MAY 1964

TAC ATTACK

QUALITY CONTROL

TAC ATTACK

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COVER PHOTO

Maintenance technicians at England AFB check the airspeed indicator on an F-100.

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Standardization / Evaluation

Aircraft flight manuals and other publications are the foundation for our current standardization/evaluation program. These manuals were written by some of the most knowledgeable aviation people in the world. They are the product of from ten to twenty years of hard earned experience . . . experience which reflects the best thinking available on each aircraft and on aviation in general.

After carefully studying these publications, a young aircrewman can start his career with this valuable backlog of knowledge as the foundation on which he can apply his own experience and develop his capabilities to their utmost limits.

This is one reason the standardization/evaluation program has proven so thoroughly successful. Much of the program has been oriented toward improving these publications to insure that they actually reflect the best and latest thinking . . . that they take full advantage of all available experience and prescribe for each operation the very best way to perform it.

Another reason is that the standardization/evaluation program has furnished a tangible set of standards based on these optimum procedures and techniques. Using these standards, all aircrewmen, regardless of their experience, are able to measure the quality of their performance. The end result has been healthy competition and a noticeable improvement in individual performance and capability.

The program cannot stand still. It must continue to be founded on the best knowledge available. Because we gain new knowledge each day, it must be continually changing. Your support is essential.

W. C. SWEENEY, JR.
General, USAF
Commander

TERROR TIME TECHNIQUES

CAPTAIN ELLROD T. Sockroller filled his battered coffee cup, lit a cigarette and sprawled on the only comfortable chair in the pilot's lounge. It had been a long night . . . an hour of solid weather after coming off the tanker. But, things had worked out fine and the new head had hung in right well during that hour of terror time. Lt Clyde Youngfellow, the new head, hung up his helmet with a sigh of relief and joined his leader.

"Well, Son, as usual Daddy brought you home safe and sound. Any questions?"

"Yes sir, Captain Sockroller. This was my first formation flight in night weather and I really got disoriented. I would have been in real trouble if I'd lost sight of you. How can I stop it?"

"Clod, you have come to the right man. Without doubt, I am the world's leading authority on vertigo. I first ran into this problem when I was a cadet. One Saturday night my sack went into a severe spin to the right. I found I could stop it by putting one foot on the floor, and since then that's been my way to shake vertigo."

"It's Clyde, sir. But I don't think I really had vertigo. My training command instructor told me there was a difference between vertigo and disorientation. He said vertigo is dizziness or a tumbling sensation, and that spatial disorientation is confusion on how you are oriented in space. I think I had disorientation rather than vertigo. Are you an authority on disorientation too?"

"Son, I'm one of the most disoriented captains in the Air Force! But don't sweat that small stuff. As a fighter pilot, you don't care what the name is, all that's important is to know it exists and then keep from getting so confused you bust your rear. The secret is to have some reliable reference to orient yourself . . . you have to get a foot on solid ground. When you're flying, your gages are your foothold or reference. With some planning and a little luck, you can keep from getting ver . . . ah . . . disoriented, and if that doesn't work, there are a few tricks of the trade that will help you get reoriented. Grab yourself a cuppa and I'll give you some answers."

Slipping his boots off, Ellrod leaned back and relaxed. He was the champion when it came to talking about flying and his normally watery blue eyes took on a nearly benevolent glow.

"Let's eyeball this thing from two sides . . . flying the gages or flying wing. When leading, or flying by yourself, the most important thing is to think ahead and get on the gages before you get into the soup. This way you make your transition while you have both the horizon and your instruments as references. In other words, you make sure your foot is on the floor and not the wall. Once you have

shifted to the gages, and don't forget this sometimes takes darn near 20 seconds, completely forget everything else and lock onto them. One place you can really get in a bind is during a penetration. Be sure you're on solid gages before starting the penetration turn even if the undercast is way below you."

"That sounds good, sir, but sometimes I have to move around in the cockpit and look away from the instruments ... and ..."

"No real problem, Claude. No cockpit chore is more important than flying the bird; remember that. Take your own sweet time. First, trim it up so it will stay straight and level for about 10 seconds. Then take your hot little hand off the stick and do whatever you have to do. You know the bird is going to stay pretty much the way you left it. Every 5 or 10 seconds you can flick an eyeball at the attitude gyro just to make sure. Another method you can use for real short chores like picking up a pencil or changing channels, is to move either your head or your eyes, but never both at the same time. When you have to move your head, keep your eyes on the gages. Then after you get your head moved, glance down with your eyes. Sounds spastic but it works. You with me so far?"

"Yes sir, I'm with you, and ... uh ... it's Clyde, not Claude, sir."

"Rog Clod, now let's hit the real fun and games ... night weather on wing. Nobody, unless they are members of a suicide club, enjoys flying wing in night weather. I once knew a guy who said he didn't get disoriented while flying wing weather ... I escorted his body home. Now look, you hung on real well tonight and I'll bet you felt like we were rolling to the right most of the time."

"You're right, sir. In fact I even found myself putting in right rudder every once in a while. Why?"

"Well, this bird we're flying has a bunch of whatever the opposite of dihedral is, and this really bugs you.

"Everyone has a tendency to think the wing is horizontal, so if it droops five or six degrees, like with a '104 or a hog, it feels like the leader is banking into you. Don't fight the problem, learn to live with it. Everybody has a different eyeball-ear-head combination and this disorientation jazz is a little different for everyone. When I'm on wing and get the feeling that lead is turning into me or away from me, no sweat, I'll glance at the gyro and confirm we're straight and level. This is my foot on the floor. If it doesn't straighten me, I'm disoriented and am getting two references that don't agree. All I have to do is get rid of the false reference. To do it, I relax. Even a little disorientation creates a little clutch factor, so make a conscious effort to relax your whole body. Sometimes you'll find that if you stop trying to strangle the old stick, your disorientation will disappear. Another thing that will surprise you once you relax, is that you usually will have been cross controlling. I have even found myself trimming the bird into a cross-controlled condition. When you relax, you can trim properly and most of your problems are over."

"Captain Sockroller, I can relax most of the time, but night weather just isn't one of those times. Will this be better when I get more experience?"

"Experience helps some, not so much because you get less disoriented, but mainly because your confidence improves. Judging from the glow in the eye of that lovely you brought to the last squadron party, you are a fairly good salesman. And, judging from the leer you had on your face, you were pretty confident. Well, take that confidence and that salesmanship into the cockpit with you. Then sell yourself on believing in the instruments and make yourself reject false information. I often shake my head hard enough to get my ear bones rattling. This way I cut off the false information they have been feeding me. Then I look at the attitude gyro. At that instant I am only getting information through my eyes, and it's pretty easy to get the rest of my body to go along with what my eyeballs see."

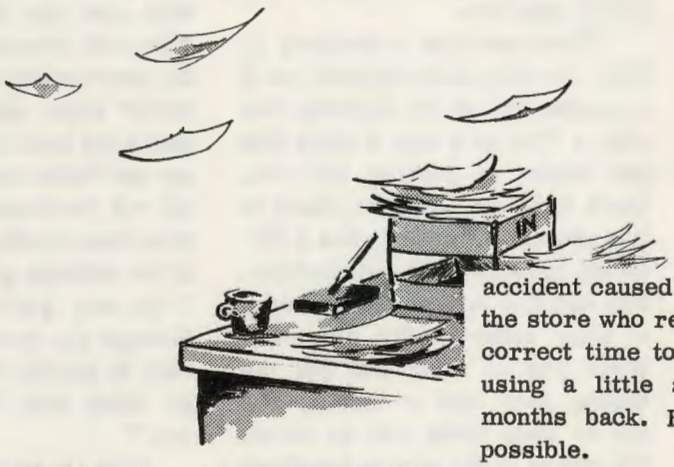
"Sir, I think I see what you mean. But, I'm still not sure I'll not be bothered by disorientation again."

"Clod, I mean Clyde, you're going to be bothered by disorientation as long as you fly, but if you remember the basics, it's no sweat. The instructor that carried you through flying school gave you the right poop when he taught you basic instruments and I know he beat you about the head and shoulders to make sure you learned to believe your gages. Don't let vertigo or disorientation worry you. Good pilots have died because they clanked up when they became disoriented. Relax, cross check your instruments and you'll find that you can live to be an old fighter pilot. Another couple of years and maybe I'll fly on your wing."

"Thank you, sir. Do you mean you would really fly on my wing in weather?"

"Are you out of your skull?" I didn't say anything about weather!"

TAT



THE OFFICE WINDOW is wide open and the balmiest breeze this side of Hawaii is gently rustling the papers on this tiger's - ugh - desk. By listening closely I can hear the flowers popping open and, sigh, those hungry, eager fish snapping their jaw bones just waiting for the right guy to come along with the right fly. Yes sir, spring, sprung, sprang . . . sprang? Hoo boy - best I get back to the grind. Gotta help keep those airplanes from falling out of the sky.

This time of year we usually talk of summer hazards. Speak summer hazards around the airpatch and most troops think of thunder bumpers, sudden dust storms, elongated takeoff rolls, increased tire problems brought on by heat and the longer, more grueling, takeoffs. Well, I won't argue that these aren't hazards . . . because they most certainly are - and serious ones. But how about the irregular-crew chief hazard? To me it's the biggest summer hazard of all. It's also the least tangible and the most difficult to cope with.

I use the term "crew chief" rather loosely . . . intending it to mean anyone who is doing important work. To give you some idea about how serious this hazard will be; about half of TAC's population will be on the move this summer - going PCS or TDY! That's a heap of shuffling. But wait, this doesn't include the usual vacation absences . . . many supervisors are going to knock off to soak up some sun and try to catch some of those hungry fish.

It's going to take a lot of planning to get thru this period without leaving ourselves wide open to an accident caused because someone is left in charge of the store who really doesn't know how to run it. The correct time to get on top of part of that problem, using a little astute leave scheduling, was a few months back. However, some scheduling is still possible.

This tiger will never forget the time the safety maintenance expert came back from a summer survey of one TAC unit muttering to himself because all the high priced help was gone or on leave. As I recall, a tech sgt was acting line chief, a staff was in charge of quality control and a paper shuffling lieutenant was acting chief of maintenance . . . meanwhile, airplanes continued to launch on missions and only the good Lord knows how many marginal decisions caused trouble that didn't fully develop until months later.

Good grief . . . that reminds me, I still have 80 days accrued leave!

Climbing to altitude from the low part of a high-low-high, an F-86H pilot could only get 93% with the throttle full forward. He checked instruments and found the oil pressure at 3 psi. Passing thru 25,000 while pointed toward the nearest airbase, he could hear bearing noises and selected the emergency fuel system. The engine quieted briefly, then rpm started fluctuating between 85 and 92 percent accompanied by roughness and vibrations. Flames belched from the tail pipe.

He shut down the engine, declared an emergency and turned off all electrical power including the battery. At high key he put the gear handle down but the gear didn't extend until low key when he turned the battery switch back on. The landing was a success. Whew!

THE COAST GUARD Safety Bulletin tells of an overwater flight that came close to being a C-123 crew's last haul. They leaped off from one island, headed for another one about 1430 miles away. After reaching flight altitude, the navigator discovered that he didn't have an Air Almanac. After some discussion and a little name calling, the AC decided to press on. Weather was great, the drift meter was working, the bird had loran and DF equipment and the island they'd just left was a wee might primitive so they didn't think they'd be able to find an almanac there, anyway.

Two loran lines indicated a track on course with ground speed as predicted on out to 150 miles. At about this point, one loran line faded and the other became very hard to read. The LOP from there on was neither a course or a speed line, but shaky as it was, it began to show a tendency south of track. No drift was apparent on the meter and the bird dog indicated a slight northward trend.

Press on by dead reckoning. About two and a half hours out the pilot began briefing his relief pilot on the running log when he suddenly noticed the J-2 was about 50 degrees off the standby compass!!

A quick check failed to show anything wrong with single phase power sources, etc . . . the DF indicated the wet compass more accurate than the J-2 so the crew made a 180, advised ATC that they had a navigation problem and started back. About 45 minutes later someone noticed that the compass slaving switch had been bumped to the OUT position!

The intercom was very quiet on the way back as each man contemplated what would have happened if the pilot had not checked the wet compass . . .

If you are now a believer and check your Nav bag before each flight, and your compass regularly during flight, and keep your cotton-pickin feet on the floor so they won't bump the slaving switch then you shouldn't get into a crack like this.

WHILE WANDERING AROUND the countryside, this tiger has become more and more impressed with the service received at TAC bases.

Shucks, a fella don't even need to ask for a quick turn around . . . the fuel truck is usually pulling up to the bird as you're briefing the alert troop on required service.

Without exception I've found that TAC transient alert troops appeared genuinely eager to take care of my bird. They act like I was making out their APR or something! Last winter, most alert troops in TAC's southern bases maintained this attitude even tho most other bases were marked "official business only" and the burden of heavy winter traffic was falling on them.

Keep up the good work . . . your cheerful efficiency has a direct and very healthy effect on pilots. In other words, you are making points for flight safety in an area where it really counts.

HOW WOULD YOU like to grease thru the emergency procedure part of your stdn/eval check with the finesse of a fan dancer playing peek-a-boo? I mean without going to any great effort? Interested? I thought so. Every time you go some place in an "F", have the troop with you read thru the idiot lights and see if you can rattle off the correct action for each. Follow it with questions on the emergency procedures. It's good drill, helps while away time on the more boring cross-countries, and if you let the guy in the aft seat do all the reading, doesn't present any safety hazard because you can still look for other aircraft while you rattle off the answers. The same procedure - minus idiot light drill - works for T-33 types, too.

You solo troops can give yourself variations of this drill any time you find yourself sitting on the ramp waiting for an ATC clearance or trying to gracefully exist thru some other delay.

WHILE TAXIING OUT, an F-105 sport turned on side panel defrost to get rid of some condensation on the canopy. During engine run-up for a formation takeoff, things got too hot. Without taking his eyeballs off his gallant leader, he tried to fumble it off. Bloop! He cut it off alright . . . right at the source. While being towed home, he figured out what he would say on the OHR.

Another F-105 type was tucked onto his leader's wing during a penetration and GCA. Getting down to lower climates, he reached for the side panel de-

frost knob and turned it to 10 o'clock before he realized he had gotten hold of the fuel selector. He quickly returned the selector to the main tank, wiped the sweat off his brow and then wrote an OHR on the subject.

This tiger agrees with the recommendations on these OHRs ... that the slip stick set go back to the drawing board and eliminate the hazard, or at the very least, come up with knobs that aren't so much alike.

Meanwhile back at the flying pasture, you F-105 troops will have to sneak a quick glance to make sure you have your meathooks on the right knob whenever you want to cool off the office or melt the frost off the windows. This is a good rule to follow when doing anything in an aircraft ... no matter how well you can pass a blindfold check. I admit it isn't always possible at night or in weather when you are trying to stay on lough lock leads left wing.

IT ALWAYS seems to happen. Someone develops a new technique, and after three or four troops use it with grand success, the word gets around that it's the best thing since blowtorches grew wings. Then along comes the nonthinking man with a completely different problem. He applies the new technique and soon finds himself in a badly bent machine badmouthing the whole idea.

I guess it was inevitable that someone would misuse an approach end engagement . . . yeah, wouldn't you know, some head tried one after he couldn't get the nose gear to extend. Had he given it a little thought, he wouldn't have been surprised when the nose slapped smartly to the runway.

Approach end engagements were intended to be used for emergencies where directional control is a problem . . . in other words, when one main gear is broken badly enough the pilot doesn't think he can hold the bird on the runway. Even then, other factors must exist. The bird must have a hook that is strong enough to accept a catch at approach speeds. The overrun has to be long enough and hard enough to permit a safe landing short of the barrier and the barrier must be the right breed such as a BAK-6, - 9 or - 12.

At the present time, TAC is not officially recommending this technique because there are too many unanswered questions ... like which birds have hooks that will hack this treatment without yanking things inside out. Also, no one knows what an F-105 or 101 will do with one big leg up and the others down.

RED LEAD made a 360 to gain spacing behind a gooney bird on downwind and re-entered initial with his flight of four F-105s. As the flight rolled out, Red Four reported a stuck throttle. Lead acknowledged and observed that he was at 91%.

Red Four called, "I have speed brakes out at this time . . . Lead, why don't you go ahead and let me break first? I'm behind you back here."

"Roger, go ahead and break."

Red Four called on the break, dropped gear on downwind and immediately rolled into a turn to base, making his pattern tighter than normal. At this time the tower advised that the gooney was on final and directed him to take it around. Red Four countered by declaring an emergency and asking the tower to send the gooney around.

The tower cleared Four to land as Lead called for Two and Three to land from their approach, that he'd join with Four. Four stated he would be landing from this position.

Lead said, "Oh very well."

At this time Four was in a 45 degree banked turn, about 20 degrees nose low, and looked as if he would be able to complete his approach. However, Four made a garbled transmission and the aircraft continued the nose low descending turn until it struck the ground.

Apparently he had shut down the engine in the turn and engine deceleration reduced hydraulic flow enough to limit flight control response. Four did not extend the RAT and it did not extend automatically.

Investigators went thru the throttle linkage and the fuel control itself in an attempt to determine what caused the stuck throttle. They could find no reason for a throttle lock-up; however, they concluded the fuel control malfunctioned and the engine remained at high rpm even tho he pulled back the throttle. If Four had gone to the emergency fuel system, they believe he would have regained full throttle control.

This accident is an excellent example of how not

to handle an in-flight emergency. Had the leader sensed that Four was going to develop an I-must-get-on-the-ground attitude he undoubtedly would have insisted on chasing him thru the pattern . . . a pattern made larger than normal to insure getting squared away straight and level on final at adequate airspeed. A long final that would have permitted turning on the RAT and shutting down the engine with the aircraft well under control and the runway in the bag. But he didn't . . . and he did have a case of get-on-the-grounditis.

Incidentally, the flight leader or perhaps the command post people, may have had the experience or knowledge to tell this young lad exactly when to shut down the mill. "When" is a tricky bit. For example, depending on rpm, it takes around 11 seconds to shut down an F-100 using the engine master switch and only around two seconds to flame-out an F-105. Generally speaking, you should shut 'em down when the landing is well in the bag figuring that 'tis better to snag the barrier than to plow in short. But enough of this.

The leader made a snap decision that was based on expedience more than anything else . . . he reconsidered, but when Four said he'd be landing from his present position, again tossed away his authority with three words, "Oh very well."

Oh very well, hell! If you are the leader of a flight - lead it. Maintain control. Even tho others in the flight have as much time as you do, you are still responsible for anything and everything they do. Don't take the easy way out or evade your responsibility.

Four could have done a better job of describing his problem. And this would have helped the leader help him. It is entirely possible the leader would have suggested proper action which would have allowed Four to make a normal landing on the emergency fuel system.

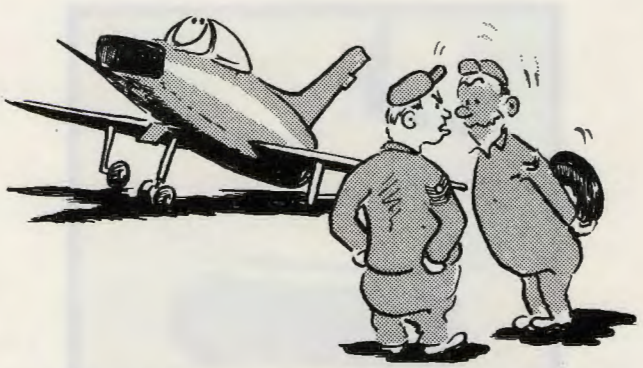
For some reason he didn't describe it accurately, didn't think of the emergency system, and then got in this rush to get the bird down. I know of no way to insure that every pilot handles every emergency calmly and correctly. That can only come from within. The flying safe troops can scream, "don't panic" from now until doomsday, but if you can't swim and someone throws you into the drink, you'll sink. You'll also sink even tho you do swim if you don't have enough respect for water and get into more trouble than you can hack. Flying is much the same. You'll panic in an emergency if you have no confidence in your ability and you'll bust your behind if you are too cocky and try to stay with an emergency that is beyond your capability.

Confidence is the product of knowledge and experience. Experience takes time - knowledge takes study. So instead of hollaring "don't panic!" this tiger says, study your bird and your environment.

Actually and honestly, I am oversimplifying this problem. No one will ever know why a pilot stays calm and collected to handle a truly serious emergency with calm dispatch, then at a different time the very same man comes completely unglued during an emergency that isn't potentially as serious. But it happens.

Knowing your bird and yourself helps prevent panic. Stopping to analyze the emergency, deciding what to do and taking action helps prevent panic.

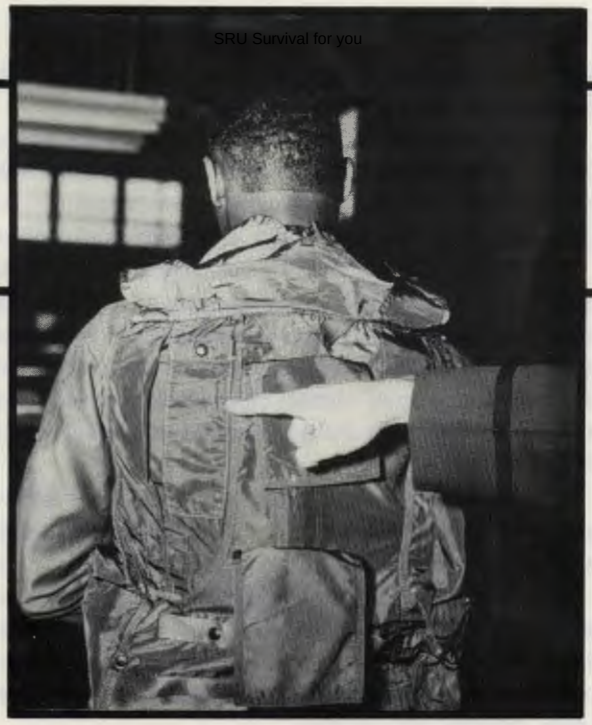
If you can plan a course of action that contains a good solid bug-out route, you'll feel better about an emergency . . . but once you pass your go-no-go point and are committed, remember to stay with your course of action.



YOU KNOW how airplanes sometimes get cocked up on one strut during refueling? It has always amazed me how a 150 pound crew chief can bounce on one wing and manage to shake a 30,000 pound monster down to a level attitude. Reminds me of a mouse chasing an elephant. I guess that's why a recent mishap drew a chuckle altho it really wasn't funny. A crew chief was busy shaking the wings level on an F-100 when the machine slammed to the ramp with a resounding clank! One main gear axle broke. Had it failed on takeoff . . .

The F-100 gear has been beefed up before, and is again reaching a critical era in its life cycle. As a result, completely new and stronger landing gear is being installed. A depot technician is currently visiting each TAC F-100 base to help get our birds scheduled into modification.

—*TAT*—



SRU

Survival for You

Left to right, top to bottom. Water bag, knife, matches, bandages, compass, water purification tablets, fire starters, fish hooks, needles and pins.

WHILE SURVIVAL is important to everyone, it takes on a special meaning in the flying business. Although most of us will accumulate many flying hours and never get into a more hazardous situation than the Club on Friday night, there is always the chance something grim might happen. Trading your nice warm cockpit for a lonely piece of countryside is, at best, a traumatic experience, particularly when you find you may have to stay there long enough to get squatter's rights. The survival kit you sit on is designed to make your homesteading days, be they few or many, comparatively livable. But for one reason or another, you may not have that kit when you get to the ground. So you can be sure you have at least a few essential survival items no matter what happens, a new survival kit has been devised... the SRU/16/P, Minimum Survival Kit.

As shown in the pictures, the SRU/16/P goes right into your parachute, and although small, the kit packs enough to give you a pretty good chance. A survival situation is never going to be comfortable, but the object is to stay alive. The Minimum Survival Kit gives you the basic equipment you need to keep yourself alive, but like most other things it isn't automatic. If you are in the water, keep your parachute harness on for the first 24 hours. This will assure that all your equipment stays with you. But, you still have to make it work and a recent training film (TF-5517B) explains how.

While the SRU/16/P is certainly a step in the right direction, there is still another area that deserves your personal attention. No matter how many survival kits you are furnished, there will probably be a few additional items you'll want to have with you. Top on my list, for example, is a good hunting knife (I've never seen an Air Force knife that was good for anything but one time use). There are many other small items that would be nice to have along, but here, some words of caution. Carrying a day/night flare in your G suit pocket is like joining a suicide club... don't do it. Be sure to check with a personal equipment technician about what to carry and where to put it. First, there's no use duplicating what is already in your SRU/16/P and, second, extreme care is needed in selecting a way to hang these items on your person. What may look good can turn out to be uncomfortable if not dangerous after your 'chute opens.

Remember; no amount of equipment will guarantee that you will survive a survival situation. Equipment will help, but it's the man that makes the difference. Recognize the plain and simple fact that it CAN happen to you. Make some basic plans on how you are going to survive, when and if you find yourself in the boondocks. You can bet your life such a plan will pay off.

FOR THE FOURTH time since lunch, Captain Green paused to gaze out the open door. It was a beautiful spring day... Friday, not a cloud in the sky and the gentlest of breezes. Only two things were wrong...he had to work and the weatherman swore it would rain all weekend...he'd probably be working on the weekend anyway. He looked across the room as the Old Sarge finished a phone call, put the instrument down and frowned at it. "Trouble?" he asked.

The Old Sarge shook his head as if to clear it, "No - at least not company trouble. I just called the Capehart maintenance section to get them to fix the wife's washing machine. It eats pumps. I'd bet she has had them out to fix it five times since Christmas. I'd fix it myself, but they don't want anyone else to touch 'em."

"I wonder what's wrong."

"That's why I called," the Old Sarge chuckled. "I was afraid the wife was overloading the machine. They claim it's the pumps. Some big economist figured he would save the government a few nickels. Instead of buying factory replacement pumps he brought a bunch of cut-rate ones. Some will last six months, most don't. The maintenance men spend half their time replacing them."

"Typical reverse economy," Captain Green snorted. "Did you hear about the paint job in headquarters? They painted it green again...the same shade of green it's always been. I noticed they were having to put on two coats and asked one of the painters about it. He said the paint was some cheap stuff the government furnished, and one coat wouldn't cover."

"That figures...and the cost of labor is higher than the cost of paint." The Old Sarge shook his head just a little sadly. "Every time we have an economy drive I worry that some misguided soul may try to save a few nickels by furnishing our mechanics more dime-store tools than they already have...or try to make them use files and other expendable items after they've worn out. Sometime they'll cut down on the quantity authorized. You know, a screw driver is a screw driver to some people. It never occurs to them that you need an assortment to fit various size screws."

"Yeah, it wasn't too long ago when you couldn't find a small or medium sized screw driver hardly anywhere on the line. All they seemed to issue were those huge jobbers about 14 inches long. That and files. I remember the fuss you made when you couldn't find a single sharp file after going thru a few tool boxes."

The Old Sarge grinned, "I don't guess I made any friends at first. But this is one thing I'm a bear on. A man just can't do quality work with cheap or worn tools. I shudder everytime I think of someone trying to tighten a 10-32 screw with one of those huge clumsy screw drivers, but they had to.

"We still have a long way to go. The government still buys dime-store screw drivers and other small tools. Have you ever wondered why our people have to wrestle so much with some of those stress panels that have all those cross-point screws holding them?

"Two or three screws that stick from a little corrosion are enough to twist, round off or chip the point on the average GI screw driver. And no wonder. They list a number two at 18 cents in the stock catalog and that includes the cost of postage! At most, that screw driver retails for about 30 cents. A professional grade screw driver costs about a dollar ten at the BX and a dollar twenty five downtown. You and I know that the professional grade tool will outlast half a dozen dime store or GI models and will do the job better and quicker. The professional mechanic can't afford to mess around with cheap wrenches and thirty cent screw drivers. He knows they won't last, ruin screw heads, hurt his hands and slow him down. We keep hollering about wanting our mechanics to act professional...I think it's time we started treating them as professionals, and outfitting them with professional equipment across the board."

QUESTION OF THE MONTH

Who has the primary responsibility for reporting accidents?

a. Squadron Safety NCO
b. The Safety Inspector
c. Supervisors
d. Chief of Maintenance

SEG NEWS

4450th Standardization Evaluation Gp.

Know your Stdn Evaluators

MAJOR GLENN A. JACOBS

A native of Colorado, Major Glenn A. Jacobs received his commission and rating as a pilot at Foster Field, Texas, in 1944. Completing training in P-40s and P-47s, he was assigned to the 362nd Fighter Group, 9th Air Force, stationed in France, where he finished a combat tour flying P-47s. Major Jacobs left the service in January 1946 to be recalled with the Colorado Air National Guard in April 1951 as an F-51 pilot. He spent the next four years at Spangdahlem, Germany, where he piloted RF-80s and RF-84s with the 10th TAC Reconnaissance Wing. From 1956 until the present, Major Jacobs was associated with the Air Force Reserve troop carrier mission at Richards-Gebauer AFB, Missouri, at Headquarters 10th AF at Selfridge AFB, Michigan, and at Headquarters TAC, in the 4450th SEG as a C-119 Evaluator and Chief of the C-119 Branch.

ARE YOU READY?

When a unit is first notified of a proposed SEG visit, perhaps one of the first questions someone will ask is, "What do you think they'll be looking for this time?" This is a logical question but one that's really not difficult to answer. AFM 60-2 lists in detail the responsibilities and duties of administering the Tri-Command Standardization/Evaluation program. Generally, all SEG Teams will be using this manual as their basic guide when they look at a unit's programs.

It follows, then, that if unit personnel thoroughly review their program and base their pre-visit preparations on the requirements of AFM 60-2 and SEFE's, They should have no trouble earning an overall outstanding rating.

During a recent visit, one of our units received a substandard overall rating and we scheduled a follow-up visit. The follow-up visit showed the unit to be in excellent shape, S/E wise, and they were awarded an overall rating of outstanding. This was quite an accomplishment, and the SEF Commander proudly stated that "his unit rightfully deserved an outstanding on this visit."

The SEF Commander of that unit, as a matter of fact, offered what he thought would be a good checklist for other units to follow when they prepare for

an SEG visit. If diligently followed, this checklist should help these units glean an outstanding from their own efforts. We at SEG thought this list looked pretty good, so we are passing it on to all who might be interested.

First, prepare a checklist of things to do and assign your most experienced and capable people to insure that each project is completed and measures up to the prescribed standard.

Then, divide your attention among these three main areas . . .

Flight Check Area:

Insure that all crewmembers are thoroughly familiar with the grading criteria and the designated critical items and areas for their specific aircrew positions.

Insure that all crewmembers are completely familiar with flight planning and standard instrument procedures, as may be applicable to their crew position.

Ground Examination Area:

Insure that crews know the applicable Master Questions Files, with special emphasis on bold face procedure questions.

Administration of the Stdn/Eval Program:

All Master Questions Files should be current and should be adequately protected to prevent the answers from being compromised. If study guides have been prepared from the Master Questions Files, insure all questions in the study guides are current. All written or oral (card file, etc.) examinations should contain the minimum number of questions needed for formal credit as specified by AFM 60-2, and if a procedure other than the card file system is used to administer examinations, the SEF should develop at least two different written exams for each crew position.

The S/E status chart should be up-to-date and posted in accordance with AFM 60-2.

Flight check scheduling: All flight checks should be reflected in the monthly operations plan. Establish a system to insure very close monitoring of future flight checks.

Flight manuals control: Insure that Flight Manual Control Officers are thoroughly familiar with their duties and that a system is set up with the Base TO Distribution Office to facilitate timely requisition, receipt and control of all Technical Orders required; that Safety Supplements are handled as specifically required by AFM 60-2; that the Flight Manuals Control Officer has a system that will insure that all publications for which he is responsible are promptly distributed to all crewmembers of his unit.

The current SEF general file should include:

* Orders appointing flight examiners.
* Orders establishing the Stdn/Eval review panel.
* AFM 60-2 proficiency written exams.
* Monthly operations plans which schedule S/E flights.
* AF Form 847 file.
* Waiver file.
* Visit reports.
* File of accident/incident messages, OHRs and URs to be reviewed by SEF.
* Suspense file on outstanding corrective action required on each crewmember.

Insure that 4450 SEG is notified of any and all changes in SEF personnel and that a file of these messages is maintained.

This checklist is not complete by any means. But it does cover many of the areas where units have been having difficulties during SEG visits. We believe that the items suggested should be areas for continued emphasis. Then when SEG visit time rolls around, very little preparation as such, will be required.

COMMON SENSE

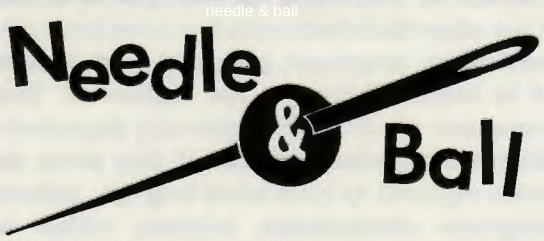
We at SEG are devoted to the philosophy that the mind should be exercised! By now, you've no doubt heard the adage that standardization is not stagnation! Standardization programs, generally, have been designed to inspire thinking - not replace it! These programs are not dictatorial concepts dependent on thoughtless mechanical actions. If they were, we'd have been replaced by black boxes long ago. Actually, the programs administrate, monitor, collect and distribute the best of professional standards which can and do provide the best possible instructions for most circumstances. But it is next to impossible to write a standard, a procedure or an instruction which will cover each and every situation. While we say that there is a right way to do things, we cannot eliminate the dire need for using judgment at all times . . . not only as far as flying our airplanes is concerned, but in everything we do in flying. We want all of our people to follow their operating procedures as close to the book as possible. However, when situations arise that require deviations from the book, and they most surely will - multiple emergencies, adverse weather, limited terrain clearance, for example - the aircrew member is expected to take action that is based on his knowledge of the prescribed procedures, knowledge of his aircraft, his

Continued next page . . .

own experiences and above all, to use good common sense! Normally we must follow procedures to the letter, but while we do this, we must also exercise our minds. Let's use our heads, think about what we do before and as we do it! Our standardization programs are good now and are steadily being improved. The results of these programs, however, can never replace the marvelous facility of the human mind; the ability to think and reason and to apply set procedures with confidence gained from knowledge tempered with sound judgment.

THE BEST WAY

An essential part of the 4450 Stdn/Eval Gp program is the responsibility to insure that aircrew members in TAC are performing their mission in a professional manner. Staffed by some of TAC's most highly qualified pilots, the evaluation branches form the teams which conduct formal stdn/eval visits to TAC and ANG units. During these visits, the emphasis is on standardizing examiners through evaluation. In other words, flight examiners, IP's and supervisors are all given flight checks, along with written and oral examinations. Evaluation was brought into the Air Force flying program primarily to assure that all aircrews maintained desired standards. There still are individualists who say, "Well, the book says to fly this way, but I would rather fly my way." This man implies that he knows more than all the designers, engineers, test pilots, and experienced line pilots who have participated in the development of both the aircraft and its operating procedures. He may be right, but if so, he should use the facilities of the stdn/eval program to sell his system so that all aviation benefits. To perform a given mission in any aircraft, the bird must be flown through certain maneuvers. Normally, there is one best way to do each maneuver, and standardization and evaluation attempts to find this way. Once procedures are developed, they are standardized and adopted as the operating methods to be used. Next they are put into operation by aircrews. It then becomes important and necessary to determine the effectiveness of these procedures and pilot ability in employing these procedures. This can only be accomplished through evaluation. Standardization and evaluation are hand in glove, one cannot function effectively without the other.



A flight of four F-84Fs had been staggering along at 35,000 in night weather for about 45 minutes when Two started having trouble . . . external tanks stopped feeding and when he tried to check fuel remaining in each tank, the knob on the fuel quantity check switch fell off onto the cockpit floor. The flight leader turned to head for home, but in the turn Two lost sight of the flight. Moments later Two called that his attitude gyro was out and that he was pressing on using needle and ball. For about 8 minutes Two maintained radio contact with the flight, but apparently just couldn't hack partial panel any longer. He ejected at a reasonable altitude, but at high airspeed. Although his chute opened, he died of injuries received either during ejection or upon ground contact.

Flying high performance aircraft on partial panel in weather is a tough and dangerous job. You must treat an attitude gyro failure in weather as a full scale emergency. The insidious part of this problem is that you will probably be already somewhat disorientated when you find out your gyro is inoperative. Your first problem is to get stabilized, straight and level. If you get into an unusual attitude, your chances of recovery are not good, and don't wait until the situation deteriorates into a high Mach, low altitude dive before making a decision. If you get in trouble, get the power back and the speed brakes out, and eject.

If you are in the clear when your gyro goes out, scream for help. The best way to get down through the weather is on someones wing, anyones wing. Don't overlook any possibilities, ADC and SAC have birds on alert that could help. Check with the FAA Center to see what civil and military jets are in your area. If you can't get anyone to lead you down, set yourself up for a straight ahead letdown. Use a constant power setting and use airspeed to monitor pitch. Use the turn indicator and heading indicator to monitor bank. If the bird gets away from you, leave it.

GROUND EXPLOSIVE SAFETY

ONLY A MINUTE

An F-102 crew chief leans over the canopy rail to turn on the battery switch . . . the canopy slams shut . . . later, in the hospital, he states he didn't install the canopy safety jack because he was only going to be there a minute. A week later he died of his injuries.

When you look at accidents and incidents, a lot of them happen when someone doesn't follow the rules "just for a minute." Nobody likes to spend extra minutes doing a simple job, but remember, you can die in a minute too.

WHIRLING DERVISH

Now that birds are chirping and the grass is green again, it's time to think of gardening and other things . . . things like mowing grass.

Like most troops, you probably worry about your weight and go out of the way to get exercise . . . even to the extent that you regularly go thru the 5BX. However, the odds are that when the lawn needs mowing, you'll either delegate the chore to one of the kids or crank up some form of power mower.

If it's a rotary mower you (or your youngster) are cranking up one of the most dangerous pieces of equipment around the home. You should treat it accordingly. Do you?

My next door neighbor's teen age son is out again, mowing barefoot . . . I wonder if he'll sneak thru one more year without pulling that whirling monster over his unprotected feet or will he be one of 75,000 Americans who will suffer a disabling injury from a power mower this season? Yeah, that's how many got it last year.

No, I am not trying to get you to sell yours and go back to hand mowing . . . but how about taking these precautions?

* Look your mower over carefully. Clean out the housing and discharge chute. Check the blade. If it is badly nicked, replace it with a new blade. You can't risk having a blade break - they kill! One even went thru the side of a frame house to get its victim.

* Don't run a rotary that has an open discharge chute . . . a grass bag is little better than an open chute. Leave the steel cover in place and get out the rake.

* Check your lawn before you start. Rake or pick up all loose debris. The stuff is more dangerous than you think. Last year a five year old was killed by a nail that struck him in the heart after it was spit out the open chute of a rotary mower.

* Wear heavy shoes.

* Don't mow up and down an incline. Go cross-ways. Going up and down may make a neater job but a slip can mess up the area with pieces of your foot.

* Keep the kids away when you mow. It took 18 stitches to patch my youngest after a neighbor hit a small juice can lid . . . since, I have insisted that my children play on the opposite side of the house from anyone who is mowing with a rotary.

* Don't mow a wet lawn. The mulch can glob up your mower and lead to accidents.

* Never leave the mower with the engine running . . . this has caused hundreds of accidents. If you are tempted, just think about the youngest brat in the area. You know he's stupid enough to reach under the mower or try to pull it over his feet.

* Wait for your mower to cool before you refuel. You need the break anyway, and it will start easier cold than hot. Besides, who wants to be a human torch?

Qualit
Q.C

CAPTAIN HILLIARD
4520th CCTW, Nellis

Inspection section supervisor SMSGT Flanagan reviews incident reports with TSGT Strickland, who is chief investigator. At the next desk inspector TSGT Keyes reviews aircraft records with F-105 crew chief, SSGT Guynn.

A2C Willman posts the latest cha
is behind him. This section is l
tion to provide radio se

Captain Harding, F-100 pilot, points out part of the F-100 test profile route to Captain Wilbanks, F-86 pilot. Each profile has a number to represent a coded flight plan filed and approved by LA Center.

HERE AT NELLIS we're proud of our positive approach to quality control. At all times, our primary objective is a safe quality product . . . at present this "product" includes the F-105, F-100, F-86, T-39B, T-33 and base flight aircraft assigned to Nellis. We have 41 officers, airmen and civilians under the leadership of Captain Charles H. Sundin and CMSGT Ralston R. Ringueberg.

We fly about 92 test flights each month. The four officers in the functional check flight section supervise or conduct all functional check flights. Here at Nellis we consider functional check flight pilots to be airborne inspectors. This means that they inspect and verify the condition of every system which can't be completely checked on the ground. In the green isn't close enough . . . we find our "where" in the green.

Standardized functional check flight profiles and special checklists that parallel these profiles help insure complete comprehensive checks. Checklists give the tolerance for each item being checked. Fire control systems

A. WILBANKS
s AFB, Nev.

F-105 pilot Vern Frye, computes takeoff data from an enlarged performance chart under the flight test counter top. Airman Falkenstein will get command post approval and record time off and other data. Captain Harding is checking flight program with Captain Rawie who is airborne on a functional check flight.

nges on a TO. Master TO file
cated near the flight test sec-
vice to pilots.

A2C Molloy processes aircraft forms at the flight test section while crew chief SSGT Guynn looks on. Senior dispatcher A1C Falkenstein brings the flight test PIF up to date. Note pilot's handbook file under the counter. The section also keeps a –6, –2 and –1 for ready reference to pilots.

are checked to insure a completely operational aircraft.

Two airmen maintain records, schedule flights and coordinate maintenance activities.

Functional check flight pilots visit the operating squadrons at least once a day to insure a smooth two-way flow of information and to answer questions at flying safety meetings or brief on aircraft sys-

tems or procedures.

Incidentally, the flight test section has an AN-GRT-3 UHF set to control test flights and give quick technical assistance to any pilot with an inflight mechanical problem. This puts another test pilot and the whole TO library right at the man's fingertips.

There are 18 people in our inspection section and they accomplish all inspections on aircraft, AGE, aircraft records, activities, engines and aircraft that experience incidents. Their golden rule is, "Report all discrepancies." The TO is their Bible and they use it (or other official authority) to back up every discrepancy, regardless.

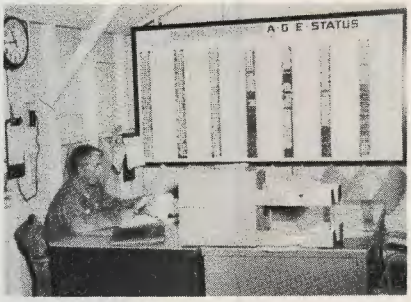
Except for supply, inspectors from this section inspect every organization under the Deputy Commander for Materiel every six months.

To help commanders insure that AFTO 200 series forms are being completed correctly, the section makes a special inspection which is included in the aircraft records jacket inspection. Any discrepancies they find on these forms are marked in red and the erroneous form segregated by work centers that documented them. They then go to the commander concerned.

After corrective action is taken, the forms are returned to the aircraft records file.

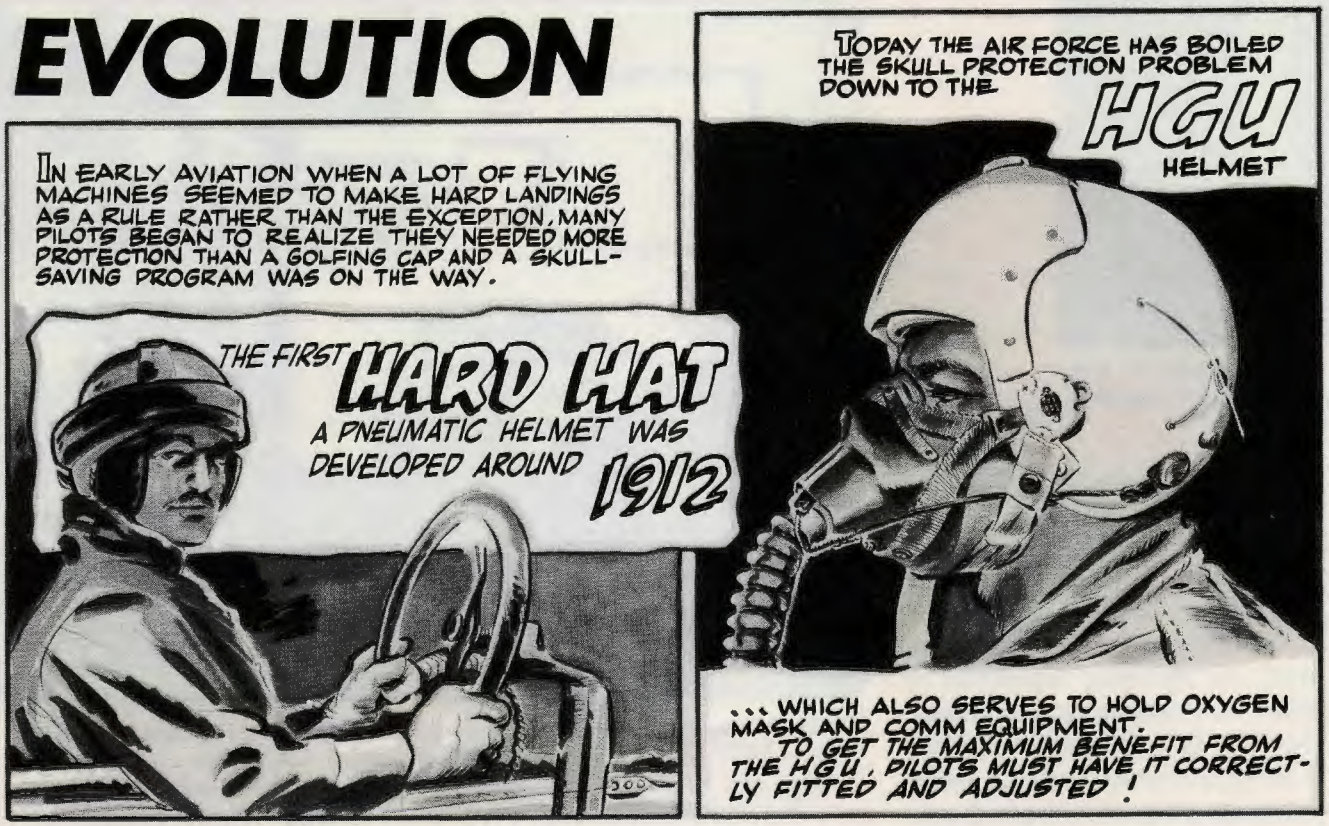
The engine and AGE inspectors are our most diversified... Nellis uses 5 types of jet engines and has 47 types of AGE with 60 different configurations of non-powered AGE.

The TO distribution section screens all PRTs and supplements, inspects all TO files in the maintenance complex and maintain the master TO file. They distribute about 40,000 TOs and publications per month.



TSGT Walmer, chief inspector of the AGE section, reviews records for proper entries and documentation.

These are the sections of our Quality Control Branch. All work together to insure the positive support of other maintenance units and to insure that the Chief of Maintenance receives timely, accurate, and factual reports along with immediate staff action.



TAC TIPS

BY EXAMPLE

We all know many reasons why pilots should use their checklists. But here's another reason, and an important one, you may not have considered.

The pilot's preflight checklist is a pretty simple item, but the crew chief's checklist, his work cards, are fairly complex. While the pilot's preflight tasks are generally to check switch positions and a few indicators, the crew chief's tasks are much more demanding, and most are critical to the performance of the aircraft. If he overlooks a few items, the result is certain trouble. Can a pilot who fails to use a checklist expect a crew chief to use his? No! If pilots pay only lip service to their checklist and use the "carry it around anyway" approach, they are being derelict in one of their most important duties. Think about it for a minute. To a great extent, pilots by example set the standards of performance they expect from maintenance. What kind of example are you setting?

FREE PUZZLE

An F-105 pilot proceeded directly to an overseas bomb range carrying two 450s and a BDU-8 in the bomb bay. When he arrived, he noticed his fuel state was 5000 pounds. He made his run and noticed his fuel had dropped to 3800 pounds. With one eye on the fuel gage, he scurried home losing fuel at a horrendous rate . . . he got the bird on the ground 20 minutes after leaving the range with 100 pounds left!

Another F-105 sport from the same base shut down with 1200 pounds after a 25 minute flight which started with a fully serviced aircraft carrying two full 450s.

As yet they haven't found out what caused either incident but believe the dive vent or fuel feed system malfunctioned.

Until more is known, F-105 pilots should be aware of this possibility and pay close attention to fuel quantity.

POPPING PANELS

A couple of years ago there was a rash of rear canopy quarter panel blow outs in the F-84F. MOAMA investigated the problem and found the most probable reason for the failures was that pilots were storing shaving kits and aircraft forms against the plexiglass panels. This interfered with ventilation and the resultant hot and cold spots were causing the panel loss. Corrective action . . . don't put anything near the rear quarter panels.

This past February, an intrepid Hog Herder was delivering a tired old F-84 to another unit. All the aircraft records and files were aboard and where do you think they were? That's right . . . up against the quarter panel. About 30 minutes after level off at 31,000 the panel blew out and at this date, some of the sheets of aircraft records are still fluttering down.

There are many places in the F-84 to store both A/C records and your personal goodies. The rear canopy panels were put in the aircraft so you could clear your rear. Take a look during your next preflight and tell the crew chief to find someplace else for his work cards and forms. As long as you keep stuffing goodies back there, plan on filling your rapid decompression square about once a year.

DUST BUSTED

The Flight Safety Foundation Business Pilots' Bulletin told of a light twin pilot who waited for a dust storm to clear so he could take off. When a lull in the storm allowed visibility to improve, he started his takeoff. Right at liftoff both engines lost power and he aborted the attempt.

Both engines had ingested too much dust while he waited out the storm. The dust wore all pistons and rings beyond tolerance and fouled the spark plugs. Dust was even found around the cores of the plugs.

. . . An expensive way to learn that it pays to shut down engines during dust storms.

POSITIVE CONTROL

Every issue of the Enroute High Altitude charts shows a little more airspace surrounded by the saw teeth that say "positive control area." Before long, every time you go above 24,000 feet you will be in a positive control area, and there are a few things you should know about the system.

Planning: Your aircraft must be equipped with an operational IFF/SIF and a multi frequency radio. You have to plan for a hard altitude IFR clearance. Keep this in mind when you check weather . . . there's not much reason to drag a flight of four through night weather when you can top everything by filing for a higher altitude.

In Flight: Under some conditions, flying in a positive control area is a fat cat operation. Frequently, if you are under good radar control, you won't have to make position reports and will also receive info on bogies. In case of emergency, you can get heading and distance to the closest field. Sometimes, FAA radar can help get you around thunderstorms, but use a little discretion in this area. Remember, thunderstorms don't scare that controller anywhere near as much as they do you.

The term "positive control" may be a little misleading and here is a point that may surprise you. Ground radar is not a requirement of a "positive control area." If radar is available and operational, you will be controlled using it. But, if no radar is available, the area still exists and you are controlled under standard no-radar procedures. So don't assume you are painted with radar unless the controller tells how he is controlling you.

THE PROFESSIONAL APPROACH

The dollar nineteen dash one says to use 2600 RPM after completing procedure turn on an instrument approach. This is a good procedure since it helps slow the machine and cocks it for a quick wave off. Not long ago a '119 crew failed to follow the book on a practice approach and had to go around due to VFR traffic. The pilot shoved the throttles forward and about ten seconds later realized RPM was still at 2000.

Give the man credit...he wrote up the incident in the Form 781 and talked it over with the maintenance section. Maintenance changed the engines before they had a chance to come unglued on someone. Everyone makes an error from time to time...the professional has enough guts to own up to his errors. How about you?

TACAN TROUBLE

Be alert. A healthy TACAN set will sometimes lock-on 40, 80, 120 or 160 degrees out of phase when you tune in a station at near max range or near its cone of confusion. Ordinarily the error will correct itself in a minute or so . . . if it doesn't, select another frequency, then retune.

A similar error can occur due to a malfunction in the receiver's azimuth circuit. Again, rechannelize or turn the set off and try again. The key to safe TACAN use is to know about where you are when you tune in each station.

DOWN BOY

The student in the aft seat lowered the T-birds gear on GCA base leg. Shortly after touchdown, while the aircraft was bouncing softly down the moderately rough runway at about 90 knots, the student asked, "Sir, is your gear handle down?"

"Rog . . ."

"OK, then I'll raise mine."

The IP was just about to ask the student to raise his speed brakes anyway and the two ideas became intermeshed. He answered, "Yeah, go ahead." Almost immediately the fog cleared and the IP put one sweaty paw on the gear handle and asked, "What did you say? You're going to raise what? Put your hands in your lap!!"

"But sir, since the gear handle up front is down I thought I might as well raise mine."

There are several morals to this story, but the overriding one is: DON'T TAKE NUTHIN' FOR GRANTED! —*ATC OHRs and INCIDENTS*

PROCEDURE

After the right hand engine warning light came on with the bird in AB at 400 knots and 15,000 feet, the pilot of an F-4 secured the engine and came in for landing . . . altho he used full flaps on the approach, the landing was a success.

The handbook specifies half flaps for single engine landings, with 10 knots extra speed on approach. This troop had an experienced man in the aft seat, yet that worthy didn't open his mouth. Why not? That's one reason they put two people in the bird, ain't it?

ZAP!

An incident report from PACAF told of an F-105 that was struck by lightning on a GCA approach. The strike caused IFF failure and high speed lock-out of ailerons and rudder. Control with spoilers and 8^{o} rudder was sufficient to permit a successful landing.

A PERSONAL PROBLEM

During a routine PE inspection a technician found glass fragments in a crewmember's oxygen mask. Looking into the pilot's helmet bag, he found the following treasures: Four flashlight batteries, a snap-on helmet visor, nine spare fuses, two bandaids, a right-angle screwdriver, one plastic fuse cap retainer, a 20 yard spool of a three-pound test fishing leader and four small light bulbs. One of the bulbs was broken. Since some of the glass fragments could not be removed, the mask is no longer usable.

The helmet bag was issued to carry and protect your helmet and oxygen mask. Tom Sawyer types should either get a ditty bag or bigger pockets in their flight suits. *—INTERCEPTOR*

COMPLACENCY

A sister service reports a couple of stall and spin accidents in obsolescent aircraft. They observed that there are no formal training programs for the older birds and that better knowledge and RESPECT for flight characteristics and limitations would have prevented both mishaps. You people who operate the older birds should take special pains to insure that pilot checkouts are adequate and that you do not get complacent about operating the older less complex aircraft . . . some are actually harder to fly than their more sophisticated, younger brethern.

PLAN AHEAD

Since the early days of aviation, the 180 has been the classic way to avoid nasty weather such as a line of thunderstorms. However, before you start this maneuver or detour around a storm, be sure and contact that hard working man on the ground and amend your IFR clearance or cancel it.

ATTENTION SAFETY OFFICERS

If you have an aircraft accident or serious incident on your base that was apparently caused by materiel failure, you usually end up sending the suspected part in to the AMA for a priority TDR. When you do, always send someone who has helped with the investigation along with the part. This will keep it from getting lost and will greatly speed up the TDR. More important, the people performing the TDR can gain valuable background information about events leading up to the mishap and this will help them come to their conclusions and prevent comments like, "due to the condition of the engine no determination could be made."

TAC Supplement 1 to AFR 127-4 requires you to send someone with these parts and we are reminding you of the requirement because some TAC units haven't been doing it and we end up having to wait on the reports before we can direct firm corrective action.

GUILLOTINE

An F-105 pilot taxied behind another F-105 just as its pilot advanced power to move from his parking spot. The jet blast blew the first sport's canopy up and out of the actuator locking mechanism. This let it fall closed.

F-105 pilots should keep the canopy closed while taxiing behind other aircraft and keep hands and arms clear of the canopy rails.

L/COL PAUL L. SMITH
839th Air Division
Sewart AFB, Tenn.

ON TOP of a slight knoll overlooking a soybean field, a group of men watched a C-130 approach a cable stretched between two drums. The aircraft was flying at 120 knots, five feet in the air with a hook extended below its open ramp. As it crossed between the drums the hook caught the cable and in a few seconds a pallet loaded with pierced aluminum planking lay on the ground. The planking was exactly where the Army engineers wanted it for constructing a runway.

The technique is called ground proximity extraction. It is a radically new way to spot deliver equipment to Army units in the field. The only thing required is a pair of water filled drums called twisters, some webbing which is wound up on reels attached to the drum, a cable, and some pieces of rubber tire to lift the cable about four inches off the ground. This equipment can be (and has been) air dropped with a combat control team who set it up in a very short time. The twisters are mounted on stakes driven into the ground. The webbing is wound on the reels and is connected to the cable. The cable is laid perpendicular to the flight path on the pieces of rubber tire. As the cable is engaged, the water in the drums resists the unwinding reels and provides rapid deceleration for the extracted load. The system has stopped 13,000 pound loads in approximately 500 feet.

The 314th Troop Carrier Wing has pioneered development of this system. In 1962, the 314th conducted initial flight tests at the manufacturer's plant in Delaware to determine if the system was feasible. Further tests were flown at Sewart Air Force Base and at Fort Campbell, Kentucky, again utilizing 314th aircrews and aircraft. The first full-scale demonstration of the equipment occurred during Swift Strike III by 314th aircrews assigned to a provisional test wing specifically established for this maneuver. They successfully extracted 85 loads of runway construction material during the exercise. These tests were under

open field conditions and the aircrews successfully engaged the cable almost 70 per cent of the time. Since the field conditions were conducted on sloping terrain with trees off both ends of the extraction zone, this was a notable feat.

Flight techniques are still under development. Basically, they are to establish a final approach in landing configuration, aim to place the hook on the ground a few seconds prior to reaching the cable, maintain level flight at five feet and 120 knots, and when the cable goes under the nose, add power and climb out.

The loads are placed on pallets and used with the dual side rail delivery system. This prevents the load from flying through the cabin as, old heads in the troop carrier business will recall, sometimes happens when delivering standard loads. The aft cargo door and ramp are opened and a pole extended from the ramp (positioned to trail) with a hook on it. When contact with the cable is made, the hook, which is connected to the pallet by a long strap, pulls away from the pole arms and extracts the load. A second and third pallet can be rigged while airborne, allowing multiple extractions in a forward area that has no landing field available. The pole slants back, and provides five-foot ground clearance when it is in firm contact with the ground. When contact is made, a buzzer sounds in the pilot's headset, letting him know that he is at the desired altitude. The pole is flexible and will bend if altitude is lowered. In the proper attitude, the aircraft can and often does roll the wheels.

Utilizing this system any load up to 20,000 pounds that can be airdropped may also be extracted. The advantages are obvious. Pin point delivery can be accomplished to any point which is clear enough to allow an approach. Present minimum requirements are for a cleared area 600 yards long by 100 yards wide. The twisters are set up midway in this area, preferably on the highest ground.

There are some disadvantages. Wind can become a problem if it blows across the approach zone. The aircraft has to be precisely maneuvered very close to the ground. Rough terrain can cause the hook to bounce over the cable. More serious, the hook can engage the cable and then break or disengage, resulting in an armed load which may come out after the aircraft leaves the extraction zone. This is guaranteed to tear up some equipment and can be hard on unsuspecting squirrels. So far such instances have been few and far between and no load has landed on anything breakable. Primarily, this is because only very highly qualified pilots have been flying these missions. However, any operation so close to the terrain does provide a situation where a slight error in judgment can result in some bent aluminum, especially the aircraft ramp. Altho the system is not a hazard to life and limb, it did provide some grey hair for safety people while it was being developed.

An innovation that has been added, is to use a parachute to extract rather than hooking the load on a cable. This has been tested by aircrews of the 314th including demonstrations in Alaska during Operation POLAR SIEGE. Use of an extraction 'chute eliminates the need for the ground installations; however, it is just now in the early test stages.

Overall, ground proximity extraction is the first really new way to deliver equipment to an Army in the field that has been developed in some years. During Swift Strike III many successful extractions under tactical conditions were made from the standpoint of when where and what the army needed.

As the technique is refined it should provide a much more accurate and effective way to deliver equipment. It may be feasible to deliver troops in the same manner, if a capsule can be developed. If so, the old air drop system with its shear winds and large circular errors may become as obsolete as hoop skirts.

CHOCK TALK

IN THE LION'S MOUTH

When the night shift came to work at an F-101 base in the United Kingdom it looked like a pretty normal night. It was cold and foggy and there was just enough work to keep everyone outside in the weather. One of the birds was out for a stabilator feel and trim write-up. Two airmen were given the job and with a little reluctance they left the warmth of the flight shack.

Arriving at the aircraft with a let's-get-the-job-done attitude, they got squared away. First, the lights . . . well, they were too few and too weak, but the job had been done many times before, right there on this same ramp. To perform the stabilator feel check, the bellows drain hole must be plugged, but a quick check of both pockets and tool boxes failed to locate the plug. No problem, a finger over the hole will work just as good, but this means working in the right speed brake well. Another check of available equipment failed to turn up a jury strut for the speed brake actuator.

Although the strut is the only safety device that will keep the speed brake from closing, the "Let's get the job done" attitude prevailed and they decided to press on without it. While the stabilator check was being made, the speed brake slammed shut. The airman who had been holding his finger on the drain hole was crushed to death. He traded his life for a trip to the tool crib.

This accident actually happened. How it happened is easy to see, but the why defies all understanding. The man who died had been an aircraft mechanic for eight years. Inexperience shouldn't have been a factor. There is nothing subtle about the F-101 speed brake. In fact, there are few places more obviously hazardous than the speed brake well. This man couldn't have been ignorant of the danger.

On the surface, this tragedy can be summed up in one word . . . complacency. But let's go a little deeper. A man doesn't become complacent all by himself. His supervisors set the scene and his contemporaries set the pace. Supervisors who do their job right make sure each of their men is doing his job right by following check lists and taking safety precautions. And why is it that men will be nearly heroic in an attempt to save a total stranger who falls in water or is trapped by a fire, yet will stand idly by while a close friend needlessly gambles his life by shortcutting safety rules?

We all share the responsibility for this accident. In plain and simple words, it happened because no one had the guts to do the job the right way. Don't stand by and let your buddy take chances that may kill him. You may be saving his life and maybe some day he will do the same for you!

SINGLE STANDARD

An F-100 pilot made a successful precautionary landing after the oil pressure on his bird dropped to zero for about five minutes, then returned to 46 psi. Twisted wires and a cold solder joint in the cannon

plug behind the transmitter caused the problem. In addition, the engine disconnect lacked three turns of being tight, the fuse holder was bad and the pins were spread on the cannon plug at the indicator.

Somebody in this outfit obviously doesn't have very high standards . . . "good enough" may get by for fixing an outhouse, but it'll get someone killed with airplanes. "Perfect" is the only maintenance standard we can afford.

SLOW JOE

An F-100 pilot noticed his flight controls were less effective than normal during his turn onto final. He took it around and made a precautionary landing pattern to a successful landing. Excess water in the pitot system caused his airspeed indicator to read incorrectly.

This is a seven day check, and the bird had been checked four days before the incident. However, experience has shown that the pitot system should also be drained after the bird has flown thru heavy rain.

DUMMY NO SISSY

In case you didn't know, 20mm dummy ammo can be dangerous . . . possibly more dangerous than some forms of the real McCoy. Dummy rounds contain a solid plastic filler. When this plastic is heated, it gives off a gas that can cause the cartridge case to explode.

Not long ago an airman threw a dummy round into a trash can. When the trash was burned, the round exploded. Chunks of the ruptured case knocked holes completely thru a steel ammo can. Need we say more?

TORQUE THOUGHTS

After finding fuel consumption 'way above normal, a TAC F-100 pilot managed to make a precautionary landing. Altho there was no aircraft damage, it was hardly a "safe" landing. The pilot was flying a potential bomb. The bolts had pulled out of the helicoils in the low pressure fuel filter housing and the "excess fuel" wasn't being consumed at all . . . it was leaking out all over the inside of his airplane! This one looks like overtorque from here. The dash two calls for 40 inch-pounds on this installation (which isn't a great deal).

Look, troops, even the old timers had trouble getting things tightened right and those birds were not very critical. In the good old days, steel was steel and brass was brass. Today you may be tightening aluminum fittings which are as strong as some steel - or which are more delicate than brass. You can't guess at the proper torque value, you have to look it up.

You can't estimate the amount of torque applied, because today's tolerances are too close . . . use a torque wrench! Believe me, the old timers were not as good as they'd have you think . . . we lost a lot of airplanes in those days and you can bet that improper torque claimed its share.

F-4 DIRTY OIL

A navy F-4 pilot cut his mission short after a nozzle failed full open. He didn't shut the engine down since oil pressure remained normal. This was the second nozzle failure in two weeks on the particular engine. The nozzle pump was replaced after the first failure even tho they couldn't find anything wrong.

A few days after the first failure, the CSD failed and metal shavings were found in the CSD return filter. No varnish like substance was evident, indicating the filter hadn't been by-passed. Maintenance cleaned the filter and replaced the CSD.

After the second nozzle failure they found metal shavings in the nozzle pump. Apparently the engine oil was contaminated. The navy recommends that all engine filters be inspected anytime an engine is shut down for CSD, generator or nozzle failure.

Continued next page . . .

INSPECTION COMMENT

It's a real pleasure to visit a unit where the people don't cry and gripe about lack of personnel, absence of capability or the shortcomings of the support from higher echelons.

If the squawkers would take some of the energy they waste bemoaning their lot and spend it doing their best, cheerfully, their changed attitude would infiltrate thru the rest of the organization and spark everyone into greater effort.

F-100 TIRES

About a year ago, TO 4T-1-4 required us to use 22 ply rating tires for F-100 main landing gear wheels instead of 20 ply rated tires. However, the AMA is still shipping 20 ply rated tires to some F-100 units. These tires are not suitable and will only cause trouble. So keep a close watch and if you do receive a shipment of 20 ply rated tires, impound them and ask OOAMA for disposition instructions.

—ATC MAINTENANCE MEMO

COUNTDOWN

Ten . . . pilot arrives and puts parachute in aircraft seat. Nine . . . weather goes bad and flight is cancelled. Eight . . . pilot leaves 'chute in aircraft. Seven . . . flight for next day is also cancelled. Six . . . parachute comes due for inspection. Five . . . PE man is sent after the chute. Four . . . PE man finds canopy is closed. Three . . . he reads directions on how to open canopy. Two . . . PE man presses button and opens door. One . . . he pulls cable as per instructions . . . and . . . BLAST OFF, scratch one T-33 canopy.

Never launch anyone on a mission involving aircraft unless he is thoroughly qualified . . . or you might be responsible for putting him into orbit!

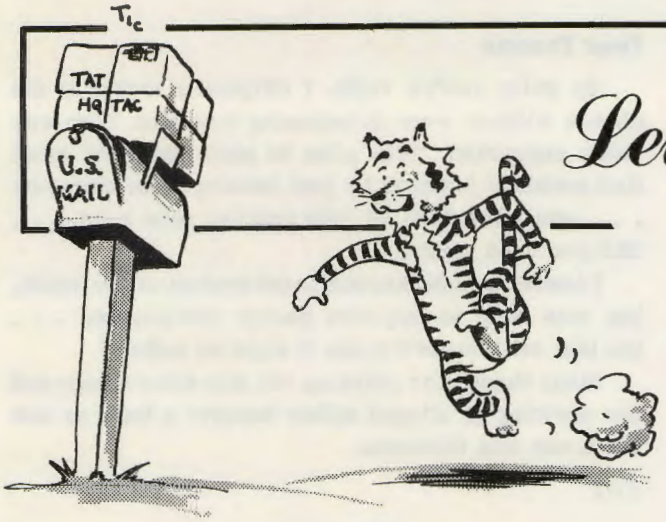
F-4 MARTIN BAKER SEAT EJECTIONS

Recently, a McDonnell test pilot attempted to disengage the autopilot in an F-4C by pulling negative G and found himself flying without benefit of aircraft. Since the man in the back seat was not rated, he elected to join his pilot - scratch one F-4C!

The accident investigation board found that the ejection seat top latch plunger had not been completely engaged in the detent of the inner tube (this mechanism holds the seat in the aircraft). When negative G was applied, the seat was free to ride up the catapult rails. After moving three fourths inch up the rails it fired the canopy initiator. As the canopy was leaving the aircraft, it struck the abnormally high seat catapult mechanism, pulled the main catapult gun sear and fired the catapult gun. The pilot sustained minor injuries because he was completely out of position for ejection - the radar operator received no injuries. As a result of this accident, an emergency TO will soon require a visual indicator on the top latch plunger of the Martin Baker seat.

Including these two ejections, there have been a total of 37 ejections from the F-4 aircraft with the Martin Baker seat. Of this number, there has only been one spinal injury and this was caused by poor posture at the time of ejection. Of these 37 ejections, thirty-two were successful. Five were fatal. In four of the fatal ejections, the seat performed as advertised, but death occurred from other causes . . . i.e., two were dragged 600 to 800 yards on the ground by 50-knot surface winds, a third man was seen in his life raft and waved to search aircraft but disappeared before rescue could be made. In the fourth case, the RIO ejected for unknown reasons and was never located. The investigation board determined that there was no malfunction of the seat. In the fifth case, a pilot made an unsuccessful ejection shortly after his RIO successfully ejected at 500 feet with the aircraft in a 40 degree dive!

From this, and considering that several ejections were completely out of the ejection envelope . . . one from ground level at about 100 knots, and several off the bow of an aircraft carrier . . . the obvious conclusion is that we have a very fine ejection seat in the F-4 aircraft.



Letters to the Editor

Dear TAT

Reference your TAT article March 1964 issue, I take exception to the connotation implied in your short dissertation re the T-33 abort because of tachometer run down. Quote, "It is anyone's guess why he reacted so mightily to a single instrument reading". Unquote. It is rather effortless to sit back in a soft chair in a warm comfortable office and imply that said command pilot with plenty of time and service made the wrong decision. I'm one of those command pilots with plenty of time and service and placing myself in the same condition, I most assuredly believe that my decision would have been one and the same. Let's review the conditions -- (1) Multi-engine aircraft with single engine apparent failure, same conditions ---- GO ----. (2) Single engine apparent failure --- runway ahead --- RPM rundown --- rumble in engine section --- barrier ahead --- ABORT. Lesson learned? Live long time. Your first reaction to my first attempt at writing a letter of this sort is c e r t a i n to be, "Gad--that bomber jock from SAC doesn't know whereat of what he speaks." However, this bomber jock maintains his proficiency in same T bird as other staff types and agrees with the pilot's decision, providing all facts are as they were stated in your fine magazine. Granted that canopy should have been opened --that's the only mistake I found.

Wonder how other single engine troops feel?

L/COL HENRY R. HIRSCH
Hq SAC

Dear Colonel

Wrong on the reaction. You have a point and I appreciate it... however, I stand behind my analysis. Any failure that will send the rpm of a jet engine from 100% to zero will leave no doubt about a proper course of action. I've been over that route. You are pressed into the shoulder harness, the cockpit fills with smoke and the noise of the dying engine is little short of terrifying. If airborne, it will rock the aircraft over on one wing!

Now, I've also had ear splitting squeals, thumps and horribly "rough" engines on takeoff. Without fail, my very active imagination always found ample smoke to accompany them. Fortunately I have snail slow reflexes, and by the time it occurred to me that I had t r o u b l e and that I should be taking action, another part of my brain would come thru with the startling revelation that the bird was still accelerating and that all else seemed proper. As if by magic, the smoke would clear and the vibration become normal (if the speed brakes hadn't come part open). After carefully surveying the situation, while headed toward low key, I'd come to the correct conclusion that the terror was little more than an air conditioner going sour, a cockpit pressure regulation thumping closed, or tires that were "set" from sitting too long on a cold ramp.

No, I've investigated too many accidents from reactions that were too quick rather than too slow. What the heck, it only takes a couple of seconds to check RPM and fire lights, and you only hit the barrier a few knots faster if they confirm the problem is for real.

There is a darn good reason most dash ones call for an acceleration check fairly early during takeoff . . . late aborts proved to be critical, costly and dangerous despite barriers and other aids.

TAT

Dear TAT,

Ref, your item on Bad Shave, page 22 of the February issue. If this is a continued story please let us in on the next edition we would like to know what was done to correct this malfunction.

AUTO PILOT SHOP
SJAFB, N. C.

Dear Auto,

The report we received gave no corrective action and I presumed that the malfunction was induced by the shavings. Did I miss the point? If so, sorry.

TAT

Dear TAT:

TAC ATTACK, is a consistently well done effort and I enjoy reading it each month. Please keep up the excellent work.

I noticed in February's issue that a typographical error was identified in the Letters to the Editor section. Being a picker of nits from way back, I put on my nit-picking specs and noticed one word, "input", spelled "imput", once on pg. 6 and twice on pg. 13. Maybe your typographer has the "m" key and the "n" key loused up.

I am in the Ohio Air National Guard, 178th Tac. Fighter Group, 162nd Tac. Fighter Squadron, at Springfield, Ohio. Been steering the Lead Sled (F84F) around since January, 1954, when the first split tails (ugh!) were squirted out of Republic's assembly line. Served as a part-timer since 1956 plus ten months with the full-timers in 1961 when Berlin was in the headlines.

MAJOR G. LEE NEWELL
162nd Tac. Ftr. Sq.
Springfield Municipal Airport

Dear Lee

Many thanks for the kind comments and for the tip on spelling. That wasn't a typo, but did get me a vacation . . . seems I was busily lecturing the guilty party when the flight surgeon walked by. He apparently has some narrow ideas about people talking to themselves.

Know what you mean about the early lead sled. I checked out in the split tail but never had a go at the later model . . . you guard troops have really kept the old gal potent.

TAT

Dear TAT

Reading the February TAC Attack, I found an astonishing item published on the cover.

It seems that an Airman from the 434th Troop Carrier Wing is standing on the Aircraft or the railing of the stand. This action shown here is violating every safety procedure and rules of the Air Force.

Would you please look at the cover of this issue and see for yourself.

A2C FRANCIS T. DONAHUE
4442nd FMS
Sewart AFB, Tenn.

Dear Francis

By golly you're right. I originally looked at the photos without ever questioning how that Tech was being supported. This goes to show that you can't find potential hazards by just looking at an operation . . . you have both to look and use your head . . . like you used yours.

I hasten to add that this is not typical of the 434th, but was done to improve photos composition . . . but that still doesn't make it right or safe.

Many thanks for pointing out this discrepancy and for showing us alleged safety experts a thing or two about our own business.

TAT

Dear TAT

I read the TAC ATTACK which I believe is very interesting. I am not on flying status, I am an Administrative Specialist. In your magazine you make references to aircraft mishaps only. I believe it would be of great safety interest to publish at least one page on automobile accidents in the same format as you do aircraft accidents/incidents.

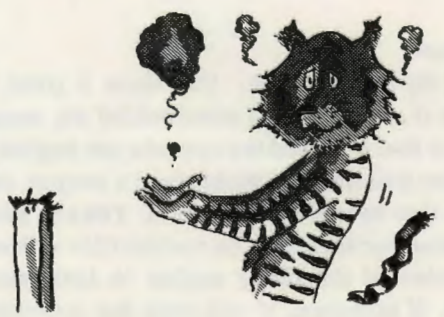
The number of car accidents that kill service personnel every year is alarming and I believe if one page of your magazine was set aside for car accidents that happened to service personnel only, it would help cut down the number killed.

I do hope that you consider the above recommendation very strongly, it could very possibly cut down $$$$$ and lives that it cost the USAF and TAC yearly.

A1C ROBERT R. COVEY SR.
10TRW (USAFE)

Dear Bob

Many thanx for your suggestion. We'll try to oblige; however, we base our aircraft accident stories on the accident investigations and present automobile accident investigations leave a great deal unanswered and unsaid.



Well Done

Pilot of Distinction

Captain Morris B. Parker of the 479th Tactical Fighter Wing, George Air Force Base, California, has been selected as the Tactical Air Command Pilot of Distinction.

Captain Parker was orbiting the local range at 15,000 feet when the engine of his F-104 flamed out. He immediately completed an airstart and turned toward the nearest suitable landing area which was Edwards Air Force Base. A few seconds after initial contact with Edwards tower, the engine flamed out again; however, he obtained another airstart. Due to a combination of haze and setting sun, Captain Parker was unable to see the runway at Edwards. He requested DF steers to a closer position and sighted the runway as the engine flamed out for the third time. His airstart procedures were again successful. Captain Parker made a straight-in final approach, lowered the gear with the emergency system and made a safe landing. Investigation determined that a malfunction of the main fuel control caused the engine to flame out.

Captain Parker's quick thinking and skillful performance saved the Air Force a valuable combat aircraft.

LEGION OF MERIT

Technical Sergeant William D. Greenlow

The U. S. military's second highest peacetime award was presented to a Tactical Air Command Sergeant 11 March 1964.

General Walter C. Sweeney Jr., TAC Commander, presented the Legion of Merit to Technical Sergeant William D. Greenlow, 4504th Missile Training Wing at Orlando AFB, Florida.

Sergeant Greenlow received the award for a suggestion he submitted which improved the accuracy of the inertial guidance system of the MACE. His idea, which also cuts down maintenance manhours and materials required, is estimated to save U. S. taxpayers one million dollars a year.

The citation accompanying the rarely-awarded medal credited Sergeant Greenlow with finding and correcting a major guidance system deficiency which resulted in immeasurable improvement in the offensive capability of the missile and saved the Air Force untold millions of dollars.

Recognition

CREW CHIEF OF THE MONTH

Staff Sergeant Bobby L. Flesher of the 474th Tactical Fighter Wing, Cannon Air Force Base, New Mexico, has been selected as the Tactical Air Command Crew Chief of the Month.

Sergeant Flesher has demonstrated outstanding professional ability as crew chief of an F-100F. Because of the excellent condition and proven reliability of his aircraft, it was chosen by the wing to fulfill a special commitment levied by Twelfth Air Force.

On many occasions, Sergeant Flesher has gone beyond the normal duty expectations of a staff sergeant by willingly and eagerly accepting the responsibilities of higher level supervision. He has frequently performed as a flight chief in the absence of the designated flight chief. His diligent efforts, high mechanical aptitude and devotion to duty have contributed significantly to his organization's maintenance success and qualify him as Crew Chief of the Month.

MAINTENANCE MAN OF THE MONTH

Technical Sergeant Finis E. Potter of the 4510th Combat Crew Training Wing, Luke Air Force Base, Arizona, has been selected as the Tactical Air Command Maintenance Man of the Month.

As NCOIC of the Tow and Harmonization Section of 4515th Munitions Maintenance Squadron, Sergeant Potter has demonstrated outstanding technical knowledge, leadership ability and initiative. With an intense personal desire to perfect dart and banner maintenance, he continually searches for weaknesses and initiates timely corrective measures. His efforts were directly responsible for increasing dart target effectiveness by more than ten per cent. He was also responsible for such significant improvements as a newly designed banner target reflector that is one-third the original size but equally effective, a procedure for balancing darts and preventing wing warpage which reduced the dart's tendency to roll, and the addition of special guards on banner tow racks to prevent aircraft skin damage due to airstream turbulence created by target radar reflectors.

Sergeant Potter's performance has identified him as one of the select group of dedicated maintenance technicians who have qualified as Tactical Air Command Maintenance Man of the Month.

AIR MEDAL

The following TAC personnel were awarded the Air Medal for meritorious achievement while participating in aerial flights:

MAJOR STEPHEN E. HARRISON
CAPT DEWEY K. HEMPHILL
CAPT CHARLES L. LUSTIG
CAPT BRUCE A. MATHEWS
CAPT JAMES S. MENEES
CAPT FREDERICK G. MUESEGAES
CAPT JAMES B. PAYSON
CAPT WARREN C. PEARCE
CAPT RAYMOND I. TIFFAULT
CAPT HAROLD D. AUSTIN
CAPT JOSEPH E. HAINES
1ST LT HOWARD J. BEAR
TSGT EDGAR M. CORBIN

TAC TALLY

A COMPARISON OF TACTICAL AIR COMMAND ORGANIZATIONS

MAJOR ACDNT RATE
1 JAN - 31 MAR

TYPE	1964	1963
ALL	14.3	11.3
F-4	0	0
F-105	33.0	55.8
F-104	20.0	24.3
F-101	26.8	65.2
F-100	22.8	7.2
F-86	0	0
F-84	23.9	43.8
B-66	0	0
B-26	134.4	0
T-39	0	0
T-33	0	0
T-29	0	0
KB-50	0	0
C-130	3.2	0
C-123	0	0
C-47	0	0
U-10	56.4	0
T-28	0	0

MAR TALLY
GUARD AND RESERVE

UNIT	MAJOR	MINOR

ACCIDENT FREE
MAJOR & MINOR

tac tally

JET			
ACTIVE	MONTHS		ANG
355 TFW	18	14	121 TFW
4453 CCTS	15	11	140 TFW
CONVENTIONAL			
ACTIVE			RESERVE
4500 ABW	33	88	434 TCW
463 TCW	33	43	349 TCW

MAR TALLY
ACTIVE UNITS

UNIT	ACDNTS*	INCDTS
4 TFW		10
12 TFW		1
15 TFW		2
23 TFW		2
27 TFW		8
31 TFW		18
354 TFW	1	6
355 TFW		2
366 TFW		6
401 TFW	2	15
474 TFW	1	4
479 TFW	2	
TARC		
SAWC	2	
4510 CCTW	4	28
4520 CCTW		17
4411 CCTG		2
4442 CCTS		
4443 CCTS		
314 TCW	1	
516 TCW		
464 TCW		1
831 AD		
832 AD		
836 AD		11
4440 ADG		
4500 ABW		2
1 ACW		2
363 TRW	1	

* MAJOR & MINOR

March was another grim month for TAC . . . 10 major accidents, 4 minors and 4 fatalities. Six F-100s were lost and with them 2 pilots . . . two pilots ejected with engine problems and fire; flight control problems just after takeoff caused both pilots of an "F" to eject . . . they made it from 150-200' . . . a nose gear steering malfunction caused major damage when the bird left the runway; the two fatals came from adverse yaw out of low level ACM and a crash on a dive bomb pass.

A crewmember fell to his death when the forward cargo door blew off a C-130B at 19,000 feet and an RF-101 pilot died in an unsuccessful ejection attempt after his aircraft exploded at 5000 feet. Both men in an F-104D ejected successfully following an inflight fire, and a U-10B received substantial damage on landing after the engine lost power.

The minor accidents resulted from a blown tire and collapsed nose gear in an F-84F, an F-104 that left the runway during a cross wind landing, a one gear up, one gear down landing in an F-100, and a collision between a runway mounted camera and a U-10B.


Princess
MSGT HIRSCH
THE WARM SEASON IS WITH US AGAIN AND PILOTS SHOULD UNDERSTAND WARM WEATHER FLYING PROBLEMS!
EVERYTHING ASSOCIATED WITH TAKEOFFS AND LANDINGS BECOMES MORE CRITICAL! HOLD MORE CLOSELY TO PROPER LIFT-OFF AND LANDING SPEEDS!
PILOTS FLYING INTO OUR GREAT SOUTHWESTERN BASES SHOULD PAY ATTENTION TO FORCAST SURFACE WINDS!
THE RAINMAKERS WILL BE BUSY!
WOO WOO WOO
WAP!
THUNDERSTORMS ARE MORE SERIOUS IN THE SUMMER THAN AT ANY OTHER TIME - MOSTLY BECAUSE THEY ARE MORE NUMEROUS. THEY ALSO GROW MUCH BIGGER AND MEANER IN WARM WEATHER!
HAIL IN AND AROUND THESE STORMS WILL DAMAGE SOME AIRCRAFT EACH YEAR...
BLAM!
...HOWEVER, LOSING CONTROL AFTER STALLING OUT...OR FALLING INTO A STORM AT SLOW SPEED WHILE TRYING TO CLIMB OVER IT, WILL USUALLY DESTROY THE GREATEST NUMBER OF JET AIRCRAFT!
WOO WOO WOO WOO WOO WOO WOO!
LET ME KNOW WHEN START'UM RAIN!
NEVER ATTEMPT TO BEAT A STORM THAT IS MOVING INTO THE FIELD AS YOU ARE TRYING TO LAND OR TAKE OFF - THIS IS HIGH ON THE LIST OF ACCIDENTS CAUSED BY THUNDERSTORMS!
NO RAIN?
WHEW!
PUFF PUFF
ME BETTER TAKE'UM RAINCHECK, PRINCESS!