TAC ATTACK

FEBRUARY 1980

HARDISON

ADTAC PARTICIPATES
IN GIANT VOICE ...Pg 18

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TAC ATTACK (USPS 423-530) FEBRUARY 1980

FEB

READINESS IS OUR PROFESSION

TACTICAL AIR COMMAND

GENERAL W. L. CREECH
COMMANDER

LT GENERAL ROBERT C. MATHIS
VICE COMMANDER

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TACRP 127-1

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VOLUME 20 NUMBER 2

Angle of Attack

WHO IS RESPONSIBLE ?

How many times have you heard someone say after an aircraft mishap, "I knew that was going to happen someday," or after an automobile accident, "I'm not the least bit surprised the way he/she drove"? Often our reaction to these remarks is only slightly negative, if not silent agreement. Our reaction ought to tell us something.

No one can accurately forsee the future, but if you knew someone was going to fly an aircraft into the ground on his next sortie or was going to be electrocuted doing a wiring job in base housing--you would do something about it. You would prevent them from flying that next sortie or keep them off the job, just the same as you keep matches and poisons away from children.

Let's back up a step. None of us know an individual is going to cause an accident--but many times we at least suspect it or recognize the potential. If you recognized the potential, what did you do about it? Nothing? Talk to the individual? Tell the supervisor?

It is easy to walk away and say, "That's not my responsibility," or "There's nothing I could have done anyway." Are you sure? By ignoring the situation, your inaction can be responsible for an accident.

It is natural to feel what people do with their lives is their business--it's a free country. We don't want to interfere--it's not our job--we're not qualified. It is just this tendency that has cost us many good people--and will continue to cost us good people.

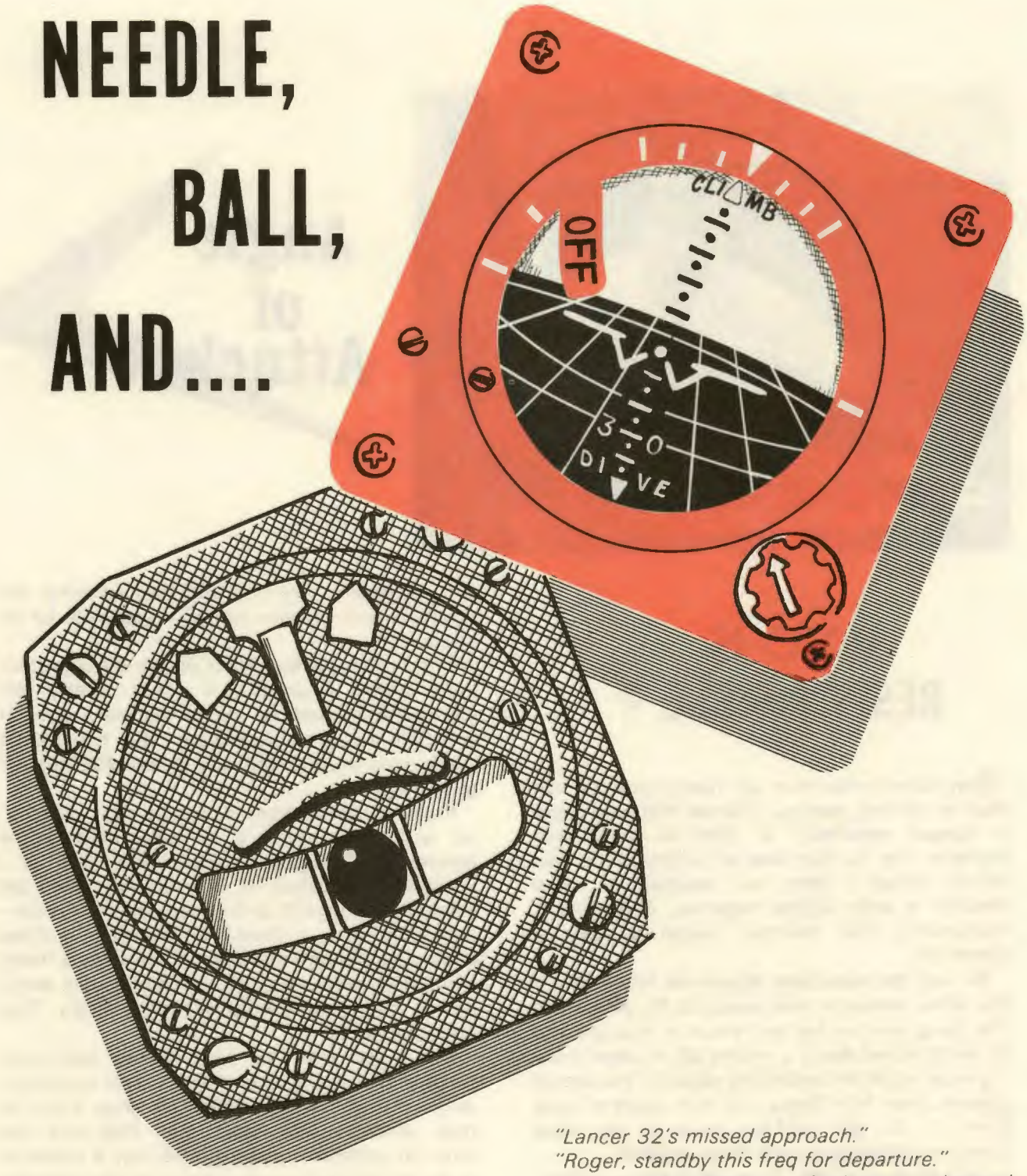
If you know someone who regularly "presses" on ordnance delivery or who flies below minimums during low levels, talk to him as a concerned individual. If that doesn't work, get someone else to talk to him--tell your supervisor--before he takes a ricochet on the range or drags a wing tip through the trees. If you have a friend who drives recklessly, get him/her to slow down, before they hurt themselves and others. Peer pressure works.

Show you care for your friends and companions by helping them see the real hazards in some of their habits or work practices. If you ignore someone who needs your help and they have an accident you knew was only a matter of time, you should accept a share of the responsibility.

Richard K. Ely

RICHARD K. ELY, Colonel, USAF
Chief of Safety

NEEDLE, BALL, AND....



By Capt David Burnett
355 TTW/SEF
Davis-Monthan AFB, AZ

"Lancer 32's missed approach."

"Roger, standby this freq for departure."

"Lancer 32." Nose up 3 degrees, airspeed through 160, gear up, flaps up, nose to 4 degrees to catch the sink from the flaps retracting. Way ahead of it, looking good. Engine checks good, VVI positive, 1300 feet to go to pattern altitude. Airspeed through 235, power back to 90 percent for a 250-knot climb. Off flag on the ADI. Master Caution flashing. Rats!

Generator failure. No sweat; Bold Face accomplished. Crosscheck the standby ADI. Will the generator reset? Nope.

Doing all right so far. Bold Face out of the way. Airplane in the soup but still under control. Now, what's his plan?

Where should I land? No check in the wallet, and $2 plus coins won't get a 'Q room. "Lancer 32 request immediate RTB to Homeplate. Declaring emergency for generator failure. One soul on board, 2+00 fuel remaining, negative ordnance, will require departure-end cable."

"Roger Lancer 32, turn right to 060, climb and maintain niner thousand."

"Right to 060, out of 2 point 4 for nine thousand, Lancer 32." Maybe it'll reset now--nope. Holy--off flags on everything! "Approach, 32 request emergency vector and immediate descent for full stop at Boondock Field."

"Roger, Lancer 32, turn right to 180, descend, and maintain 2400."

"Unable 180 vector, approach, request gyro out vector."

"Roger, Lancer 32, turn right now."

Change one. Still doing okay though. Wonder if he'll figure out that he knocked the inverter off the line when he tried to reset the generator?

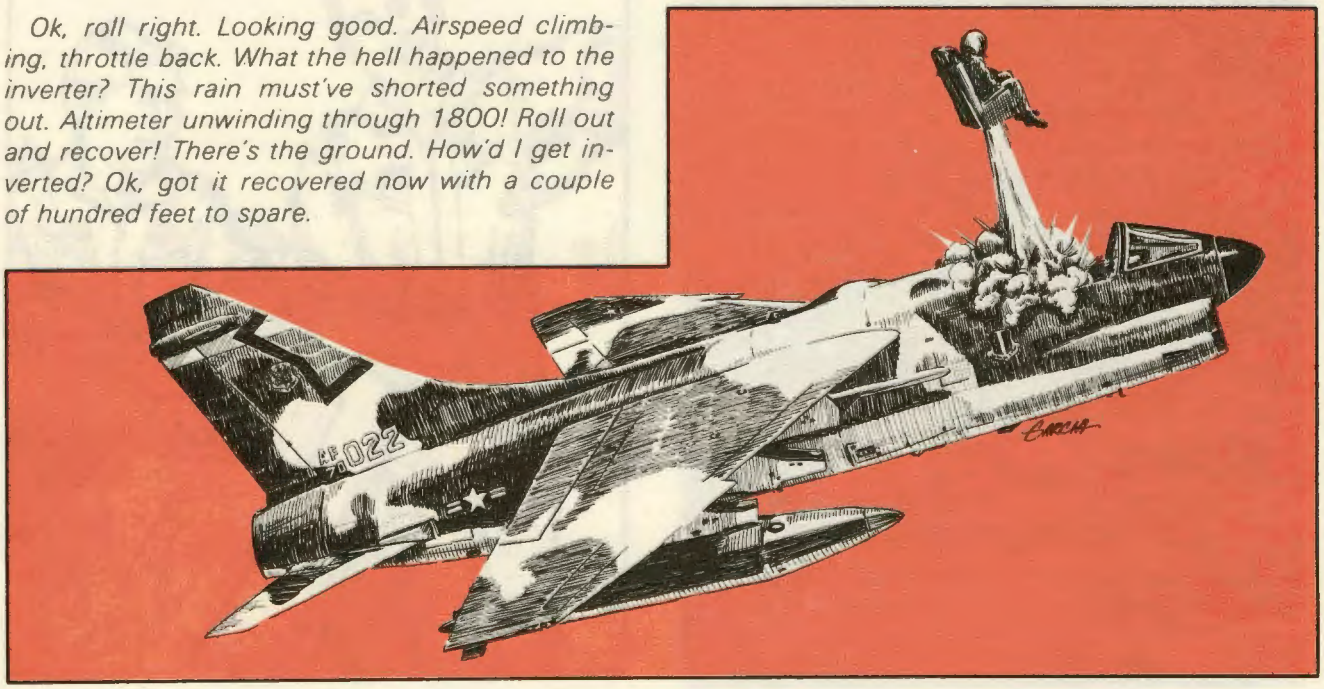
Ok, roll right. Looking good. Airspeed climbing, throttle back. What the hell happened to the inverter? This rain must've shorted something out. Altimeter unwinding through 1800! Roll out and recover! There's the ground. How'd I get inverted? Ok, got it recovered now with a couple of hundred feet to spare.

Getting more sporty all the time! Now that he's locked on to terra firma he should be able to hack it. Hope he gets on the turn needle if he goes popeye again though--it's all he has left!

Vis is crappy and there are low clouds up ahead. No way out. Rats, back in the soup. Enough of this already. Burner, back on the pole. Got to climb out of these clouds. The tops should be around eight thou. Come on altimeter, keep winding up. Airspeed's bleeding off a bit. Decrease back pressure. Altimeter's slowing down. Level at five thou! More back stick--got to keep climbing. Hell, now it's unwinding again! What gives? Airspeed climbing, altimeter still unwinding--through 1500-EJECT!

Good idea, but too late. If he'd been back in the GCA pattern at Homeplate, he'd have known about the low hills he's going to hit just before man/seat separation.

A high timer with good hands and above average emergency procedure knowledge, 32 was doing a fair-to-middling job of handling his emergency. Then he forgot rule number one--maintain aircraft control. Or maybe he didn't exactly know how. It wasn't an easy situation--in the soup, needle, ball, and airspeed. His standby ADI was good until he inadvertently knocked the inverter switch to off while trying to reset the adjacent generator switch. It just doesn't seem



NEEDLE, BALL, AND....

fair for the weather, unfamiliar terrain, generator failure, and inadvertent inverter problem to gang up on anyone at the same time; but there he was, and when he needed it most he didn't have it.

A quick scan of the computer memory banks at AFISC shows that others have faced similar situations, and some have even brought their crippled birds home safely. Could you? Those who have been able to hack it knew that once the main and standby ADI were gone, they had to get on the turn needle, airspeed, and altimeter. That also may have been obvious to lots of you reading this article, but I'm not too sure many of us would have been able to work our way out of this situation.

Do you think you could recover should Lancer 32's situation greet you one day? If you think you could, but want to be sure, or are just interested in an enlighting review of partial panel flying, motor over to the Ops Desk and pull AFM 51-37 out of the FCIF. Here's a recap of what it says.

a. Determine whether the aircraft is in a climb or a dive by referring to the airspeed, altimeter, and vertical velocity indicators.

b. If diving, roll to center the turn needle and recover from the dive. Adjust power or drag devices as appropriate. (Disregarding vertical attitudes, rolling "away" from the turn needle and centering it will result in an upright attitude.)

c. If climbing, use power as required. If the airspeed is low or decreasing rapidly, pitch control may be aided by maintaining a turn or approximately standard rate on the turn needle until reaching level flight. If the turn needle in a flight director system is used, center the turn needle. This is because it is very difficult to determine between a standard rate turn and full needle deflection.

d. Upon reaching level flight, center the turn needle. The aircraft is level when the altimeter stops. The vertical velocity indicator lag error may cause it not to indicate level until the aircraft passes level flight.

Note: Spatial disorientation may become severe during the recovery from unusual attitudes with an inoperative attitude indicator. Extreme attitudes may result in an excessive loss of altitude and possible loss of aircraft control. Therefore, if a minimum safe altitude for unusual attitude recovery is not contained in the flight manual, decide upon an altitude at which recovery attempts will be discontinued and the aircraft abandoned. On aircraft equipped with an operative autopilot, it may be used to assist in a last chance recovery from unusual attitudes.

After you think you've got it straight in your mind, you might like to put it to use. Try it during your next sim; or if your unit doesn't have a sim, give it a go on your next flight. (VFR and frequent peeks at the ground and other instruments are authorized and highly recommended the first time you try it, and until you're sure it works for you!)

Have you practiced partial panel approaches? How about needle, ball, and airspeed--could you control it in a climb to get out of the clouds? How about a final approach? Check the Dash One--will the needle still work with DC power only? Give it some thought and get your plan together. You'll probably never need to use it, but if you ever do you'll have a great "war story" to tell at the bar.

AIRCREW of DISTINCTION

186 TRG
Key Field
Meridian, MS

On 12 October 1979, Colonel Biffle O. Pittman and Major Maxey J. Phillips were flying a low level reconnaissance training sortie enroute from England AFB, Louisiana, to Key Field, Mississippi. Approximately three minutes into the low level at 500 feet AGL and 480 kts ground speed, the aircraft collided with a large vulture. The bird impacted the right quarter panel and penetrated the right side of the front cockpit. Colonel Pittman was stuck in the face and right shoulder area by bird and canopy fragments. This impact shattered his clear visor, bent and distorted his glasses, and left his right shoulder and arm numb and immobile.

The aircraft began a series of pitch oscillations from +6.0 to -2 Gs. Extreme wind blast and flying debris made orientation difficult. Major Phillips assumed control of the aircraft during the first pitch oscillation, slowing to 250 KIAS and climbing to 2,000 feet AGL to maintain aircraft control and attempt to establish intercockpit communication. Damage inspection immediately revealed that Colonel Pittman's personal parachute container was broken and portions of the parachute were hanging loose from the container. Major Phillips returned to England AFB to land. Colonel Pittman was able to lower the landing gear and flaps with his left hand and deploy the drag chute during landing rollout.

The professional airmanship and crew coordination of both crew members prevented the loss of a valuable combat aircraft and further injury to themselves. Their actions qualify them as the Tactical Air Command Aircrew of Distinction.

Col Biffle O. Pittman

Maj Maxey J. Phillips

TAC TIPS

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

Man does not live by words alone, despite the fact that sometimes he has to eat them.

ADLAI STEVENSON

THIS WAY. NO, THAT WAY.

The A-7 was waiting for takeoff clearance when the nose wheel suddenly turned hard left. The pilot also noted IMS and AFCS failures with numerous off flags on various instruments. The flight was aborted, and the pilot found the nose wheel could be made to go either left or right, but control was extremely sensitive and maintaining directional control at more than a crawl was doubtful. The nose wheel steering was disengaged, and the aircraft was taxied to the parking ramp using differential braking.

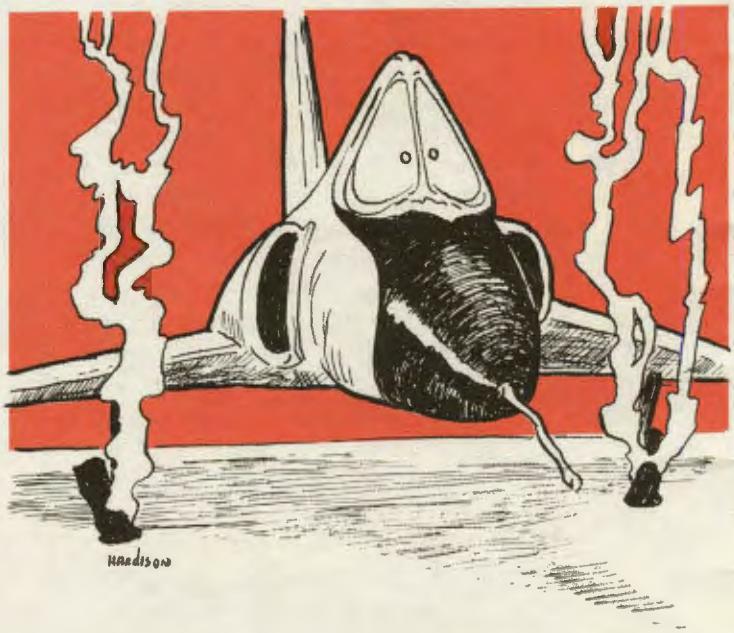
The problem was traced to a bent pin which created some shorts in the electrical system including loss of power to the 26V Primary Instrument Bus which powers the nose wheel steering feedback transducer. Operation of the nose wheel steering system without the feedback transducer results in full left or full right commands whenever the rudder is other than neutral--not what you could call your ideal situation.

That's why the problem happened, but what if something had happened while the pilot was taxiing the aircraft back to the chocks, using only brakes for directional control when "maintaining directional control at more than a crawl was doubtful"? About the only thing you should do with an aircraft that has directional control problems is to shut it down and let the maintenance folks tow it wherever they want to. That is infinitely better than running it off the runway, taxiway, or into another aircraft!

HOT BRAKES

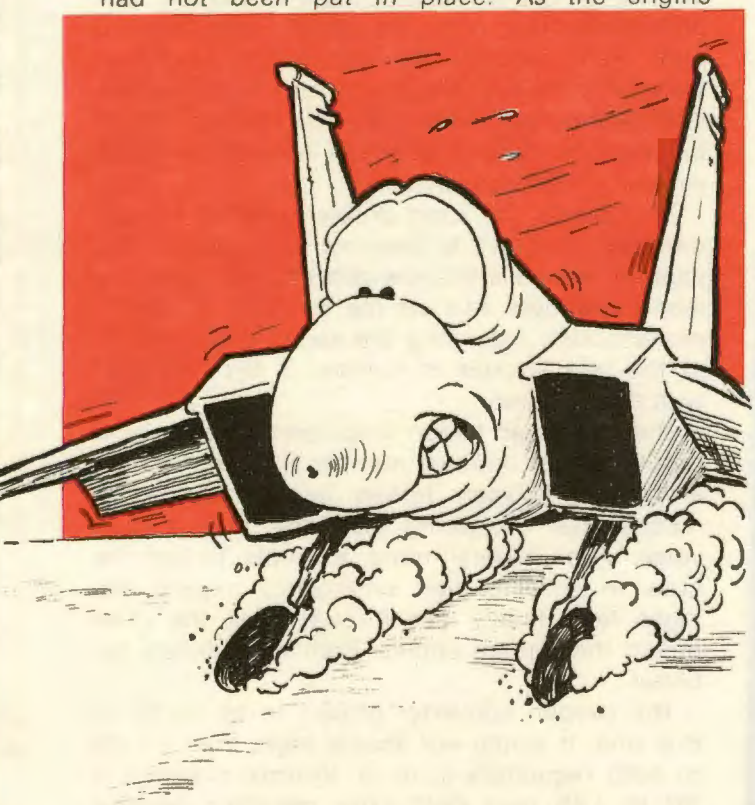
The F-106 was preparing for a DACT mission. Start, taxi, and run-up were normal. Shortly after brake release, the pilot noted eye-burning fumes in the cockpit and aborted the takeoff. After clearing the runway, the pilot elected to taxi back to the chocks since no evidence of fire or overheat or other source of the fumes could be identified.

After arriving back at the chocks, the fuze plugs in the wheels melted and the tires deflated. During the taxi out, runway abort, and the following taxi back, the aircraft had covered over four miles and had built up an excessive amount of heat in the wheels. If you end up in a situation such as this, it would be prudent to have your wheels and tires checked before entering the parking ramp. Exploding brakes and tires can cause extensive damage and fatal injuries.



F-15 EMERGENCY BRAKES

An Eagle driver in another command was parking his aircraft on a sloping portion of the ramp. The pilot stopped the aircraft and shut down the engines. Unfortunately, the chocks had not been put in place. As the engine



spooled down and the hydraulic pressure dropped, the aircraft started to roll. The pilot pulled the emergency brake/steering handle but got no braking. He quickly started the Jet Fuel Starter (JFS), engaged an engine, and stopped the aircraft.

Why didn't the JFS accumulator provide pressure to stop the aircraft? The pilot held the brake pedals depressed the whole time and during the sequence, as the engine spooled down, residual utility hydraulic pressure was no longer sufficient to hold the brakes, but was sufficient to prevent the brake pressure shuttle valve from moving and allowing the emergency brake pressure from the JFS accumulator to activate the brakes. Releasing the brakes momentarily would have allowed the shuttle valve to move and the pilot would have had brake pressure. Another fact to store in the pilot's computer . . .

OUCH !

A pilot undergoing F-106 training was flying his first front cockpit night mission in the F-106B. During the first night touch-and-go landing, the IP and student reported touchdown approximately 2,000 feet down the runway at 155 kts. The speed brake was retracted, power advanced, and the nose lowered to accelerate for takeoff. The aircraft accelerated normally at first, but then the crew noted a sharp decrease in thrust and several engine surges. The crew elected to abort with 3,500 feet of runway remaining. The departure-end BAK-12 was engaged with the nose gear on, or just above the runway. The nose gear strut sheared about halfway between the wheel and upper portion of the strut. The aircraft came to rest on the sheared strut and the aircrew shut the engine down and egressed. Other than the sheared strut, there was only minor damage to the aircraft.

What happened? Well, during the initial intercept portion of the mission, the altitude warning horn activated several times with the system set at 10,000 ft. The system was reset to 1,000 ft to keep the horn from interrupting the intercept activity. On RTB, during the base turn, the altitude warning horn sounded again. The pilot reached for the audio warning cutoff button and apparently turned the idle thrust switch on. (The idle thrust switch had been checked off during descent.) With the idle thrust switch on and weight on the left main landing gear, the engine exhaust nozzles are opened and the effective thrust of the engine is reduced about 40 percent in idle and 35 percent at military power.

During the takeoff roll, the upgrading pilot was "hunting" for the proper pitch attitude. As he changed the pitch during ground roll, the microswitch in the left main landing gear opened and closed, causing the nozzles to cycle, giving the crew the impression of engine surges and thrust problems.

As the 106 engaged the BAK-12, the aircraft's nose was still on a downward vector. This factor combined with the additional force of the cable engagement caused the strut to shear.

In a dark or dimly lit cockpit, it's very easy to inadvertently hit a wrong switch. If the time is available, it might pay to double check. This should also serve as a reminder to our 106 drivers of the indications you might have if the switch is left on at the wrong time.

TAC TIPS

ALL I NEED IS THE AIR THAT I BREATHE...

Or so go the lyrics to a popular song. While that may be overstating things, if you don't have air to breathe you won't be needing much of anything else. There have been a number of physiological incidents lately where it was apparent that folks didn't give their 02 equipment a good preflight--here are some of the incidents ...

A pilot was flying his T-Bird at 28,000 ft over the southern U.S. Cabin altitude indicated 24,000 ft. After being at this altitude for about 10 minutes, he experienced dizziness and lightheadedness lasting 15 seconds. He selected 100% and then the "safety" position on the regulator--without any improvement. The pilot increased cabin heat which reduced cabin altitude to 20,000 ft, and he began to feel better. Further descent cleared up all symptoms.

Postflight investigation revealed that the connector between the regulator and the pilot's hose was faulty so that more than 50% of the regulator output was leaking into the cabin. The pilot was getting less than 50% of the oxygen he should have received ...

• • •

A flight of four F-4s was on an RTU training mission. The number 3 aircraft experienced cabin pressurization problems, so the IP elected to continue the mission below 25,000 ft MSL. While practicing 4-ship tactical formation at 23,000 ft, the IP noticed icing in the left rear portion of the canopy. He informed the student pilot who checked the thermostat and also stated that he felt fine. The student pilot also felt slightly dizzy and nauseous--but didn't tell the IP because he figured this was normal for flying without cabin pressurization.

To alleviate the icing problem, the flight lead directed number 3 to descend to 15,000 ft. The student started a shallow descent not matching lead's pushover and set the throttles at idle simultaneously extending the speed brake. The IP in the rear cockpit of number 3 felt "content" with the situation.

The flight lead began to suspect physiological problems and directed number 3 to activate the emergency oxygen (green apple). Number 3 replied that everything was fine in a slurred voice. After several more attempts to get the crew to activate their emergency oxygen, the flight lead finally got through and the crew pulled their green apples. Both immediately felt better.

The oxygen converter proved to be faulty on this one. It would not supply more than 45 psi to both regulators at once. (Normal pressure is 50 to 125 psi.) Both crew members became hypoxic due to the combination of cabin pressurization and oxygen systems failure.

The flight lead's quick thinking and aggressive action prevented a far more serious mishap.

• • •

In still another incident, a crew member suffered hypoxia and symptoms of the "bends" while cruising at FL 310 with a cabin altitude of 23,000 ft. Postflight investigation revealed another loose connection which would have been noted during a full oxygen system preflight.

• • •

Whatever the procedures are for checking out your aircraft's oxygen system--follow them. They truly are a matter of life and breath.

EFFECT OF OXYGEN-WANT ON HANDWRITING DURING ASCENT

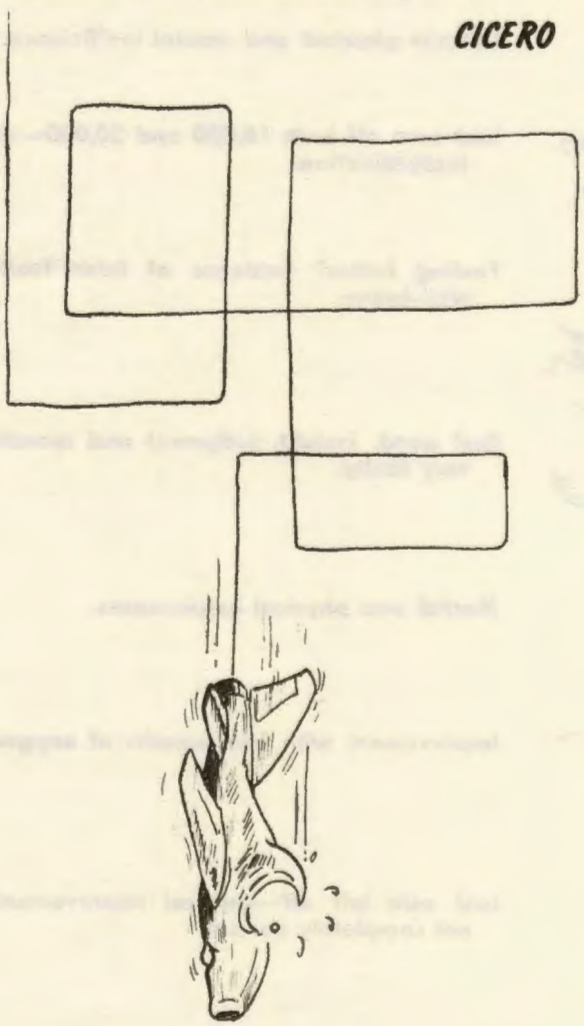
ASCENT TO 25,000 FEET WITHOUT OXYGEN	EXPLANATORY REMARKS
A sample of normal handwriting in flight at 2000 ft	Control specimen of normal handwriting.
10000 ft - breathless	No apparent effect.
15000 ft - feel uneasy generally numb feeling some numbness in legs and hands	Beginning muscular incoordination.
18000 ft very Bad	Definite physical and mental inefficiency.
20000 ft: faint - numbness in legs: vision fading	Last zero off both 18,000 and 20,000—marked incoordination.
22000 ft: pain in red bands: pale to me feel better	Feeling better? Evidence of false feeling of well-being.
23000 ft: feel good stupid for awhile then open legs wrong	Feel good. Insight, judgment and coordination very faulty.
24000 feet - Hopeless Mental a/s	Mental and physical helplessness.
25000 ft oxygen turned on	Improvement with few breaths of oxygen.
3000 ft. Very bad laughter - Hearing returning feel O.K. Voice -	Last zero left off—general improvement, but not completely normal.

ON FLYING AIRPLANES AFTER THINGS GO WRONG

By Maj Pete Abler

To stumble against the same stone twice is a proverbial disgrace.

CICERO



Us folks in the airplane driving business have a tendency to see ourselves as a little bit faster, meaner, smarter, or whatever than our earth-bound acquaintances. Sometimes, during our attempts to prove just how smart we are, we end up proving just the opposite. Here are a few examples of what I'm talking about.

An F-111 was en route to its home station following depot maintenance. During the flight, one of the oil pressure gauges began fluctuating. The crew followed the checklist steps and after the throttle was placed in idle, the fluctuations stopped. The crew watched the engine for other signs of oil pressure problems. Since the F-111 oil pressure gauges have a frequent failure history, the crew decided to swap the two gauges instead of monitoring the engine as called for by the checklist. During the crew's on-site maintenance attempts, the engine seized due to inadequate oil pressure...

Another F-111 was flying a night low level on Terrain Following Radar. The system was set to maintain 400 ft AGL; and as the plane flew

along at that altitude, the crew noticed a fly down which the automatic protective circuits did not override. The crew recovered the aircraft, climbed to their minimum en route altitude, and turned the terrain following system to standby. After a bit of system "troubleshooting," the crew turned the system "on" again and descended to 1,000 ft AGL. A few minutes later, the aircraft did a -2G flyover from which the crew barely recovered...

An F-4 crew was returning from a normal training mission. The pilot flew an overhead pattern and configured the aircraft on downwind. The gear extended normally, but as the flaps were lowered, the rudder pedals pulsed about six inches and a mild rolling moment was experienced. The pilot raised the flaps, depressed the paddle switch, and set up for a straight-in approach. While setting up for the straight-in, the pilot pulled the roll stab aug circuit breaker. (He should have pulled the yaw aug breaker.) Once established on the straight-in,

about four miles out, the pilot decided to lower the flaps again. A repeat of the previous downwind events ensued. Once again the flaps were raised and the paddle switch held until things settled down. The crew had adequate room to recover the aircraft and complete an otherwise uneventful landing...

The list could go on and on. By now I'm sure you can identify the common thread in these mishaps. In each case, the aircrew initially identified a problem and analyzed it correctly. They began to follow the proper procedures for corrective action and in some cases completed them--and then reactivated the bad system. The results are predictable to us now that we're sitting here reading the incidents, but weren't predictable by the aircrews. Otherwise, they wouldn't have reactivated a malfunctioning system.

Think about it for awhile. Have you ever had a malfunctioning engine--compressor stalls, hard A/B lights, engine surges, etc? Did you play around with it, trying to see how hard it would stall or how high the EGT would go? I'd bet that we've all done something similar in our flying careers. We probably didn't spend too much time wondering if we were damaging the engine or not. But, that is precisely what we all should consider.

Aircrew members are trained to fly an aircraft and to operate the systems and components within established limits--limits set by design engineers after appropriate testing. Their tests also help define normal and emergency procedures. You and I as crew members don't have the benefit of knowing all the whys and wherefores for each procedure, so we can't possibly predict the outcome of actions not listed in operator's manuals.

Once an aircraft begins to show you it's not hitting on all eight, follow the established procedures. If they take care of the problem--you're in good shape. Don't put yourself back behind the eight ball by giving in to the temptation to see if the problem has "fixed" itself. Very few do. One more point. If you're tempted to "invent" some troubleshooting procedures--don't. Leave that to the maintenance folks who are trained for the job. Your attempts at troubleshooting could even mask the real problem and lead to an "unable to duplicate."

Let's make certain that in our attempts to prove how smart we are that we don't end up outsmarting ourselves.

TAC SAFETY AWARDS

Crew Chief Safety Award

Airman Brian Spessard, 49th Aircraft Generation Squadron, 49th Tactical Fighter Wing, Holloman Air Force Base, New Mexico, is the recipient of the Tactical Air Command Crew Chief Safety Award for February 1980. Airman Spessard has demonstrated an uncommon level of dedication and attention to detail in his duties as an F-15 crew chief. He consistently excels in all assigned tasks and has promoted a high level of safety consciousness within his unit.

Amn Brian Spessard

Individual Safety Award

Technical Sergeant Hugh A. Delconte, 49th Aircraft Generation Squadron, 49th Tactical Fighter Wing, Holloman Air Force Base, New Mexico, is the recipient of the Tactical Air Command Individual Safety Award for February 1980. Sergeant Delconte is currently assigned as an Integrated Avionics Specialist Supervisor in the 8th Aircraft Maintenance Unit. Recently, an aircraft assigned to his unit experienced a Jet Fuel Starter explosion and fire during engine start. The aircraft was loaded with live ordnance. Sergeant Delconte directed efforts to extinguish the fire, aid the aircrew, and move aircraft which were too close to the fire area. His quick thinking and prompt response prevented injury, possible loss of life, and further damage to a valuable aircraft.

TSgt Hugh A. Delconte

TRAGEDIES CAN BE PREVENTED

By Col Stanley P. Schneider
Vice Commander
23 TFW, England AFB, LA

I have had an extremely difficult time preparing this editorial. I feel compelled to address a problem for which there is no solution immediately available to a wing commander--or any commander for that matter. So, rather than turn you off immediately by telling you what that problem is, let me relate some experiences I have had recently in hopes of generating your interest and concern. Then maybe you will understand our dilemma and can help solve it.

On two occasions in my short term as vice commander, I have been required to knock on the doors of two of our dependent wives and advise them of the deaths of their husbands. One recent weekend, the base civil engineer had to perform the same totally distasteful duty. No one can convey to you the emotion or the heart-rending sympathy and frustration experienced when you carry such a shattering message to a totally unsuspecting and unprepared dependent or parent.

Personally, and I admit quite candidly and openly, I am not able to perform this duty in the strictest military traditions of self-discipline. I too, become emotional--especially when young children are involved--when I suddenly realize how my message to them has so completely changed their lives.

I freely admit to a weakness, if indeed it is one, of being unable to divorce myself from the tragedy that is taking place at that moment. I defy anyone who has a concern for the dignity of the human spirit and love for the sacred institution of the family unit not to become emotionally and personally involved.

When a soldier dies in combat, the circumstances of the loss are much easier to explain and easier for the family to understand and accept. But when the tragedy occurs through neglect, disregard for the law, self-abuse or by sheer "accident," then it becomes difficult or impossible for relatives to understand or accept. Many cannot accept it. I certainly can't.

The problem is, how do you make people aware of the tragic results of such a traumatic and destructive thing like losing a member of your family as a result of an unnecessary accident? How do you convey to them the frustration the commander and families feel when that message must be delivered? Most importantly, how do you make the point strongly enough that it is within your power to prevent these tragedies from happening?

Commanders and supervisors talk so much of safety that it risks losing its importance or meaning. The assumption often is made that accidents happen to others. Well, I want to tell you that a wing commander does not and cannot divorce himself from this problem. He is not asking you to share that concern because it is a difficult task for him to bear the tragic news. He is asking you to share his concern not only for your sake, but most importantly, for those members of your family and friends who must suffer the deeply emotional experience of losing a loved one and being forced to face the future alone. I think it is life's greatest tragedy to unnecessarily lose someone you love. Events of the recent past point out very clearly that it can happen to you--and your families.

I hope you never have to share a commander's responsibility to inform a family of the death of a relative. Conversely, no one can issue an order that these tragedies will stop. It boils down to a clear understanding of the influence you have in preventing the tragedy from happening.

That's what I am asking you to do. Accept the responsibility for your actions and understand that you, and only you, can keep these things from happening.

Think about it. Is it worth it?

TAC AND TAC-GAINED (ANG & AF
LOSSES JAN-DEC 1979

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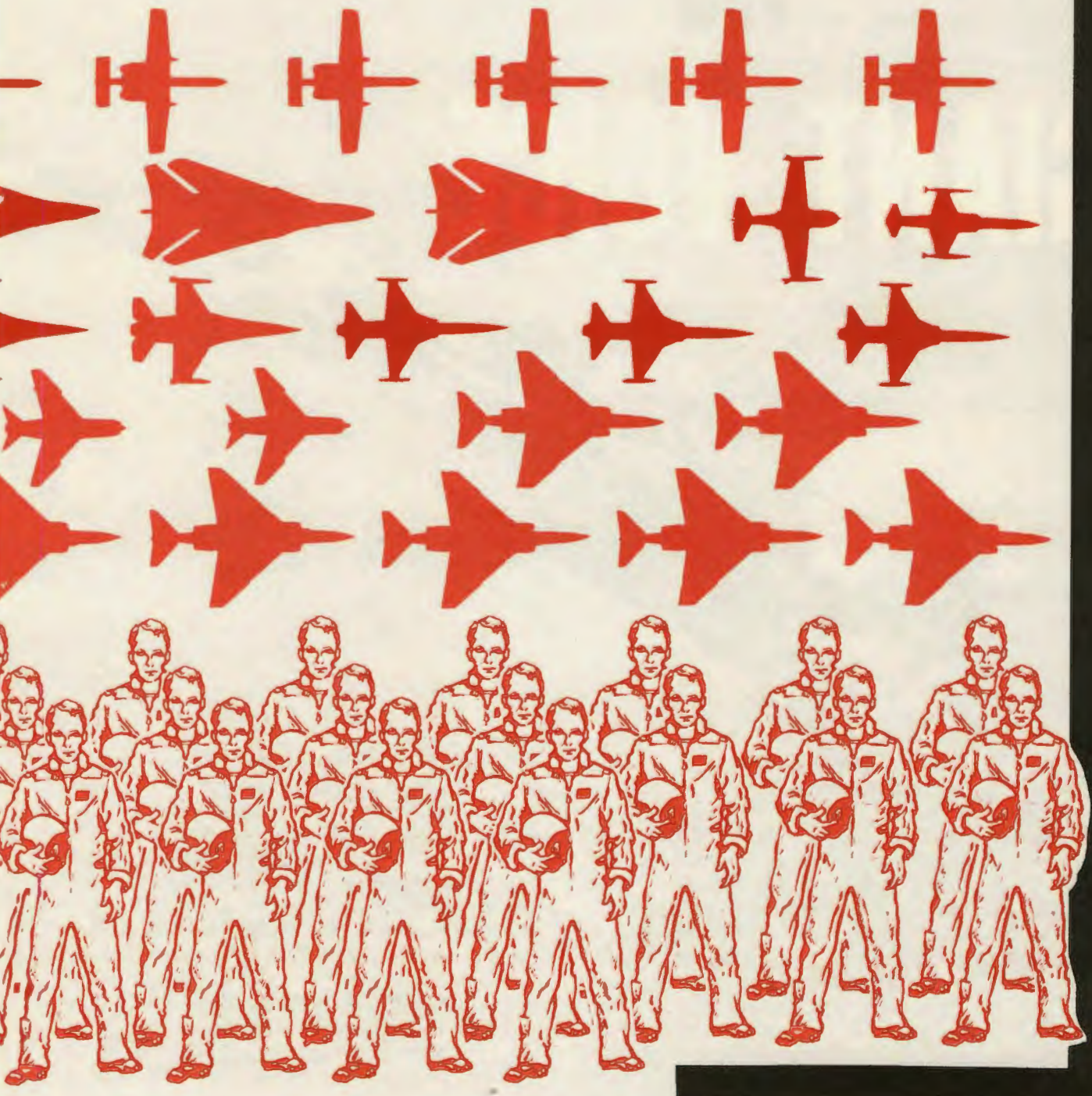


ADTAC PARTICIPATES IN GIANT VOICE

By Capt Owen Jensen
NORAD/DOOO

"A huge bomber was skimming the plains of eastern Colorado. Knowing I was behind him, he was desperately weaving back and forth, jamming my radar and trying to suck me into tail gun range. As I worked for a valid shot, my time was rapidly running out. I never thought shooting a B-52 could be so tough."

For the first time, Strategic Air Command (SAC) invited air defense units to participate as adversaries for bombers flying in their annual bombing and navigation competition, Giant Voice, that was held last November. Unlike Red Flag where accurate F-106 radarscope film debriefing and real time scoring of tail gun shots never occurs, this exercise was designed to fully account for bomber defensive measures and required all simulated interceptor launches to be validated on film. It posed a difficult problem for interceptor pilots flying F-106s and F-4s and many valuable lessons were learned.

For air defenders, Giant Voice started over six months before the actual flying. Suitable airspace had to be found and approved, rules and refueling schedules agreed upon with SAC, E-3A support coordinated, communication links set up, interceptor units scheduled and support provided at a staging base. The primary goals

were to run a well-coordinated, professional exercise with safety fully considered and realism injected into every intercept.

In the midst of these preparations came the reorganization of ADCOM. All fighter squadrons were integrated into TAC for daily training, with NORAD regaining their services in time of war. Giant Voice was specifically aimed at a CONUS strategic defense scenario, so it was judged to be a good vehicle to test NORAD and ADTAC interface and capabilities both now and in the future years. Therefore, it became a NORAD exercise with operational control of fighters passing from ADTAC to NORAD just prior to deployment. NORAD representatives were aboard the E-3A and the activity became a fully integrated test of NORAD's fighting forces.

Let it not be forgotten that Giant Voice is SAC's major competition of the year. Although allowing fighters to participate promised to enhance realism, they were unsure of its impact on scoring and safety. So, for this first trial, they decided to keep objectives limited and to award only a minor portion of possible points to bomber crews for evading and employing countermeasures against the fighters. Simply stated, the problem for bomber crews could be written: "Given that you have been found at low altitude by two fighters, can you successfully employ countermeasures to escape them?" This was never meant to be a test of E-3A/interceptor detection capability. Bomber routes and entry times were known and published well in advance. ADTAC's commitment was to put two fighters on every bomber and evaluate the results. It was a good test.

Twenty-one bombers consisting of various models of the B-52, FB-111s, a TAC F-111, and two RAF Vulcans, competed in the exercise. The bomber stream penetrated the exercise area over eastern Colorado and western Kansas at an approximate rate of one every twelve minutes for over five hours on three successive days. Each unit flew a different crew each day. SAC scorekeepers then tallied the points and selected one best crew from each unit, and on the final fourth day all 21 flew a mission on a completely new route to determine individual winners. Fighter adversaries were not included on this scenario due to a lack of a suitable intercept airspace.

The NORAD contingent consisted of 28 aircraft and aircrews from the following active and Air National Guard interceptor units:

5 FIS, Minot AFB, ND (F-106)
84 FIS, Castle AFB, CA (F-106)
87 FIS, K I Sawyer AFB, MI (F-106)
318 FIS, McChord AFB, WA (F-106)
119 FIG, Fargo, ND (F-4D)
120 FIG, Great Falls, MT (F-106)
144 FIW, Fresno, CA (F-106)

Peterson AFB, Colorado, was the staging base and supported the aircraft, crews, and maintenance teams. Refueling was provided for the fighters directly over the intercept area and the 552 AWACW flew an E-3A in a nearby orbit for intercept control, refueling rendezvous, and FAA coordination. Responsibility for air defense was divided into separate blocks with each unit responsible for a specific number of bombers on a given day. Most units flew only one competition mission; but they were long, tiring and very busy.

During the planning phase, specific rules of engagement were developed after careful consideration. These rules proved to be safe and yet still allow excellent training. They serve as a model for similar exercises in the future or for daily training, given suitable airspace. Therefore, they are listed here for reference:

ADTAC PARTICIPATES IN GIANT VOICE

I. All provisions of JM 55-200 apply.
II. Bomber Restrictions
A. VFR
1. Bombers may operate between 400 and 2000 ft AGL.
2. ECM/chaff allowed.
3. Up to Level I evasion allowed.
4. No comm jamming (only for scoring purposes on tail gun shots).
B. IFR
1. Must maintain hard altitude of 2000 ft AGL.
2. No ECM/chaff (only for radarscope film evaluation purposes). See 15 Sep 79 JM 55-200 for allowable counter-measures.
3. No evasion.
4. No comm jamming.
III. Interceptor Restrictions
A. VFR
1. Never descend below bomber altitude.
2. Autonomous (no GCI) operations allowed.
3. VFR defined as 3500/5.
4. Maintain 1000 ft clear of target block and 500 ft clear of other fighters prior to JUDY (Tally-Ho).
5. Never fly closer than 2000 ft to any bomber regardless of Heading Crossing Angle (HCA) or altitude after Tally-Ho.
B. IFR
1. Never descend lower than bomber.
2. GCI must be operating. If no GCI, mission must be aborted.
3. Maintain 2000 ft clear of target block and 1000 ft clear of other fighters prior to JUDY.
4. Never fly closer than 3000 ft to any bomber regardless of HCA or altitude after JUDY.
C. Collision Avoidance
1. Flight lead must ensure separation between himself and his wingman during attacks. Flight lead will call either himself or his wingman "in hot." The "hot" fighter is not responsible for separation from the other fighter. The remaining (cold) fighter is responsible for positive separation until the "hot" crew finishes the attack. Roles will then reverse.
2. If a spare from another formation joins a single fighter, he will always be number two.

Some two months prior to Giant Voice, the USAF Interceptor Weapons School at Tyndall AFB, FL, conducted full scale tests to verify fire control system techniques, safety rules, and scoring procedures. Representatives from SAC monitored these missions and concurred in their validity.

Since all interceptor shots had to be fully verified on film, simply obtaining a tone, visually ranging, and squeezing the trigger was not good enough. In the face of full bomber countermeasures and tight parameters for armament launches, a highly challenging problem for interceptor crews was developed. Crews quickly found that sorting out ground clutter, jamming, and chaff while ensuring specific launch indications were recorded on film--all done while flying at relatively high and low altitude--was a demanding task.

At home, the ADTAC squadrons had studied the rules and area maps, prepared flight plans, planned how to rotate to the tanker without letting a bomber slip through, and practiced low level intercepts. Generally it was agreed that even if the competition never came off the preparation was a valuable effort in itself. At the appointed times, however, fighter units finally began to assemble at Peterson AFB. Communication links were set up to allow full NORAD command and control from a temporary command post. Then the first launches began. For three days, fighters, tankers, bombers, and AWACS converged on the small intercept area and held the closest thing to strategic war that many had ever experienced. It quickly became evident that bomber crews took these missions very seriously. They were not about to let themselves be "shot" without attempting everything allowed to them. Likewise, a competitive spirit developed among the interceptor aircrews; and at the end, the "best interceptor crew" trophy went to Maj Dick Lambert of the 318 FIS.

In the end, evaluators found an amazing variety of tactics and techniques, but the careful planning and precise objectives paid off by pointing out specific improvements and valuable lessons learned. Both SAC and NORAD were pleased with the performance of their crews and goals began to be formulated for the next competition. When an exercise such as this is carefully planned and precise goals are established, it becomes almost an R&D effort, and as quickly as answers are found further questions arise that need to be answered in following years.

The success of Giant Voice 80 and the testimony by aircrews affirming the critical necessity for this type of realistic exercise was met by a firm determination not to let this experience fade or be repeated only once a year. It is imperative that trainers at all levels carry on from here. Good training airspace must be further developed. Coordination with local SAC units must be expanded. All aircrews with an air defense mission must reap the benefits from training that was shown to be both feasible and effective during Giant Voice 80.

About the author...

Capt Owen "Juice" Jensen was the NORAD and ADTAC project officer for Giant Voice 80. He graduated from the University of Illinois with a BFA degree; and after receiving his ROTC commission, he entered pilot training at Reese AFB in February 1969. After pilot training, Capt Jensen checked out in the F-106 which he flew at the 95 FIS, Dover AFB, DE, and Southern Air Defense, Tyndall AFB, FL, until November 1974. After spending a year at Osan Korea as a defensive duty officer in the 314th Air Division, he was reassigned to F-106s at K I Sawyer AFB, MI, in November 1975. Capt Jensen was assigned to HQ NORAD/ADCOM in December 1978 and has an MA degree in Public Administration from the University of Oklahoma.

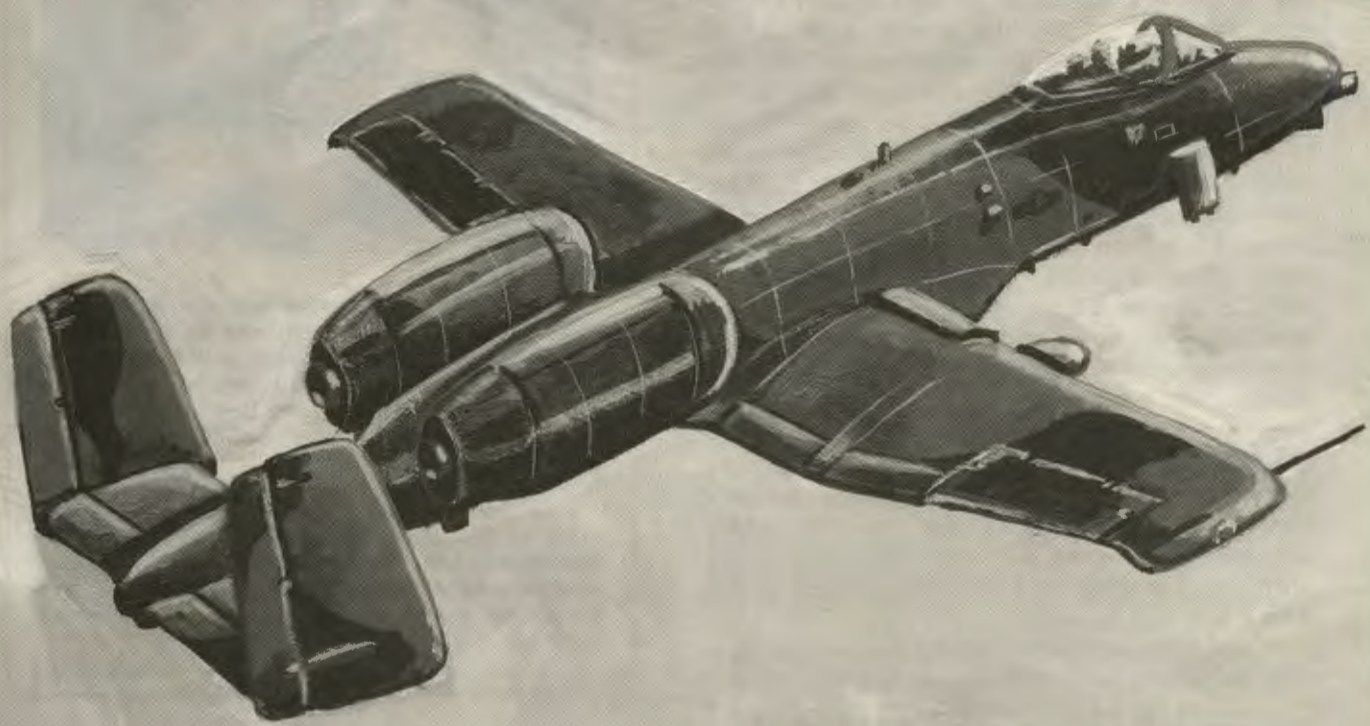
RULES FOR SURVIVAL

"NEVER HIT ON TWELVE."
"ALWAYS HIT ON SIXTEEN."
"DON'T SWEAT THE SMALL STUFF."
"ADD 10 KNOTS FOR MAMMA AND THE KIDS."
"NEVER WALK UNDER A LADDER!"
"ALWAYS WEAR A SEATBELT!"
"ALWAYS CHECK SIX."

By Maj Wayne Skora
HQ TAC/SEF

Everyone has their own set of rules or personal guidelines that they live by. Most of them aren't written anywhere. A lot of them have just been put into use over the years because of personal experience. People use these little personal rules to help them socially: "If you lose, double your bet." We also use them professionally: "Attack from out of the sun." Some are just for survival: "Never P.O. the guy who writes your OER (APR)!"

There are two more rules I would like to pass on that were given to me by an old, bold fighter pilot who had flown many combat missions and many type aircraft. "Son," he said (he called every young fighter pilot son), "the most important rule in life is never draw to an inside



straight." (I have since found out he was right, so naturally I believed everything else he told me.) "And second, when you're in an airplane, never trust anybody! You have to assume the back seater, front seater, left seater, right seater, navigator, IP, GCA controller, weatherman, SOF, air traffic controller, crew chief, maintenance, quick check, flight lead, or wingman, is professional and capable--but still subject to making mistakes, mistakes that can be fatal. Never completely trust the airplane, either. You can't afford to have blind faith in anyone or anything which can get you into trouble in the air.

You may feel uncomfortable with that wording, but it's plain and simple--if you want to be an old, bold pilot or nav, just assume the other guy can make a mistake. That philosophy is not impossible to live with. It's not that you should assume everyone else is incompetent or unprofessional or out to kill you. You can't go to the extreme where you refuse to look into the radarscope because you might have to take your eyes off the other guy. Nothing wrong with assuming everyone is capable and professional, but also assume he could make a mistake and that mistake could end up in you being dead. So, you want to catch that mistake before it catches you.

Think about all the times you've come close and have just been lucky. Remember the crew chief who told you the drip was within limits, and you came back later with hydraulic failure? How about the radar controller who forgot about you, and if it hadn't been VFR, you'd have flown into a mountain? Most GIBs can remember the front seater who thought he was level after pulling off a night bomb pass--but was still descending. Because of bad weather, a SOF diverted an F-4 with a low fuel state without checking the status of the divert base. It was also below minimums. The weatherman had a lot to do with that one too. You can no doubt come up with a lot more examples.

Take a hard look at some of our accident reports. Ask yourself why an airplane with two people in it hits the ground on a low level--the ultimate in bad crew coordination. Why does a wingman let lead drive him into the ground trying to stay VFR? And it's not just the military pilots. Recently an airline airplane mistakenly landed at the wrong airport, 30 miles short of its destination. Talk about embarrassing! What do they all have in common? They assumed! They assumed the other guy would keep them out of trouble, and they assumed wrong.

The amateur trusts luck, the professional doesn't. The professional trusts himself and doesn't assume anything. Want to be an old, bold pilot? Don't assume the TACAN is locked on to the right station. Don't assume the pilot knows his altitude is 1,000 feet low. Don't assume lead sees the bogey. Don't assume the WSO's head is out of the cockpit when yours is in.

And above all, don't assume that you yourself won't make a mistake. Brief every GIB and/or wingman you fly with: "Let's make a deal! Don't assume anything. I won't trust you with my life and don't you trust me with yours!" There never has been a stigma attached to self-preservation.

WEAPONS WORDS

HOW LONG IS A SHORT ROUND ?

By SMSgt John Mann
HQ TAC/SEW

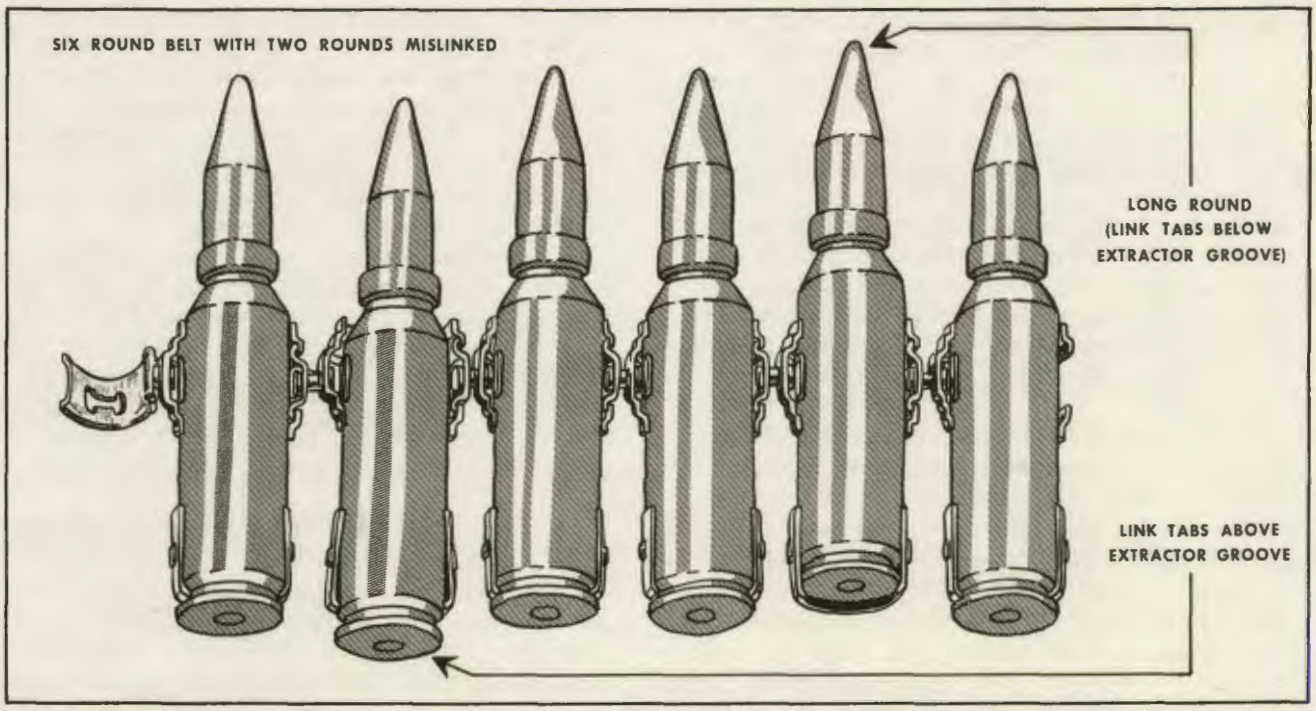
A "short round" of ammo does not refer to the length of the cartridge. The term "short round" or "long round" is used to describe the position of the cartridge in the conveyor elements. Figure 1 depicts both correctly and incorrectly loaded projectiles. If a cartridge projectile extends beyond the other rounds in the belt, it's considered a "long round." The opposite is true of a "short round." Makes sense to me.

A round in either of these conditions could fail to be fired and extracted, allowing another round to be jammed in behind the previous round (double-feed). This double-feed could cause a round to fire out of chamber and result in a damaged gun. A note of caution straight out of the Technical Order: "A mislinked round, once loaded into the pod, will remain out of control in the feed system and will cause damage to the feed system and gun." I can't improve on that.

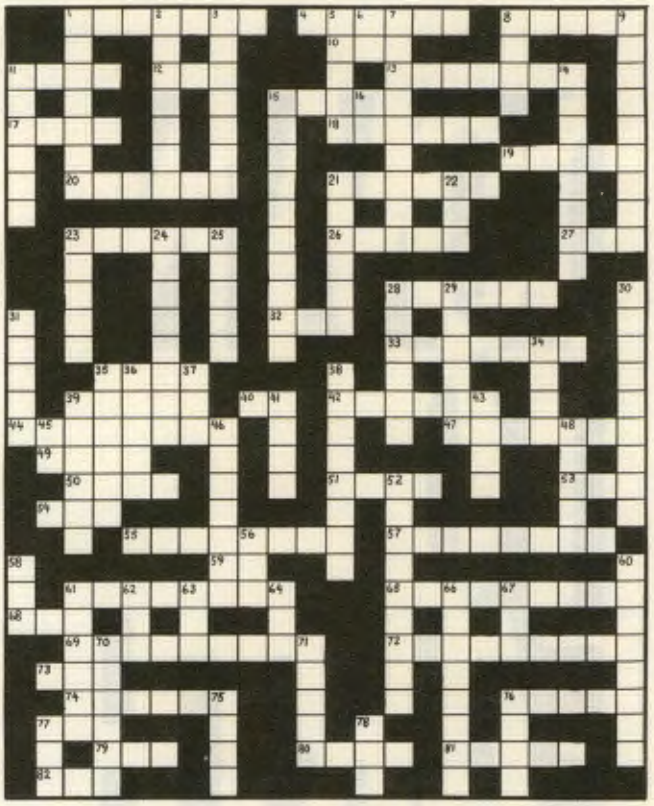
Some double-feed preventions include avoiding "short or long rounds" in the system by carefully checking the linked ammo during load operations. Don't use undue force to load the ammo since this may be an indication of misalignment or worn parts.

Since most ammo loading takes place at o'dark-thirty, it's necessary to have a lite-all on the site to increase correct task performance percentages.

The bottom line is--Inspect! Inspect! Inspect!



weapons words



Since we here at TAC ATTACK try to have something for everyone, we offer you this crossword puzzle. Although it has a definite munitions flavor, anyone who works around airplanes ought to have a good chance of finishing it.

To add an incentive, fill in the puzzle--original or copy--and mail to HQ TAC/SEPP, Langley AFB VA 23665. Include your name and address. All correct entries received by 10 April will be eligible for a drawing for a Fleagle T-shirt. Only one entry per person please.

ACROSS

1. With 4A, where explosive mishaps are reported (two words).
4. See 1A.
8. Where there's———————— there's fire.
10. Tools are kept here.
11. Name of crew to arm aircraft.
12. Weapons safety school is taught by this command. (Abbreviation)
13. MERs and TERs are sometimes————ed.
15. Part of primer.
17. Clearing CAM holdback is one.
18. Sufficient.
19. Additional part.
20. Fusible metal or alloy used in joining electrical wires.
21. Not————————.
23. Written authorization to deviate.
26. Derived from oil.
27. A gun is not a————————.
28. A type of display.
32. Not even.
33. Mortally wounded.
35. Coated with oil.
39. 40, & 42. TAC Chief of Safety article.
44. Speeds a chemical reaction.
47. Type of energy.
49. Sign.
50. Cat's————————.
51. Agreeable excitement and keen enjoyment of the mind.
53. Accidents, incidents, and deficiencies. (Abbreviation)
54. Address to male.
55. To provide with munitions.
57. The shop that normally works on bomb racks and guns.
59. Behold!
61. Required when non-government land is exposed to explosive clear zone.
66. To assign someone.
68. M61A1 is one.
69. Long term waiver that requires the Office of Secretary of the Air Force approval.
72. An explosives location barricaded on at least three sides.
73. You never know until you————.
74. Hand protection required when working with solvents.
76. Storage bays.
77. Organ of sight.
79. Net explosives weight. (Abbreviation)
80. & 81. MJ-1 is one (two words).
82. Live and let————.

DOWN

1. With 23D, this sections title.
2. Sign designating explosives area.
3. Special weapon (another name).
5. With 21D & 38D, type of explosive storage structure.
6. Damages aircraft engines. (Abbreviation)
7. With 28D & 52D, AFR 127-100 title.
8. Halt.
9. Procedures to be followed when things don't go right.
11. Deadly.
15. 20mm for instance.
16. Not out.
21. See 5D.
22. With 29D, TAC safety magazine.
24. Inspection method.
25. Disposal is one type.
28. See 7D.
29. See 22D.
30. Protects against low flying fragments.
31. Poisonous.
34. Open avenue for fire fighter's access.
35. Medieval catapult.
36. Explosives storage structure.
37. Affirmative.
38. See 5D.
39. With 61D, peaceful and military force.
41. Dangerous around explosives.
43. Munitions are compatible if they are the same————————.
45. Chemical suffix.
46. Perceived by touch.
48. Explosive————, or to teach.
52. See 7D.
56. 2000#
58. Used to tow.
60. Pickle/discard.
61. See 39D.
62. Observes
63. Shows explosives locations.
64. ————————man concept.
66. Harshness.
67. Obtained.
70. Toxic, flammable, oily liquid.
71. AF weapons review body.
75. Position.
76. Cluster bomb units.
77. Jettison cart is one.
78. AFR 66-1 armament squadron.

DOWN TO EARTH

WATCH OUT FOR YOUR TUB !

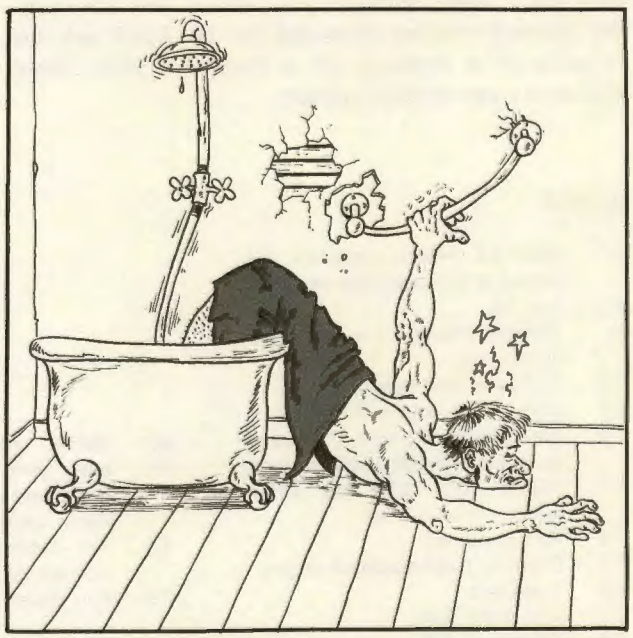
We've all probably heard that one of the most dangerous places for us to be is in the home. This is a fact that cannot be over-emphasized. Surely, one of the most hazardous places in the home is the bathroom. Bathtubs and shower stalls are involved in 187,000 injuries every year that are serious enough to be treated in a hospital.

Falls, burns, electrocutions, and drownings are the end results of many mishaps. Nonskid coatings are available for tubs and showers and the addition of one or two grab bars can save a serious fracture.

In the past year several infants and small children have received serious and even fatal injuries from hot tap water. Never leave a small child alone in the bathroom. You might also lower the temperature on your hot water heater to the minimum necessary for your needs. You'll be saving energy and preventing a possible scalding burn at the same time.

Keep electrical appliances away from the tub, shower, or sink. Water is an excellent conductor of electricity. Countless electrocutions have resulted from radios, heaters, sun lamps, and other electrical devices.

Both the very young and elderly should be attended in the tub. Drownings can be prevented if people will only use a moderate amount of common sense and remain aware of the hazards involved in the bathroom.



MOTORCYCLE SAFETY HELMETS, BAH !!

By TSgt Ike Rose, NCOIC
18 TFW/Ground Safety Office

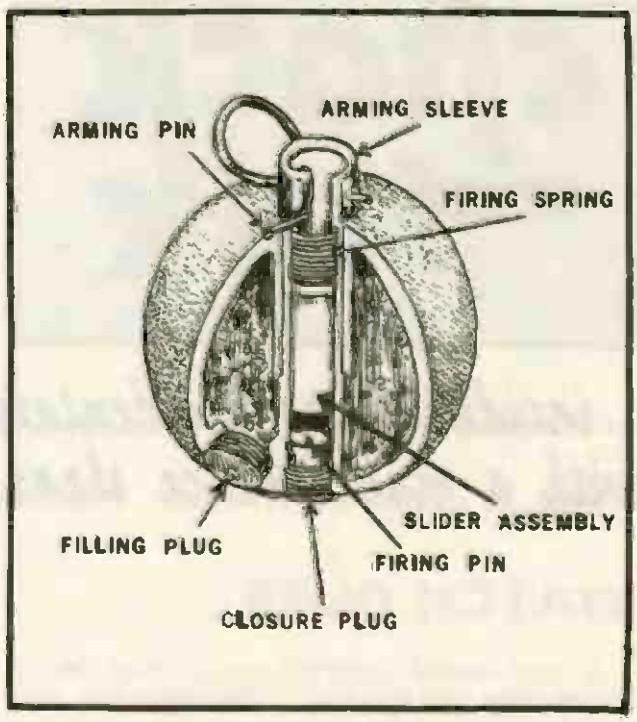
Many of you have already read a recent issue of the Air Force Times and have seen the article on current motorcycle helmet laws. You probably noticed that many states require helmets only if you're under 18 years of age--and with good reason. When you're under 18, your head is softer and can crack easier. And everyone knows that once you're past 18 years of age, you just don't have accidents; so helmets are really unnecessary. State legislators are glad that adults don't have motorcycle accidents, because their "hard heads" do a lot of damage to the environment, such as knocking holes in brick walls, knocking down poles, and inflicting substantial damage to four-wheel vehicles. What? You say fatalities to motorcyclists have increased twenty-four percent since the safety

helmet law repeal in one state alone? How can that be? Surely, all bikers know that helmets are heavy, cumbersome, obstruct vision, and compound injuries if you take a spill while wearing one, don't they? And they all know that it's better to slam your unprotected head onto the roadway without a helmet, right? I mean, we like to feel the rushing air massaging our hair as we approach an intersection and watch a car pull suddenly into our path of travel, and a helmet certainly couldn't help us here, could it?

I know we read about a lot of biker fatalities attributed to head injuries, but those guys were different; they had softer heads and couldn't ride as well as I can, right? Isn't it wonderful, knowing that as your loved one climbs on the back of the bike, their head is also extra hard, and with your riding skills, you surely won't be involved in an accident and anyway, you're older than 18, right? Many states have given you the option of wearing or not wearing a helmet. It's up to you. A guy named Professor Harry Hurt says if you have a ten dollar head, wear a ten dollar helmet! I think I disagree with all the negative statements about safety helmets; and since I'm over 18 and do have a hard head, I think I'll make my head a little harder with a well constructed helmet. How about you?

POOOOOOFF !!

Recently, a group of individuals from another command were undergoing riot control squad training. Their training included use of the M-25-A2 Riot Control Hand Grenade.



While the training was in progress, one individual's grenade detonated as he was throwing it, causing contusions and chemical burns to his right hand.

The design of the hand grenade [Figure 1] is such that the actuating plunger must be held down while the safety pin is pulled and must be held down until the grenade is released during the throw. If the plunger is allowed to come up--even momentarily--the first timer is started and the grenade will explode in 1.4-3.0 seconds. Interviews of other team members indicated that some people lacked a thorough understanding of how the grenade worked. This was largely due to trying to cover too much material in too little time. At the time of the mishap, it was clear that people were hurrying to complete the training. Generalized instruction was not followed up with individual supervision on the range.

If you're involved in training--on either end--don't hurry. Instructors should try their best to get the key points across. If you're on the learning end, ask questions. They can usually save a lot of trouble--and pain too.

chock talk

...incidents and incidentals with a maintenance slant.

WATCH OUT!!

A low speed antiskid check was being conducted on an A-10. The antiskid was checked on and the Antiskid Caution Light out prior to brake release. The aircraft was accelerated to 50 knots, followed by maximum braking with throttles idle. The antiskid appeared to tug and release followed by smooth release. What apparently happened is the antiskid failed and the wheels locked. Eventually, the right main tire failed; the pilot released the brakes and coasted to a stop.

The left tire had a flat spot with eight layers of cord showing. During subsequent towing from the runway, the left main tire blew--a surprise to all concerned. A serious hazard exists with tires involved in skids. Tires that have been involved in skids or maximum braking incidents may appear safe, but they should be treated with extreme caution. If you're involved in a situation such as this, make sure the tire and wheel are cool enough to work on. If you think they're too hot, then they are too hot. Use caution. That fat, black hunk of rubber can kill and maim if it blows.

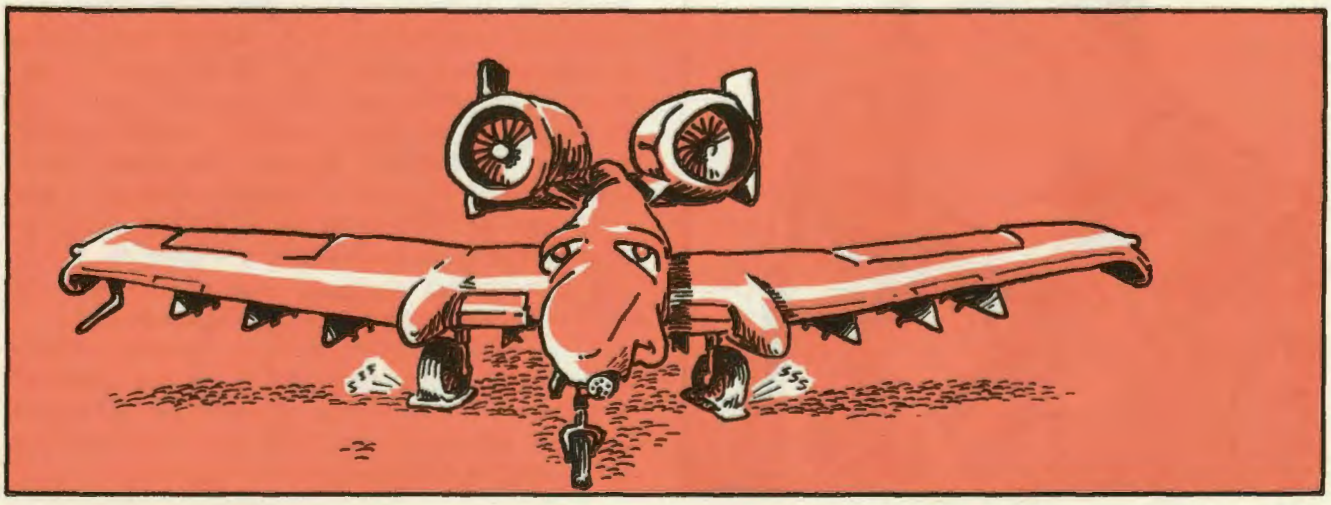
WHERE'D IT GO?

An F-4 on a local training mission experienced utility hydraulic failure. The aircrew followed all the proper procedures and terminated the mission with an approach-end cable engagement.

After the aircraft had been towed to the ramp, the investigation began. It didn't take the maintenance folks long to determine the cause of the hydraulic failure as a failed spoiler actuator. A new actuator was procured and installed in the aircraft.

Maintenance and safety personnel determined the failed actuator should be the subject of a Materiel Deficiency Report (MDR). As the MDR was being prepared for submission, it was discovered the failed spoiler actuator had been turned in to supply and could not be identified. Without the actuator for an exhibit, the MDR was useless.

Although the preceding incident is fictitious, many such incidents occur every year. In our vast system of parts and hardware, defects are



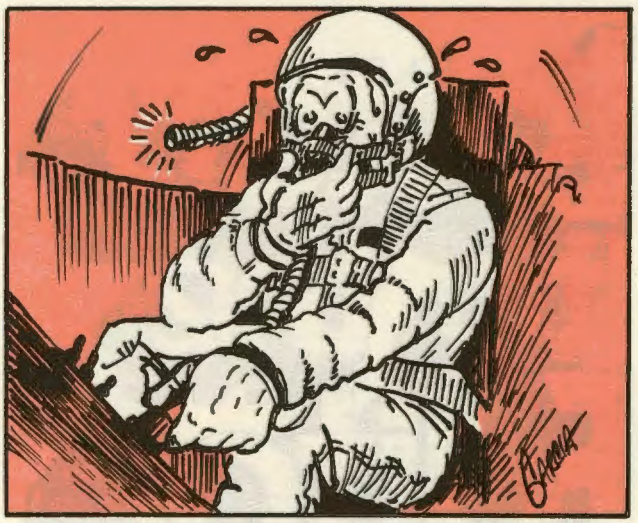
bound to occur. The MDR program is set up to identify parts which are defective in design or manufacture. If these defective parts slip through our system and aren't identified and fixed, recurring incidents or accidents can result.

Imagine taking your car to a service station and asking a mechanic to tell you why it won't start--but tell him he can't examine the engine. That's what we ask engineers to do without MDR exhibits.

The next time your aircraft has an emergency or minor mishap, keep track of the parts which caused the problems--if they can be identified--until you're sure there's no need to retain them. Maybe we can close the holes in this system.

CRUSHED CLAMP

Recently, a T-33 pilot in the rear cockpit was flying a practice instrument mission. He pulled the instrument hood forward just prior to beginning his instrument recovery. Shortly thereafter he began to feel weak and dizzy. Cabin pressure was indicating 24,000 feet. The pilot then was sure his symptoms were hypoxia and checked the oxygen regulator. The blinker was not working, indicating oxygen wasn't flowing through the regulator, although all connections appeared OK. After a descent, the symptoms disappeared.



Postflight investigation revealed the rear cockpit flexible oxygen hose which connects to the CRU-60/P had been pulled free from the point where it is attached to the metal oxygen tube assembly located behind the pilot's right shoulder on the side of the seat. The clamp used to hold the flexible hose in place had been damaged, apparently during installation, and had worked free.

Security of the oxygen hose had not been verified during postflight inspection. Security of this hose is a BPO work card item and should have been noted on postflight from the previous sortie.

In the safety business, we can probably be accused of dwelling on the negative aspects of our operations, at the expense of the many individuals who do their jobs conscientiously every day. In an attempt to tip the scales the other way, here are a few instances of folks who did the job right...

* * * * * * * * * * *

During a recent squadron/AMU surge operation, a crew chief completed an intake FOD inspection and proceeded to launch his aircraft. After the aircraft taxied, the crew chief returned his tools to his tool box and did a quick inventory. His flashlight was missing! Mentally retracing his actions, he concluded the flashlight must be in the intake of the aircraft that had just taxied.

Without hesitation, he notified the flight chief who notified the command post and got the aircraft stopped just before takeoff. The flashlight was removed from the left intake, just forward of the compressor. No damage had occurred. The honesty of this individual in admitting his mistake is commendable. His prompt, correct actions prevented a far more serious incident.

* * * * * * * * * * *

At another base, another crew chief was performing the thruflight on his F-4. As he was visually inspecting the aircraft for dents, loose panels, and missing fasteners, he noted the left side of the leading edge of the vertical stabilizer might be cracked. The crew chief obtained a maintenance stand and confirmed his suspicion that the fiberglass vertical fin was indeed severely cracked and was only attached by the fiberglass on the right side. Another flight would have increased the size of the crack and it was highly probable the fin tip would have separated from the aircraft. Another "save" by a sharp-eyed crew chief.

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Dear Readers,

You may or may not have noticed the lack of letters in the magazine lately. It's not that we are overly selective in the ones we print, it's because we haven't received any! Now I know that not all of you are satisfied with the articles and other features in the magazine. If there's something else you'd rather see in the magazine, why not let us know?

By the way, if you don't feel your airplane, weapons system, or area of operation is getting enough "exposure" in our magazine, it might be your fault. It's very difficult for me to tell your story. Most of the staff here come from F-100, F-105, A-7, or F-4 backgrounds. The F-15 and A-10 are relative newcomers, and the people who started those aircraft systems are still there. We also lack a lot of expertise in air defense operations.

I've said this before--it's your magazine. If you want something in it, let me know; or better yet, write it. You'll do yourself and the others who want to read your story a big favor.

Ed

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Dear Editor,

Though not associated with TAC, our gaining command being PACAF, we wish to take exception to a statement in your (Nov 79) article, "TAC's Newest Members," crediting the 178 FIS, North Dakota ANG, with being "the first ANG unit to assume a dedicated air defense mission with F-4s."

The 199th Tactical Fighter Squadron/154th Composite Group, Hawaii Air National Guard, assumed active air defense alert with F-4Cs on 1 October 1976; a mission that has continued uninterrupted since 1956 in the F-86D, through unit conversions to the F-86L, F-102, and most recently, the F-4.

Keep up the fine work with your magazine, but please set the record straight.

Lawrence C. Cabrinha, Lt Colonel, HANG
Commander
199 TFS

Lt Col Cabrinha

You could have knocked me over with a pineapple. I guess the 178 FIS is going to have to settle for being the first CONUS ANG unit to assume a dedicated air defense role in the F-4.

Consider the record straightened.

Now, a Fleagle's Fanny Feather of Fate Award to the first individual who can tell me--in writing, no phone calls please -- what the original unit designation of the 199th Tactical Fighter Squadron was and where they were stationed from 20 Oct 1944 to 14 Dec 1944.

Ed

tac tally

TAC TALLY

	TAC			ANG			AFR		
	DEC	THRU DEC		DEC	THRU DEC		DEC	THRU DEC	
		1979	1978		1979	1978		1979	1978
CLASS A MISHAPS	0	35	35	0	8	13	0	3	4
AIRCREW FATALITIES	0	26	19	0	6	9	0	2	2
TOTAL EJECTIONS	0	36	38	0	4	9	0	3	2
SUCCESSFUL EJECTIONS	0	23	31	0	2	8	0	1	2

TAC'S TOP 5 thru DECEMBER '79

TAC FTR/RECCE	
class A mishap free months	
36	347 TFW
23	479 TTW
22	33 TFW
18	56 TFW
15	1 TFW

TAC AIR DEFENSE	
class A mishap free months	
97	84 FIS
83	57 FIS
36	5 FIS
33	48 FIS
19	318 FIS

TAC GAINED FTR/RECCE		
class A mishap free months		
40	184 TFTG	(ANG)
39	123 TRW	(ANG)
24	121 TFW	(ANG)
24	108 TFW	(ANG)
21	162 TFTG	(ANG)

TAC GAINED AIR DEFENSE		
class A mishap free months		
89	191 FIG	(ANG)
70	102 FIW	(ANG)
66	177 FIG	(ANG)
45	158 DSEG	(ANG)
32	125 FIG	(ANG)

TAC/GAINED Other Units		
class A mishap free months		
118	193 TEWG	(ANG)
105	USAFTAWC	(TAC)
101	919 SOG	(AFR)
93	105 TASG	(ANG)
74	1 SOW	(TAC)

CLASS A MISHAP COMPARISON RATE 78/79

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

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
TAC	1978	16.0	12.4	8.3	7.5	5.8	6.3	6.1	6.7	6.5	6.3	5.9	6.8
	1979	6.9	7.0	5.9	6.6	7.4	6.2	7.2	7.1	7.8	7.3	6.8	6.2
ANG	1978	0	3.4	4.0	5.9	8.1	7.4	7.9	6.9	6.7	6.6	6.6	6.2
	1979	0	11.4	9.0	9.7	7.6	6.2	5.4	4.6	4.1	4.1	4.2	3.8
AFR	1978	0	0	10.9	7.8	6.0	4.8	8.1	7.1	6.3	5.7	7.8	9.7
	1979	0	0	19.9	23.1	17.0	13.4	11.6	9.9	8.7	7.8	7.1	6.5

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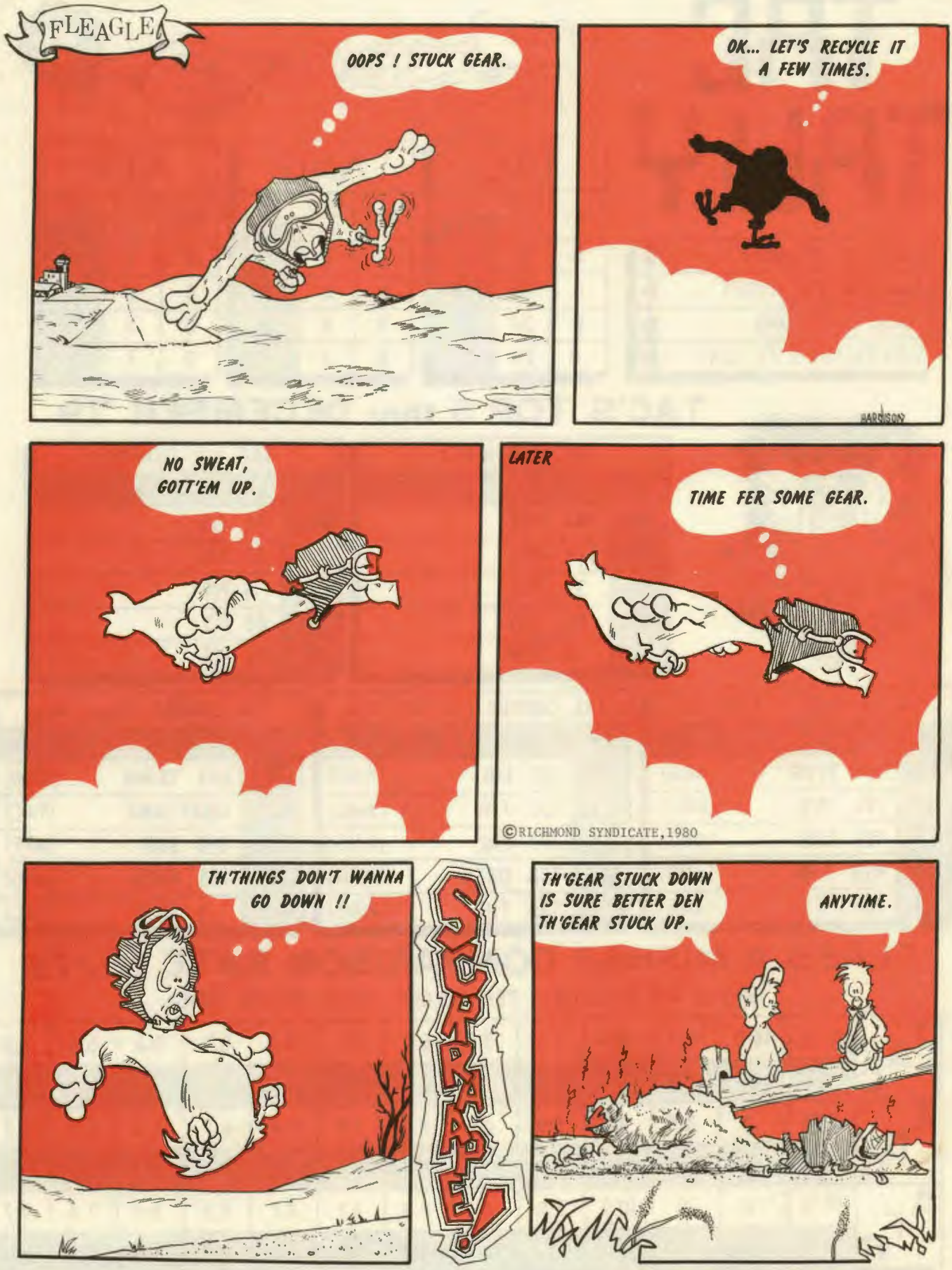
FLEAGLE
OOPS ! STUCK GEAR.
OK... LET'S RECYCLE IT A FEW TIMES.
HARRISON
NO SWEAT, GOTT'EM UP.
LATER
TIME FER SOME GEAR.
©RICHMOND SYNDICATE,1980
TH'THINGS DON'T WANNA GO DOWN !!
SCRAPE!
TH'GEAR STUCK DOWN IS SURE BETTER DEN TH'GEAR STUCK UP.
ANYTIME.