

# TAC ATTACK

TAC Attack

October 1974

OCTOBER 1974



TACS Pg...24



FOR EFFICIENT TACTICAL AIR POWER



## FEATURES

|                     |    |
|---------------------|----|
| THE FNG             | 4  |
| BIRDWATCHERS BEWARE | 8  |
| ROLL TWO, BURN ONE  | 12 |
| BODY BY FISHER      | 16 |
| SAFETY 76           | 20 |
| TACS                | 24 |

## DEPARTMENTS

|                           |    |
|---------------------------|----|
| Angle of Attack           | 3  |
| Chock Talk                | 10 |
| Aircrewman of Distinction | 15 |
| SPO Corner                | 18 |
| TAC Men of the Month      | 19 |
| Weapons Words             | 21 |
| TAC Tips                  | 22 |
| Phyz Biz                  | 29 |
| Letters to the Editor     | 30 |
| TAC Tally                 | 31 |

### TACTICAL AIR COMMAND

GENERAL ROBERT J. DIXON  
*COMMANDER*

LT GENERAL ROBERT E. HAILS  
*VICE COMMANDER*



COL Wm. J. BALLY Jr.  
*CHIEF OF SAFETY*

MAJ JOE TILLMAN  
*EDITOR*

STAN HARDISON  
*ART EDITOR*

MARY KONOPNICKI  
*EDITORIAL ASSISTANT*

TSGT JOHN TOMKOWSKI  
*LAYOUT PRODUCTION*

### TACRP 127-1

Articles, accident briefs, and associated material in this magazine are non-directive in nature. All suggestions and recommendations are intended to remain within the scope of existing directives. Information used to brief accidents and incidents does not identify the persons, places, or units involved and may not be construed as incriminating under Article 31 of the Uniform Code of Military Justice. Names, dates, and places used in conjunction with accident stories are fictitious. Air Force units are encouraged to republish the material contained herein; however, contents are not for public release. Written permission must be obtained from HQ TAC before material may be republished by other than Department of Defense organizations.

Contributions of articles, photos, and items of interest from personnel in the field are encouraged, as are comments and criticism. We reserve the right to edit all manuscripts for clarity and readability. Direct communication is authorized with: The Editor, TAC ATTACK, HQ TAC/SEPP, Langley AFB, Va. 23665. Autovon 432-2937

Distribution FX, Controlled by SEPP.



## Angle of ATTACK

## taxi

The mass of tech orders, manuals, regulations and supplements that aircrew members are responsible for is heavy enough to put your aircraft out of CG limits. Some of the information in these publications is critical to your safety, some is necessary to insure mission effectiveness and other material is just "nice to know." One of the more important regulations you are required to be familiar with is also the smallest — AFR 60-11, Aircraft Operation and Movement on the Ground or Water. More simply, this reg is your bible for taxi operations.

The simplicity and brevity of 60-11 belies its importance. Taxi accidents continue to plague us and if any dangerous and expensive accident trend now exists, it's aircraft mishaps during ground operations. So far this year the Air Force has experienced one major aircraft accident and more than 300 other taxi mishaps. Cost? Nearly three million dollars. There is an old saying that still holds true, "There are two types of accidents you don't survive — midair collisions and taxi accidents." There is never an excuse for dinging an aircraft while taxiing. If you only remember two rules from 60-11, remember these:

1. Aircraft being taxied within 25 feet of an obstruction will have a taxi signalman at each wing tip.
2. Aircraft will not be taxied AT ANY TIME within 10 feet of an obstruction.

If everyone obeyed these two rules, they would save themselves a lot of grief and USAF a lot of money.

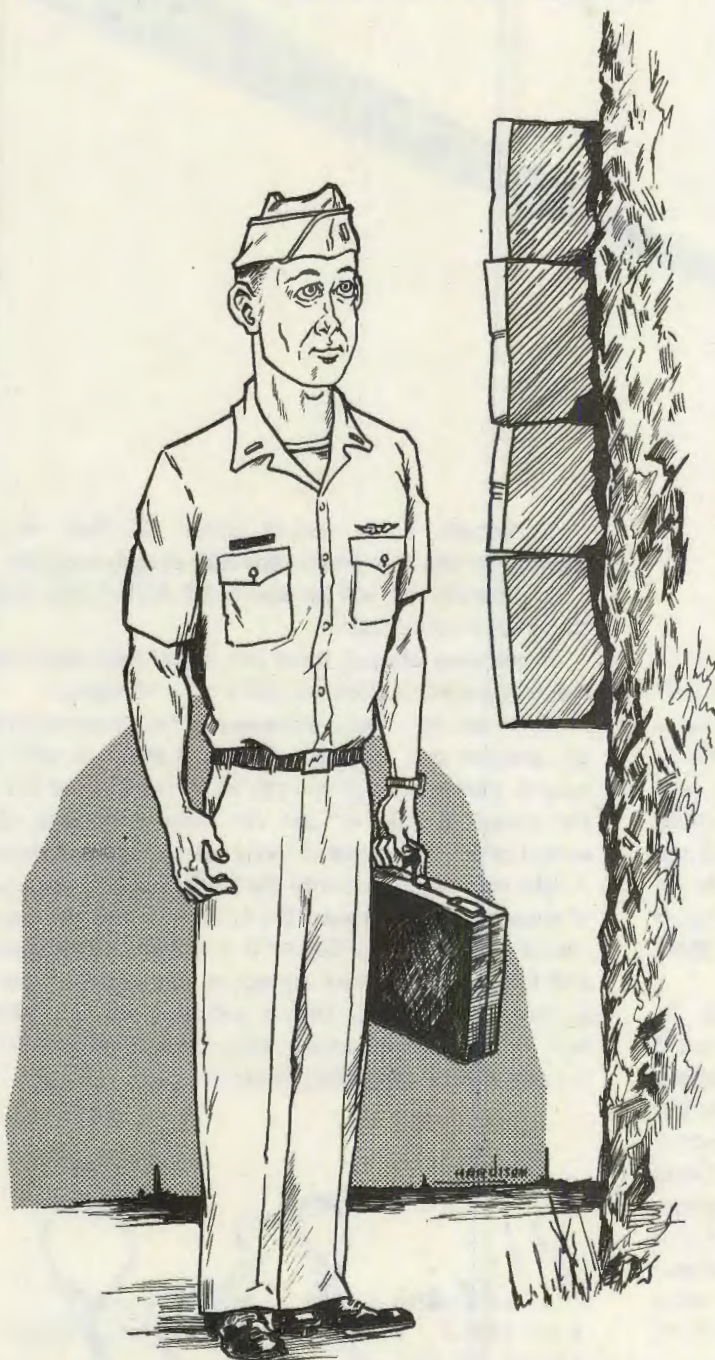
There are other ways aircrews and maintenance people can prevent taxi accidents. Make an effort to look for hazards during ground operations. A work stand left on the ramp? A pile of dirt left near a taxiway after construction? A marshaller using the wrong hand signals? A light pole that blends into the background? Make a note of these problems, present the information to the proper people (use a Hazard Report if you think it's necessary) and follow up to insure corrective actions were taken. I guarantee your Safety Officer will back you up 100 per cent. With your help we can insure that aircraft taxiing is the safe, simple operation it must be.

*William J. Bally, Jr.*  
 WILLIAM J. BALLY, JR., Colonel USAF  
 Chief of Safety

It's difficult to get the proper perspective on flight safety when you are . . .

# FNG

by Maj Joe Tillman



Second Lieutenant Stringer stood in front of the squadron building, his shiny new executive model briefcase clutched tightly in his left hand. He surveyed the large sign affixed to the stucco building, just to the right of the double doors. It was barely readable in the early morning light.

931st Tactical Fighter Squadron  
"Do or Die"

Commander Lt Col Ernest Blodgett

PLEASE WIPE FEET  
BEFORE ENTERING

Lt Stringer walked up the three steps, looked down for a doormat, and wiped his feet on the concrete before entering. The distant whine of a test stand runup faded as the door hissed closed behind him.

"Jeez it's dark in here," he mumbled, "where's the cotton pickin' light switch . . ."

He found it by the large empty trophy case in the hallway and flipped it on.

"Who's there?" The harsh words exploded hollowly from an undetermined location somewhere down the dark hallway to his left.

"Lt Stringer, sir."

"Who the hell is Lt Stringer?"

"I am, sir."

"I know that! Who are you . . . what the hell are you doing here this time of night?"

"Sir, it's almost 0600 . . . I thought I would take a look at the squadron . . . I didn't mean to . . ."

A grizzly form approached from out of the darkness. As it entered the aura of the hallway light, the lieutenant made out a young man shuffling towards him — naked except for unzipped combat boots and a pair of boxer shorts emblazoned with large road signs. The apparition spoke:

"Oh yeah, Stringer. I'm Captain Sawyer. You must be the FNG."

"No sir, I'm a pilot. They told me to report in at eight but I woke up early and couldn't get back to sleep, so I decided to come on down."

The captain turned his back on Stringer and was fiddling with a large coffee maker on a small table next to

the scheduling counter. He scratched his "yield" sign.

"I guess you're a little early. I'm the duty officer. We got a cot in back we can use when things are quiet. Stick around and I'll crank up this coffee pot. It's all set up, all I have to do is get it started."

"That would be great, sir. The club wasn't open when I stopped by."

The captain looked at the newcomer with bleary-eyed disdain.

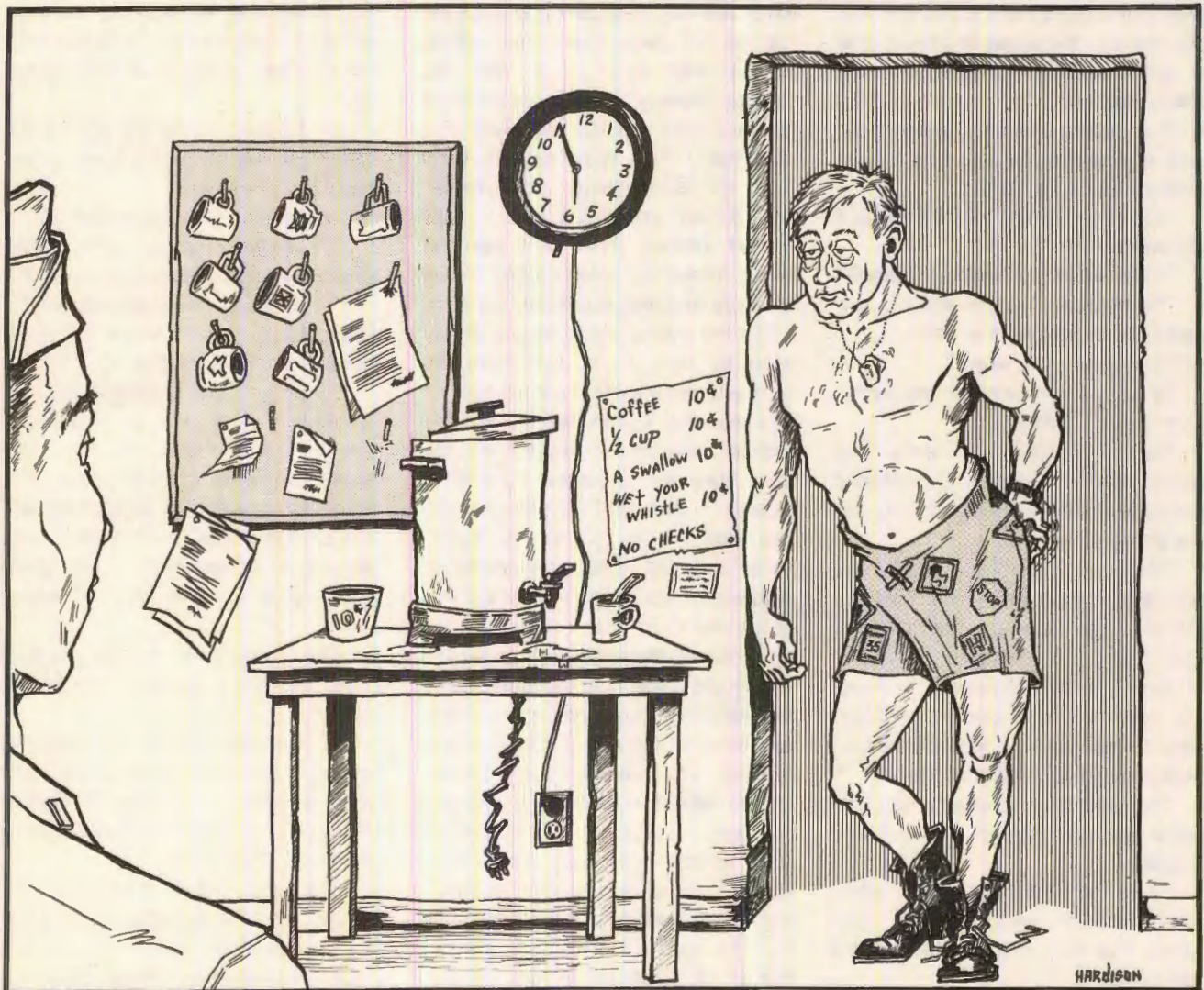
"Drop the sir, will ya? You make me sound as old as I feel. Just call me Buzz."

The captain turned around and trudged off into the dark hall, drag-

ging his heels to keep his boots on. The first "ga-a-a-l-o-o-omph" of the big coffee pot startled the lieutenant and he looked nervously down the dark hallway. Soon the captain emerged again — this time wearing a flight suit, his hair finger-combed and a greasy paper bag in his hand. He offered the opened bag to the lieutenant.

"Have a doughnut, kid. They're yesterday's, but it's all we got. The candy machine's on the fritz."

Buzz sat down in the chief scheduler's swivel chair and propped his large boots on the desk. His mouth full of dry doughnut, he motioned for



# F N G

the lieutenant to sit down in a nearby chair.

"Fresh out of Luke, eh kid? You're going to like it here — except for things like this duty officer bit. The mission's good and the old man is OK. I guess our biggest problem is our experience level — we keep getting younger and less experienced guys in all the time."

"Like me?"

"Like you. Now don't get me wrong. We were all new guys at one time, but I don't think we've ever had this many in the squadron at one time — we're starting to look like the kiddie patrol."

The captain tilted the swivel chair back and rapped his knuckles against a wooden window frame.

"It's pure bloody luck we haven't lost anyone yet."

"You mean by 'lost'... killed?"

"Splashed... crumped... augered in... bought the farm... call it whatever you want."

By now the newcomer was sitting on the edge of his seat.

"Is the mission here really that tough? Geez, I thought the training program at Luke prepared you for anything..."

"Well, it does in a way. The program is good there, but there's a lot of things here you don't see at CCT. Weather for instance... if some of those homesteaders back at Phoenix ever saw our cruddy weather, they'd fall to the ground thinkin' their sun god had deserted them."

The newcomer reached inside the paper bag and withdrew an aged jelly doughnut.

"You mean you have to fly when the weather's really down? You know, I've only been in the clouds a few times..."

The captain sat up and slammed his hand down on the plexiglass cover of the desk. The noise echoed through the empty building.

"Case closed! You just proved what I'm trying to get across."

"But you don't really do range work or ACM stuff in the soup, do you?"

"Hell yes! Well at least going to and from, we do. I remember around last March..." The old head reached for a pack of cigarettes on the desk, extracted one, thumped it against the top of the large brass shell casing ashtray and then lit it with his "James Jewelry" lighter. He propped his feet back up on the desk and continued, "We were coming back from an ACM mission. The weather had turned pretty cruddy — tops around twenty thou with bases at about fifteen hundred. I asked for an en route to a precision final, full stop. I told the young troop hangin' on my wing to tuck it in and hang on. Normally we'd make it down in about five minutes, but everybody and his brother decided to recover at the same time, so we ended up drilling around in that crud for what seemed like forever — bumpy as hell. Everything was OK until the controller requested I do another three-sixty — about my third one. I guess I rolled into that 60 degree bank turn a little fast. I got a call from number two — said he'd lost me. It took us a while to get things sorted out and back on the ground — individual approaches. During debrief, my wingman, still pale as a sheet, jumped on me! He said his total weather time was a couple of hours. That was a hell of a time to tell me. I will admit he did pretty good until he lost me — it's a good thing he had an old head GIB in back, though.

I imagine things got a little hairy when he had to transition to the gauges in a hurry. See, this is my whole point. An experienced guy could've hung in no matter what I did. This greenie just panicked."

The captain took another bite of a stale doughnut and walked over to the coffee pot and refilled his mug.

"Buzz, don't you think with the weather that thick, you should have split up for individual..."

"Hell no! That's the problem we got nowadays! As soon as we start letting a little weather interfere with our mission, we might as well hang it up."

Lt Stringer, squinting against the early morning sun in his eyes, moved his chair to the side.

"What type of mission was it?"

"Training mission, what else? That's about all I do since I made IP."

"That whole thing sounds a little hairy, Buzz. I don't know if I could hang on your wing either..."

"Sure you could! All you gotta do is press a little. I've never killed a wingman yet. Can't say the same thing for some of these new guys, though. They almost scraped me off the ground a few times 'cause of their screw-ups. I remember I was giving this young guy a recurrency check..."

The front door of the building wheezed shut and both pilots looked up.

A face appeared at the scheduling counter. He was young, sandy haired and obviously a friend of Captain Sawyer's. His name tag flagged him as Potter, F.W., Captain.

"Hey Pots, how's it hangin'?" The figure walked around the counter, saw Lt Stringer for the first time and stuck his hand out. "Pots, this is..."

uh . . . Stringer . . . he's our FNG."

"How are ya? — I missed your first name . . ."

"Bob. Bob Stringer. It's nice to meet you, sir."

The two captains looked at each other.

"Ain't he sweet? I told him to knock that 'sir' stuff off. You can always tell a second lieutenant, but you can't tell 'em much."

Captain Potter took a cup marked "F.P." from a large pegboard profusely decorated with mugs of all shapes and sizes. He filled it and took a doughnut from the greasy bag.

"Pots, I was just telling the lieutenant here about the time 'ol Davis almost did me in . . . that time he shut the engine down on final."

"Oh yeah, I remember that. The old man was pretty upset . . ."

"You think he was upset!"

Buzz looked over to Lt Stringer.

"What happened was, I gave Davis a simulated emergency on final for a practice single engine landing and the dummy actually shut it down! That caught me by surprise. I had to use burner to make it to the runway."

Captain Potter reached into the desk, took out a paper clip, straightened it and began to pick his teeth with it.

"Lt Davis told me you just said 'fire on number one,' so he stop-cocked it. You didn't tell him before the ride you were going to give him any engine-out work."

"Yeah, but jeez, Pots, the guy shoulda' known better. If he had a little more experience, he wouldn't have panicked like that. What's he gonna' do when he really does get an engine fire?"

Lt Potter stood up, stretched, and winked at the FNG.

"He'll probably shut it down, Buzz . . . just like he's supposed to."

Captain Potter motioned for the lieutenant to follow him.

"C'mon kid, let's go get you signed in."





SLIPPERY  
WHEN WET



KEEP  
RIGHT



HILL



LOW  
CLEARANCE



MERGE



TWO WAY  
TRAFFIC

birdwatchers beware  
**BIRDWATCHERS  
BEWARE**

Those little feathered friends are out to flatten you — again. Yes, my friends, I mean those pesky nesters, those aggravating aves — those birds. According to a recent TIG Brief, there have been 2,816 birdstrikes reported between 1966 and 1973 in the Air Force. Cost? More than 76 million dollars!

How serious is the collision potential between machine and these pretty feathered missiles? The TIG Brief put it this way:

"Using the  $MV^2$  formula, a four-pound bird impacting an airplane at the relative velocity of 260 knots generated a force of 14 tons.

If the velocity doubles, the generated forces equal 57 tons."

The article goes on to point out that while programs are in effect to harden vulnerable aircraft components and develop real-time detection and avoidance procedures, the immediate solution is still local bird control (a special interest item for Resource Management Inspections), avoiding migratory routes and, finally, the responsibility of the pilot himself for bird avoidance. There are a few things that you, the man behind the stick/yoke, can do in this area. Let's go over a few of them.

1. **EVASION.** It is possible to avoid birds if sighted in time. There are many factors to consider here — large birds or dense flocks of small birds can often be seen and avoided. Many strikes have been prevented by quick reacting pilots. Helpful hint: birds may react to you by turning in any direction but will most frequently dive to avoid collision.

2. **FLIGHT PLANNING.** Now here's an area where you can even the odds a bit. Training requirements are not important enough to require high speed, low level flight through known bird infested areas — so avoid them. Birds are basically low level types. About 70 percent of all birdstrikes occur within the first 1,000 feet AGL. A bird was once sighted at 21,000 feet (sans oxygen), but this Jonathan Livingston Seagull proponent is definitely an exception to the rule. If your aircraft and conditions permit, flight plan for an altitude as high as practicable. If unable to go at high altitude, then fly the mission at a slower airspeed. Your odds for evasion increase as your airspeed decreases. Study migratory routes. This time of year, ducks and geese, the real killers, begin their annual trip south. The greatest number of strikes, about 35 percent, occur in the months of September and October. With careful planning, you can prevent crossing these flyways at low altitudes and leave bird kills to the duck hunters. The upcoming winter months bring another problem area: winter nesting grounds. The heaviest

concentration of wintering birds is found in the following areas:

**ATLANTIC:** Chesapeake Bay, Back Bay area of Virginia, and the Currituck Sound and Lake Mattamuskeet area in North Carolina.

**MISSISSIPPI:** The Mississippi Valley and the southern Louisiana marshes along the Gulf of Mexico.

**CENTRAL:** Along the Missouri River Valley and Gulf Coast of Texas.

**PACIFIC:** The general area of Tule Lake and Sacramento Valley of California.

3. **PERSONAL PROTECTION.** The greatest immediate danger of birdstrikes to aircrews is loss of vision, sometimes permanently, due to flying glass and debris. Keep your visor down at all times! If you have a helmet with double visor, use both for maximum protection. Try to shield your face with your arm or duck your head below the glareshield if it looks like a strike is imminent. You can expect flying debris and tremendous wind turbulence inside the cockpit. If possible, continue to shield your eyes until the aircraft can be slowed enough to reduce this dangerous situation. Don't hesitate to give the aircraft to your back seater or copilot if you are unable to determine your aircraft's attitude — loss of aircraft control is the greatest danger after a windshield shatters.

4. **BIRDSTRIKE REPORTS.** Your reports are needed to compile trends for accident prevention. Most of what we know now has come from information garnered from reports by you. If you see large flocks of birds in flight, immediately report the location by radio so that other jocks may be warned in advance. This is especially important if these sightings occur near terminal areas or on established low level routes. Your buddy will appreciate it.

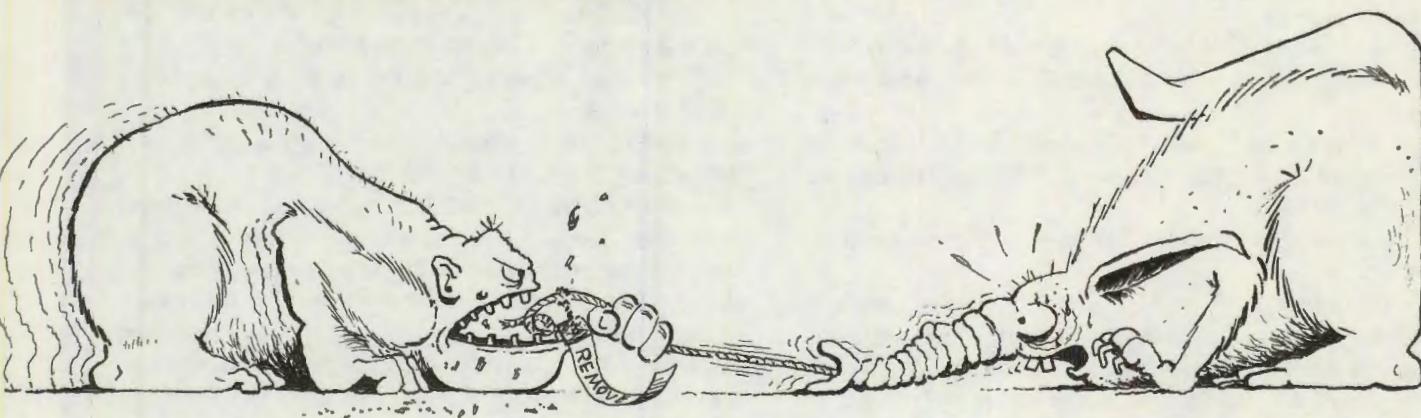


You can help reduce birdstrikes with proper preparation and by being alert. Until technology comes up with sure-fire prevention devices, you are still our best safety weapon. Keep your head. ➤

# CHOCK TALK

chock talk

*...incidents and incidentals*



## AARDVARK EATS STATIC LINE

FOD gotcha again. An F-111F engine recently received extensive damage to both high and low speed compressor sections during a ground run following phase inspection.

It seems the static ground cable connected to the inboard pylon on the left wing was ingested into the engine through the upper blow-in door. The "remove before flight" streamer was drawn toward the blow-in door and a misaligned female socket prevented the grounding plug from fully seating. The result, of course,

was that the streamer pulled the plug out and into the engine at 80 per cent RPM — a highly destructive bit of FOD.

The unit has since submitted an AFTO 22 recommending that the cable be connected to the outboard pylon or the furthest point from the engine inlet. They also pulled a one-time inspection to insure static plugs are properly aligned and fully engage in the pylon sockets. Sounds like a good idea. What's the condition of your static line equipment? You don't know? Better check before you get another 'gotcha by FOD.

## A WORD TO TRANSIENT MAINTENANCE

A recent F-4 gear malfunction (SPO Corner, Pg18) points out a few problems and responsibilities the aircrew has when taxiing with a known gear problem. Looking deeper into the incident message also reveals a few problems that can jump up and bite you Transient Alert people.

The Phantom had the gear problem in the first place due to the overservicing of the main landing gear upper chambers by — you guessed it — transient maintenance. These struts were serviced to approximately ten times their normal pressure by a guy who probably thought he

was doing the crew a favor. Instead, he could have done them in!

There is nothing the aircrew appreciates more than quick, efficient service by Transient Alert — especially when they are running behind schedule (aren't they always?). Sometimes, in their efforts to please, however, well-intentioned TA people "fix" more than they are authorized or trained to do. The aircraft in need of transient support should carry all work cards and checklists necessary for standard turn-around service. Problems outside standard servicing should only be accomplished by qualified people with proper tech data. We're not telling you to stop being a good guy. We only want you to be aware of the limits of your responsibilities and do the best job you can within those parameters. When in doubt, call for expert advice.

*with a maintenance slant.*

### **HITCH IN THE BUMPERS?**

The bumpers on the 1974 cars have a new feature — they are not supposed to be damaged by a 5-mile-an-hour collision. If you own one of these cars, however, you may have some trouble installing a trailer hitch.

Federal Safety Standard 2.5 set the no-damage requirement, but different manufacturers met the Standard in different ways. Some of the improved bumpers have a collapsible feature which allows them to bounce back after impact. Lighter-duty hitches which bolt onto both the bumper and the car's frame will interfere with the bumper's operation.

The 1974 owner's manual from American Motors advises that you not use such hitches, even on the Gremlin, Hornet, and Javelin (which don't have the collapsible bumpers). And Ford includes a caution note saying bumper hitches are not recommended on their 74s, although certain hitches which clamp on are acceptable.

The trailer hitch companies apparently got caught short on this one, but they're working on it and undoubtedly will come up with something safe and efficient. Until they do, some people are going to have problems hauling trailers. If you plan on doing some towing, be sure you use a factory recommended hitch and install it correctly.

---

### **THE SKY IS FALLING**

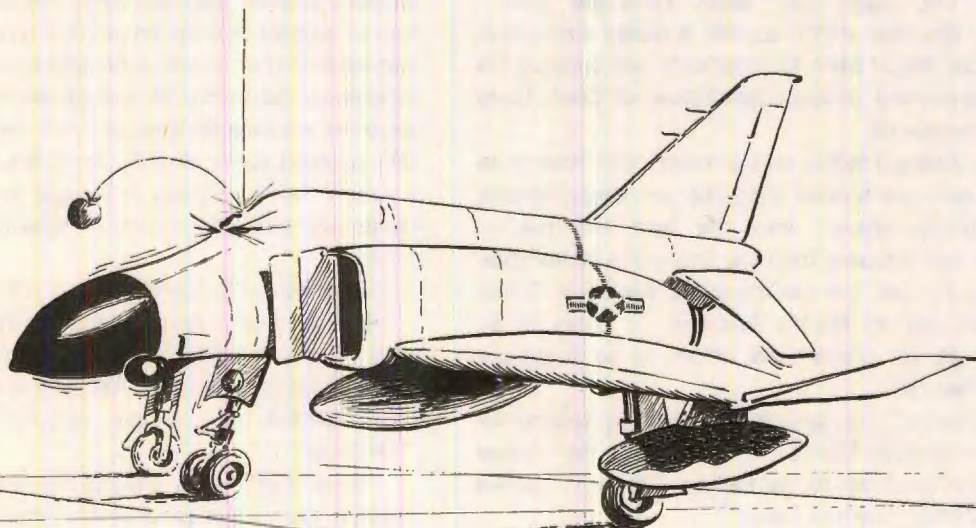
An F-4E of another command recently lost door 19 shortly after takeoff. (Door 19 is a hinged access panel just aft of the cockpit.)

A sudden rain shower caught flight line personnel by surprise and they were directed to close all canopies. They did, and then beat a hasty retreat. One conscientious fellow closed the canopy and door 19 on the incident aircraft but failed to secure the door. The aircraft crew chief who had originally opened the door to facilitate nav maintenance had not made the proper entry in the Form 781. Then the nav specialist did not insure that the bird had been "red X'd."

It is not clear whether the nav maintenance was ever completed after the rain shower passed. At any rate, the F-4 was preflighted in the wee hours and the crew chief did not notice the unsecured door. Thus, the stage was set for its inflight loss. Fortunately, no one was injured and damage to the aircraft was slight.

Panels and doors should never be partially closed. If it is a hinged door, it should never be closed without being latched or secured.

We've been scattering aircraft parts all over the place recently and one of the reasons is because well-intentioned troops are leaving panels and doors only partially secured. It's too easy to forget to fasten them later. So, secure that panel or door — before the whole world becomes a hard hat area.



# HOT REFUELING OR roll two, burn one

**BEING THE FURTHER ADVENTURES OF MARK HUNTLEY, BOY SAFETY OFFICER.**

by Capt Mike Byers  
HQ TAC/DOXBL

"C'mon kid, outa your sack! Let's get goin'." Speedbrake Woodley deftly applied a greasy size-twelve sneaker to the end of Mark Huntley's cot and dumped the sleeping bag-encased ex-base commander of Chuk Dung FOL onto the ground.

As Mark thrashed feebly on the muddy tent floor in an attempt to extricate himself from the now soggy sleeping bag, Sgt Grimp slipped into the tent and handed Speedbrake two dripping fried egg and onion sandwiches.

"Here be you an' the cap'n's chow, sor," said Grimp with an evil leer in Mark's direction. "I know ye be wanting to git yer proper eats before ye be flying yer aero-plane. He! He!"

"Yeah, thanks," said Speedbrake, absently tossing the two gooey messes on Mark's cot. "As soon as the kid gets dressed, drive 'im down to the fuel pit, Grimp. I'm gonna need a little work outa him today."

"Aye, sor." Grimp's Ho Chi Minh sandals squashed

sickeningly in the mud as he scuttled over to give Mark a hand. "Up ye go, Cap'n. He! He!"



Fifteen minutes later, still trying to get the nasty taste out of his mouth (he had only this morning discovered that his toothbrush was also being used to clean Speedbrake's .44 magnum), Mark stumbled out of Grimp's ancient jeep and onto the crumbling, potholed slab of asphalt that served as Chuk Dung's refueling pit. It was evident that he was a bit late to accomplish anything safetywise, as in the middle of the sagging asphalt slab were the smoking remains of what had been one of Det 99's decrepit strike aircraft. Speedbrake, accompanied by a lumpy faced, morose individual in filthy 1505s, was cautiously prodding an unexploded bomb fuse with his knife.

"Over here, kid. Careful you don't step on no bombs."

As Mark picked his way through the smoldering hunks of sheet metal, bomb fragments and twisted engine parts, Speedbrake stood up and flipped the bomb fuse into the klong behind the fuel pit, where it exploded with a "THONK!"

"Here, don't jump around like that, kid. You gonna hurt yourself. Meet good ol' Wheelhat, here; he's our head wrench-bender."



"Please to meet you, sir . . . Uck!"

"Little grease don't hurt nobody," said Wheelhat, offhandedly.

He appeared to be offended that Mark would take exception to a handful of gearbox grease, but those who knew Elmo "Wheelhat" Peters also knew that he was offended by most things. Wheelhat's spotty career as Det 99's maintenance officer (to use the term loosely) had begun when it was discovered that he not only possessed, but actually wore, on occasion, a wheelhat. On top of this

nefarious crime, he claimed to have been a fighter pilot, giving as evidence the verdigris encrusted wings that he wore on his 1505 shirt. His dubious claim might have convinced some of the younger troops in Det 99, but one of the older heads had pointed out that Wheelhat's wings were from no identifiable air force, and appeared to be made of a low grade pot metal. The consensus around the outfit was that he had gotten them from a cereal box. In any case, accidents were a particularly bad time for him, as he was forced into contract with Speedbrake, his chief

hot refueling  
or  
roll two,  
burn one



tormentor.

"Now look here, Wheelhat! That 'roll two, burn one' stuff has got to stop before we run outa birds. You boys are doin' more hurt on us than the bad guys." Speedbrake turned to Mark.

"Kid, I want you to watch this next turn-around real close. See that flight o' three just comin' over the karst? Well, you watch 'em refuel, an' figure out what Wheelhat's hot shot pit crew is doin' to blow 'em up."

As the flight of three black, smoke blowing refugees from the boneyard taxied into the refueling pit, Speedbrake stalked off across the ramp, fingering the butt of his pistol and muttering four-letter words.



By the time the lead aircraft had clunked to a halt in a large pothole, a horde of grubby, shirtless maintenance troops had magically appeared and were clambering over

the aircraft like a demented troop of monkeys. Mark was appalled to see nary a tech order in sight as the chaotic band attacked ammo doors, fuel caps and bomb racks with wild abandon. Bomb jammers collided and ricocheted off 55-gallon fuel drums, narrowly missing the refueling crews.

"Hey! Gimme a hand here, kid. Grab th' other end of the hose!" Wheelhat was up on a wing, vainly trying to control a flailing fuel hose. Mark could see that he was definitely in trouble on the slippery wing surface. In fact, he had just dropped his cigar. Cigar? CIGAR!

"I've got it! I've got it!" yelled Mark, elatedly.

"Rog, you got it," Wheelhat said, and he tossed the gushing fuel nozzle to Mark. The stream of fuel hit the aircraft's red hot exhaust stacks. Mark's last thought, before he woke up in Chuk Dung's infirmary (a conex), was of the forthcoming accident report — his sixth in two months. For sure, this was going to be a hot one. ➤

## TACTICAL AIR COMMAND

# AIRCREWMAN of DISTINCTION



**CAPTAIN THOMAS W. REYNOLDS**  
**355 TAC FTR WG**  
**DAVIS MONTHAN AFB AZ**

Captain Reynolds was flying lead for two A-7Ds on a dry close air support mission. Weather in the target area was 3,500 feet overcast with light rain showers and mist obscuring visibility and restricting the flight to low angle simulated attacks. The forward air controller cleared the flight on the target — a simulated troop position in a tree line. Pulling off his fourth high drag pass at 500 feet, Capt Reynolds experienced violent engine compressor stalls and airframe vibration. Immediately analyzing the critical nature of the problem, Capt Reynolds zoomed as he turned towards McChord AFB and informed his wingman of his problem. His wingman replied that 20-30 feet of flames were shooting from lead's tailpipe. Capt Reynolds retarded the throttle towards idle several times in the climb, but compressor stalls ceased only momentarily in normal or emergency fuel. Leveling at the base of the clouds, he started a shallow dive in an attempt to clear the stalls without success. Capt Reynolds ascertained that any power setting above 80% caused the stalls and jarring vibrations to resume. While maintaining control of his flight, Capt Reynolds called his wingman to tower frequency and then declared an emergency. With only 80% power available, he knew there was insufficient power to maintain level flight with gear and flaps extended. Rain showers had left the 10,000 foot asphalt

runway at McChord with standing water, and another rain shower lay off the approach end of the runway. With the deteriorating engine, Capt Reynolds decided against an emergency GCA and elected to make a descending base entry to a Precautionary Landing Pattern (PLP). With his wingman advising that there was a continuous stream of sparks and flame coming from the tailpipe, Capt Reynolds searched for a safe ejection area while executing his base leg and turn to final. Knowing he would be landing hot and downhill from his PLP, he advised McChord tower he would need to use the departure BAK-12 barrier. Entering the rain shower at the approach end, he found visibility restricted. By selecting and hand actuating the A-7D rain removal system, Capt Reynolds was able to acquire the VASI lights. The gear and flaps were lowered on short final when landing was assured. He maneuvered the aircraft to a firm touchdown 500 feet down the runway and stopped it within 7,000 feet.

Captain Reynolds displayed a rapid and thorough analysis of his situation and used excellent judgment in handling a serious inflight emergency. His flying skill and timely actions prevented the loss of a valuable aircraft and qualify him as this month's Tactical Air Command Aircrewman of Distinction.



Now what's that well known automobile slogan doing in an aviation article? The Fisher Body Division of the General Motors Corporation has long been known for its auto body metal-bending, but during World War II, the Fisher Body Division actually produced an interesting and advanced (for its time) fighter aircraft.

The XP-75 was born to provide, with a minimum of delay, a fighter aircraft with outstanding climb performance. Using guidelines not unlike the Navy's new VTOL fighter (which is using F-4 and A-4 components), the XP-75 development was to be expedited by using wing panels, empennage and landing gear from already existing aircraft. The new aircraft was to be built around the most powerful liquid-cooled engine available.

The aircraft configuration which evolved was indeed a strange looking machine. The design featured a sleek fuselage with the cockpit mounted far forward from the normal location. The first model specification called for P-51 outer panels in an inverted gull-wing arrangement, an A-24 tail assembly and an F-4-U landing gear. The wing design, however, was quickly modified to a straight wing design using P-40 outer panels. The powerplant was an Allison V-3420 liquid-cooled engine mounted aft of the cockpit, similar to the P-39 Aircobra. The powerful

powerplant drove two counter-rotating props.

Work on the radically new design advanced through tunnel testing accomplished and a mock-up of the aircraft to be produced. But the exper-

# Body by THE X

body by fisher the xp-75 by William G. Holder

by William



through twin shafts running under the cockpit.  
and quickly during 1942 and 1943 with wind  
completed. Initial planning was for 2,500 of  
ected production was not to be. The flight

# Walter P. Fisher XP-75

by G. Holder

test program begun in November 1943 revealed major engineering and design flaws in the XP-75.

Wind tunnel testing had indicated possible stability problems, but the flight test program showed the deficiencies to be worse than expected. Additionally, many problems were experienced with the new Allison engine which experienced cooling problems and resulted in a power loss. The first five production aircraft were some 30 mph short on the desired top-end performance. The fix was the installation of an experimental intercooler, resulting in a substantial power increase, but this change was not enough to save the XP-75 and the program was cancelled in October 1944.

By this time, the P-51s and P-47s had more than proved their capability and the XP-75 was dropped. The tests did prove the feasibility of high performance aircraft using dual-propeller power, however, and the advent of the jet engine was probably the main reason that this promising concept was not carried further. The XP-75 was but one of a multitude of experimental military aircraft developed in the 1939-1945 time period. Aeronautical technology, as exemplified by the XP-75, probably made its greatest advances in history during those turbulent years.

# SPO CORNER

SPO Corner



## BAD NEWS/GOOD NEWS

The bad news is that Lt Col Burt Miller, our F-4 SPO, is departing for bigger and better things at Luke AFB. We at TAC Safety will miss him and we hope you bent-wing types have enjoyed his monthly articles here in SPO Corner.

Now for the good news: We've got a FNSPO to take Burt's place. Major Earl Aman recently arrived from a safety job in USAFE and is now ready to start receiving those cards, letters and phone calls from you Phantom flyers with problems and/or solutions. Keep the lines open and let Major Aman hear from you.

## T-BIRD PRESSURIZATION

BY Maj Al Mosher

We all know the T-Bird's days are limited. Before we send ol' faithful to the boneyard, you '33 jocks should be aware of a few other limits creeping into the picture — 3 Gs, for example.

You want another number? How about 25,000 feet cabin pressure? The pressurization capabilities of the T-33 vary from one bird to another. The book says you should be able to make 40,000 feet. Some of the better ones will take you to FL 350 or 370 before the magic mark is reached. Others are much worse.

I recently read of an incident report wherein the old bird could only make FL 310. It's probably a good thing, because the message I refer to was a physiological incident wherein the pilot got symptoms of the bends... that's right, the BENDS! This may make you think twice about even approaching 25 thousand cabin pressure because that's the altitude the incident aircraft's cabin altimeter indicated.

The bends (or any physiological problem for that matter) is nothing to fool with. If you do, you might end up in the boneyard before the T-bird does.

## PEN OR PENCIL

By Maj Earl Aman

Since 1965, at least eight F-4 front cockpit canopies have been lost inflight due to inadvertent activation of the normal canopy opening mechanism. Five of these mishaps resulted from pens or pencils carried in the sleeve pocket. It seems these items catch on the canopy operating lever or its associated linkage located just below and behind the canopy rail and, Bingo... open cockpit flying is back! Until a positive fix is accomplished, such as the guard installed on the rear cockpit opening/closing switch, treat the canopy controls with kid gloves. One F-4 unit has prohibited carrying articles in the sleeve pocket while flying in the front cockpit — sounds like a good idea.

All you nose gunners should think about this one. It gets pretty cold and noisy without the canopy. We have eight crews who'll roger that — don't be the ninth.



**F-4**

by Maj Earl Aman

A recent inflight emergency (gear malfunction) was terminated with an approach end barrier engagement. The aircraft was then taxied back to the parking ramp. It was fortunate that no further damage resulted during taxiing. The MLG struts had been overserviced (1150 psi instead of the required 90 psi). Both shrink rods had failed — preventing normal gear retraction.

Since the crew didn't know the cause of the gear problem, or the extent of the damage, they should have let maintenance tow the bird in. If you have a gear malfunction, and safely land and stop the aircraft, you've done your job. Don't take chances on taxiing. Remember, it takes an inordinate amount of power to taxi gear up.



## **TACTICAL AIR COMMAND**

### **Maintenance Man Safety Award**

Technical Sergeant Clinton J. Eckenrode, 834 Field Maintenance Squadron, 834 Tactical Composite Wing, Hurlburt Field, Florida, has been selected to receive the Tactical Air Command Maintenance Man Safety Award for this month. Sergeant Eckenrode will receive a certificate and letter of appreciation from the Vice Commander, Tactical Air Command.



**TSGT ECKENRODE**



## **TACTICAL AIR COMMAND**

### **Crew Chief Safety Award**

Sergeant Jonathan W. Houser, 4 Organizational Maintenance Squadron, 4 Tactical Fighter Wing, Seymour Johnson Air Force Base, North Carolina, has been selected to receive the Tactical Air Command Crew Chief Safety Award for this month. Sergeant Houser will receive a certificate and letter of appreciation from the Vice Commander, Tactical Air Command.



**SGT HOUSER**



## **TACTICAL AIR COMMAND**

### **Ground Safety Man of the Month**

Technical Sergeant James C. Worthy, 834 Munitions Maintenance Squadron, 834 Tactical Composite Wing, Hurlburt Field, Florida, has been selected to receive the Ground Safety Man of the Month Award for this month. Sergeant Worthy will receive a certificate and letter of appreciation from the Vice Commander, Tactical Air Command.



**TSGT WORTHY**



## ***CLOTH, STEEL and FLESH***

**By Stan Hardison**

After many hours of sweat and toil,  
tons of ore are pulled from the earth.  
Then exposed to flames like hell itself,  
my basic material is given birth.

I am dressed with chrome and lined with cloth,  
in colors to suit your every yen.  
I stand on four feet of the finest rubber,  
with the best steel and cords built in.

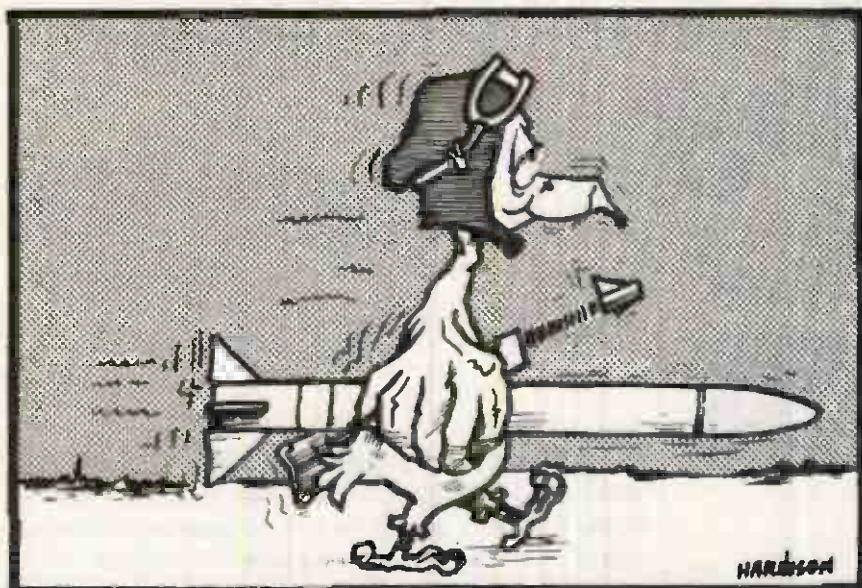
You place under my hood either front or rear,  
more power than I will ever need.  
My tank is filled with the finest octane,  
because there are six or eight pistons to feed.

After some lucky soul has paid the price,  
he buys the right to have me in his command.  
Maybe he is wise and has a foot that is light.  
Or maybe he wants to see how much I can stand.

If he is the latter with gas in his veins,  
and the smell of burning rubber makes him smile,  
You can bet your last dime, a beer or a coke,  
that he'll only be around for a little while.

I have no eyes of my own, reflex or nerve,  
remember, I'm made mostly of ground.  
My glass will shatter when my body bends,  
if my master's judgment is not sound.

So think twice, not only of sweat and toil  
and the work involved to give me birth.  
Or like my basic material of cloth and ore,  
you will be placed in this good earth.



## Management...Supervision ?

By Capt Frank H. Richardson  
Hq TAC/SEW

All the publicity about not following tech data has evidently been going into one ear and out the other. Strange as it may seem, the "Incredible" continues to happen. Two recent explosives mishaps, one in TAC and the second in another command, only further illustrate the ineffectiveness, lack of concern, lack of technical knowledge, and lack of common sense and judgment of some of today's supervisors and managers.

### Example 1

While performing functional checks during a SUU-23/A loading, the gun functioned "as designed." Four persons were injured, one fatally; the aircraft nose gear strut assembly was shot off and a step van parked in front of the aircraft was damaged. It was an accident waiting to happen. The loading operation and functional checks were conducted in direct violation of tech data. These violations were:

1. The gun firing and Inertia started motor leads in the SUU-23/A were connected.

2. The load crew used unauthorized hand signals instead of headsets.  
3. The number two man depressed the trigger without a signal from the crew chief, while the number four man simultaneously depressed the nose gear up limit switch. The gun fired 49 rounds before number two man could release the trigger.

### Example 2

During a 20mm ammunition disposal operation, numerous rounds

exploded simultaneously, blowing the bottom of the burning furnace out and the access door open. Shrapnel escaped and injured an unauthorized observer. Another accident waiting to happen because of the following violations of tech data:

1. The burn furnace was overloaded with ammunition.
2. Personnel failed to remain behind the barricade provided while the ammunition was being burned.
3. Unauthorized personnel were not cleared from the burning area.

Neither of these accidents just happened. They were caused by a series of events that should have been controlled. Perhaps it all started with an inadequate training program; or assignment of the wrong person(s) to the job; or insufficient in-depth inspections by safety personnel; or . . . you name it.

One thing is definite — the circumstances surrounding these accidents did not "crop up" overnight. Managers and supervisors have control over most accident situations . . . if they know their jobs; if they know their people; if they take time to get out in their areas; quite simply, if they're professionals. They certainly should insure the use of tech data. Do you?

| TAC |          |      | WEAPONS MISHAPS |     |          | ANG  |           |     |
|-----|----------|------|-----------------|-----|----------|------|-----------|-----|
| AUG | Thru Aug |      | EXPLOSIVE       | AUG | Thru Aug |      | EXPLOSIVE | AUG |
|     | 1974     | 1973 |                 |     | 1974     | 1973 |           |     |
| 8   | 61       | 122  | TOTAL           | 1   | 71       | 41   | TOTAL     | 1   |
| 4   | 32       | 45   | Personnel       | 1   | 6        | 27   | Personnel | 1   |
| 3   | 25       | 54   | Materiel        | 0   | 5        | 13   | Materiel  | 0   |
| 1   | 4        | 23   | Other           | 0   | 0        | 1    | Other     | 0   |
| 1   | 6        | 12   | MISSILE         |     |          |      | MISSILE   |     |
| 3   | 18       | 3    | NUCLEAR         |     |          |      | NUCLEAR   |     |

# TAC TIPS

If your primary concern is defense,  
don't go on the mission.

...interest items,

## F-4 SPLIT FLAPS

All phases of flight were normal as the F-4D pitched out for landing. The gear was lowered on downwind at 250 knots. Still straight and level, the flaps were started down at 210. The pilot remembered pausing momentarily at the one-half flap position like the good book says, and as the flaps went past one-half, the Phantom began an immediate and uncontrollable roll to the right. The pilot unloaded the aircraft, went to afterburner and used left rudder in an attempt to stop the roll. He then engaged the paddle switch and placed the flap switch back in the "up" position. Although all of this was done in less time that it takes to read about it, the aircraft banked to about 135 degrees, and airspeed decreased to 190 knots. The crew recovered the aircraft at about 300 feet AGL. They pulled a controllability check and made an uneventful no-flap straight-in.

After they got the errant F-4 on the ground, maintenance discovered a crack in the upper wing skin. The location of the crack indicates the damage (and problem) was caused by the failure of the rod end of the right trailing edge flap cylinder. It either recoiled or was forced upward to crack the skin and all indications are that the rod end failed while the flaps were in transit between one-half and full down. After the rod end failed, the air load blew the right trailing edge flap back to the "up" position resulting in the uncontrollable roll rate. The pilot's quick reactions afterwards probably saved the aircraft and the crew.

As crew members, we very often do things by habit resulting from procedures developed over the years. Often

the procedures evolve because of tragic accidents, but more often than not, they are based on good common sense. For example, step two of the landing checklist on page 2-25 of the F-4 Dash One states, "Flaps/slats - Full down or out and down. For airplanes without slats, place flap switch to 1/2, pause momentarily then extend to full down." This checklist item is followed by a warning, "Maintain straight and level flight when extending or retracting the flaps."

It's very easy to become complacent when you follow a seemingly nit-noy procedure day after day and never hear about a problem. So now you've heard about a split flap incident that almost resulted in an accident. Keep it in mind every time you raise or lower flaps. Although this was an F-4 split flap, it could happen in any aircraft. When you put your hand on that flap handle, be ready to react.

## 13 RULES TO WRITE BY

Since we at TAC ATTACK is in a position to know, here are 13 tips with which you might want to refer to.

1. Don't use no double negative.
2. Make each pronoun agree with their antecedent.
3. Join clauses good, like a conjunction should.
4. About them sentence fragments.
5. When dangling, watch your participle.
6. Verbs has to agree with their subjects.
7. Just between you and I, case is important too.
8. Don't write run-on sentences they are hard to read.
9. Don't use commas, which aren't necessary.
10. Try to not ever split infinitives.
11. Its important to use your apostrophe's correctly.
12. Proofread your writing to see if you any words out.
13. Corect spelling is esential.

# mishaps with morals, for the TAC aircrewman

## FLY THE AIRPLANE

Sound ridiculous? It used to sound dumb to me, too . . . until I became privy to about 5 pounds of USAF accident and incident reports daily. An amazing number of these reports point out that pilots often zero in on lead aircraft, gages, or warning lights and simply fail to maintain control of the aircraft.

I guess things haven't changed much. Pilots still stall and/or spin, unintentionally impact the ground, or collide in formation. The amazing thing is that many of these mishaps occur in perfectly good aircraft — the only failure is that area between the ear pads.

Basic attitude flying has been deemphasized and the

aircrew now spends most of its time under radar control, using computer flight plans and IFR-only operation. If the truth be known, however, safety of flight still depends on ol' number one — the pilot, and how well he stirs the stick.

Distractions, no matter how serious, should be just that — a momentary interruption of concentration. You can't afford to allow a nuisance to bother you so badly you forget to keep your aerospace machine in the air. If this seems too simplistic, remember we have plenty of accident reports indicating aircrews became so preoccupied with a minor problem that they simply overlooked the need to fly the machine. Don't get caught by the "tunnel vision" syndrome. Fly that airplane.

## 'HIGH' FLYING BIRDS CUT OFF CALLS



Four drunken birds fed liquor-soaked cocktail cherries by bar patrons have been blamed for disrupting airline reservations in Atlanta's Hyatt Regency hotel lobby because their intoxicated calls are on the same frequency as telephonic computer signals.

"Every time we called up the reservation office at Smyrna (an Atlanta suburb) the lines would suddenly go dead," said Susan Gavalis, an Eastern Airlines ticket agent at the hotel.

Miss Gavalis noticed that the disruptions occurred when one of the hotel's scarlet macaws and Mexican yellow Amazon parrots shrieked.

"I was sure they had something to do with it only I couldn't get anyone to believe me," she said.

Finally she contacted the Eastern communications department, and a check determined the birdcalls were the same frequency as used to instruct a computer to disconnect the phone line.

"The tone told the computer to shut off the line, register the amount of time the line was in use, and make a record for billing," said Bob DeLoach of Eastern.

Kathy Conklin, public relations director for the hotel, said they are so noisy because patrons of a nearby cocktail lounge feed them the fruit from drinks.

She said they also become exceptionally loud on Sundays when the bar is closed and presumably, they are all sober. The airlines desk is closed then.

Courtesy: Daily Press, Newport News, VA

To command and control is to win.  
To learn more about our system, here is . . .

# TACS

## IN 10 MINUTES OR LESS

By Col C. W. Turke,  
Commander 4552 AWCS, Tinker AFB

In past wars, quantity has been the measure of success. With the higher cost of today's sophisticated weapons systems, however, the US no longer has a bottomless supply bin. Although "Fustest with the mostest" worked well in the past, our future resource limitations require we must now be "fustest with the bestest" — and this "bestest" has to be protected through good command and control. The Tactical Air Command has such a system, but most people have little knowledge of it. This article offers you a quick summary of the many aspects of the Tactical Air Control System (TACS).

### A CHANGE OF ENVIRONMENT

Wing and squadron personnel continually concentrate on flying training, insuring their efficient employment of weapons systems. Should the balloon go up and the stick be shaken, however, crews would find themselves working for a new parent organization and operating in a strange unfriendly environment. That familiar range, air space or drop zone would suddenly be replaced by a hostile tactical area adjacent to the forward edge of the battle area (FEBA). Here, the control system recognizes the need for air, then plans, frags and controls the sorties. The airplane driver finally gets to do his "thing."

### ELEMENTS OF THE TACS

What does a TACS consist of? How does it function? How do its elements function? The composition of the TACS varies depending upon the job to be done, the size, type and sophistication of forces to be employed (both sides) and the geographical location. How it works can best be described by listing the individual TACS elements and their functions. A control system can be composed of various combinations of TACS elements. Elements follow:

THE TACTICAL AIR CONTROL CENTER (TACC) plans, coordinates, and directs the air effort and supervises all tactical air control functions. Through its dual facilities (current plans and current operations), the Air Force Component Commander effects coordinated planning and centralized control of the air effort. The TACC prepares the daily air operations combat plan, directs current operations in execution of the plan, and orders air operations in response to tactical situations.

THE CONTROL AND REPORTING CENTER (CRC) provides mission control, identification, navigational/air rescue assistance, threat warning for friendly aircraft, and air traffic regulation/identification within assigned areas of responsibility. The CRC supervises subordinate radar elements (CRPs, FACP) within its assigned area of responsibility. The CRC controls aerial refueling, close air support, reconnaissance, interdiction, airlift and counterair missions.

THE CONTROL AND REPORTING POST (CRP) is an operational element subordinate to the CRC with an assigned area of radar control and surveillance normally forward of the CRC. One or more CRPs may be used to provide the operational link between the CRC and the Forward Air Control Post (FACP) elements. Except for centralized identification, its functions are similar to the CRC.

THE FORWARD AIR CONTROL POST (FACP) is a mobile radar and communication control element normally subordinate to a CRP. It augments the CRC and CRP surveillance coverage within forward combat areas. It is capable of positive control of tactical offensive and defensive missions during all weather conditions. Hand-offs to Forward Air Controllers (FACs) for direct support missions are also an essential function of this element.

THE AIR SUPPORT RADAR TEAM (ASRT) is a

**STANDARD  
CORP**



- ## TAC ATTACK

# TACS



highly mobile forward element of the TACS which provides high accuracy all-weather ground directed bombing.

THE SENSOR REPORTING POST (SRP) detects and continually monitors ground movement behind enemy lines. It uses remote sensing devices, an airborne relay and an assessment facility which is collocated with an element of the TACS, usually the CRC. Information on enemy targets is passed from the assessment facility (SRP) to a sensor liaison officer within the TACS, who in turn advises the fighter duty officer who then may recommend committing tactical air against the sensor derived target. Sensor derived data is also used to update the long term intelligence data base.

THE AIRBORNE COMMAND AND CONTROL COMMUNICATIONS (ABCCC) is best defined by its name. The system enables the Air Force Component Commander to control tactical air operations beyond the range of ground based communications elements. In Vietnam this was carried out by specially equipped C-130s.

THE DIRECT AIR SUPPORT CENTER (DASC) is a facility designed to operate with the Army Tactical Operations Center (TOC), and functions as a forward element of, and is subordinate to, the TACC in operational command channels of the TACS. The DASC receives, plans, and coordinates requests for immediate close air support, tactical air reconnaissance and tactical airlift. It directs the employment of the air effort allocated for these missions, acts as advisory agency to the Army Commander on the feasibility of requests for air support, and provides overall supervision of the Tactical Air Control Parties.

THE TACTICAL AIR SUPPORT SQUADRON (TASS) (FAC) is not an element of the TACS; however, it provides Tactical Air Control Parties (TACPs) which are capable of air strike control and liaison in direct support of U.S. Army Forces. Its employment function is to provide logistic and administrative rear support for the forward TACPs.

THE TACTICAL AIR CONTROL PARTY (TACP) is a team of Air Force personnel, equipped and trained to provide air liaison to Army forces and to control tactical close air support missions. TACPs are provided to all Army battalion and higher ground force headquarters including the field army when deployed for combat. TACPs consist of an Air Liaison Officer (ALO), Air Operations Officer (AOO), Forward Air Controller (FAC), Communications Technician (CT), vehicles, and communications equipment. The FAC visually directs tactical air strikes on targets close to friendly forces. The ALO normally acts as an advisor to the Army Commander on air support, while the air operations officers advise the ALO in their specialized area.

THE TACTICAL AIR SUPPORT SQUADRON (TASS) (HELO) is not an element of the TACS; however, it provides helicopter airlift for employment positioning, logistical support, and intra-theater mobility of field elements of the Tactical Air Control Systems.

THE AIRLIFT CONTROL CENTER (ALCC) provides detailed management and mission control of the tactical airlift resources. The ALCC is part of the TACC but could be expanded and become independent depending upon the need.

THE AIRLIFT CONTROL ELEMENT (ALCE) is a team of Air Force personnel established to control,

coordinate, and report Air Force airlift operations in a forward area where airlift facilities do not exist. The ALCE is part of the TACS but can be broken out and used to support other requirements such as earthquakes, flood disaster, etc.

THE COMBAT CONTROL TEAM (CCT) assists in guiding airlift aircraft to their objective areas for each tactical airlift mission using a DZ, LZ, or EZ. A CCT, under control of an airlift commander, is emplaced in a combat zone objective area via the most expeditious means available. The team surveys and secures the area, establishes radio contact with the incoming force, and relays weather, combat, intelligence, and other relevant data, as applicable.

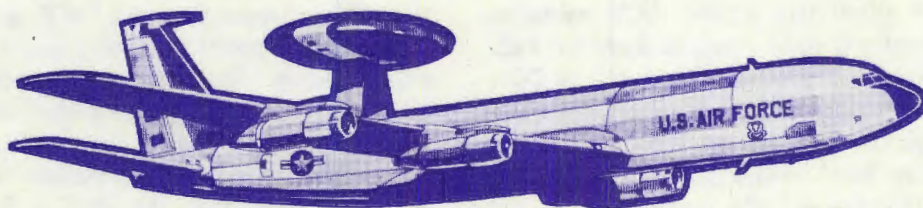
#### FOLLOWING A HYPOTHETICAL CLOSE AIR SUPPORT MISSION

The percentage of aircraft dedicated to the close air support effort is determined by the joint commander and is dependent upon the need for a capability of delivering ordnance.

Let's start with a front line Army battalion telling the TACP ALO they have some activity, cannot suppress it with their organic weapons and need air assist. The TACP calls the DASC located at Corp HQ and states the request and describes the target. The Army, which monitors requests at all levels through a TACP, approves the request for close air support if it cannot support the request with organic assets. The DASC, in coordination with the TACC, checks availability of aircraft and configurations. Having determined that a flight of 2 A-7s with CBU is needed and no similarly configured flights are airborne that could be diverted, the DASC or TACC scrambles an alert flight. (Alert flight configurations are determined the previous day by an educated WAG from the DASC and TACC.) The flight takes off, passes through CRC radar control, CRP radar control then to FACP radar control. The FACP Weapons Controller conducts a rendezvous and hands the flight off to a ground or airborne FAC who controls the mission. The flight delivers its ordnance, reverses the radar hand-off direction and recovers at home plate.



# TACS



While the CAS mission was underway, other missions were being accomplished under the watchful eye of the TACS: a MiG cap was flying under radar control of the CRP; a flight was in the soup delivering ordnance under ASRT guidance; and the recce bird was not alone for a FACP was flight-following him. The CRC may have been rendezvousing a flight for refueling and simultaneously guiding the World Airways airliner that was bringing in the mail while a CCT was securing a drop zone.

How many flights can the standard system handle? Good question, but there is no definite answer. The system could handle 5 times more flights going from point a to point b than it could missions that included MiG engagements, SAR efforts, weather wingman separations, emergencies, rendezvous, missed frequencies, etc.

## PRESENT TACS COMPOSITION

Take a look at the attached illustration. I'm sure you were surprised at the composition of the standard TACS and the likelihood of so many unpleasant non-glamorous but necessary occupations. Would you believe over 2,000 personnel per standard TACS for a 12-hour shift. Presently there are 2 complete TACS in Tactical Air Command.

## WHERE DOES THE AWACS FIT IN?

The Airborne Warning and Control System is an important weapon in our fight against surprises. Many believe the AWACS is an airborne TACS. It is not. It is simply an element/extension of the TACS that will allow our TACS to look further over the horizon and fill in the ground radar gaps caused by terrain masking. It is inconceivable to think personnel aboard the AWACS could perform the vast role of the standard TACS; however, the air refuelable AWACS does provide the Air Force with an instantly-available limited TACS and ABCCC capability.

## YOU MAY KNOW MORE THAN YOU REALIZE

I'm sure all jocks consider operating with the TACS in a stateside environment a pain and it is, to a degree; however, all must realize the TACS needs training also. If the same jocks should go TDY/PCS in support of a contingency, they would realize a trained TACS is essential.

You may have served in SEA but did you realize a TACS existed? The TACS in SEA was developed during 1962 and was rather unique. There was no FEBA and consequently no forward radar. This contingency did not lend itself to true TACP/DASC Army participation. The radars controlled traffic, but not to a full degree. 7AF in Saigon was the component headquarters and the TACC, while the ABCCC acted as an airborne extension of the TACC. The FAC (who sometimes was really a SCAR) was always airborne and the C-121 played the AWACS role. This TACS pulled everyone together into a capable combat force.

Thanks for the 10 minutes of your time. I hope you have acquired an understanding of the TACS and the realization that it is a large, necessary and important part of our combat force. At least now when other blue-suiters start throwing those acronyms around, you'll be able to respond with a little more authority. ➤



**Colonel Turke is the Commander of the first Airborne Warning and Control Squadron. His contribution makes him our monthly Fleagle T-shirt winner for October.**

# PHYZ-BIZ

## hypoxia, again !!

by Lt Col Harold Andersen,  
TAC Physiological Training Coordinator

Last month we kicked off this series on hypoxia with a short discussion of "meal-time strangulation." In this type of event, it is relatively easy to see how hypoxia can develop: a wad of food blocks the victim's airway and he can't ventilate his lungs (breathe in and out). The result, of course, is rapid depletion of the oxygen present in the lungs and blood stream at the time the blockage occurs. As the blood oxygen content drops, the brain cells are deprived of their "fair share." In this case, the "fair share" requirement by the brain is considerable. The neurons (brain cells) require more oxygen per tissue weight than any other tissue in the body, even more than exercising muscle tissue!

For those readers who like to organize their thoughts, hypoxia can be categorized for ease of understanding and recall. In the foregoing example, strangulation, the blockage results in a reduction in oxygen available to go from the lungs into the blood stream; and the condition is called "Hypoxic Hypoxia." Any condition which reduces, prevents or interferes with the passage of oxygen from the lungs into the blood stream results in Hypoxic Hypoxia. Some other common events which result in deprivation of oxygen to the brain are: filling the lung spaces with fluid and lung collapse (pneumothorax).

In the first instance, the fluid which fills the lungs may be of endogenous origin (from within the body) or of



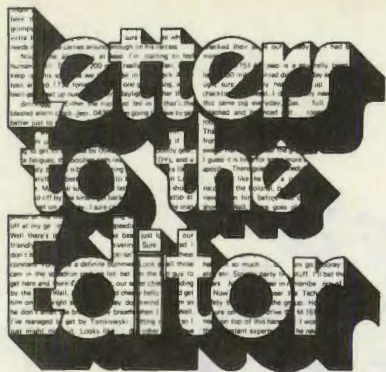
exogenous origin (from outside the body). In the disease of the lungs called pneumonia, body fluids fill the lung spaces and reduce the surface area of the lung available for transfer of oxygen into the blood stream. The exogenous fluid may be from a lake or a water-filled bath tub, but the end result is the same.

The term pneumothorax describes a condition wherein air gets into the chest cavity, between the inner wall and the lung, either through a hole in the chest wall or in the lung tissue. The presence of this misplaced air causes the lungs to shrivel and collapse; this is frequently the case in penetrating chest wounds.

So, in both instances, fluid in the lungs (pneumonia, drowning, etc.) and lung collapse (pneumothorax), the ultimate result is hypoxia (specifically, Hypoxic Hypoxia). If the degree of hypoxia is sufficiently severe, neurons will quickly perish, and if the brain damage is extensive, the individual cannot survive. Therefore, although a coroner's report may read "death due to drowning," what really caused the death of the individual? Right! The severe, irreversible brain damage, the result of severe hypoxia.

Make no mistake about it, when a neuron is so severely damaged that it cannot recover, i.e., it dies, the loss is permanent! Brain cells do not, cannot, be regenerated either spontaneously or otherwise. Nobody on God's green earth knows how to restore life to the lost neuron. Since the number of available neurons in your brain is a finite one, it behooves you to protect them from hypoxic insult in any form.

In the next and succeeding issues, other pertinent aspects of hypoxia will be covered. 'Til then, keep breathing!



Letters to the Editor

## REUNIONS:

The 36th, 49th, 50th and 86th Tactical Fighter Wings will hold their annual reunion 25-27 October at the Dunes Hotel in Las Vegas. Brigadier General Robbie Risner will be the guest speaker. For more information contact:

Sophia Hesbon, Reunion Secretary  
PO Box 9766  
Nellis AFB NV 89191  
Tel: (702) 643-2750

6th Annual Tactical Airlift Reunion will be held in Atlanta, Georgia, 1-3 November 1974 at the Regency Hyatt Hotel. All those who have had anything to do with Tactical Airlift or the support thereof, past and present, are encouraged to participate. For further information contact:

Lt Col Rocky Bouldin, AV486-4846  
P.O. Box 9707  
Pope AFB NC 28308 or

Col Jim Ford, AV432-7047  
334 Alcove Drive  
Hampton VA 23669

The Sixth Annual A-1E/H Reunion will be held November 8-10, 1974, at the Menger Hotel in San Antonio, Texas. Spads, Sandys, Hobos, Fireflies, Zorros, SPADs, Downed or Rescued Crewmembers, and any other interested parties are encouraged to attend. Send inquiries to the A-1 Skyraider Association, Box 41, Randolph AFB, Texas 78148.

**WANTED:** Ex-F-86E and F pilots with Korean War experience to provide our contributing editor, Bill Holder, with information on F-86/MiG-15

combat operations for a future issue of TAC ATTACK. Write Bill at his home address, 3811 Berryleaf Court, Dayton, Ohio 45424, if you think you may have a story or information that might help him fill in the gaps. ED

## EDITOR:

I read with interest the story in the August issue of the appearance of a "beautifully restored" A-36 aircraft on the exhibition floor of the Air Force Museum. It was eye-catching to me as I flew the A-36 with the 86th Fighter Group in Italy during the 1944-45 period. It is an excellent article on a fine aircraft; however, I am disappointed that the organization who restored the aircraft was not mentioned.

A Minnesota Air National Guard Unit, the 148th Fighter Group, Duluth MN, donated thousands of manhours over a three-year period to put the bits and pieces back together to present the A-36 to the USAF Museum. Col Bernie Bass, Director of the Museum, could provide you with many more of the details.

A deSeversky P-35 restored by the men of the 133d Tactical Airlift Group, Minnesota Air National Guard, St. Paul MN, followed the A-36 to the floor of the USAF Museum. One of the reasons for the Minnesota Air Guard restoring this airplane for the Museum was to encourage other Air Force, Air Guard and Reserve Units to take on a similar program for the benefit of the United States Air Force.

You might be interested in telling the story of the Serversky P-35 (Serial Number 36-404). If you would like the complete story, I would suggest you contact Col Bass for all the details.

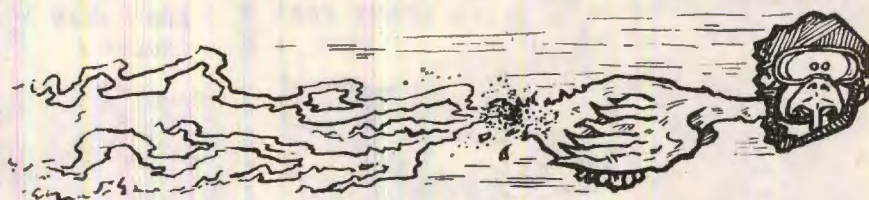
Sincerely,

JOHN R. DOLNY, B/Gen, MNANG  
Commander

*Thank you for the information on the fine work done by the Mn ANG units in restoring these aircraft. In the future, we'll try to provide our readers with more data on the restoration of AF Museum aircraft.*

*We talked to Bill Holder, author of the A-36 article, and he agreed the P-35 would be a good subject for a future issue — especially since the recent death of deSeversky has brought his many innovations back to the public's attention. ED*

# TAC TALLY



|                         |
|-------------------------|
| TOTAL ACFT. ACCIDENTS ► |
| MAJOR ACFT. ACCIDENTS ► |
| AIRCREW FATALITIES ►    |
| TOTAL EJECTIONS ►       |
| SUCCESSFUL EJECTIONS ►  |

| TAC |          |      |
|-----|----------|------|
| AUG | Thru AUG |      |
|     | 1974     | 1973 |
| 2   | 17       | 31   |
| 2   | 13       | 21   |
| 1   | 7        | 15   |
| 1   | 13       | 21   |
| 0   | 11       | 13   |

| ANG |          |      |
|-----|----------|------|
| AUG | Thru AUG |      |
|     | 1974     | 1973 |
| 0   | 13       | 14   |
| 0   | 13       | 9    |
| 0   | 7        | 1    |
| 0   | 7        | 7    |
| 0   | 4        | 6    |

| AFRes |          |      |
|-------|----------|------|
| AUG   | Thru AUG |      |
|       | 1974     | 1973 |
| 0     | 5        | 1    |
| 0     | 4        | 1    |
| 0     | 2        | 2    |
| 0     | 1        | 1    |
| 0     | 1        | 0    |

## TAC'S TOP "5"

| FIGHTER/RECCE WINGS  |         |     |
|----------------------|---------|-----|
| ACCIDENT-FREE MONTHS |         |     |
| 77                   | 33 TFW  | TAC |
| 44                   | 4 TFW   | TAC |
| 29                   | 127 TFW | ANG |
| 26                   | 31 TFW  | TAC |
| 24                   | 121 TFW | ANG |

| AIRLIFT/REFUELING WINGS |         |       |
|-------------------------|---------|-------|
| ACCIDENT-FREE MONTHS    |         |       |
| 110                     | 440 TAW | AFRES |
| 109                     | 136 ARW | ANG   |
| 73                      | 316 TAW | TAC   |
| 62                      | 126 ARW | ANG   |
| 61                      | 463 TAW | TAC   |

| SPECIAL UNITS        |             |     |
|----------------------|-------------|-----|
| ACCIDENT-FREE MONTHS |             |     |
| 140                  | 130 SOG     | ANG |
| 120                  | 2 ADGP      | TAC |
| 101                  | 143 SOG     | ANG |
| 89                   | DET 1, D.C. | ANG |
| 65                   | 135 TASG    | ANG |

## MAJOR ACCIDENT COMPARISON RATE 73-74

| TAC   | 73 | 5.0  | 5.1  | 5.1 | 4.2 | 4.3 | 5.0 | 4.8 | 4.4 | 4.2 | 4.1 | 4.2 | 4.1 |
|-------|----|------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
|       | 74 | 4.5  | 5.4  | 5.6 | 4.5 | 4.0 | 3.6 | 3.0 | 3.1 |     |     |     |     |
| ANG   | 73 | 8.5  | 8.6  | 6.8 | 5.0 | 4.7 | 5.1 | 4.3 | 4.2 | 4.6 | 4.2 | 3.9 | 3.7 |
|       | 74 | 7.2  | 8.6  | 8.2 | 5.7 | 6.9 | 7.0 | 7.6 | 6.6 |     |     |     |     |
| AFRes | 73 | 14.9 | 6.7  | 4.1 | 3.2 | 1.8 | 1.5 | 1.3 | 1.1 | 1.0 | .9  | .9  | .8  |
|       | 74 | 0    | 16.4 | 8.9 | 8.8 | 6.7 | 5.3 | 5.8 | 5.0 |     |     |     |     |

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

# FLEAGLE

