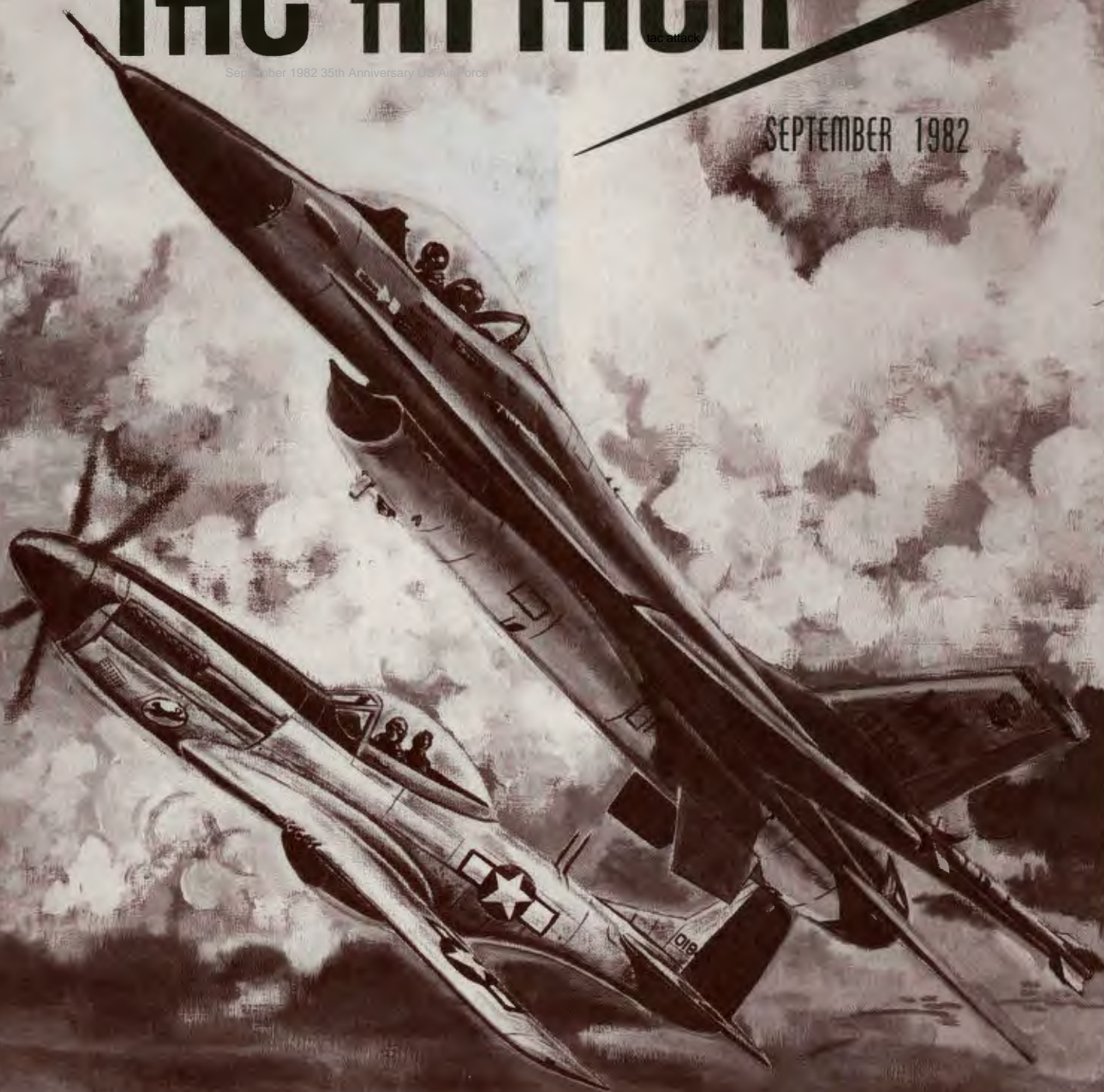


TAC ATTACK

September 1982 35th Anniversary US Air Force

SEPTEMBER 1982



35th ANNIVERSARY
U.S. AIR FORCE

BREIN

Angle of Attack



Happy birthday, Air Force. We'll be 35 years old on the 18th of September. That's young, compared to other armed forces, but we've come a long way in a short time.

The people and units in Tactical Air Command have also come a long way in making safety a natural part of the way we operate. This year the Air Force has recognized many of our units for their safety records, which were achieved while carrying out some of the most difficult missions in the Air Force. The top safety awards in the Air Force are the Secretary of the Air Force Safety Award for major commands, the Colombian Trophy for tactical units, and the Chief of Staff Individual Safety Award for individuals. We've already told you that you, the members of the

Tactical Air Command, won the Secretary of the Air Force Safety Award. In this issue we present the winners of the Colombian Trophy and the Chief of Staff Individual Safety Award.

The awards are symbols of a job well done, but the job is not finished. Every day we begin anew because preventing mishaps is a continuing business. As proud as we are of past achievements, we recognize that we can't rest on those laurels. Together, we can make it even better.

Richard K. Ely
RICHARD K. ELY, Colonel, USAF
Chief of Safety



READINESS IS OUR PROFESSION

GEN W. L. CREECH
COMMANDER



COL RICHARD K. ELY
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TACRP 127-1

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

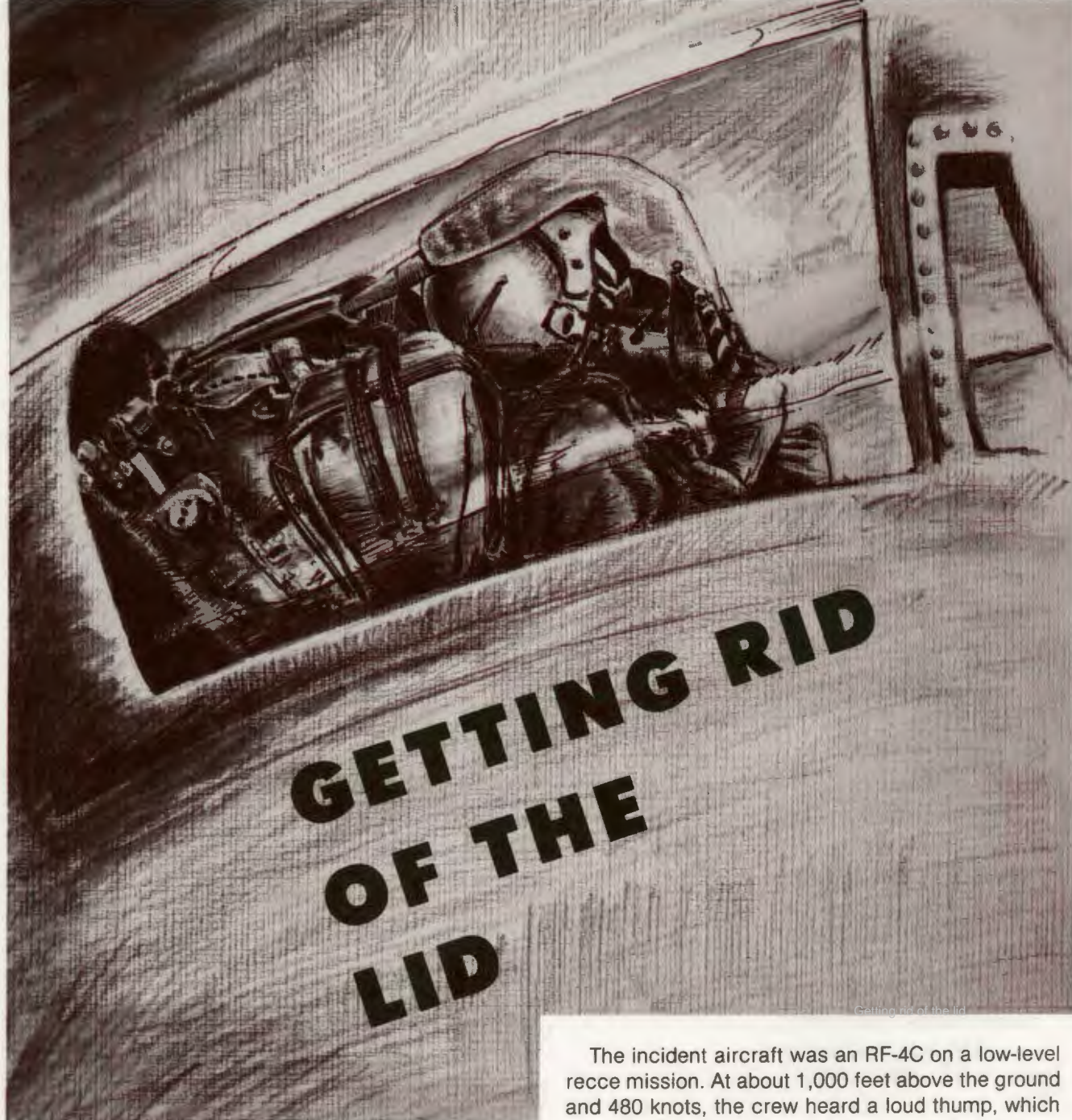
Subscriptions are available from the Superintendent of Documents, Government Printing Office, Washington, D.C. 20402. Price: \$14.00 domestic, \$17.50 foreign per year. Single issues can be purchased for \$2.50 domestic and \$3.15 foreign. All correspondence on subscription service should be directed to the superintendent, not to TAC/SEPP.

Authority to publish this periodical automatically expires on 26 Oct 1983 unless approval to continue is given before that date.

TAC Attack (USPS 531-170) is published monthly by HQ TAC/SEPP, Langley AFB, VA. Second Class postage paid at Richmond, VA.

POSTMASTER: Send address changes to *TAC Attack*, TAC/SEPP, Langley AFB, VA 23665.

VOLUME 22 NUMBER 9



By MSgt William T. Smith
165 TRS Life Support Supervisor

F-4 Phantoms have a long history of losing their canopies in flight. But in a recent accident, the opposite problem occurred: a WSO had trouble getting rid of his unwanted canopy when he tried to eject. Perhaps it's time to take a look at the F-4 canopy system, review the Dash One procedures, and try to end this unhealthy trend before the pendulum can swing too far in this direction.

The incident aircraft was an RF-4C on a low-level recce mission. At about 1,000 feet above the ground and 480 knots, the crew heard a loud thump, which was followed by left engine fire warning and over-heat lights. Zooming the aircraft to a safer altitude, the pilot moved the left throttle to idle and then off. Within seconds the right engine fire warning light illuminated. All electrical power was lost, including intercom. When the A/C moved the second throttle to idle, the plane started an uncommanded roll to the right, which could not be controlled by stick or rudder inputs. Heat and smoke were starting to enter the cockpit when the pilot signaled to eject.

The WSO initiated a dual sequenced ejection by pulling the upper face curtain. While waiting to be catapulted from the burning aircraft, the backseater watched in surprise as the pilot's canopy and seat

left the plane out of sequence. (The rear seat should go first.) With his canopy still on the aircraft, the WSO released the face curtain and pulled the lower ejection handle—still nothing happened. By now, the aircraft was rapidly losing airspeed and the zoom had turned into a dive. Trees were beginning to fill the view out the windscreen, and the plane was rolling inverted. Reacting to his training, the nav maintained his grip on the lower handle with his left hand, and activated the normal canopy opening lever with his right. The canopy immediately departed the aircraft and allowed the aft seat to function as advertised without further coaxing. Seconds later, the burning Phantom impacted the mountainside as both crewmembers safely parachuted into the forest.

What caused the aft canopy to fail to jettison during the ejection attempt? Let's take a look at the F-4 canopy system to get an idea of how it works, and then the answer to this question will be more easily understood.

The canopy has two independent pneumatic systems that provide air pressure to operate the canopy, and it has three types of controls to activate the mechanical locking devices that hold the clamshell assembly closed. The normal air system uses compressed air from a storage bottle in the right wing root to apply reduced pressure to the canopy actuating cylinder when the normal control lever is pushed to the open position. A manual control handle is provided to unlock the canopy when the normal air system is depleted and unable to open the canopy. To jettison the canopy during the ejection sequence or during emergency ground egress, the emergency air system provides 3,000 psi air pressure from a storage bottle located behind the front ejection seat for the pilot's canopy and in door #16 in the belly of the plane for the aft canopy. This pressure, when released, causes a rapid opening of the canopy and subsequent failure of the hinge shear pins, allowing the canopy to depart the airframe. The emergency air system is activated by the seat-mounted initiator during ejection or by the bulkhead-mounted initiator when the canopy jettison handle is pulled. So, in all, the aircrew has three ways to open the canopy: normal, manual, or jettison.

In the case of the stubborn aft canopy, an inflight fire caused explosion and heat damage to the aft canopy emergency air system, depleting it. When the WSO initiated the ejection, the system functioned normally until the rear canopy failed to jettison, preventing the rear seat from firing. After the

proper timed delays, the front canopy jettisoned and the pilot's seat fired okay. Since there was a canopy malfunction, the backseater's pulling the alternate ejection handle did nothing to clear the problem. Only when he pushed the normal canopy opening lever, did the canopy unlock and depart into the wind stream. Releasing the face curtain did cause some minor entanglement between the handle and the personnel chute.

A quick look at the Dash One shows that this problem is addressed quite thoroughly. For ejection it simply states to assume the proper body position and pull either the upper face curtain or the lower ejection handle. If the canopy fails to separate, it says to continue holding the ejection handle with the left hand and move the normal canopy control lever to the open position. [*Ed. Note: The Dash One warns that once the face curtain has been activated it shouldn't be released.*] If that fails, hold the ejection handle with your right hand and pull the manual unlock handle with your left. Next, change hands again and pull the jettison handle with your right hand. If none of these actions work, put negative Gs on the aircraft and firmly bump the canopy with the heel of your hand. As a last resort, cut a hole in the canopy with the breaker knife and make a manual bailout.

During egress training, aircrews often ask the question, In the event of a canopy failure, why waste time with the normal lever; why not go to the jettison first? Simply put, we're going with the system with the best odds first. When you eject, the seat initiator has already put a demand on the emergency air system to jettison the canopy. By pulling the jettison handle, you're asking the emergency air system in another way to do the same thing it's already once failed to do. Since the normal system is independent of the emergency system, chances are much better that it will open the canopy. If the normal system doesn't work, the manual unlock method probably will. However, remember the normal lever must be in the open position before the manual unlock will unlatch the locks. Once the canopy is gone, the interdictor pin and interlock block will be removed from the seat firing mechanism, allowing the seat to function normally.

So now we can see that the folks who write the Dash One do know what they're talking about when they devise these emergency procedures, and that shortcuts probably will only get us in trouble. Before you find yourself in an emergency, know the procedures, know the systems. And always be smarter than your canopy, or it could become your coffin lid! ➤

USAF AWAR

the 1981 Colombian
Trophy Winner



354th Tactical Fighter
Wing



For an outstanding
flight safety program

DS

the Chief of Staff Individual Safety Award Winners



Capt Robert Tomczak
474 TFW Flight Safety



CMSgt Ronald Christiansen
HQ TAC Ground Safety

TIPS

The ground never calls, "Knock it off!"
—Maj Warren "Doc" Blanchard

WHY PRESS ON?

A UH-1 picked up five Army troops for a practice infiltration mission. They made the infiltration approach to the landing zone with no problems, and the soldiers got off the helicopter. After the Army troops had been off-loaded, the left side gunner noticed an entrenching tool laying on the ground next to the helicopter. (An entrenching tool is a small, folding shovel used for digging foxholes and trenches.) The gunner asked the aircraft commander to hold position



...interest items, mishaps with morals, for the TAC aircrewman

for loose equipment. Then he jumped out and picked up the entrenching tool. He tried to throw it toward the soldiers who were about 15 meters away. The gunner used a sidearm throw, something like tossing a frisbee, and turned back to climb in the helicopter.

As the gunner climbed in, the right side engineer said he'd heard a thump and wondered if the tool had struck the main rotor. The gunner said no, it didn't. The whole crew talked it over. They decided the metallic thump had come from the gunner's harness hitting the floor of the helicopter when he climbed in. They were sold on that idea when the gunner took his harness and struck the floor with it, producing a sound which they agreed was the sound they had heard. The crew decided to continue the mission.

Of course the sound they'd heard was really from the entrenching tool hitting the rotor. But they were lucky, and they made it back home without any problems. Still, why press on with a mission on a hunch? Why not take time to find out whether there is real damage? Sure, sometimes you can bet on the come and win, but most of the time you lose. You could lose big.

NEAR-MIDAIR COLLISION

A recent near-midair collision (NMAC) report brought to light the often forgotten fact that ATC clearances only provide standard separation between IFR flights. During the time an IFR flight is operating in VMC weather conditions, it is the direct responsibility of the pilot to avoid other aircraft since VFR flights may be operating in the same area without the knowledge of ATC (DOD FLIP, General Planning, paragraph 5-9d).

Typical of the incidents where separation between IFR and VFR flights is not controlled is the following NMAC narrative:

A flight of two TA-4s were on a section GCA to home field following mission completion. On base leg, the controller called "traffic 12 o'clock, 2 miles, opposite direction, same altitude." The section was IFR due to smoke from a grass fire. The section leader informed the controller that traffic was not in sight due to restricted visibility. The next call from the controller reported "traffic 12 o'clock, 1 mile, level." Shortly thereafter the section leader saw a light civilian twin at approximately three-fourths mile, slightly below and slightly right. The section turned left and passed within 300 to 400 feet horizontally and 50 feet vertically.

The section leader debriefed the incident with the approach controller and was reminded that controllers cannot give collision avoidance vectors unless both aircraft are being controlled or the pilot requests vectors for separation. In this case the light

civil aircraft was apparently attempting to operate VFR when visibility conditions did not warrant it and was not under the control of any controlling agency. The TA-4 pilot was not aware that he had to request collision avoidance vectors in IFR conditions. He assumed that if he were IFR in IMC, the opposing traffic would be also. Additionally, he expected the controllers to assure safe separation. Pilots should request vectors for separation from uncontrolled traffic if "see and avoid" is not possible or practical.

The commanding officer's comment concerning this NMAC suggests an excellent question for your next pilot/aircrew meeting: How many pilots know that controllers cannot give collision avoidance vectors unless both aircraft are being controlled or the pilot requests vectors?

Courtesy of USN Weekly Summary

THE GREATER RESPONSIBILITY

Although this story is about a crew chief, it's here in "TAC Tips" instead of "Chock Talk" because the aircrew were not simply innocent bystanders. They were part of the cause of what happened.

The crew chief was launching an F-4. After helping the pilot strap in the front seat and removing the canopy jury strut, the crew chief moved to the rear cockpit. The WSO in the back seat told the crew chief that his canopy jury strut was hard to move. The crew chief figured he'd just put his shoulder under the canopy to lift it while he removed the jury strut. When he removed the strut, the canopy closed, pinning his head and right arm between the canopy and the canopy rail.

When the pilot saw what had happened, he held the canopy off the crew chief as best he could. Seeing that the rear cockpit canopy control handle was in the Close position, the pilot told the WSO to move the handle to Open. When the WSO did, the canopy opened normally. The crew chief was helped down and taken to the hospital, where they stitched up his forehead.

Crew chief's error? Of course. But what about the aircrew? In the Dash One, under the headings "Before Entering Front Cockpit" and "Before Entering Rear Cockpit," the second step is "Canopy safety strut—REMOVED." Below that it reads, "Ensure normal canopy control handle is in open position if safety strut requires removal." Notice that the Dash One specifies *before* entering the cockpit.

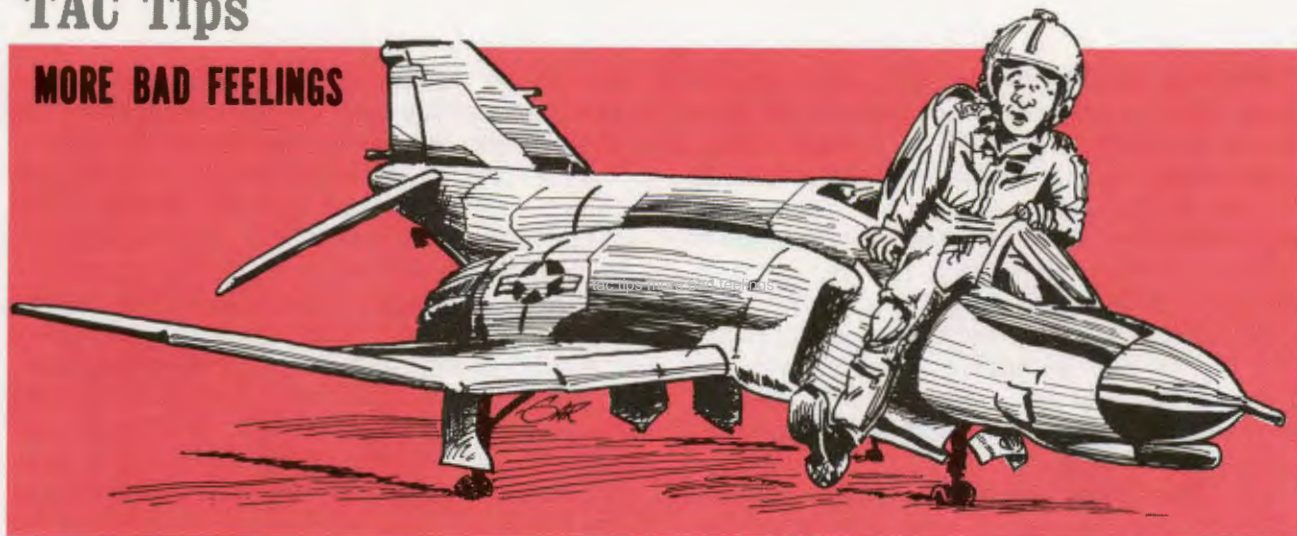


In this incident, both the pilot and WSO were strapping in their seats with the struts still in place. The WSO was inexperienced; he was probably just following the example set by the pilot, who was highly experienced.

Yes, the crew chief was also in error. But those with greater rank have greater responsibility. That means following the tech data and setting the right example.

TAC Tips

MORE BAD FEELINGS



Here's another classic story that tells how to blow the tires in an F-4:

As he approached the field, the pilot calculated a 17-unit approach speed for his F-4E. Based on configuration and fuel remaining, he decided on 167 knots; then he added 10 knots for gusts (winds at 11 knots gusting to 23), for a total of 180 knots. His approach speed actually should have been 174, so he was a wee bit fast. On top of that, he held the 180 knots instead of transitioning to 19 units for touchdown.

After landing, the pilot couldn't get the drag chute handle up, so he didn't have a drag chute. Whistling down the runway at 160 knots, he began to apply the brakes. Not perceiving any braking action at 160 knots, he decided he had brake or antiskid failure. He took his feet off the brakes, paddled off the antiskid, and put his feet back on the brakes. As he felt the airplane decelerate, he relaxed brake pressure. That's when he first noticed the left tire had blown.

Now the airplane was doing about 160 knots with a blown tire. The pilot went through the bold face procedures, engaging the nosewheel steering. In doing so, he released the paddle switch, which reengaged the antiskid. Then the pilot reached down to turn off the antiskid switch on the console. He thought the antiskid was still off because he had paddled it off earlier, so he had his feet on the brakes when he moved the switch. That's how he blew the right tire.

With both tires blown, the airplane slowed pretty well. It came to a stop on the runway, 2,000 feet from the end. Crash vehicles responded, while the crew shut down and climbed out of the airplane. It was easier getting out than it had been getting in because the airplane was considerably lower with the wheels worn down to a nub.

Why do we insist on believing that we can feel braking at high speed? Again and again, we hear of pilots turning off the antiskid because they didn't feel braking at speeds well over 100 knots. Who ever said we should feel braking at those speeds? In the end we feel nothing but foolish when it turns out, as it usually does, that the antiskid was working well.

EAR PROBLEM CAUSES VERTIGO

The F-16 pilot was an RTU student, flying solo on a BFM mission. The flight went normally until he entered the training area and set up for the first engagement. After being cleared to maneuver, the pilot began a hard 6-G turn while trying to keep the other airplane in sight. He immediately experienced a feeling of vertigo, and he couldn't focus on the other aircraft. He knocked off the engagement; as he rolled out, the sensation disappeared.

The pilot reckoned that the sensation was a one-time occurrence caused by a combination of sun, clouds, obscured horizon, head movement, and high G-forces. So he and his instructor decided to give it another try. They set up for another engagement, and again the pilot began a hard 5- or 6-G turn. Again he felt the same sense of vertigo. This time they called knock it off for good; they declared an emergency, headed directly home, and landed. The pilot was met by the flight surgeon and taken to the hospital, where examination showed an ear infection.

The ear—that's where we have all that delicate mechanism that keeps us balanced. If we have the slightest suspicion that it isn't up to par, we shouldn't fly. Not taking off with a known discrepancy applies to us as well as the airplane.

TAC QUARTERLY AWARDS



1Lt Bayne P. Akong
*Ground Safety Award
of the Quarter*

1LT BAYNE P. AKONG is the recipient of the Tactical Air Command Ground Safety Award for the second quarter of 1982. Lieutenant Akong is additional duty ground safety officer for the 24th Supply Squadron, 24th Composite Wing, Howard Air Force Base, Panama.

Lieutenant Akong's safety program has resulted in an outstanding ground safety rating for the supply squadron. To accomplish this, he had all branch safety representatives identify the OSHA standards that applied to their functional areas; then they conducted a detailed inspection to identify hazards. Eleven notable hazards were found, and nine were eliminated. Those hazards that remained were closely watched, and all those affected were made aware of their existence.

To increase safety awareness, Lieutenant Akong had the branch safety representatives conduct weekly meetings to discuss potential hazards and crossfeed information. To evaluate safety awareness and to demonstrate safety procedures, Lieutenant Akong set up a testing system and conducted exercises. Everyone was tested, especially supervisors. Supervisors who scored low were scheduled to attend the USAF safety supervisors course. Lieutenant Akong also set up a safety awards incentive program.

Lieutenant Akong's enthusiasm, knowledge, and leadership have instilled strong, positive safety attitudes and have helped earn him the Tactical Air Command Ground Safety Award of the Quarter.



TSgt Arthur Richardson
*Weapons Safety Award
of the Quarter*

TSGT ARTHUR RICHARDSON is the recipient of the Tactical Air Command Weapons Safety Award for the second quarter of 1982. Sergeant Richardson is a member of the 550th Aircraft Maintenance Unit, 405th Aircraft Generation Squadron, 405th Tactical Training Wing, Luke Air Force Base, Arizona. Due in good part to his efforts, Sergeant Richardson's weapons flight has not had a single dropped munition nor any incidents involving explosives or inadvertent gun firings on the F-15 during the past year.

During his weekly in-depth weapons safety briefings, Sergeant Richardson constantly emphasizes proper weapons maintenance procedures and inspections. As a result, among F-15 units in the wing, the workers of the 550 AMU weapons flight have the lowest number of discrepancies repeating or recurring.

Sergeant Richardson designed and built a weapons maintenance status board located next to the AMU dispatcher. This status board allows the weapons flight supervisors, AMU dispatchers, and production superintendents to know constantly which aircraft are loaded, armed, and dearmed. The TAC Maintenance Standardization Evaluation Team (MSET) rated his tracking system as outstanding and rated Sergeant Richardson's weapons flight as the overall best in the wing.

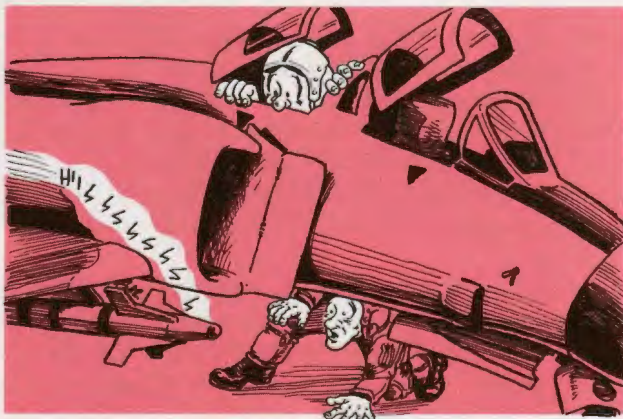
Sergeant Richardson is an outstanding leader and expert technician who has made exceptional contributions to weapons safety. He has earned the Tactical Air Command Weapons Safety Award of the Quarter.

WEAPONS WORDS

CHECK YOUR OTHER LEFT TOO

A load crew was doing an ASM-11 check on the left inboard AERO 3/B missile launcher on an F-4. After power was applied to the aircraft, the number 2 crewmember pressed the armament safety override button, selected Heat with the weapons select switch, and noted the Heat light for the left inboard station. Then he moved the Master Arm switch to Arm, pressed and released the air-to-air refueling button, adjusted the volume of the aural tone, and squeezed the trigger to send a firing signal to the left inboard station. The number 1 crewmember, on the ground at the left inboard station, didn't notice a firing signal. He asked the crewmember in the cockpit to squeeze the trigger again. Crewmember 2 no longer had a Heat light for the left inboard station, so he squeezed the trigger several times to try to get the light back. Finally he got the Heat light again.

At about this time, the number 1 crewmember heard a hissing noise. He looked over at the other side of the airplane. Smoke was coming from a live AIM-9 on the right inboard station, whose gas grain generator had fired.



With all their attention on the *left* inboard station, the crew had neglected the live AIM-9 on the *right* inboard. They should have disconnected the umbilical to the live missile before they began the ASM-11 check. Also, between trigger squeezes the system should have been stepped back to the left inboard station. Then they wouldn't have been so unpleasantly surprised by what happened on the other inboard station.

WHATEVER HAPPENED TO AIRMANSHIP?

An F-111 was practicing low toss deliveries on the range. The delivery requires releasing a bomb at 35- to 45-degree climb angles. On this particular pass the bomb hit 2½ miles long, outside of the range impact area. The range officer immediately dispatched a firefighter with a water truck, but it was too late. The BDU-33's spotting charge started a grass fire that was soon out of control because of high winds. The fire burned more than 3,000 acres before five fire departments finally got it under control.

For some unknown reason, the weapons delivery computer had used the wrong ballistics data. Even though the low-drag BDU-33 was selected on the

weapons cassette, the computer had apparently used high-drag MK-106 ballistics. That caused the computer to delay release until the airplane was much too close to the target. From the weapons settings, the aircrew had no way of knowing that the computer was using the wrong ballistics, but there were other ways they could have known something was wrong. The computer command to pull up came at 10 seconds time to go to release instead of the usual 25 to 27 seconds. Time to go, by the way, is displayed to both crewmembers. Afterwards, both crewmembers said they hadn't known that the pull-up command should have come at about 25 seconds time to go. When they looked out the window, the crew could also have seen that they were 2½ miles closer to the target than they should have been.

Knowing weapons release parameters, like the skills of dead reckoning and pilotage, is essential. These elements of airmanship were here before the computer, and the computer was never intended to replace but only to refine those skills. It's still the aircrew that controls the release of weapons. And the aircrew had better know about when that release should occur.

SCHEDULE CHANGES, PILOT DOESN'T

Here's a problem that's been with us as long as we've had F-4s. The problem is that the DCU-94/A weapons control panel in the cockpit will drop just about any store off the airplane if it's inadvertently selected. On the C and D models, we'd occasionally drop a gun off the centerline station; on all models, we'd drop tanks. So we came up with a fix: a plastic guard over the DCU-94 station select switches whenever stores were carried that we didn't want the DCU-94 to drop. That works—if the guard is installed.

An aircrew overseas recently went out to their F-4E that was loaded with three tanks and found the DCU-94 guard missing, but they didn't think anything of it. The last time they had flown this same mission, this aircrew had been tasked to arm and fire the centerline station through the DCU-94. The purpose was to check out the system before the airplane went on alert. Originally, this mission had also called for a check of the centerline firing system, and the pilot mentally prepared himself for that. But the schedule had changed. When the pilot came in to brief, the schedule showed the three-tank configuration. Yet the pilot still planned and briefed the centerline station check. Just before he went out to the airplane,

the pilot was reminded that he had three tanks, which gave him a 5,000-foot altitude restriction. He acknowledged that.

After takeoff, the pilot observed the 5,000-foot restriction and burned all the fuel out of the centerline tank before beginning a run on a radar bomb scoring (RBS) site. Then things began to get busy. During the run from IP to target, the pilot had to make numerous calls to the RBS site. The weather was marginal, and he had to deviate from course to stay out of the clouds. At the same time, the pilot was trying to instruct the WSO on radar operation and interpretation and was helping with cursor placement. The pilot forgot to set up any front cockpit switches until they were only six miles from the target. Then he "remembered" the requirement to fire the centerline station. He set up the DCU-94/A switches to fire the centerline. The WSO was preoccupied with the radar, so he reacted automatically when the pilot called "Release Arm." The system worked as designed, and the centerline tank released. That's when the aircrew realized what had happened. They returned home and owned up to what they had done.



The key to the incident was the mind-set of the pilot: his thinking didn't keep up with the schedule changes. But he had help. According to the MOIs, the load crew should have installed a guard on the DCU-94 when the centerline tank was loaded. When the guard wasn't there on preflight, the aircrew should have insisted it be installed before they flew. As it was, they helped set themselves up for the incident.

Weapons Words

CENTERLINE SURPRISE

An F-4 flew a cross-country flight with three bags full—a centerline and two wing tanks. The airplane returned after normal duty hours, so the tanks were dearmed by flight line workers instead of munitions specialists. At maintenance debriefing an entry was made in the forms saying that the tanks were dearmed. The next day, the airplane underwent maintenance work on its fuel system. All three tanks were removed. Afterwards the wing tanks were put back on, and the aircraft was returned to the flying schedule.

Six weeks later, three maintenance workers installed the centerline tank again. The following day, two munitions maintenance specialists were dispatched to the aircraft to do a functional check of the centerline tank jettison circuitry. The munitions supervisor reached into the centerline breech access door to move the breech so he could get at the breech caps. The breech assembly wouldn't pivot out. The munitions supervisor pulled on it several times. The last time he yanked, the impulse carts fired and jettisoned the tank.

Fortunately, nobody was hurt. The cause of the carts firing was apparently stray voltage or static

electricity. But the real question was, Why were the carts loaded?

The carts should have been removed six weeks earlier when the airplane returned from its cross-country. Somehow the flight line crew overlooked the impulse carts in the centerline station. Since the aircrew had taken the forms to maintenance debrief as usual, the entry about the airplane being dearmed was put in the 781 by someone who had no way of knowing whether it had actually been done.

Then the crew who removed the tank didn't follow the tech order, which says to check that cartridges are removed from all pylons, racks, and launchers. The same tech data was ignored six weeks later when the tank was reinstalled. Finally, the munitions load crew did not follow the sequence of steps given in their tech data when they applied external power and removed the bomb rack safety pin before removing the breech caps. If any of the crews in this series of operations had done their jobs properly, the incident couldn't have happened.

Something else might also have helped. The unit had no way of accounting for impulse carts. The fact that two carts were missing was not discovered during those six weeks when the carts were left in the centerline station. Maybe if the unit had kept track of the carts, they'd have noticed two were missing and checked the airplanes.

By the way, how well do you keep track of impulse cartridges in your unit?

TOWING F-16 LOADERS



A munitions technician was towing two ammunition loading systems (ALSs) in tandem behind a new "bobtail" towing tractor. Just after he made a right turn onto a narrow road, the right rear wheel of the trailing ALS left the pavement. The driver turned to the left to correct, but this action caused both ALSs to swing far to the left. So the driver hit the brakes. Both ALSs continued swinging to the left, eventually breaking the tow bar mounting bracket on the front ALS. Even though the tractor had been traveling at less than 15 mph, more than 25,000 foot-pounds of force was exerted on the tow bar mounting bracket.



F-16 ALSs have a tendency to swing from side to side when towed in tandem. And when they're loaded and under tow, they have a tremendous amount of kinetic energy. Speed is critical: the force acting on the tow bar during stopping increases over 2½ times for each 4 mph of speed increase. The lesson is clear: when towing ALSs, go slowly. With two of them in tandem, even 15 mph is too fast.

TAC Safety Awards

Crew Chief Safety Award

SGT OVIDIO MONTALVO is this month's winner of the Tactical Air Command Crew Chief Safety Award. Sergeant Montalvo is a member of the 33d Aircraft Generation Squadron, 33d Tactical Fighter wing, Eglin Air Force Base, Florida.

While Sergeant Montalvo was launching an F-15, the airplane's fuel control failed internally and dumped unmetered fuel to the jet fuel starter (JFS). This caused the JFS to overspeed, disintegrating the turbine and causing a fire throughout the engine bay. Dumping fuel poured to the ground, and the flames spread under the aircraft's aft section. Sergeant Montalvo immediately notified the pilot that he had a fire. He advised the pilot to use his extinguisher and then climb out of the aircraft. Next, Sergeant Montalvo instructed the expeditor to call the fire department and to set up tow teams to evacuate the surrounding aircraft. Then he joined the fire guard in fighting the fire with another extinguisher.

Sergeant Montalvo's quick thinking helped



Sgt Ovidio Montalvo

save that F-15, other nearby aircraft, and possibly the life of a pilot. His actions in the face of danger and his knowledge of what actions to take have earned him the Crew Chief Safety Award.

Individual Safety Award

SSGT JAMES H. MCCALLISTER is this month's winner of the Tactical Air Command Individual Safety Award. He is a communications and navigation equipment specialist with the 354th Aircraft Generation Squadron, 354th Tactical Fighter Wing, Myrtle Beach Air Force Base, South Carolina. Sergeant McCallister rescued an airman who was pinned between an A-10's canopy and windscreen.

Sergeant McCallister was monitoring the radio in the dispatch office when he received an emergency call that someone was stuck in the cockpit of an airplane. He sounded the alarm and ran to the flight line to assist. When he got to the airplane, he found an unconscious airman pinned between the canopy and windscreen. Sergeant McCallister couldn't open the canopy electrically or manually, so he decided to jettison the canopy with the emergency jettison handle.

Sergeant McCallister cleared the area because he knew the path of the canopy would be unpredictable. But he had to stay within 6 feet of the aircraft due to the length of the jettison lanyard. The canopy jettisoned and landed safely on the ground. Sergeant McCallister climbed the ladder

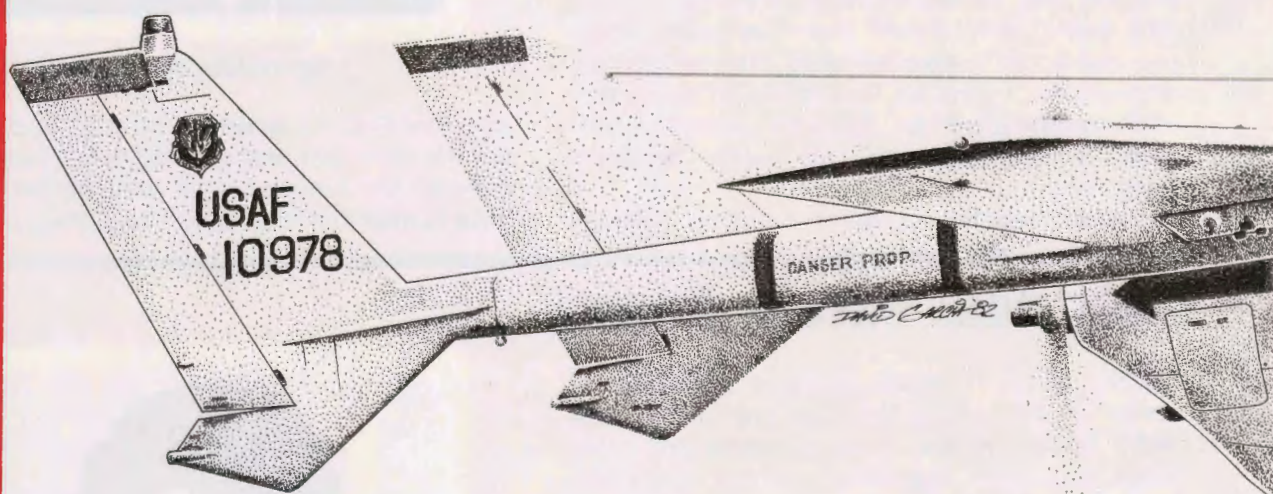


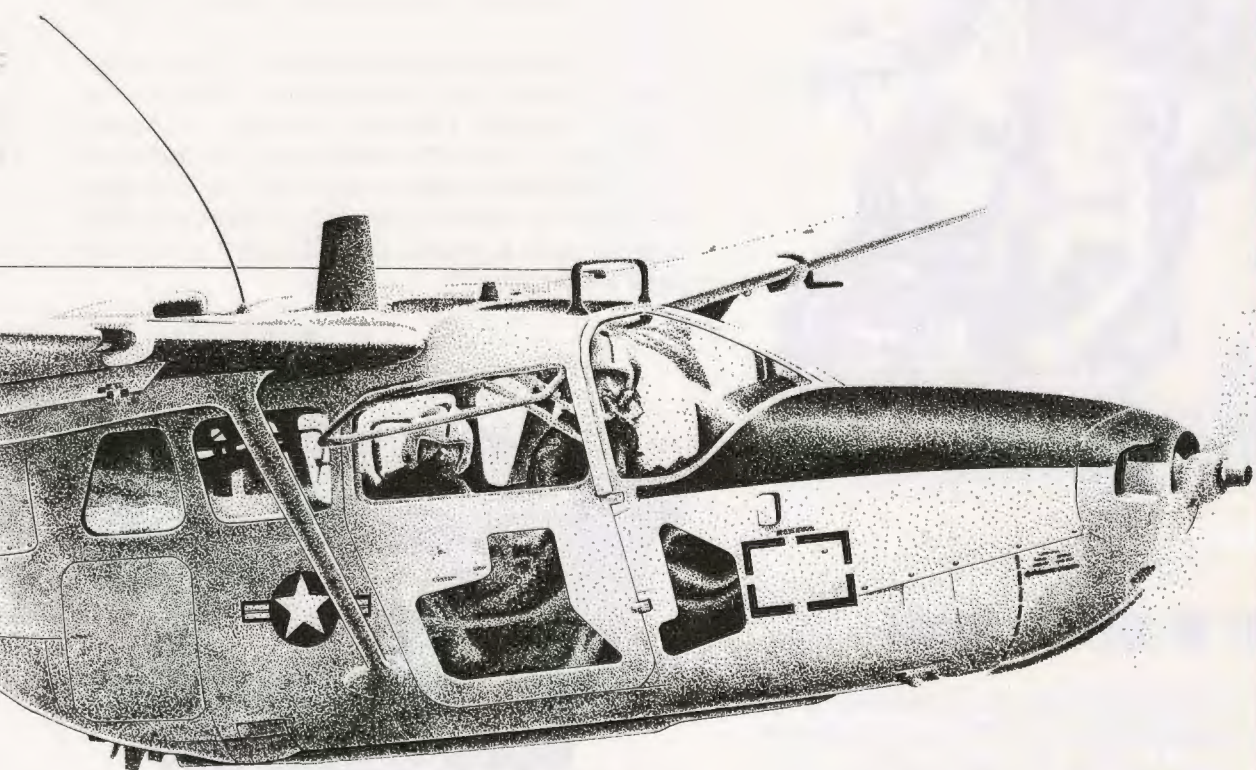
SSgt James H. McCallister

and caught the airman before he fell. Deciding not to move the airman, he waited for medical help to arrive.

Sergeant McCallister's quick and correct actions saved a fellow airman's life. He has earned the Tactical Air Command Individual Safety Award.

0-2A







OUT OF SERVICE -ALMOST

During a mobility exercise, five airmen were sent to get some mobility boxes from the second story of a building. At the building they were met by a staff sergeant from another squadron who volunteered to help them. The staff sergeant knew there was a cargo elevator attached to the building, and he suggested they use it.

They found the elevator and loaded a 500-pound box onto it. The staff sergeant released the safety chains and lowered the load. He raised the elevator, and they began a second load. This time the staff sergeant forgot to attach the safety chains. Standing on the elevator, he pulled a 226-pound box through the door and let it drop a foot and a half onto the elevator floor. The force of the box hitting the floor, combined with the staff sergeant's weight and the weight of the elevator, snapped the cable that supported the elevator. Elevator, box, and staff sergeant plunged 30 feet to the ground below. When the ele-

vator hit the ground, the staff sergeant's forehead hit the box lid. But he got off easy, suffering abrasions and splinters in his forehead.

The elevator had been installed 15 years earlier. Civil engineers had no record of preventive maintenance in the past 5 years. They assumed the elevator was out of service and no longer used. Nobody seemed to know that the elevator was being used or that it could be used except the staff sergeant, who had been using it monthly to haul his supplies to the second floor. He was not aware that the hoist required preventive maintenance, operating instructions, or a checklist. He just used it because it was handy.

The cable that snapped was badly rusted and corroded; it should have been replaced. Although the hoist was rated for 1,000 pounds, there was no record of when it was last weight tested or inspected. During past safety inspections, this hoist had been overlooked by safety inspectors. It had been overlooked by a lot of people, who just took it for granted that it wasn't used.



WHERE THERE'S SMOKE

Most fire victims die from inhalation of smoke and toxic gases produced by combustion, rather than from burns. Smoke detectors in your home could give you and your family the few minutes' warning you need to escape.

Smoke detectors should be installed on or near the ceiling at the tops of staircases or in other places where the smoke is likely to pass as it rises.

One smoke detector per house level will generally give sufficient protection. Be sure to install a detector near each sleeping area. If you have any questions about how many detectors you should have or where they should be installed, check with your local fire department.

Replace the batteries at least once a year, even if the warning signal for weak batteries has not sounded. If you have photo-electric detectors, replace the bulbs as they burn out.

Test detectors once a month and whenever you've been away from home for more than a week. Follow the manufacturer's instructions for testing.

Smoke detectors are triggered by relatively little smoke in order to provide greatest protection. Heavy tobacco smoke or smoke from cooking may cause false alarms. Blowing or fanning the smoke away from the detectors will stop the alarm.

Sleeping with your bedroom door open gives you the earliest warning from a smoke detector. Make sure your family has practiced both a primary escape route and an alternate, in case the first route is blocked by flame or smoke. Remind everyone that the first priority is to get out—don't stop to pick up belongings or even to call the fire department. Designate an area well away from the house where everyone should meet so you can be sure that no one is left inside.

—Courtesy National Safety News

SLOW SPEED ALSO KILLS

How fast do you have to be going to hurt yourself badly in an automobile accident? Fifty miles an hour? Forty? Or much less?

A senior airman was driving home with her children. Her infant child was strapped into the right front seat. Her 7-year-old was sitting in the back seat, and her 6-year-old was behind the back seat in the luggage area. While she was traveling at about 40 mph, the airman was momentarily distracted and allowed the car to drift off the right edge of the pavement. A 3-foot drainage ditch was next to the road. The car slid into the ditch, which channeled the car's path. As the car continued forward in the ditch, paralleling the road, it slowed to less than 20 mph. Then it hit a utility pole that had been erected in the middle of the ditch.

Everyone in the car, except the infant, was thrown around. The other children received minor injuries, but the infant was uninjured. The airman had impacted the steering wheel and the windshield; how-

ever, she was walking around when the police got there. She discussed the accident with the police investigator, and then she and the children were taken to a hospital by ambulance. Later that night, the airman died from internal injuries received in the crash.

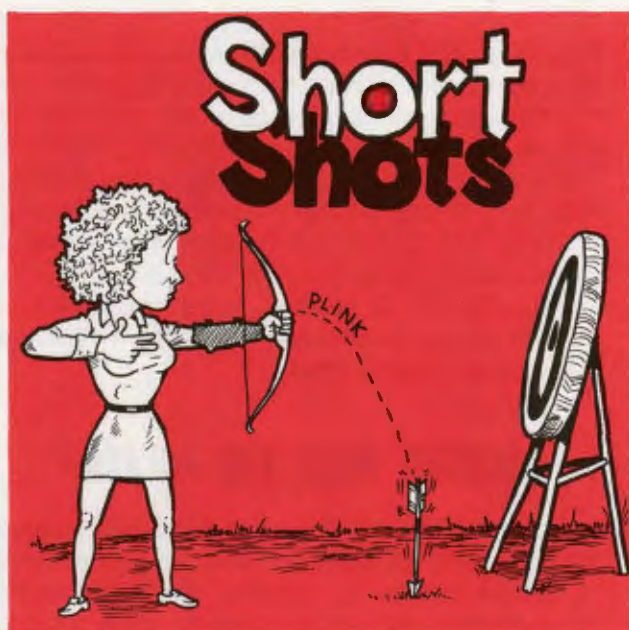
How fast do you have to be going to be hurt badly? Less than 20 miles an hour *if you aren't wearing your seatbelt*. In fact, you could be going even slower. If you're in a car going 10 mph and you hit another car that's going 10 mph head-on, you'll collide with the same force that killed this airman. Make it click, and survive slow speed crashes.

PRACTICE WHAT YOU PREACH

A sergeant was driving down a two-lane country road at night in his 1974 Corvette. He was wearing his seatbelt and shoulder harness, and he was doing the legal speed limit. As he topped the crest of a hill, four cows met him head-on. He tried to avoid hitting the cows by going to the right, but he went into a grassy area and began to slide. The Corvette spun around and went across the road striking a large tree. The sergeant's Corvette was totaled, but he only received minor injuries.



Having held an additional duty position in safety at his squadron, the sergeant said he had read enough to know that being thrown from your car is the main cause of serious injury or death. That convinced him to wear his seatbelt. Losing a 1974 Corvette may well have been a major injury to his pocketbook, but practicing what he preached about seatbelts probably saved his life.



short shots

September is Emergency Care Month. Test yourself. Do you have all the necessary emergency phone numbers posted? How's your first-aid kit—could you effectively treat minor burns, animal or insect bites, cuts, nosebleeds, strains and sprains, or induce vomiting? When was the last time you read a first-aid book—do you have one? How are you prepared to treat shock, relieve choking, and counter poisoning? Could you administer mouth-to-mouth resuscitation? If you had to take someone from your home to the hospital, do you know the quickest route to take?

Furnace Check. Fall is just around the corner and now would be a good time to get your furnace in shape for winter. You can start by checking your oil or gas furnace for rust spots on the vent pipe or rust streaks from the chimney; these indicate that the chimney may be blocked by mortar falling and filling the flue opening. Examine the vent pipe to make sure it is in good condition and firmly in place. If the blower is of the type requiring oiling, put a few drops of oil in the oilcup at each end of the motor. Check the air filters; clean or replace them if necessary.

Back to School. Don't forget that September is back-to-school month for most areas. That means a lot of excited children not necessarily paying attention to traffic. Be careful. Obey the posted warnings in school zones, and always be alert when driving near a school bus—whether it's moving or stopped.

Don't Flick Your Bic. If you flick your butane lighter on the dashboard of your car or truck, you could be asking for trouble. Heat from the sun expands the fuel and could cause the lighter to explode. Be careful where you flick your Bic.

Those Darn Leaves. It's time to start raking leaves again, heaping them up into large piles that kids love to play in. Before driving over a pile of leaves check it out. Make sure it's just a pile of leaves.

Fire Tips for Burning Wood Safely. Have your chimney cleaned at least twice a year with wire brushes. Burning a hot fire—about 500 degrees Fahrenheit—for a half-hour per day will help reduce creosote buildup in the chimney. Other than that, keep fires moderately hot. Don't use flammable liquids, not even charcoal starter. Wear gloves and long sleeves when feeding a fire to protect your hands and arms from burns. Keep a nearby window open about an inch for adequate air circulation; any fire produces carbon monoxide and other pollutants.

Visual Display Terminals. Progress is great: now we have visual display terminals to add to our list of office equipment. If you use one, keep these things in mind: To avoid headaches and eyestrain, take breaks of at least 15 minutes every 2 hours or, much better, work 2 hours on and 2 hours off. Don't install the keyboard and screen permanently; they should be adjustable to meet the user's needs, instead of the user trying to adjust to the machine. The desk finish should not be white—white causes glare. And glare can be reduced by installing shields around the screen or by dimming the lights.

Eye Protection. If a chemical or foreign body gets into your eyes, remove contact lenses if you wear them, and flush the eye with water for at least 10 to 15 minutes. Act quickly—get into a shower, stick your head under a faucet, or use a garden hose. A follow-up check by a physician is highly recommended.

AIRCREW of DISTINCTION

On 8 April 1982, 1st LT FREDRIC G. WILSON was flying a night terrain-following mission in an RF-4C at 1,000 feet above the ground and 480 knots. As weapons systems officer (WSO), Lieutenant Wilson was flying in the back seat of the two-seat Phantom. Suddenly, without warning, a 20-pound swan shattered the left front windscreen and slammed into the pilot in the front seat, severely injuring him.

Lieutenant Wilson immediately took control of the aircraft and started a climbing turn toward Boise, Idaho, 115 miles to the east. He was unable to establish communication with the aircraft commander over the intercom. As the aircraft slowed below 250 knots, the injured pilot lowered the gear and flaps but still did not communicate with Lieutenant Wilson. Lieutenant Wilson made repeated Mayday calls on Guard, Salt Lake City Center, and Boise Approach frequencies. The first acknowledgement he heard was from Boise Approach when the aircraft was about 70 miles west of Boise. In the meantime, Salt Lake City Center was vectoring a second aircraft from Lieutenant Wilson's unit to join up with and assist the damaged aircraft. After joining up, the second aircraft assumed the lead.

Lieutenant Wilson explained the situation to his new leader. He was unable to talk to the aircraft commander, so he was unsure of the pilot's status. He knew that the pilot wasn't making any attempts to fly the airplane. Lieutenant Wilson could see that the front cockpit parachute pack was damaged, and he reasoned that further damage to the ejection seat was very likely. His visibility from the rear cockpit was very poor because of the bird remains on both canopies. Considering all of this, Lieutenant Wilson told the other aircraft he was willing to try a night formation landing on the wing.

The lead aircraft agreed and headed them toward nearby Mountain Home Air Force Base. On



1Lt Fredric G. Wilson
190 TRS, 124 TRG
Gowen Field, ID

the way, Lieutenant Wilson's pilot lowered the tailhook, again without communicating. The flight planned an approach-end arrestment for the damaged airplane, while the lead aircraft intended to fly a touch and go. In close formation, Lieutenant Wilson flew a 13-mile straight-in approach to a successful landing and approach-end arrestment. As crash rescue workers arrived at the airplane to shut down the engines, Lieutenant Wilson safetied the front cockpit ejection seat.

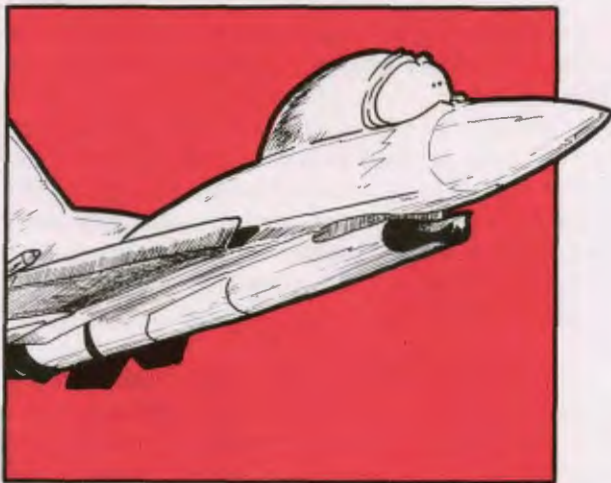
The superior airmanship and courage displayed by Lieutenant Wilson in executing this difficult recovery saved a valuable aircraft and very probably the life of his aircraft commander. His actions qualify him for the Tactical Air Command Aircrew of Distinction Award. ➤

chock — talk

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

WRITE IT UP RIGHT

Just after takeoff, an F-16 pilot felt his airplane roll right. At first the pilot thought he'd flown through another plane's jetwash. It took about ten pounds of left stick force to hold the wings level. As he climbed, the pilot noticed that the left leading-edge flap was about 15 degrees down and the right one was 30 degrees up. By very carefully flying a wide, straight-in approach, the pilot was able to land the airplane.



Before this flight the airplane had developed a fuel leak in the area of the right leading-edge flap. To get

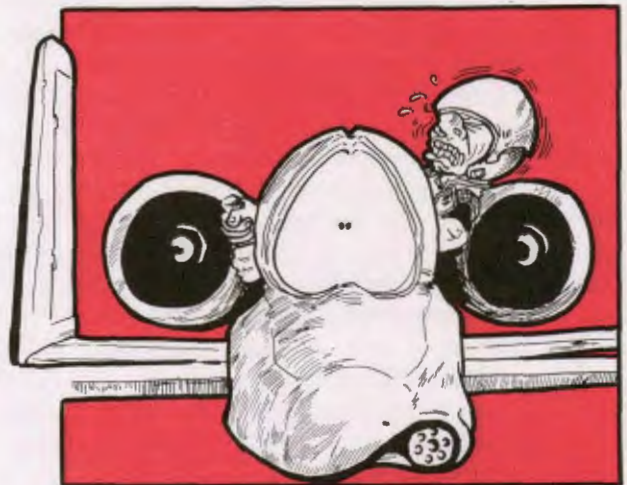
at the fuel leak, maintenance workers had to remove the right leading-edge flap and the torque shafts connecting the flap rotary actuators. In doing so, they removed a bolt, nut, washer, and cotter pin to make it easier to take out the torque shaft. The removal of the bolt assembly was not written up in the aircraft forms.

As luck would have it, a different maintenance crew reinstalled the flap components. They failed to replace the bolt assembly. A maintenance supervisor later signed off the work as being completed without noticing that the bolt was missing. Without the bolt, the torque shaft became displaced from the splined shaft on the angle gearbox. The right leading-edge flap was then free to move. Air loads on takeoff caused the flap to rotate up and developed the asymmetric control problem, which the pilot was fortunately able to handle.

We're all in favor of reducing unnecessary paperwork. But documenting maintenance actions in the aircraft forms is some of the most important writing any of us will ever do. We can't afford to neglect it.

MORE FASTENER PROBLEMS

After starting engines, an A-10 pilot was going through his cockpit preflight checks when he found a problem in the flight controls. When he moved the stick to the right, he felt a restriction. Looking out at the ailerons, he could see that the right aileron didn't move as much as the left aileron. He forced the stick through the restriction until it was full right, and then he released it. The stick didn't return to the center but stayed on the right side.



The pilot aborted the aircraft, and flight control specialists came out and checked the controls. They

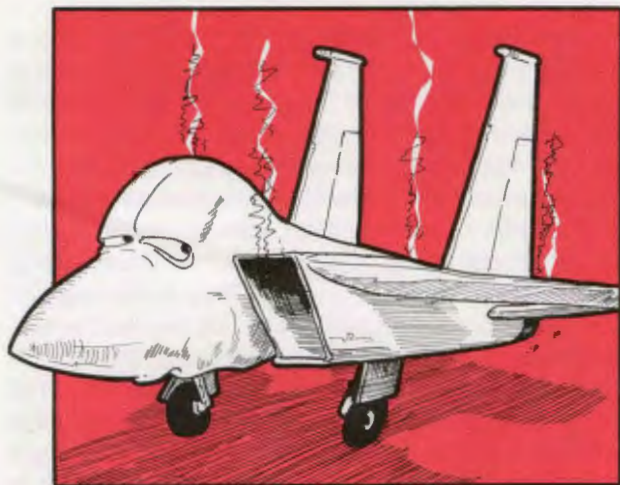
too found the restriction in the right aileron, so they took a closer look at the airplane. In panel F-123, the troubleshooters found six high-torque fasteners that were longer than specified in the tech data. The aileron flight control rod was hitting one of the long fasteners when the stick was moved right.

Three weeks earlier, the airplane had gone through phase inspection in which the panel had been removed and replaced. These six fasteners weren't the only ones wrong. On the same panel, four fasteners were too short. A check of other aircraft on the phase dock also showed up other fasteners of the wrong size in flight control access panels.

There is a TCTO in the field that resolves part of the problem. It increases the space between the rod and the fasteners. But TCTOs will never completely solve the problems caused by using the wrong size fasteners. We're the only ones who can finally solve the problem by carefully checking our fasteners against the tech data before we install them.

WHEN EQUIPMENT IS UNAVAILABLE

During ground run of an F-15, the left engine torched internally. The airplane was shut down and



towed to the trim pad for troubleshooting. There both engines showed multiple malfunctions—flameouts, stalls, and overtemp. Extensive troubleshooting of the engines couldn't find the problem.

A tech rep inspected the unified fuel control (UFC) wash filters. They were clogged severely by a foreign material that appeared to be sand. After the aircraft was impounded for suspected fuel system contamination, the source of the sand was traced to the number 1 fuel cell. Repeated flushing could not cure the problem until the reticulated foam in the fuel cell

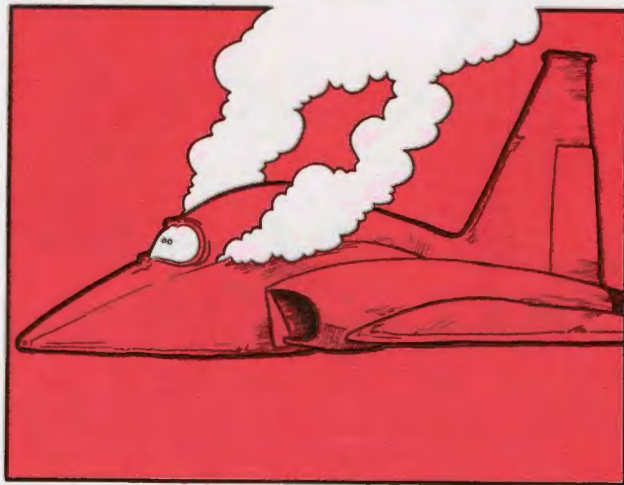
was replaced.

Two weeks earlier, the number 1 fuel cell had been worked on. The foam had been removed. Because the electrostatic-free bags called for in the tech order were not available to cover the foam, it was left lying exposed on a workstand. A sudden dust storm blew sand through the open hangar doors and into the foam from the fuel cell. The contamination was not noticed, and the foam was placed back into the fuel cell.

Time and time again we see incidents where the unavailability of required equipment contributes to a mishap. There are two steps involved in curing the problem: (1) make sure the required equipment is properly requisitioned, and (2) quit trying to do the job if you don't have the required equipment or an acceptable substitute. Ignoring a requirement is not a solution—it's just creating a new problem.

T-38 ELECTRICAL FIRE

After 15 minutes of flight, the cockpit of a T-38 began filling with smoke. The pilot switched to 100 percent oxygen, declared an emergency, and began a descent. As he descended, the heavy smoke stopped. The pilot dumped the cockpit pressure to clear



out the smoke when he passed 25,000 feet. The smoke cleared, and the pilot continued descending to an uneventful approach and landing. After landing, the pilot shut the engines down and climbed out of the airplane.

Maintenance technicians checked the front cockpit instrument panel and found that it was OK. But in the rear cockpit, they found a burned console lighting rheostat. They also found a 15-amp fuse installed in the 5-amp circuit leading to the rheostat. Further investigation disclosed a shorted wire in the circuit.

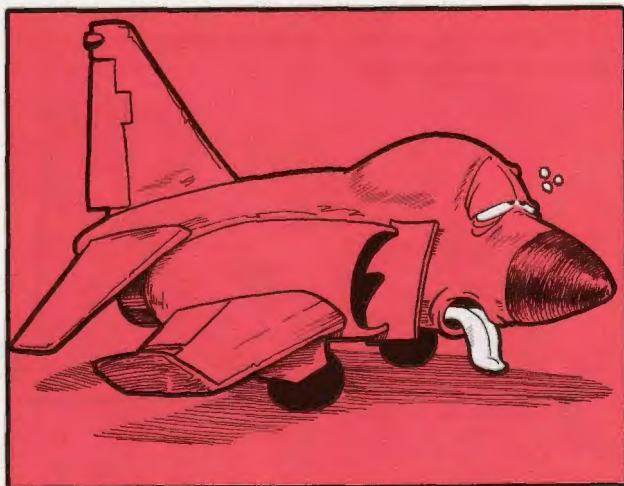
Chock Talk

The wire, which was in the trim panel, had become bare from fatigue and from chafing against the cockpit bulkhead rails. During flight the bare wire shorted against the cockpit bulkhead rails. The rheostat then burned from the surge of electricity that passed through the 15-amp fuse; a 5-amp fuse would have blown and protected the circuit.

This unit inspected all their airplanes; and 41 had the wrong fuses. So the unit recommended color coding the fuses. That seems like a good idea; it would help us tell them apart. But in the meantime, we just have to take the time to check them closely to be sure we're using the right size.

PROCEDURES NEED DOERS

After flying two sorties with a combat turn in between, the F-4 was postflighted. Major damage was found in the right engine compressor stages 6, 7, 8, and 10; minor damage was found in the other



stages. Since the damage appeared to be from a foreign object, maintenance investigators checked the doors and panels around the engine intakes. A fastener was missing from door 504R, located forward of the right intake. The marks on the engine made by the foreign object matched the type of fastener used in the door.

On the day before the damage was found, maintenance done in the nose area had required the opening of door 504R. Local procedures in this unit called for an entry in the 781 any time door 504 was opened. The entry puts the aircraft on a red-X until a supervisor checks the door for correct fastener in-

stallation and signs it off. The procedure works well if it's complied with. But in this case the opening of door 504R had not been documented in the 781, so the installation wasn't checked by a supervisor.

When the door was checked after the damage was discovered, a number 5 fastener was found in a number 4 position. The fastener that was missing from the door was from a number 5 position. Apparently, two of the fasteners had been switched. The number 5 was put in a number 4 position, and the number 4 was put in the number 5 position. Because the number 4 fastener is shorter than a number 5, it won't lock when it's put in a number 5 position. So the unlocked fastener worked loose and was ingested in the engine at some time during the two sorties. The damage was not noticed until after the airplane landed from the second flight.

Even the best written procedures don't do any good when they're in a book on a shelf. Only when a procedure is put into effect by the workers on the line can it accomplish its purpose. This unit had a fine procedure; but it wasn't used by the troop who needed it, so it couldn't help.

LISTEN UP

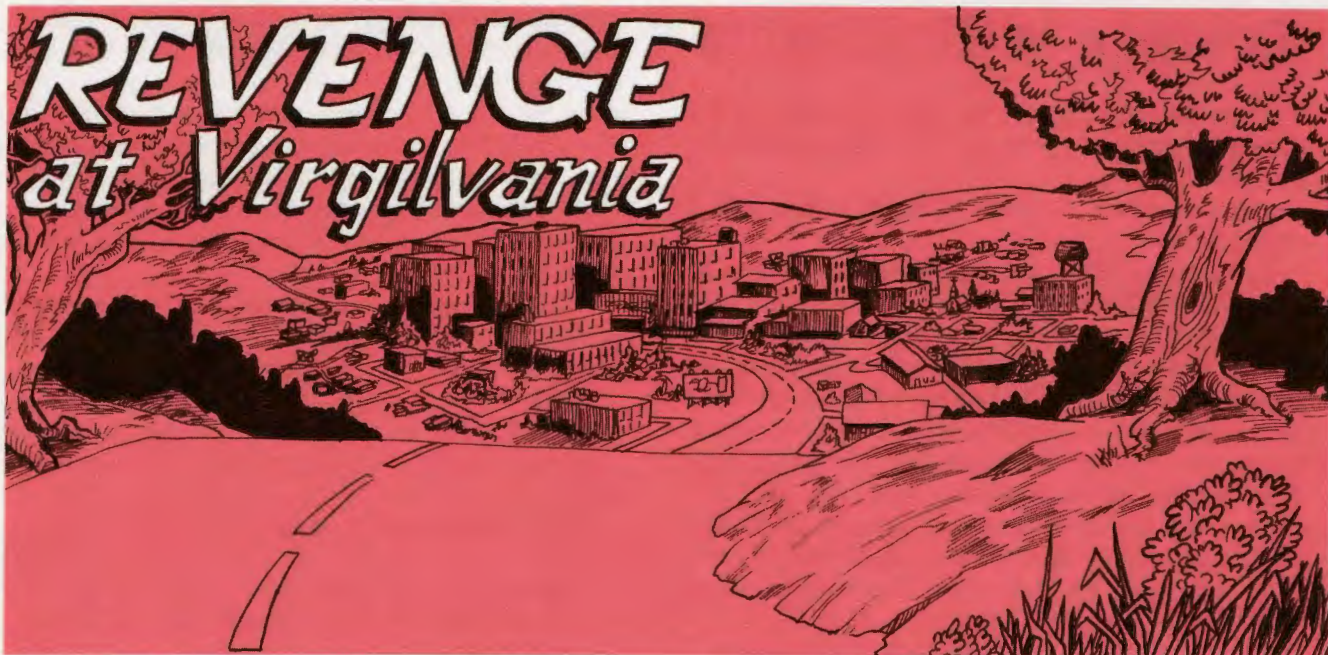
Two maintenance technicians were taxiing a T-33 to the trim pad. Ground control cleared them to taxi to and hold short of the inside runway. Then they were cleared to cross the inside runway and hold short of the outside runway. They taxied across the inside runway and held short of the outside runway.

A couple of minutes later, ground control called the technicians and told them to "continue holding short" of the outside runway. They acknowledged the call and then proceeded to taxi across the outside runway. As their T-33 taxied across, two other T-33s were on takeoff roll on the same runway. The tower controller quickly broadcast on Guard channel for the flight of T-33s to abort takeoff. The flight heard the tower call and aborted before they got to the taxiing T-33, which was oblivious to the danger it was in.

Why did the T-33 taxi when it was instructed to continue holding short? Because the technicians in the airplane were anticipating that the next call would be clearance to cross. When ground control called them, they heard what they had anticipated instead of what the controller actually said.

If we can teach ourselves to anticipate the unexpected, maybe we'll listen up better because we won't be assuming what happens next.

REVENGE at Virgilvania



By MSgt James H. Hearson, Jr.
in TAC Attack, November 1972

revenge of Virgilvania

Frank Ellis glanced at his watch and was startled to see both hands on the dial pointing toward 12. "I can't believe it's midnight," he said, "it seems like I just got here."

The place in question was a roadside restaurant with adjoining bar, and Frank was sitting on a bar stool with the remains of his fourth martini in his right hand. Accompanying him was Mike Doyle, a friend whom Frank had not seen for three years.

"Well, Mike, it's been nice seeing you again, and I'd like to stay longer. But I told Ann I'd be home tonight, and I've still got about 70 miles ahead of me."

Frank's home was located in West Virginia, and he had been to a business meeting in Pittsburgh. It wasn't too far out of his way to drop in on his old war buddy, Mike, and bend elbows with him for a couple of hours. They always had some laughs and reminisced about the past.

It was now 12:30 a.m., and Frank was heading toward the Pennsylvania border. He was wondering if Ann would be waiting up for him. After all, he did say he'd be home tonight, and Ann always worried when it came to driving a car at night.

Frank didn't see any state line marker, but he knew he must be pretty close to West Virginia. Suddenly he noticed the headlights of a car behind him that seemed to materialize in his rear view mirror. *Must have pulled out of a farm road*, mused Frank as he continued on.

It wasn't so much the pulsating red light, but the

extremely loud blare of the siren that shocked Frank back to reality. He almost lost control of his car but managed to slow it down and pull over to the side of the road safely.

Frank sat in his car trying to figure out what he had done to warrant being stopped. His speed had been below the limit, and as far as he could recollect he hadn't broken any traffic laws.

As Frank looked up to the man who approached his car, he was startled to see a bright red uniform. It was identical to a policeman's uniform, but it was red with a white leather belt and a silver badge of authority.

Suddenly the uniform wearer spoke, "May I see your license, sir?"



Revenge in Virgilvania

Frank fumbled through his wallet and passed his license to the man. He asked, "What did I do wrong, Officer?"

"That will be for the judge to decide. Please follow me into town."

At this point Frank was fighting off the feeling of nausea and felt a cold clammy coating of perspiration cover his body. When the police vehicle came into view in front of his car, Frank noticed it was all white with red lettering and emblems on the side and rear. Oddly, the license tags were red with white numerals. *Strange, thought Frank, that isn't the color of West Virginia or Pennsylvania tags.* The lead car made a left turn onto a narrow two-lane road, and Frank followed for about three miles before the city came into view. He noticed the sign "Welcome to Virgilvania."

It was now 1:15 a.m., and Frank's thoughts went to Ann. He must call her as soon as possible to let her know that he was all right and that as soon as this situation could be corrected, he would be on his way.

He was now inside the building, and a young officer approached him, "Please step this way, sir." Frank followed him down a corridor and entered a door on which was stenciled "B.A. Test." As Frank

crossed the threshold, he noticed it looked exactly like a hospital first-aid room. As a matter of fact, this whole building must be the cleanest place in the world. White walls, ceiling, curtains, and all the trim was in red. Everything was red and white except the black lettering on the door through which he had entered. The thought passed his mind that whatever was wrong must be real wrong for him to be in the room with the black lettering.

"I wish someone would tell me what's going on," cried Frank, noticing that his words sounded a bit higher than usual.

The officer answered, "Mr. Ellis, we are going to give you a blood alcohol test. At the time you were apprehended, your car was weaving all over the road."

"That's ridiculous," hollered Frank. "I am perfectly sober."

"We'll see," answered the man in red.

By this time, Frank's mind was really in a whirl. They sat him at a table, and a man in a white coat asked, "Would you please roll up your left sleeve?" Frank watched the needle penetrate his skin and the vial fill up with dark red substance. "This will only take a few minutes, sir," said the man in white. He released the rubber tubing from Frank's arm, and when the tube was filled, he slowly pulled the needle out under a gauze protecting pad, then disappeared into another room.

It was just unbelievable. This had never happened before. As a matter of fact, Frank began to doubt it was happening now. It seemed like a dream. But the worst was yet to come.

It couldn't have been more than ten minutes later when a man entered who looked like the chief. He was tall, in full uniform including red garrison hat with gold braid on the visor. "I'm afraid I have some bad news, Mr. Ellis. Your blood shows a .12 percent alcoholic content, which means you were driving while intoxicated."

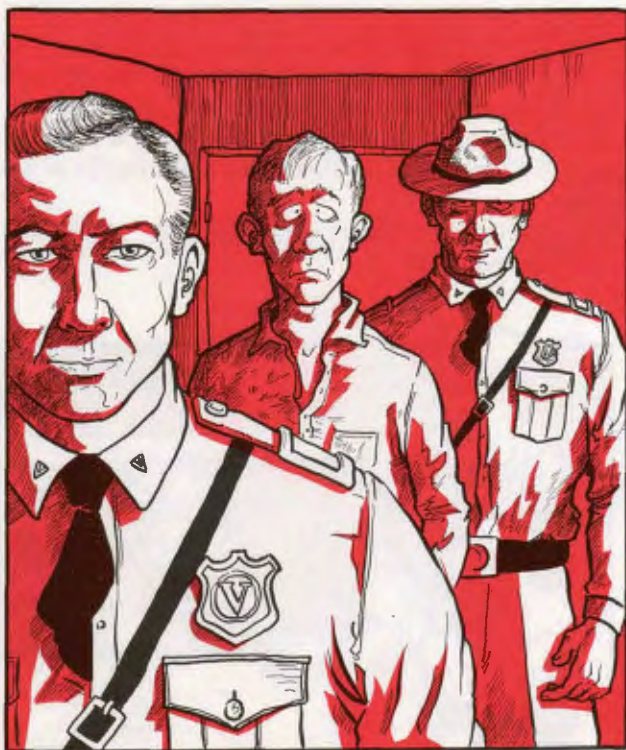
Frank jumped up from his chair, insisting that his alcoholic consumption was definitely not enough for him to be drunk. As a matter of fact, he insisted he was as sober as any man in the place.

"I'm sorry, Mr. Ellis, but your trial is scheduled for noon tomorrow."

"What do you mean my trial?" bellowed Frank. "Am I to go to the firing squad or the gas chamber?"

Oh, this is really something. No one will ever believe it. Red caps, white cruisers, I think I'll laugh in his face, then I'll wake up and tell Ann what a crazy dream I had.

Frank suddenly realized that the chief was talking.



"No, Mr. Ellis, it's not as drastic as that, but I'm sure you'll remember this incident for the rest of your life." He added, "Of course you'll have to spend the



night here with us and appear before the judge tomorrow. However, if you'd like to make a phone call, you may use the one on the desk."

"Why can't I pay my fine and go?" asked Frank.

"It's not as simple as that, Mr. Ellis. This city is an independent territory and does not belong to Pennsylvania or West Virginia. We have very severe penalties for drivers whose blood alcohol test shows .10 percent or over, and in your case it was .12 percent."

Frank knew it was senseless to pursue the rebuttal further. He was in the wrong and the BA test proved it. He picked up the phone and called Ann. After 15 minutes of explanation, Frank assured Ann he would be home some time tomorrow and not to worry about him. After hanging up, he wondered if what he told her was true. Somehow, he began to doubt his words. He wondered if he would ever leave this place.

Frank was escorted downstairs and led through a sort of processing line. He was photographed and fingerprinted and given a white frock to wear. He was led to a dressing room where he removed his clothes and put on the frock, then was led to a private room that resembled a hospital room. The door locked behind him, and Frank walked to the neatly made bed and sat on the side of it.

What do they mean by an independent territory, thought Frank. We're either in the USA or out of it. These people must be nuts.

He walked to the window and looked out but could not see much since most of it was poorly lit. He could make out a structure across the grassy lawn

that resembled an auditorium or stadium. Other than that, there wasn't much to see. What a predicament. He still couldn't believe it.

He glanced around the room and spotted a button on the wall just over the bed headboard, with a volume control underneath and a printed notice about the size of a business card: "For information about Virgilvania, press this button." Frank promptly pressed the button.

The clear and businesslike voice from the speaker said, "If you are not a resident of Virgilvania, you may be wondering about some customs of our city. During a survey of the Pennsylvania and West Virginia territory in 1917, it was discovered that 37 square miles of land did not belong to either state, and it would not be fair for one state to acquire it and not the other. Also, there was no way it could be divided equally because of existing mountains and the location of a river. It was decided to hold a meeting with the residents of this land and abide by whatever decision they should bring forth. The citizens met for two weeks and finally came up with a master plan. This section would be called Virgilvania and would be independent of either Pennsylvania or West Virginia.

"Everything went along fine for 30 years. The land incident was not publicized and the residents in both states maintained excellent relationship with the citizens of Virgilvania. Then on the Fourth of July 1947, the citizens had a giant Independence Day celebration. Traffic was kept to a minimum, and children and adults alike partook in the festivities throughout the streets of Virgilvania.

"At one o'clock that afternoon a call was received at the station from patrolman Phil O'Connor. Phil was patrolling the northern road leading into town. He said he had been run off the road by a speeding, reckless driver who was heading into town, unaware of the celebration. The officer taking the call alerted all policemen in town to clear the streets immediately. But before they could even get started, the disaster occurred. The speeding vehicle headed straight down the main street and into the unsuspecting crowd, spewing death and destruction in all directions. It was the greatest disaster ever to strike Virgilvania in its 30-year existence. The police had their hands full trying to keep the crowd from tearing the drunken driver limb from limb. After he was placed in custody, all that remained in the street was his vehicle of destruction. The members of the remaining crowd formed a ring around the vehicle. Then, by some odd compulsion, they merged toward the car and with their bare hands smashed and dis-

Revenge in Virgilvania

mantled the entire vehicle. In a matter of 10 minutes, nothing was left resembling an automobile except four wheels, scattered on the road. The crowd slowly vacated the street. The mood of fun and festivity had been shattered, and Virgilvania stood as a town of sorrow and tragedy. The driver of that death-dealing vehicle was sentenced to 20 years in prison.

"The city of Virgilvania established strict traffic laws especially for drunken drivers, and woe be to the man or woman crossing the borders and driving a motor vehicle while intoxicated."

The silence after the last sentence indicated that was the end of the tape. He was almost dumbfounded. *What is going to happen to me?* wondered Frank. While wondering, he fell asleep, trying to escape mentally from this entire nerve-wracking situation.

It was 6:30 a.m., and Frank had just awakened. He found fresh towels and soap in the bathroom, and also a new toothbrush and toothpaste.

At 7:30 a man entered the room carrying a tray of food and placed it on the night stand. At 11:30 Frank heard the lock turn in the door and it opened. Two men stood in the doorway: one was the chief of police and the other was a man Frank had never seen before. They were both dressed in their bright red uniforms with shoes shining like mirrors. The chief held out a black robe and said, "Will you please put this on, Mr. Ellis, then we can proceed with the trial."

Frank took off his white frock and put on the black robe. Frank asked, "Can you tell me what is about to happen?"

"You'll find out in due time," said the chief.

Frank was led down the corridor, up the stairs, and directly out the front door. As they entered the street, Frank noticed not a soul was in sight other than the two men accompanying him. No traffic, no voices, nothing—just like a deserted ghost town.

The two walked briskly toward the next block, and Frank noticed they were heading toward the main entrance of the stadium that he had seen through the window last night. They walked beside the high brick wall until they came to a double set of wooden doors. As they entered the stadium, Frank almost froze in his tracks. Every person in town must have been sitting there quietly, just waiting.

Near the center of the arena was a large red circle about 20 feet in diameter with Frank's new Cadillac in the center. About 15 feet away from the circle was a six-step platform with a 3-foot-high fence around it.

Good Lord, thought Frank, are they going to run me down with my own car?

Frank was escorted to the platform, and after walking up the stairs, he stood there alone and watched. The escort team departed the arena. All that remained was Frank and his car. He was alone and afraid.

Frank scanned the crowd, and directly ahead of him he saw a section of the stands specially arranged with 12 policeman in their red uniforms and a man in the front row with a black robe and white hair. The white-haired man stood and held a paper in front of him. He spoke: "Frank Ellis, your case has been reviewed, and through the results of your blood alcohol test, you have been found guilty of drunken driving. Your driver's license will be returned to you five years from this date. The rest of your sentence will be carried out immediately."

He sat down amid the deathly silence, and Frank was visibly shaking. The perspiration rolled down his face, even though the temperature was a cool 58 degrees. *Why did I ever stop for those drinks?* thought Frank. *Good Lord, no driving for 5 years. That may cost me my job. What can I do? What can I do?*

Suddenly, Frank saw four huge men approaching from the far end of the stadium. They were wearing red shorts, and they were each carrying something indiscernible to Frank. As they drew closer, Frank noticed they were heading toward his shiny car and not him, and now the objects in their hands were distinguishable. "You can't do that!" screamed Frank. "You can't ruin my car—you can't—you can't."

The four men took up positions on each side of the car, and the man in front of the car raised his sledge hammer high over his head and looked toward the judge for approval. The judge nodded, and the first crashing blow struck the hood of the car. The stands came alive with cheers—loud screaming cheers reminiscent of gladiator days. The second man smashed in the door on the left side, and again the cheers went up. On and on it went as Frank stood there helpless, watching his car be demolished.

After 25 minutes of steady blows, the men left the stadium. The crowd was still cheering. Pieces of metal lay everywhere, and Frank's car was completely flattened. Again the stadium grew quiet and the judge rose. "Mr. Ellis, the sentence of the court has been carried out. You are free to leave Virgilvania, but take heed never to drive here again in an intoxicated condition. The lives of our people are more valuable than all the cars in the world." A tremendous roar went up from the crowd, and Frank was led back to the police station.

"I think you'll find all your belongings in order, Mr. Ellis. You will be driven to the bus station and given a ticket to your home."

It was 4 o'clock in the afternoon, and Frank Ellis was a dejected looking character as he sat in the bus terminal at Virgilvania. His car had been demolished, he had lost his driver's license, and he was completely worn out. The vision of those men smashing his car had never left him. He wondered how they could get away with such actions. But that was the law, and Frank had broken it.

"Mr. Ellis, Mr. Ellis." Frank opened his eyes and found himself in new surroundings. The bus station decor was gone, and he was lying on his back looking into the eyes of a young nurse. "Your wife is here to see you, Mr. Ellis."

Ann rushed up to the bedside, crying. "Frank, thank God you're alive. The officer said it was because you used your seat belt that you were saved from going through the windshield when your car hit the tree."

Frank noticed the plastic tube in his arm and felt the bandages on his head. So it all never happened. He must have dozed and run off the road. "How bad is the damage to the car, Ann?"

"It's completely demolished," she said.

Ann sat there holding Frank's hand. He was silent in thought when the nurse arrived to take his temperature. He looked at her nurse's cap; as the emblem



came into focus, he read, "Virgilvania City Hospital." Frank wondered about the coincidences. His car was demolished and there was a city called Virgilvania.

"Ann, I've learned a lot on this trip, I only wish I could pass it on to everyone."

As he thought, he fell back to sleep, and Ann said, "You can tell me about it later, dear." ➤

LETTERS



Dear Editor

This is to comment on the article by Major Powley, "The Computer Aims to Please," that appeared in your June 1982 issue. I am glad that the pilots are attempting to get the word out about the "Electric Jet." That is one of the major obstacles the F-16 faces—the lack of understanding at all levels as to just how different the F-16 really is. The airplane is not difficult or dangerous—just different.

Major Powley's discussion about the AOA fadeout needs some amplification, however. While his presentation of the AOA fadeout is correct, there is a more fundamental, and more important, change occurring. As the weight-on-wheels switch mates, the pilot is now commanding control surface position. This is only one of two times the pilot is able to do so with the F-16. (The other is through the use of the MPO switch.) Since the F-16 is designed to be unstable in pitch longitudinally, you will notice that the leading

LETTERS

edge of the horizontal stabilizer is actually nose up while the pilot is trying to maintain an aero braking attitude. This leading-edge nose up is even more pronounced with tanks and other external stores on the wing. As the WOW switch mates, the pilot's nose-up pressure is changed to a surface position command that is now leading-edge nose down (what you are used to seeing in other aircraft). The result is the F-16 wants to pitch up still further. (You should have seen the results with the big tail before the fader was installed—sporting!) The only time the stab would go to the null position is if the pilot did not have any force on the stick. (And no nose-up trim.) Both changes (AOA and surface position) are in the nose-up direction.

The rest of Major Powley's article is correct and it is important that new pilots commit the different characteristics of the F-16 firmly in core. The F-16 will do exactly what Major Powley described. Without the WOW switch closed, the tail will drive full leading-edge nose up to try to get the airplane to respond to the nose-down pitch rate the computer thinks the pilot wants. (All this with only a slight nose-down pressure.) As a result, the tail will actually lift the main gear off the runway with the disastrous results you have already seen.

Keep up the good work getting the word out to the field.
Sincerely

Joseph W. (Joe Bill) Dryden, Jr., Lt Col, USAF
57 FWW (OL-AD)
F-16E Combined Test Force

Dear Colonel Dryden

Thanks for the additional info on fadeout.
ED

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Dear Editor

It is with great sadness I must inform you that Fleagle's cousin Malo Plumas, who resided here in Panama, met an untimely end at Howard AFB. As

best the safety investigation board can determine, Plumas was making a mid-field departure without proper clearance when he was overtaken by a C-141 arriving on the same runway.



Malo left a lasting impression on all of us (especially the C-141) and will long be remembered. It was Malo's last request that his norte-americano cousin be notified that he met his demise in the finest traditions of their aviator family.

Please inform Fleagle that Malo received full military honors.

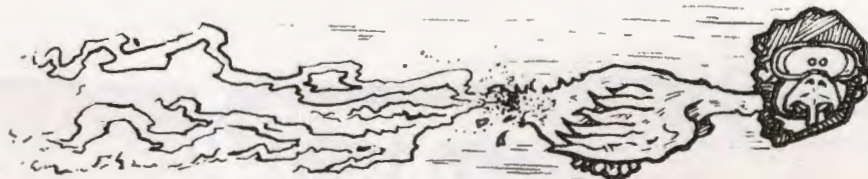
George D. Savage, Lt Col, USAF
Chief of Safety
24th Composite Wing

Dear Colonel Savage

Thank you for your kind efforts in these tragic times. Fleagle is too overcome by emotion to respond personally. As a matter of fact, the only coherent words he muttered were "Now I'm the ugliest bird in the family." When he recovers his composure, Fleagle will be in touch with you to recover Malo's personal effects, especially his stereo.

ED

TAC TALLY



CLASS A MISHAPS	▶
AIRCREW FATALITIES	▶
TOTAL EJECTIONS	▶
SUCCESSFUL EJECTIONS	▶

TAC		
JULY	THRU	JULY
	1982	1981
1	21	24
1	12	13
3	20	25
2	17	20

ANG		
JULY	THRU	JULY
	1982	1981
1	5	3
0	2	2
1	5	0
1	4	0

AFR		
JULY	THRU	JULY
	1982	1981
0	0	0
0	0	0
0	0	0
0	0	0

TAC's TOP 5 thru JULY '82



TAC FTR/RECCE	
class A mishap-free months	
46	1 TFW
33	49 TFW
32	355 TTW
23	347 TFW
20	354 TFW

TAC AIR DEFENSE	
class A mishap-free months	
114	57 FIS
67	5 FIS
64	48 FIS
23	318 FIS
14	87 FIS

TAC-GAINED FTR/RECCE		
class A mishap-free months		
123	188 TFG	(ANG)
115	138 TFG	(ANG)
114	917 TFG	(AFR)
111	116 TFW	(ANG)
101	434 TFW	(AFR)

TAC-GAINED AIR DEFENSE	
class A mishap-free months	
101	102 FIW
97	177 FIG
63	125 FIG
46	119 FIG & 142 FIG
36	144 FIW

TAC/GAINED Other Units		
class A mishap-free months		
156	182 TASG	(ANG)
149	193 ECG	(ANG)
144	26 ADS	
140	110 TASG	(ANG)
136	USAFTAWC	

CLASS A MISHAP COMPARISON RATE

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

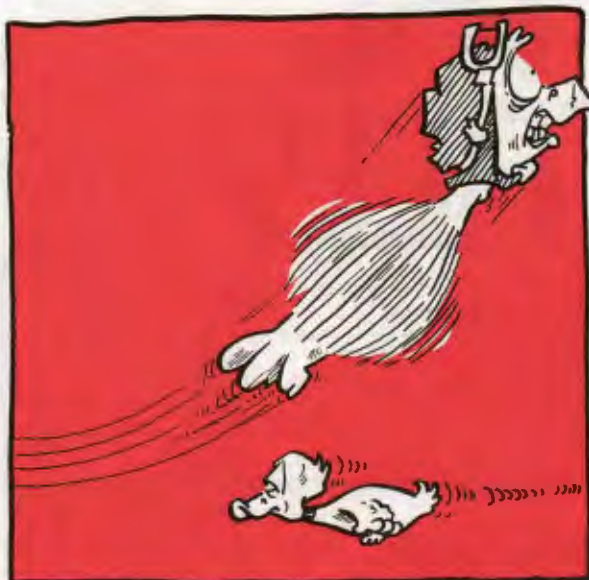
TAC	1982	7.8	5.7	5.9	5.2	5.9	5.7	5.1					
	1981	4.0	3.0	3.2	5.6	6.0	5.9	6.3					
ANG	1982	0.0	2.7	3.2	3.4	3.6	2.9	3.1					
	1981	9.3	4.8	4.6	3.3	2.6	2.2	1.8					
AFR	1982	0.0	0.0	0.0	0.0	0.0	0.0	0.0					
	1981	0.0	0.0	0.0	0.0	0.0	0.0	0.0					

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

FLEAGLE



GOOD LORD!



DERN DUCK!



YOU GOTTA KEEP YOUR HEAD OUT EVERY MINUTE UP HERE.



FRUM!



THAT REMINDS ME. TH' DUCK WUZ JUS' TELLIN' ME 'BOUT A NEAR MISS A FEW MINUTES AGO.

YOU JEST.

