FEATURES

THE ACCIDENT THAT DIDN'T HAPPEN ........................................... 4
A-7 CENTER SPREAD ............................................................. 16
THE PILOT AS A DECISION-MAKER ........................................... 20
THE SAGA OF SPANKY FLIGHT .................................................. 24
SAY HELLO TO THE WART HOG ................................................. 26

DEPARTMENTS

Angle of Attack ................................................................. 3
Aircrewman of Distinction ..................................................... 7
TAC Tips .................................................................................. 8
Down to Earth ....................................................................... 10
Life Support Update .............................................................. 12
Popeye .................................................................................... 14
Chock Talk ............................................................................. 18
Annual Awards ...................................................................... 22
Safety Awards ........................................................................ 29
Letters ................................................................................... 30
TAC Tally ................................................................................ 31

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

PROFESSIONALISM - not an option, but a necessity

Realistic training exercises such as Red Flag have been getting a lot of visibility lately - and rightly so. It's the best thing to come along since the aggressors were formed. Unfortunately, not all the publicity has been good. By mid-March, TAC forces lost three aircraft and three crew members on our tactical ranges. In the past, this could have resulted in backing off on the demanding training requirements, but we know the consequences of such actions, and each of us must do his part to keep and improve on the training environment. We must be ready for combat and cannot now afford the luxury of lengthy transition from stateside simulation to actual combat operations.

Our training realism must not be downgraded, yet we must reduce the effect of inherent hazards. How? Remember the objective - COMBAT READINESS. This certainly isn't accomplished by losing aircraft and people to accidents. A professional approach is necessary if we expect to prevent accidents.

So far this year, by the middle of March, TAC (active and gained) had experienced 13 major aircraft accidents, 9 involving aircrew to varying degrees. Here are some things you can do to help the situation:

• Take full advantage of every minute in the air. A lowered experience level and reduced flying time make it a must to get your requirements ... and then some.

• If you are a briefee, do it right. If you are a "briefee," listen up. Brief what you fly, and fly what you brief. Period.

• Hit the books! Not just the Dash-One, but also such manuals as the 55 series and most important, MCM 3-1. The squadron question and answer session is still a good idea. Don't just cram before checkrides, be a professional - all the time.

• Don't get in over your head. If you don't think it's right - it probably isn't. There's always tomorrow ... if you use good judgement.

• Don't get so hyped-up about hacking a difficult mission you forget the hazards of pressing, spatial disorientation, and distractions.

• Know what you are doing, don't just think that you know. If you aren't sure, ask questions.

Three out of thirteen accidents in 1976 have involved supervisory factors. Here are a few tips for you leaders - wing, squadron, flight commanders, and especially, flight leaders - where it all comes together:

• Know your people. Complex and demanding missions must be well planned and executed. This requires real world knowledge of your people's strengths and weaknesses. Schedule missions on the capabilities of each individual. Don't schedule a tough mission based on the abilities of the most experienced and proficient jock in the flight.

• Make sure your instructors and flight evaluators record an accurate appraisal of student's/ ratee's capabilities. Study training folders and Form 8s to determine aircrew's weaknesses - then do something about the problem.

• Move around. Sit in on flight planning, briefings, and meetings. Periodically review squadron SOIs for effectiveness.

These brief tips don't begin to cover all the accident prevention tools at the disposal of aircrews and supervisors, but they are a start. We want realistic training to continue. However, if we can't accept the responsibility, we'll lose it. We must meet the challenge head on with programs that require 100 percent effort as the MINIMUM standard. Professionalism, like realistic training, is not an option. It's a necessity.

[Signature]

JOHN F. RHEMANN, Colonel, USAF
Chief of Safety
The full moon and clear skies promised by the weather people portended some exciting action over the trails of Northern Laos that evening. The ten crewmembers of our AC-119K "Stinger" gunship had performed all of their preflight rituals and were eager to complete another combat mission. The crew list reflected people at varying stages in their 12-month tours of duty. Some were nearing the time for their "sawadee" or final mission. Others were at the midpoint of their tours. Still others were relatively new in the theater and in the process of becoming combat ready. This last category was the focus of my attention during the evening. My immediate task was to administer an evaluation to a pilot who was upgrading to aircraft commander. The mission was night armed recce with the examinee occupying the left pilot seat and demonstrating his ability to conduct the mission as aircraft commander. The examinee was highly motivated, aggressive, and anxious to have a crew of his own. His zeal was justified inasmuch as the left seat of the gunship was where the action was; a position of responsibility, with commensurate recognition for good work. This was his third attempt at completing the evaluation. On the two previous times he had been scheduled, the missions were aborted for weather. Now it appeared that this one was going to go. All preflight items had passed muster and the power-on checks of equipment and aircraft indicated that everything was within tolerances.

We were cleared for takeoff. The pilot advanced the throttles of the two big R-3350 reciprocating engines, and I toggled the jets to 100 percent, checking the gauges in the green as the uproar violated the tranquility of the Thai countryside.

The pilot released the brakes and the gunship
trundled down the asphalt, slowly gathering speed. Then it began to veer toward the left side of the runway. "Abort! Abort!" dictated the left seater on intercom. He closed the throttles, lifted them over the mechanical lock, and into reverse, simultaneously shutting off the jets. Disgustedly, as we cleared the runway, he said, "It felt like the left brake was dragging. Nose wheel steering wouldn't hold it." I made the necessary calls to ground control, asked for a visual inspection of the brake before proceeding, and then got clearance to taxi back to the ramp.

A flurry of activity ensued, and presently the ground crews announced that we were ready to go again. Everyone, ground and aircrew, was anxious to get this mission off. If we couldn't get airborne by a certain time, then the mission would be scrubbed and the aircraft given to another crew later in the evening.

Back in the airplane... survival gear on... whip through the checklist quickly... ready to start the right recip. The flight engineer started the right engine, and proceeded with the left one as the pilot and I busied ourselves with numerous systems checks. For some providential reason I chose that moment to look out the right side window. Things were moving that shouldn't be moving -- like our aircraft and the appendages thereto! Accompanied by a familiar Anglo-Saxon expletive, I tromped the brakes and whiplashed the whole operation to a stop - about two feet short of a rendezvous with the ground power unit!

The remainder of the mission was successfully (and soberly) completed without further incident.

Within a short time, a number of profound truths became gratifyingly evident - gratifying because they came so inexpensively. For such wisdom, one frequently must sacrifice a career, a promotion, a bundle of legal tender, or life and limb.
the accident that didn’t happen

In this instance they were “freebies,” and so I’ll pass them along at no charge.

TRUTH #1. There are very sound reasons for having an aircrew checklist and for using it in the prescribed manner. When we returned from the aborted takeoff, we neglected to accomplish that checklist item which reads “Parking Brake - Set (P).” We were all in a hurry and frustrated over the abort and we missed it. We missed it again on the “Before Starting Engines” checklist. The ground crew, anxious to get the mission launched, removed the wheel chocks before receiving the signal to do so from the pilot. Therefore, with parking brake off, chocks removed, and right engine running, the immutable laws of physics decreed that the aircraft move forward.

TRUTH #2. There are very practical reasons for observing the crew rest and personal maintenance habits which are either directed by regulation or recommended by the flight surgeon. I had flown once before during that same day. It was a functional check flight (FCF). No problem. Both missions were scheduled to be flown within the prescribed crew day. However, I came to work considerably earlier than the beginning of my crew day to do some administrative chores. Along the line, some meals got missed, too. It’s hard to quantify the manner in which these abuses contributed to the fact that I wasn’t the sharpest of pilots or supervisors that evening. But they did have some affect; bet money on it.

TRUTH #3. Anger, hostility, and frustration are emotions which are best left in the crew locker room. If taken aboard the aerospace vehicle, they will frequently cause one to bend same, along with oneself and others. I was fatigued from the previous flight, the extra work, and the missed meal. This made my temper shorter than usual and compromised my judgement. The maintenance ground crews were “torqued” because an aborted takeoff reflected unfavorably on their professional skills. The pilot examinee was angry and frustrated at the possibility of another delay in his upgrade flight. Everyone’s ill mood conspired to cause them to take leave of common sense, disregard the checklist, and use nonstandard procedures. The conditions were perfect for the disaster that almost occurred.

It has been four years since this incident. The remembrance of it still brings a shudder to the spine and a cold sweat to the palms. Every detail is still vivid; the profound truths more profound than ever. The only thing missing is the investigation report of the accident ... that didn’t happen.
Captain Holmes was number two in a two-ship flight of F-5Es redeploying to home station. On arrival, the flight broke up for individual VFR practice low approaches. When Captain Holmes lowered the gear for his second visual low approach, his left main gear indicated unsafe. A tower fly-by confirmed the left main gear still up, and Captain Holmes departed the traffic pattern to attempt alternate gear extension. After attempting all checklist procedures for normal and alternate gear extension, he called squadron ops and advised them of his situation and got a review of the flight manual. In the next 20 minutes, he tried every possible way to get left main gear down with no success. The Dash-One is specific about this situation and recommends ejection. Faced with this eventuality, Captain Holmes decided to try to extend the gear with G forces. He systematically increased airspeed and G forces beyond the gear limit, rolling and pulling the aircraft to apply radial Gs. At 10,000 feet AGL, 295 KIAS, he rolled into 135 degree of bank and snatched 5.5 Gs. Following this maneuver, the gear indicated safe, and the chase pilot confirmed all three gear were down. Captain Holmes immediately slowed the aircraft and initiated a circling approach to Williams Air Force Base, landing without incident.

The left main landing gear actuator connecting pin had worked loose in flight. The pin slipped aft, jammed against the skin in the aft portion of the wheel well and prevented gear extension. The G forces applied by Captain Holmes forced the pin through the skin, allowing the gear to extend.

Captain Holmes demonstrated outstanding airmanship and professionalism. His action saved a valuable aircraft from certain destruction and prevented possible injury or loss of life. Captain Holmes' actions during this critical emergency qualify him for the Tactical Air Command Aircrewman of Distinction Award.
Loyalty to petrified opinion never yet broke a chain or freed a human soul.

Mark Twain

**THE NURRIER YOU GO, THE BEHINDER YOU GET...**

By Capt Al Sweeney
31st TFW/FSO
Homestead AFB, FL

Recently an F-4 from another command blew a tire on takeoff. The pilot elected to abort and took the departure-end barrier. Luck was with the crew because the potential for total disaster was high.

Let’s start at the beginning ... our flyboys were making an intermediate stop on the way home from a 3-week TDY and were in a hurry to get back home to the wife and kiddies. Transient alert could provide only a partial fuel load due to VIP aircraft priority, but the crew decided to press on.

Estimates of their taxi speed ranged from “faster-than-normal” to 60 MPH. An intersection takeoff was approved, and the F-4 actually laid rubber turning onto the runway. They made a rolling, no-flap takeoff, and a tire blew out approximately 1,200 feet later. When the pilot elected to abort at a speed greater than 100 knots, the tire disintegrated, and they caught the barrier with the wheel rim just off center. The barrier was damaged and had to be re-placed. Drag chute was not deployed, but the crew did well to keep the aircraft on the runway. What if it had been raining, or icy, or the barrier completely cut by the wheel rim, or ... add your own circumstances.

Any way you look at it, these guys were lucky. Lucky, perhaps, but also not too smart. They violated not only the rules, but good common sense.

**COMPOUNDED EMERGENCIES**

The Photo-Phantom was on a cross-country training flight. When the wheels and flaps were raised, the jet experienced complete utility hydraulic failure. Climb was initiated to a safe altitude and fuel dumping began. The gear was successfully blown down using the emergency extension system. When the emergency flap extension system was used, the leading edge flaps indicated safe while the trailing edge flaps indicated unsafe. On final approach, the WSO stated that leading edge flaps appeared to be down. Pneumatic pressure was checked, and it was zero. On final approach, the WSO again checked the leading edge flaps, and this time they appeared to be up. An airspeed for a no-flap approach was flown, plus an additional five to ten knots for existing gusty wind.

interest items, mishaps with morals, for the TAC aircrewman
As the Phantom was slowed to landing speed, the angle of attack changed, allowing the flaps to reposition with more surfaces down on the right side than on the left which caused the aircraft to drift left. The same condition existed at touchdown causing a left drift condition. At approximately 200 feet AGL, the aircraft rolled into a bank of 20 degrees. Roll was counteracted with aileron. However, the roll was enough to cause the aircraft to drift left of centerline. Correction back to centerline was still being made at touchdown. Touchdown occurred 500 feet from the threshold at 180 knots and in a slight crab. The Phantom immediately started to drift left. The BAK-12 was snagged 81 feet left of centerline at 160 knots, and the aircraft; finally came to rest 10 feet off the hard surface. Final flap positions were: left trailing edge, between full-up and one-half; right trailing edge, one-half; left outboard leading edge, down; left inboard leading edge, up; right outboard leading edge, down; right inboard leading edge, up. Aileron and manual rudder inputs were insufficient to overcome the forces generated by the flap positions. What caused this weird configuration? The utility hydraulic accumulator was leaking, and this caused the hydraulic failure. To compound the problem, one of the emergency flap air lines on the left side was chaffed from rubbing against the BLC duct blanket. The air line ruptured when the emergency system was activated and resulted in the loss of all the air and failure of all the flaps to blow down. Once airflow pressure was completely exhausted, there was nothing to hold any of the flaps in either the up or down position. The flaps were then free to reposition themselves based on airflow. There are a way of compounding themselves. If you lose complete pressure as well as complete utility hydraulic failure, be aware that control difficulties may occur. That's the reason the 17 unit AOA approach is directed by the flight manual when landing a utility hydraulic system failure.

**AIRFIELD FACILITIES**

A transient aircraft recently made a night takeoff from a TAC base. Only one minor problem -- it took off from a closed runway which was aligned 45 degrees from the active runway! Among other mistakes, the pilot had failed to check his compasses for proper runway alignment prior to takeoff.

Investigation of this incident revealed some other interesting facts. Runway-taxiway intersection markings were confusing, obsolete lines had not been removed, and lighting was inadequate.

Let's make sure our operations don't include factors which could contribute to personnel errors. Regular airfield inspections are only one solution -- everyone who sees a problem should let someone know about it -- it makes good sense.

**KAMIKAZE STARLINGS**

The fighter was flying chase on a local transition mission. During go-around from a low approach, a large flock of starlings flew up from the overrun area. Flying in very tight show formation, the kamikaze starlings maneuvered directly into the path of the aircraft. After the strike, one of the engines compressor-stalled. The pilot then made a precautionary landing without further incident. No external aircraft damage was found even though there were 31 separate birdstrikes on the aircraft.

Although the severity of bird activity varies from one location to another, there are steps which can be taken at base level to reduce the possibility of birdstrike occurrences and damage. One method is through bird control, which includes such things as airfield vegetation control and spraying for insects on which the birds feed. Another way is through "bird avoidance" by altering operational procedures such as restricting takeoffs and landings during periods of peak bird activity, keeping airspeeds down below 10,000 feet AGL, and maintaining high altitudes whenever possible during seasons where bird activity is at its peak.

A good bird control/avoidance program starts with a total assessment of the hazard. This means finding out how many, what kinds, their habits, where and when. Then control and avoidance procedures can be started. Such a program involves a coordinated effort. The spring migratory time is here. What is your wing doing to reduce the birdstrike hazard?
GETTING BURNED

Ever wonder why seasoned safety troops retain their zealous and unwavering attitudes towards accident prevention? Many times it results from an accidental injury that left an indelible impression for life. As a result, some have jumped into the safety arena literally crusading for accident prevention. Such was my own personal "awakening" experience that occurred when I was a young second lieutenant just completing Munitions School at Lowry AFB in Denver, Colorado.

Denver quite literally is the "mile-high city." Couple this with a hot 4th of July afternoon, an outdoor concrete incinerator stuffed with gasoline-soaked rags (courtesy of a "neighbor") and a match ignited by me some 10 feet from the incinerator, and you have the makings of a real bomb. I had placed some old newspapers in the incinerator and gone back into the house for matches. Meanwhile, my neighbor completed cleaning his automobile carburetor with gasoline. For some unknown reason, he decided to place several fuel-soaked rags in my incinerator. After a 10-minute delay, matches were found, and yours truly trotted outside to meet his destiny. Why I decided to toss the match in from 10 feet away, I'll never know - perhaps it was instinct.

The subsequent blast knocked me some 5 feet in the air, ignited my hair like a sparkler, and literally barbequed my right hand, ear tips, and nostrils. I remember retaining enough "cool" to roll on the ground and extinguish myself. Flashes of horror pulsed through my mind as I imagined the possible consequences. Fortunately my wife witnessed the accident from a safe distance, and my beagle pup was shielded by my body. A lilac bush in back of me did not fare too well and was badly scorched with the outline of my body.

Somehow I managed to drag my painful self to class the next day after receiving treatment at nearby Fitzsimmons Army Hospital. Munitions school was completed with my head wrapped in a white turban and my right hand swathed in bandages. The physical wounds healed within 3 months, and my hair, eyebrows, and ego all grew back in time.

After assessing the facts and circumstances surrounding my particular accident, I firmly believe that someone was definitely looking over my shoulder and spared me the worst. Lessons learned from this accident could fill two pages. But the most significant concept gleaned from my own personal standpoint is this: Accidents don't just "happen" - they are CAUSED. Caused by people ... people like you and me, due to careless oversights. Make sure you don't get burned.

By Maj Gerald A. Fabisch
9 AF/SEW
Shaw AFB, SC

April 1976

DOWN TO EARTH
THE WORD

By Sgt Jim Pepper
35th AMS
George AFB, CA

There’s a magic word that’s used by many people and is known to almost everyone (although you couldn’t tell from the blank stares you get when you say it). It’s magic because of the way it affects people. It turns them off. Like a light. Click!

It is such a powerful word that once it is uttered, the listener will not hear anything that follows -- not even when it is solely for his or her own good (which is true most of the time).

If I were to say it now, everyone who is reading this would stop reading and start looking for something more entertaining.

This word covers almost every activity human beings participate in. Millions of dollars are spent to promote it; billions of dollars are lost by ignoring it. Not to mention such one-per-customer items as human lives.

With so much importance on one word, you’d think people would demand to know more about it or at least listen attentively when someone else was explaining it. No way. Despite gimmicks, tricks or bribes, people stubbornly refuse to listen. They ignore it. In fact, there are those who go out of their way to defy it.

For instance, take the case of the guy from OMS. He’d been fighting with his wife and drinking. It was mid-evening and he was riding his motorcycle to a friend’s house. He was on a street with two lanes each way, and he decided to go around the car in front of him which was going 40 mph in a 45 zone. No problem. Just open up the throttle, whip it into the left-hand lane and ... that’s fine, except for one thing; he already was in the left-hand lane. And it was a divided street. Can you guess? His 1000cc bike hit the divider and objected violently, flipping him over the bars. He passed the car, as he “superman-ed” for 57 feet which didn’t hurt a bit. Unfortunately, what goes up ...

He slid across the path of a by-now very interested automobile driver for 138 feet before coming to rest on a cement island. Oh yes, he didn’t have a helmet on. Or gloves. Or even a long sleeve shirt. He probably wishes he had at least had shoes on. I’m sure he added a new dimension to the term “raspberry.” Foolish? Sure. Uncommon? You know better.

HAY WHEELS, WILL TRAVEL

During the past year, a military weather advisory was issued for thunderstorms within three nautical miles of one of our southern bases. Twenty-two minutes later, a point warning was issued for thunderstorms/waterspouts with winds variable to 20 knots and gusts to 45. Following the military weather advisory, all flight line personnel were in the process of tying down equipment when the high winds dislodged and moved a 600-pound aircraft passenger loading stand from its parking spot. The stand traveled 300 feet across the open concrete ramp, through the ramp access point, and struck a parked aircraft. The stand did not have a braking system, but it was chocked fore and aft of the left rear wheel with standard aircraft chocks. Corrective action taken was to ensure that flight line equipment without integral braking systems is stowed in hangars during adverse weather conditions.

Natural phenomena damage cannot always be prevented. However, damage can be held to a minimum with a good severe-weather plan and enough advance warning to place it into effect. How does your unit stack up?
During the recent TAC Life Support Conference (3 - 5 Feb 76), everyone agreed that a bimonthly Life Support Newsletter would be a good idea. Unfortunately, funds for recurring publications have been cut, and there just isn’t any way for us to establish a newsletter. The good guys at TAC ATTACK have, however, agreed to give us some space each month to put out some Life Support info. We will try to include items of interest to Life Support Technicians as well as aircrews: new equipment, results of IG visits, current problems, etc. We’re interested in your inputs and comments, too. If you’ve got something you think other Life Support troops or aircrews would be interested in, send it to HQ TAC/DOXBL, Langley AFB, VA 23665, Attn: Life Support Update. We want to put out useful info, so don’t hesitate to let us know what you want. OK, here goes —

Lightweight Helmets and Oxygen Masks: Any pilot who pulls Gs (and any Life Support Technician who listens to pilots who pull Gs) knows that the HGU-26/P - MBU-5/P helmet-mask combination is too heavy and bulky; it slides around during maneuvers, restricts vision and generally interferes with flying the aircraft. TAC has had a Required Operational Capability (ROC) for a new helmet since 1972, but we haven’t had any luck in getting what we need. Fortunately, we’re starting to get some real interest in this problem, and we have been working almost daily with TAC Requirements and Aeromedical Services to tell the helmet/mask developers “how the hog ate the cabbage.” We’ve got a firm, documented requirement for this year and have been getting super support from other TAC staff agencies, other MAJCOM Life Support Branches, and the Air Force Inspectors.
tion and Safety Center. There are some new helmets and masks available for testing, and we're trying to get the program rolling in the Life Support SPO. We'll keep you updated on this subject.

AFTO forms 22: We've got a thing called Mandatory Command Channel Reporting on AFTO Form 22, that deals with life support equipment TOs. What this means is that every swingin' AFTO 22 you submit on life support gear comes through HQ TAC. The TAC/ALCOM guys (who do a super job keeping track of this system) send them to us for approval or disapproval; then they're sent to the appropriate Air Logistics Center (ALC). This does several things for us: (1) Eliminates duplicate AFTO 22s coming in to ALCs from different units; (2) Insures AFTO 22s coming from TAC units are valid and correct when they hit the ALCs; and, (3) Puts the endorsement of a MAJCOM on the AFTO 22. You wouldn't believe how many AFTO 22s San Antonio ALC gets! If we can weed out duplicates, the incorrectly written and invalid ones, the ones we send get processed faster and are more likely to be approved. The approval rate has really improved in the last few months. We're not saying that we are getting a good support. We also want it to appear in the AFTO 22 before they put it in the book.

New Manager for F/RF-4 Ejection Seat: Management of the F/RF-4 seat is being transferred from Ogden ALC to San Antonio ALC. This makes a lot of sense, since San Antonio is the prime ALC for life support equipment. Those of you who met Col Muir and Mr. Young (San Antonio ALC/MMD) at the recent TAC Life Support Conference know they're giving us good support. We also figure that some changes to the seat TOs may be in order. We're planning to ask F/RF-4 units for recommended changes, and we will then submit a combined package to San Antonio ALC. This is probably easier and faster than processing a large quantity of AFTO Forms 22. Additionally, San Antonio has historically been very responsive when it comes to providing technical assistance and egress engineers for accident investigations. Hope we don't need them, but it's nice to know they're around.

Painting Dual Visors: The PRU-36/P (polycarbonate) dual visor, according to the TO, cannot be painted. You can use tape or decals for decoration, but polycarbonate is easily damaged by the solvents used in most paint. This isn't totally satisfactory since many units would like to have distinctive, colored visor housings. The 58th TFW and 190th TRS troops, however, have had some success in dyeing the visor housings. San Antonio ALC has asked them to send in some dyed housings for analysis, so maybe we'll have a solution to the problem.

Incidently, San Antonio ALC/MMDT message 231930Z Feb 76 states that "Locktite will cause deterioration of the polycarbonate visor housings if the housings are subjected to external stresses." San Antonio says to use silicone adhesive, MIL-A-46106, Type I (white or clear) on visor housing nuts. USAFE Life Support Branch has requested that this info be included in TO 14P3-4-112. Keep an eye out for this change!

Write-ups: Looking through MEI reports for fun and profit, we have to answer life support discrepancies indicates that most problems can be prevented by a good quality control system. Basically, the idea is to have someone in the shop checking on equipment to be sure it's the way it should be. A quality control program, formal or informal, will generally catch things like cracked oxygen mask hardshells, missing nuts and washers, dirty visors, etc. We need the aircrew's support, too. Tell your pilots and gators to get their equipment to the technicians if there's something wrong with it or if they THINK there's something wrong with it. We don't make many big mistakes in Life Support, but it's the "ANTS" that get ya'. Self-inspection, quality control, and help from the aircrews are good ways to improve any life support operations.

Department of Odd Information:

- According to a usually reliable source, British fighter pilots wear their G-suits under their flight suits.
- At one time, a relief tube for female pilots was stocklisted.

TAC ATTACK
POPEYE

LEADPOINT MAGIC
By Capt Mike Kostelnik
4485th Test Squadron, USAFTAWC
Eglin AFB, Fl

Generally, there has been a shortage of articles in TAC ATTACK on instrument procedures—specifically, how these techniques apply to fighter aircrews. Captain Mike Kostelnik, presently a Test Project Officer with the 4485th Test Squadron at Eglin AFB and soon to be a resident of Squadron Officer's School, has offered a regular feature to fill the void. Mike, a graduate of IPIS, hopes the articles generate some interest. If you have any comments, criticisms, or kudos, send them to TAC ATTACK and we'll pass them on to Mike. It's your magazine—let us know how you feel about it.

ED

QUESTION: In terms of modern instrument flying, exactly what is a leadpoint?

ANSWER: A leadpoint is simply a start-turn point, determined either by degrees on a compass rose or DME (TACAN), which allows for the turn radius of the aircraft. In fact, for a 90º intercept angle, the leadpoint is actually the turn radius of the aircraft expressed in nautical miles or degrees.

QUESTION: Are leadpoints considered to be techniques, or are they procedural steps defined in AFM 51-37?

ANSWER: The use of a leadpoint may be required as a procedural step. Consider the last procedural step of a TACAN course intercept from AFM 51-37: "Maintain the intercept heading until a leadpoint is reached, then complete the intercept." Leadpoints may be used in conjunction with procedural steps, but in themselves are entirely technique. As there are no procedural methods for determining leadpoint, pilots should consider the various techniques available and select an acceptable method for inflight use.

QUESTION: What are some of the more commonly used leadpoint techniques?

ANSWER: Leadpoint techniques can be divided into two broad categories: those which rely on experience based on pilot judgement, and those which rely on numerical estimations of the aircraft turn radius. Experienced pilots are generally able to estimate start-turn points based on a knowledge of their aircraft’s turning performance by comparing the bearing pointer movement with the time required to turn to course. Numerical leadpoints which do not...
Depend on previous pilot experience can be further divided into those based on a 30-degree angle of bank and those which are intended for standard rate turns. A list of the more common leadpoint techniques is presented below:

**Leadpoints for 30° Angle of Bank**

- **Leadpoint = (Mach X 10) - 2**  
  Example: at .6 Mach, Leadpoint = (0.6X10)-2 Leadpoint = 4NM
- **Leadpoint = Mach X 10**  
  Example: at .6 Mach, Leadpoint = 6 X 10 = 3.6 NM

**Leadpoint = (Nautical Miles/Minute)-2**

- Example: at 420 Kts TAS Leadpoint = (420i-60) -2 = 5 NM
- Example: at 420 Kts TAS and no wind. The time for 10% of 420 will be 42 seconds, and the DME change in 42 seconds will be approximately 4.9 DME. Use a 5 NM leadpoint.
- If you always maneuver at a relatively constant true airspeed, determine your aircraft’s turning radius in feet from AFM 51-37, page 8-14 and convert this radius to nautical miles. Example: For 180 Kts TAS and 30° angle of bank, the turn radius is 5000 FT (based on the chart). Leadpoint 5000 FT ÷ 6080 FT/NM = .8 NM
- According to AFM 51-37, a leadpoint of 1/2 NM will generally provide satisfactory results for airspeeds below 150 Kts. This technique is useful for either 30° bank or standard rate turns.

**Leadpoints for Rate Turns**

- For turns that approximate a standard rate (3 degree per second), use a leadpoint based on 1/2% of the ground speed. Example: for 420 Kts: Leadpoint = 1/2% X 420 = 2.1 NM.
  In order to correlate your angle of bank to the bank required for a standard rate turn, use the following formula.
  Standard rate bank = (TAS-i10) ÷ 7 i.e. bank = (420-i10) ÷ 7 = 49°
- For turns that approximate a half-standard rate, use a leadpoint based on 1% of the ground speed. Example for 420 Kts: Leadpoint = 1% X 420 = 4.2 NM. Half-standard rate bank = (TAS-20) ÷ 7 = (420-20) ÷ 7 = 28°.

Remember that all these techniques are based on a 90° turn. If the angle of intercept differs from 90°, the leadpoint must be adjusted for the actual angle of intercept. Note also that some of these techniques do not consider the effect of wind!

**QUESTION:** Which leadpoint techniques provide the best results?

**ANSWER:** Generally speaking, all of the techniques presented will provide satisfactory results if properly applied. It may be informative here to refer to the graph of comparative accuracies presented in Figure 1. Notice the accuracy of the Mach 2 technique; it very nearly approximates the actual turn radius curve. However, it should be pointed out that the actual turn radius curve does not consider roll-in and roll-out rates. One percent of the ground speed is a very useful technique if properly applied. Notice from the Graph in Figure 1, that one percent of the ground speed is very accurate around 400 Kts where a 30° angle of bank approximates a half-standard rate turn. Notice also the error involved when one percent of the ground speed is used at 200 Kts where a 30° bank more nearly approximates a standard rate turn. Experience has shown that Mach - 2 is one of the most convenient to use and perhaps the most popular. Although not as accurate as Mach 2 , the additional distance provided in the Mach - 2 technique is beneficial for formation flights when roll rates are reduced.

![Figure 1: Graphical analysis of turn radius approximations.](image-url)
"There is no weapon too short for a brave man."

Sir Richard Steele-1713
Sheared Finger

Three airmen were cutting strips of metal into small pieces for turn-in to salvage. Twice during their work, they were interrupted by another airman who needed to use the metal shear machine.

On the third occasion, without alerting the shear operator, the airman approached the shear machine from the side and inserted a piece of metal from the front with his right hand. He was adjusting it with his left hand when the shear came down and cut his left index finger off.

To help prevent this type of accident from recurring, the shop has posted a sign warning that only one person is to operate the machine at any one time. A steel wire mesh safety guard has also been installed to prevent access to the machine from the side.

Both of these corrective actions are good, but a little late. No matter who you are, if you see a hazard, let someone know — submit an AF Form 457 (Hazard Report), or an AFTO Form 22. Have a tough time remembering form numbers? Call or visit your unit safety officer ... he'll get the ball rolling. Don't tolerate unsafe conditions — they result in intolerable losses.

The Great Survival Kit Boom—It's Still With Us

Two egress technicians personally witnessed the reliability of the F-4 survival kit recently. They arrived at the slumbering Phantom in the early morning hours to replace the pilot's emergency oxygen bottle. A sergeant was performing the tasks while an airman read procedures from Technical Order 1F-4C-2-3. They were both utilizing hand-held flashlights for lighting. The operation had progressed to lifting the survival kit from the seat bucket. When the sergeant lifted the kit, he heard a popping sound and noticed the kit had opened.

The survival kit actuator lanyard had not been secured to the survival kit with safety wire in accordance with local maintenance operating instructions. (The lanyard tie-down strap/locator beacon safety pin assembly prescribed in operational supplement 1F-4C-2-35-7 had not been locally manufactured and put into use.) The mode selector was in the "Auto" position, and when the lanyard caught on the seat bucket or under the egress technician's foot, the deployment actuator expended as designed. (This will happen every time ... just like the company who builds it says it will!)

Want to eliminate 99% of all inadvertent kit actuations? Follow these few rules:

- Be sure the kit is in "Manual," and be sure it stays there. (If you lift the kit from the rear - grabbing it from the back and rotating it forward as you lift, it's really easy for the mode selector to hit the forward edge of the seat bucket and move to "Auto" position.)

- Be sure the actuator lanyard ring is disconnected.

- Be sure the actuator lanyard and ring are properly stowed on the kit handle.

- Make sure everyone concerned understands how to properly remove the kit.

April 1976
Shedding SLUF

After the SLUF landed at a TAC base during a cross-country flight, the maintenance troops discovered a hydraulic leak above the left main landing gear strut. While trouble shooting the source of the leak, the left rear hoist panel was opened. Only problem was, the transient alert crewman who opened the panel for the specialists did not enter a red “X” discrepancy in the AFTO Form 781A as required by the local Maintenance Operating Instruction (MOI). Mistake number one.

The individual who opened the panel ended his work shift and went home while maintenance was still being performed. During the work, the panel was lowered to a closed position, but none of the five camlocs were secured ... mistake number two.

The hydraulic leak was found in the left spoiler area. It was fixed, and the 781 discrepancy including inspection was signed off.

The aircraft was preflighted in the early morning hours. The transient alert crewman who accomplished preflight stated that lighting equipment was used and that he had climbed onto the top of the aircraft to inspect the upper wing and fuselage ... but did not detect the unfastened panel ... mistake number three.

The aircrew preflighted the aircraft during daylight hours. Even though the camloc heads would be one-eighth to one-quarter of an inch above the flush surface, the unfastened panel went undetected again ... mistake number four.

The aircraft was inspected by the end of runway crew ... still, the loose panel went undetected.

The SLUF took off and flew a low level mission over water. Upon completion of the low level, he joined up with the flight lead who noticed the panel was missing.

Dropped objects CAN be prevented. All it takes is a little effort by all of us to do the job ... the first time.

---

WANTED

--- TAC ATTACK ARTIST ---

TAC ATTACK needs an illustrator (AFSC 231X1 ... Sgt - TSgt).

Must be familiar with all art media and have talent for figure-drawing and accurate aircraft rendering. Knowledge of magazine layout and production desired, but not required. Applicants must be PCS eligible. If interested, call Maj Tillman, Atvn 432-2937/3814.

--- FLIGHT SAFETY ANALYST ---

Analyst (43350/70) for HQ TAC Flight Safety. Aircraft maintenance background (431XX) desired. Job includes identifying and analyzing mishap trends and aircraft equipment performance. If interested, call Capt Aucoin or Lt Col Patterson, TAC/SEP, Atvn 432-7031.
In the not-too-distant past (fogged somewhat with paperwork pushed during my last two years as a headquarters weenie). I was briefed by the Wing DO on my responsibilities as an aircraft commander. The occasion was not a "chewing out" - quite the reverse. I was being officially welcomed to the wing as a brand new AC in the C-130. Hold it, you jet jocks, don't stop reading! His words transcend specific aircraft types and Air Force commands. His epistle applies to the F-15 driver as much as an aero club neophyte - to a trash hauler as much as a rotorhead. I think his words are important. I've never forgotten them, and I've got a memory like a steel trap - a very rusty steel trap. Basically this was his spiel:

"Welcome to the world of big business. You are now the president of a small, but important company. Your assets are in the millions. You are directly responsible for the lives of from 5 to 85 people. Your actions indirectly affect hundreds. The small business you control is an aircraft. Your company may survive only if you, like all executives, use sound judgement. Unlike a company president, however, your mistakes can kill you - and others. This difference demands the most from you. Don't speculate in high-risk investments. The profits gained by an on-time takeoff at the cost of a proper preflight might cost you your 'company' - and your life. A dollar saved by getting one more landing out of a well-worn tire could cost a damn sight more.

April 1976
AS A DECISION-MAKER

further down the road. Be good, but don’t over-rate your ability. Be a professional, but put your priorities in perspective. Don’t trust anyone completely. Be an idealist when you plan, and a skeptic when you fly.”

What the colonel said is not new. It’s just an effective way of saying what the Dash-One has said for years:

“This manual provides the best possible operating instructions under most circumstances, but it is not intended to be used as a substitute for sound judgement.”

Quote, unquote. No room for argument there. Before you make a decision, consider all the important options. In the aerial environment, this will require a little thought about these options before everything turns brown. Nobody expects any pilot to know all the options in all situations, but you must have an idea of what to do in most cases — and use good judgement when those very unusual problems crop up. I have seen pilots mechanically brief that “...if we have a problem and handle it as an airborne emergency in accordance with section three of the Dash-One.” This is a nice line to memorize for the takeoff briefing, but a little hairy if you think about it a bit. How about a midair with a flock of birds right after takeoff? How about engine(s) failure? Control problems? When you lift off with 6,000 feet of runway and a departure-end barrier in front of you and do not use it simply because you’ve already decided that takeoff speed is the point of no return, you have not considered all your options. Sure, this same fellow might decide, as you and I, that it would be best to return his pink bod to earth after a serious problem right after takeoff, but he shouldn’t brief otherwise. At worst, he might do something dumb just because he made up his mind 6,000 feet ago. A best, he will confuse his backseater or the rest of he flight. Judge all the options, assess all the risks ... and make the right decision. That’s what you are trained and paid for.

The military aviation environment is unforgiving of any carelessness, incapacity or neglect. Birds, thunderstorms, icy runways (and aircraft) can do you in just as surely as trying to fly through a mountain. Avoid them. He who avoids the areas where hazards lay, lives to fly another day.

It is not only the Dash-One that leaves the pilot with ultimate responsibility to use good judgement; our regulations abound with this option. Crew rest, for instance — it’s really up to you to decide if you are fit to fly, both physically and psychologically. If you are tired, or sick, or have personal problems that might override good judgement, hang it up! Your decision will be accepted by both your peers and overseers — if they have a lick of sense. That training mission is just not important enough to bust your aircraft or your fanny. TAC can’t afford to lose either simply because of “command influence,” or peer pressures.

Command influence can be as straight forward as a direct order to fly or as subtle as a sarcastic jibe overheard in the casual bar. Not all these problems are a result of pressure from the supervisor, however. People at all levels have a tendency to want to impress their bosses. But if your supervisor knows a stump from a ga-tor, he’ll be more impressed with your good judgement (an OER block) than hacking the mission regardless of the risk (not an OER block). Let’s return once again to the colonel’s wise words — while you have that aircraft strapped on your backside, you are boss! Nobody will criticize you for using good judgement. If you are not part of the solution, then you are part of the problem. Be a part of the solution.
We are proud to present the Tactical Air Command Individual Safety Award winners. The total contribution made by these men to our mission will never be known ... we have no way of counting accidents that have been prevented. Selection for the highest Tactical Air Command award in their individual field is our way of recognizing outstanding efforts in behalf of accident prevention. We at TAC Safety would like to add our congratulations to the many they have already received.

**Outstanding Flight Safety Officer**

Captain Stephen F. Kollar  
58th Tactical Fighter Training Wing  
Luke Air Force Base, Arizona

**Ground Safety Man of the Year**

Staff Sergeant David A. Lovelace  
57th Fighter Weapons Wing  
Nellis Air Force Base, Nevada
Outstanding Contributor to Weapons Safety

Technical Sergeant Frederick L. Hagebusch
35th Munitions Maintenance Squadron
35th Tactical Fighter Wing
George Air Force Base, California

Outstanding Weapons Safety Officer

Captain Wallace M. Meyer, Jr.
355th Tactical Fighter Wing
Davis-Monthan Air Force Base, Arizona

Outstanding Weapons Safety Noncommissioned Officer

Technical Sergeant David L. Nuetzel
USAF Tactical Air Warfare Center
Eglin Air Force Base, Florida
the saga of spanky flight
"Spanky Flight, check," crackled the UHF.
"Two."
"Spanky Flight, button two."

Spanky Flight checked in again on ground control frequency and received clearance to taxi. The two Phantoms lumbered down the taxiway towards the runway.

Today’s mission was to be a simulated close-air support sortie as part of the wing’s operational readiness inspection (ORI). Basically, a routine mission ... but one that would end in tragedy.

Spanky Lead called the flight over to tower frequency and received clearance for takeoff. The crisp thundering engines. Long, they thundered down the runway and rose into the air. Puffs of fuel vapor exited from the wing nozzles as the fuel tanks pressurized, and the wheels folded inward.

The RSO picked up the hotline to the Wing Command Post. "Spanky’s airborne at 1221."

The two fighters proceeded to a rendezvous point and began to hold over a broken-to-overcast deck while waiting for clearance into the target area from a ground-based Forward Air Controller (FAC). Smoky 32.

Spanky 02 was in route position on the Leader’s right wing. The FAC was contacted, and the flight began to proceed to their target.

"Spanky Flight, this is Smoky 32. Your targets are tanks and APCs on a north/south road east of my position. Target elevation is 800 feet; highest terrain in the area is 1,000 feet, located 3 miles north of the target. Best bailout area is north of the target for 5 miles. Weather is about 3,000 feet AGL and 4.5 miles visibility in haze."

Spanky Lead saw a large hole in the undercast approximately 3 miles in diameter, 5 miles away from the FAC’s position. He maneuvered the flight for penetration through the hole, rolled out, and started down through the undercast. About halfway through the hole, the Lead WSO looked back to the right and noticed that Spanky 02 had dropped back about 500 feet, was slightly nose high, slightly left-wing down, and was moving gradually to the Leader’s six o’clock position. Approximately 12 seconds later, the countryside was littered with wreckage; a column of black smoke rose into the sky ... two lives lost.

Witnesses to the accident stated the aircraft was in “wing rock” just prior to impact, indicating the aircraft was stalled.

All aircraft components were analyzed. No malfunctions were found. The WSO had initiated ejection just prior to impact. Unfortunately, the ejection was out of the envelope. The ejection seat struck the ground prior to seat/man separation. The pilot’s ejection seat components were not affected by the dual sequenced ejection due to impact damage. It was determined that ejection was initiated at less than 50 feet AGL.

No one will know why the pilot of Spanky 02 failed to maintain his position in the formation. Did he become disoriented while setting the weapon release switches during descent into the haze layer? With all the information available, it was determined that he could have recovered at 100 feet AGL if he had used a 19 unit AOA pull starting at 800 feet AGL ... approximately the point where ground witnesses observed the wing rock to begin. Obviously, it would be easy to overcontrol in a situation such as this.

OK, so what are the lessons learned? First, the aircraft were in a descent and were entering the haze layer which produced conditions such that there was no visible horizon. This is where the trouble began. Here is where the pilot of Spanky 02 became distracted and/or disoriented. Minimize distractions during descents under low visibility. Reposition switches after you level off and are stabilized -- it will help prevent disorientation. The other lesson is: if you are low and out of control (by that, I mean the jet is going somewhere you don’t want to), step smartly over the side. Don’t wait until it’s too late. I would rather face my boss and say I became disoriented and lost control of the jet than ride a hunk of metal into the ground. I have a lot more love for my wife’s children’s father than for any aircraft.

Now it’s your turn. You’re the guy with the stick and it’s your choice. But remember ... you only get one chance.
No, gentlepersons, it hasn't been officially named yet. But it's a safe bet that ultimately, the jocks that fly her will not be guided by whatever name is arrived at by the office types! The A-10, a product of Fairchild-Republic - the same folks who brought us the F-105, F-84, and P-47 - is heir to the famed "hog" series. Hog, Super Hog, Ultra Hog ... and now ... Wart Hog! Yes, the A-10 is unofficially known as the "Wart Hog." Affectionately conferred, but deserving of a closer look. To the discerning fighter pilot's eye, it's not pretty ... yea, it borders on terminal ugliness! Aft of the wing, the fuselage is alive with protrusions ... thousands of rivets ... which have been left exposed to the breeze. The straight wing certainly isn't stylish in these days of negative dihedral, anhedral swing, and severely bent-wing designs. The bulbous canopy sits high atop the regular-shaped fuselage (no coke-bottle waist or pointy-nose aggressiveness). Pylon-mounted engines remind one of a passenger.
ility aircraft and the landing gear remains exposed to the elements. WHEN FULLY UP!! The main gear extend forward into wing sponsons, leaving half of the tires exposed - somewhat reminiscent of the Goony Bird. Of course, we all know the designed simplicity and durability of the Goon' - the Wart Hog seems to have that same utilitarian personality. More about that later. All of this adds up to a machine devoid of those visual characteristics we’ve grown to love and expect from a tactical fighter ... air-to-air hassler, interceptor, deep striker - the Phantoms. Tomcats, Eagles, ad infinitum.

Let's see, have I covered everything? It's not faster than a speeding bullet, more powerful than a locomotive, nor can it leap buildings in a single bound - and yet, in it's own unique way it's super. On the positive side of the ledger are features and capabilities we sorely need and will utilize to the point of pure affection.

There are four labels to describe the A-10's potential. These are: lethality, responsiveness, survivability, simplicity. To break these down to manageable terms, let me expand. On the lethality side, we point first to the gun - the GAU-8, 30 millimeter cannon. It is nothing short of sensational! To the pilots who have strafed ground targets with 20 millimeter M-61 and been enthralled with its results, you'll want to write home about the GAU-8 after using it! I'm talking about double the effective range of the 20MM and seven times its punch. And if you like to stick around the target awhile, think about an ammo drum that will provide you with ten or eleven 2-second bursts. With 11 pylons on the aircraft, the frag shop is going to have to requisition more storage cabinets for catalogs on A-10 ordnance options. The airplane is being certified to carry the Maverick air-to-surface missile as well as laser bombs to complement the spectrum of conventional ordnance. And to manage it, an armament panel designed by pilots, for pilots. No more leafing through the notes on your knee board to jog your memory on what's on which station. Just read the store off the panel. The type of weapon is handily displayed on the appropriate station, dialed in during load operations.

Turning to responsiveness, the A-10 has long-loiter capacity, measured in hours instead of tens of minutes. Its on-station time will warm the heart of the infantryman. Forward basing, close to the action, is another prerogative. Its high turn rates and good sustained "g" at low airspeed are a natural for that low overcast day with a couple of miles of visibility. In the A-10, after acquiring a target, you can keep it in sight while maneuvering to attack it.

On the survivability issue, the A-10 has less vulnerable area than any other aircraft. It is heavily armored, and the redundant hydraulic flight control systems are a definite plus. Air-
SAY HELLO TO THE WART HOG

speed alone is not a defense against a determined threat. Yes. Warp-3 has a calming effect on the throttle-bender, but a bullet could really care less. The A-10's maneuvering again comes into play, as it must.

As for simplicity, it is a maintenance man's dream. Everything is accessible, no contorted arms required to reach around two corners to get to a connector! I've talked to the bluesuiters who are maintaining it now, and have received enthusiastic endorsement.

In conclusion, on the eve of the A-10 introduction to the tactical inventory, I'd like to register a vote of confidence and a bright future for this specialized close air support aircraft. All who fly it, fix it, and maintain it will come to fondly respect the Wart Hog.

---

**Fairchild A-10A Specification**

(Figural data, production version)

**Power Plant:** Two 8,985 lb st (4,075 kgp) General Electric TF34-GE-100 turbofans. Internal fuel capacity, 10,650 lb (4,830 kg).

**Performance:**
- Max speed: 469 mph (753 km/h) at sea level (clean) and 443 mph (713 km/h) at 5,000 ft (1,525 m) with six Mk-82 bombs.
- Cruise speed: up to 357 mph (575 km/h); stabilized dive speed, at 35,135 lb (15,965-kg) weight at 45-deg angle below 8,000 ft (2,438 m).
- 300 mph (483 km/h); initial rate of climb, 6,000 ft/min (30.9 m/sec) at basic design weight, take-off roll at max take-off weight, 3,660 ft (111.6 m) and at forward airstrip weight, 1,050 ft (320 m); landing roll at max weight, 2,600 ft (792 m); combat radius, close-air support mission, 288 mi (463 km) with 2-hr loiter; combat radius, deep strike mission, 620 mi (998 km); escort mission radius, 175 mi (278 km); reconnaissance mission radius, 473 mi (761 km) at 730 mph (1,170 km); ferry range, 2,650 mi (4,265 km).
- Empty, 16,751 lb (7,595 kg); basic weight, clean, 24,470 lb (11,555 kg); basic design weight* 25,600 lb (12,995 kg); forward airstrip weight (with four MK-82 bombs), 29,239 lb (13,262 kg); max take-off weight, 44,547 lb (20,206 kg).
- Span, 55 ft 0 in (16.76 m); length, 52 ft 7 in (15.99 m); height, 14 ft 8 in (4.48 m); wheelbase, 18 ft 4 in (5.59 m); undercarriage track, 17 ft 6 in (5.34 m); wing area, 488 sq ft (45.34 m²); aspect ratio, 6.2:1; incidence, -1 deg; dihedral (outer panels only), 7 deg.

**Armament:**
- One built-in 30-mm GAU-8/A GAU-8/A multi-barrel gun with 1,250 rounds; eleven external pylons for maximum external load of 16,000 lb (7,257 kg).
- The basic design weight includes six 500-lb (227-kg) MK-82 bombs, 759 rounds of 30-mm ammunition and sufficient fuel to fly 347 mi (555 km) plus 20 min reserve.
- * Prototype gross weight, 45,282 lb (20,510 kg).
Crew Chief Safety Award

Sergeant Steven R. Race, 4th Organizational Maintenance Squadron, 4th 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 Race will receive a certificate and letter of appreciation from the Vice Commander, Tactical Air Command.

Maintenance Safety Award

Sergeant Arnold Booth, 4th Organizational Maintenance Squadron, 4th Tactical Fighter Wing, Seymour Johnson Air Force Base, North Carolina, has been selected to receive the Tactical Air Command Maintenance Safety Award for this month. Sergeant Booth will receive a certificate and letter of appreciation from the Vice Commander, Tactical Air Command.
GUNFIGHTER REUNION

The 366th TFW Gunfighters Association will hold its annual reunion on 21-23 May at the El Tropicano Hotel, San Antonio, Texas. For more information, contact Captain Frank Mercy, Gunfighter Reunion Committee, Box 377, Randolph AFB, TX 78148, or phone 1-512-653-8339. All past and present officer members of the 366th TFW since the Wing's activation in 1943 are invited to join the Gunfighters Association and attend the reunion.

Hey! pass it along... nine others are waiting.

Editor:
Congratulations on a fine February issue, especially Major Homestead's article "Parachute Techniques for Aircrews."

For F-4/F-15 users, the NES 88 and NB 10A parachutes have cross-connector straps but do not have limited steering authority when using the 4-line release. The release is connected to suspension lines numbers 3 and 26 and bypasses the cross connector straps, thus providing the same capability for turning as jettisoning lanyards installed on canopies without cross connector straps.

For quick confirmation, refer to TO 14D1-2-1, paragraph 3-25 and 14D1-2-376, Section III, paragraph 3-8.

John J. Sheehan
Flight Safety
McDonnell Aircraft Corp
St Louis, MO

You're absolutely right—all parachutes with cross-connector straps have had the four-line jettison lanyards re-routed above the cross-connector strap. However, if you pull either lanyard or riser down far enough, you will effectively pull on the cross-connector strap and thus pull on both risers. This is the limit of your steering capability. We agree that this shouldn't present many problems since the system will allow for adequate parachute maneuvering under most conditions. - ED
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>TOTAL ACFT. ACCIDENTS</td>
<td>5 6 4</td>
<td>0 2 1</td>
<td>0 0 0</td>
<td></td>
<td>0 0 0</td>
<td></td>
</tr>
<tr>
<td>MAJOR ACFT. ACCIDENTS</td>
<td>5 6 4</td>
<td>0 2 1</td>
<td>0 0 0</td>
<td></td>
<td>0 0 0</td>
<td></td>
</tr>
<tr>
<td>AIRCREW FATALITIES</td>
<td>2 2 12</td>
<td>0 1 0</td>
<td>0 0 0</td>
<td></td>
<td>0 0 0</td>
<td></td>
</tr>
<tr>
<td>TOTAL EJECTIONS</td>
<td>2 3 0</td>
<td>0 1 0</td>
<td>0 0 0</td>
<td></td>
<td>0 0 0</td>
<td></td>
</tr>
<tr>
<td>SUCCESSFUL EJECTIONS</td>
<td>2 3 0</td>
<td>0 1 0</td>
<td>0 0 0</td>
<td></td>
<td>0 0 0</td>
<td></td>
</tr>
</tbody>
</table>

**TAC'S TOP "5"**

**FIGHTER/RECC WINGS**

| ACCIDENT FREE MONTHS | 81 33 TFW TAC | 47 127 TFW ANG | 45 31 TFW TAC | 32 56 TFW TAC | 23 67 TRW TAC |

**OTHER UNITS**

| ACCIDENT FREE MONTHS | 127 136 ARW ANG | 83 135 TASGP ANG | 79 182 TASGP ANG | 78 126 ARW ANG | 75 507 TAIRC TAC |

**MAJOR ACCIDENT COMPARISON RATE 75/76**

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

<table>
<thead>
<tr>
<th></th>
<th>JAN</th>
<th>FEB</th>
<th>MAR</th>
<th>APR</th>
<th>MAY</th>
<th>JUN</th>
<th>JUL</th>
<th>AUG</th>
<th>SEP</th>
<th>OCT</th>
<th>NOV</th>
<th>DEC</th>
</tr>
</thead>
<tbody>
<tr>
<td>TAC 75</td>
<td>7.9</td>
<td>5.4</td>
<td>3.6</td>
<td>2.6</td>
<td>3.1</td>
<td>3.5</td>
<td>5.3</td>
<td>6.4</td>
<td>6.0</td>
<td>6.6</td>
<td>6.3</td>
<td>6.1</td>
</tr>
<tr>
<td>TAC 76</td>
<td>2.9</td>
<td>8.6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ANG 75</td>
<td>5.3</td>
<td>2.8</td>
<td>5.3</td>
<td>3.7</td>
<td>4.7</td>
<td>6.8</td>
<td>5.8</td>
<td>5.1</td>
<td>5.1</td>
<td>5.5</td>
<td>5.4</td>
<td>5.4</td>
</tr>
<tr>
<td>ANG 76</td>
<td>10.5</td>
<td>5.2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AFRES 75</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>4.9</td>
</tr>
<tr>
<td>AFRES 76</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
FLEAGLE

NUMEROUS THUNDERCLOUDS, FLEAG.

SURE LOOKS BAD.

NEVER TRUST A WEATHER WEE NIE.

THUNDERBUMPERS SURE FORM FAST IN APRIL.

YEAH, AND HERE'S AN APRIL FOOL THAT PROVES IT!

ZAP!

© Stan Hardison, 1976