JANUARY 1962

TAC ATTACK

THE OTHER GUY

ATTACK

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COVER PHOTO

One of TAC's Reserve Force C-119's departs on a scheduled mission.

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Only a professional performance on your part will provide maximum safety.
--Gen. Curtis E. LeMay

angle of attack

As aircraft and equipment grow more and more complex, the cavalier approach to flying so peculiar to the first world war, and to a lesser extent the second war, is steadily being replaced by a more mature approach to flying. The professional approach. Professional, because a professional--whether he be a doctor, a photographer, ball player or pilot is invariably highly skilled and experienced in his chosen field.

The earlier pilots could be compared with a high school or college football player who has reasonable ability and skill, but who is somewhat excitable and makes mistakes because he lacks experience and does not devote the amount of time and effort it takes to bring himself up to the high standards required of professionals.

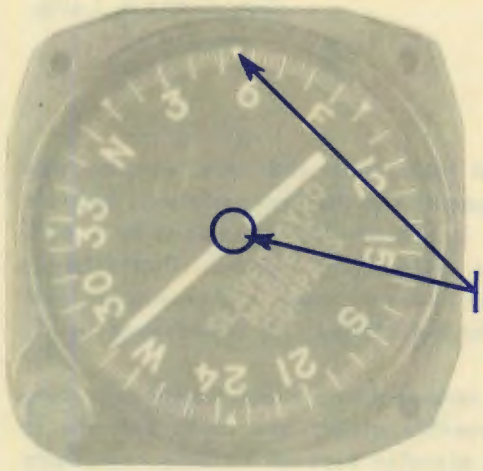
Today's century series tactical pilot is a true professional. He must be able to deliver high explosive bombs, rockets, nuclear weapons, and missiles with accuracy in almost every conceivable condition. He must be able to navigate precisely both at high altitude where accurate wind data is difficult to obtain, and at low altitude where a lack of check points and the speed of his machine compound his problems. He must do this without assistance from a copilot or navigator. As a consequence, his is one of the most demanding jobs in aviation.

Perhaps the greatest single demand for a professional performance from a fighter pilot occurs during an in-flight emergency. He must cope with the problem single-handed, all while flying the aircraft. Restricted fuel supply, a single engine and limited courses of action require quick accurate analyses and decision. Here, all of his study, training, experience and skill must be utilized if he is to successfully cope with the situation. An amateur, lacking knowledge and training will usually contribute to the emergency instead of overcoming it.

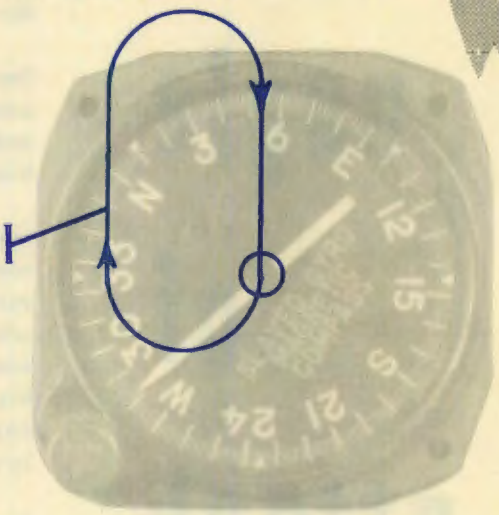
Although the environment of the fighter pilot is difficult and the requirements high, the reward for being a professional can be measured in terms of high self-respect and the satisfaction of knowing that a vital mission can be accomplished with efficiency, confidence and safety.

Colonel James K. Johnson
Chief
Office of Safety

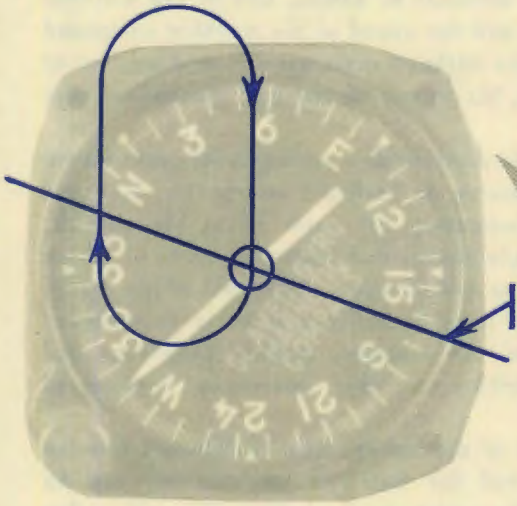
HOLDING PAT



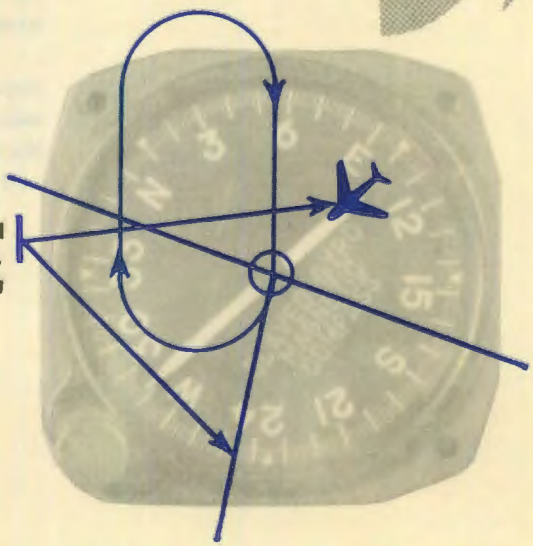
Step 1. Turn the dial on the directional indicator, placing the outbound course at the top. Visualize the holding fix as being at the center of the instrument.



Step 2. Visualize the holding pattern inbound to the fix, as shown.



Step 3. Visualize a line starting 20° behind the right 90° index, crossing the center, and 20° ahead of the left 90° index.



Step 4. Visualize another line starting at the fix and extending to a point 10° to the left of the bottom index. Your aircraft is on the tail of the heading pointer driving inbound to the fix.

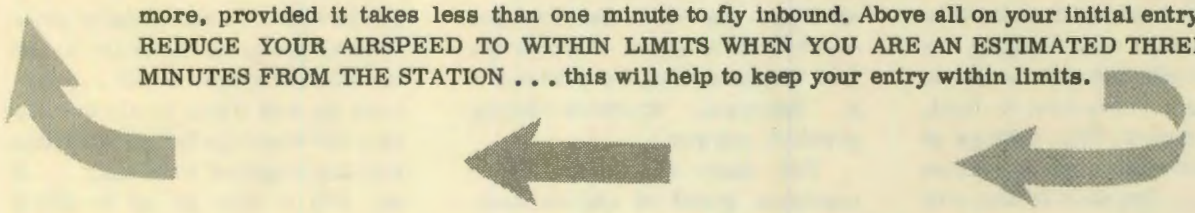
Recent revisions to FLIP planning documents for the US and Alaska contain detailed instructions on the new holding pattern entry procedures that went into effect the first of this month. Two full pages in Section II explain the system, but many pilots still seem to be having difficulty with it. The basic procedure is simple enough, except that it is based on an unusual quadrant arrangement which is far easier to visualize on the ground than it is in the air. For this reason, computers, overlays and other aids have already started to appear. These should prove valuable to pilots who are able to rely on a co-pilot for assistance, but will increase the collision hazard if they are used in single pilot aircraft operating VFR or VFR on top. Consequently, all such pilots should review the new procedure and practice it in the instrument trainer until they have mastered it for both standard and non-standard patterns.

In addition to the new entry, permissible holding pattern speeds have been changed. Prop driven aircraft to hold at a maximum speed of 170 knots IAS when below 14,000 feet and at a max of 175 when above that altitude. Subsonic jets are limited to a maximum holding speed of 230 knots IAS and supersonic jets to 265 . . . except for the F-105 and B-58 which are limited to 310 knots. Climbs while in the holding pattern will be at handbook speeds.

To help you visualize and memorize the new entries, try the technique suggested by Major George B. Hayden, who runs the instrument training section for the 305th Troop Carrier Squadron (H) at Tinker AFB. At first glance, his system doesn't look like much of an improvement . . . but run through it a second time and you'll get the idea.

Outbound leg will be one minute when holding below 14,000 and a minute and a half when holding above 14,000.

Turn at 3^{o} per second or 30^{o} angle of bank, whichever requires the lesser bank. If you know that a head wind exists when going outbound, you can increase your outbound time by not more than 30 seconds. After pattern has been established you can increase this time still more, provided it takes less than one minute to fly inbound. Above all on your initial entry, REDUCE YOUR AIRSPEED TO WITHIN LIMITS WHEN YOU ARE AN ESTIMATED THREE MINUTES FROM THE STATION . . . this will help to keep your entry within limits.



STANDARD PATTERN.

You have now divided the instrument into four quadrants. If the aircraft is in the lower left quadrant (holding side), turn to proceed outbound on the non-holding side approximately parallel to the holding course. After completing turn, hold this course 45 seconds.

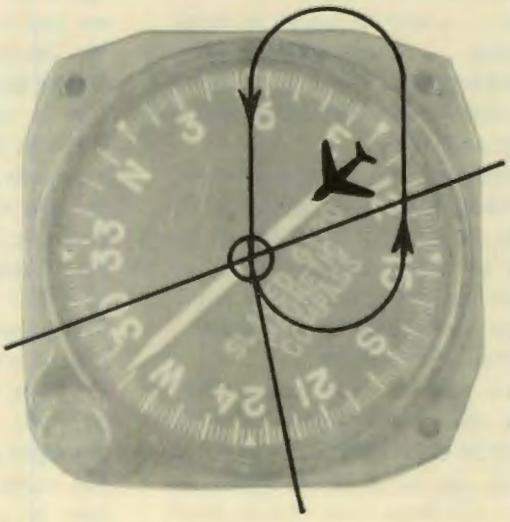
If aircraft is in the lower right hand side (non-holding side), a teardrop procedure turn will be flown on the holding side, beginning at the fix, so as to approximate an outbound track of 30^{o} or less to the outbound course for one minute.

If aircraft is in *either* of the upper quadrants, make a right turn at the fix to the outbound course and proceed outbound on the holding side for one minute.

NON-STANDARD PATTERN.

If aircraft is in the lower right hand side (holding side), turn to proceed outbound on the non-holding side.

If aircraft is in the lower left hand side (non-holding side), make a teardrop entry.



A T-bird driver from another command was making an SFO with 450 gallons and an IP on board. From base to final, he used various flap settings to get the bird onto a more precise approach . . . but despite this, was a little short and somewhat slow when he arrived over the overrun. In an attempt to sneak up to the runway, he hiked up the rest of the flaps . . . and as you've no doubt guessed . . . promptly dropped in short. He was lucky, all he did was blow a tire and mess up the upper gear door.

Frankly, this troop was cheating when he played around with flaps. To us, the flaps should be used as little as possible. In an actual flameout, the battery might not take too kindly to such abuse... and then you're stuck.

We see no need to use them more than three times. Once, to select 20 degrees when either high or low key is reached. Again, to select full flaps when turning final and, possibly a third time to put 'em back to 20 degrees should we misjudge the wind and find that we're a little short. If we do use 'em the third time, we consider it a marginal approach—during practice, anyway.

The dash one calls for a minimum speed of 140 on final. This is just that. A minimum. With 450 gallons on board we'd be inclined to leave our speed at 150. Also, we would leave it at 150 if we had a head wind. We'd do this for the same reason that we hold higher speeds when we are cruising into a head wind on a cross-country. We always try to make our approach just a little long, because we can always get rid of excess speed or altitude by diving the aircraft against the flaps and pulling up short of the runway. Speed dissipates rapidly—particularly if the aircraft is flamed out—and if it doesn't, there is always the barrier. Frankly, in an actual emergency, we'd rather engage the net under control at 50 plus knots than to plop in short at 110 or more. TAT couldn't help but wonder why the IP let this troop get so slow . . . particularly since normal power on approach speed for the fuel weight is 135 . . . perhaps he was trying to see how far this kid would go before admitting that his judgment was faulty . . . if so, it's a toss up as to who's judgment was the worst.

While on T-33 flameouts, let's review a TAC major accident that occurred during a low-go from an SFO at a high altitude air base. The aircraft was heavy, with over 450 gallons on board, and the approach was made at 140 knots. On the go, the pilot raised gear and flaps right after getting the throttle forward. The IP in the back seat didn't like the airspeed, which had decreased to 135, took control, payed off altitude, and allowed the aircraft to touchdown—no rollers--major damage.

Once again, heavy weight and marginal speed. But even more important, the pilot made the fundamental mistake of yanking up the gear before the aircraft had started to climb. The IP apparently didn't realize that the gear had

been retracted and let the machine touch down. Had he monitored the cockpit a little closer, he might have been able to complete the go-around without making a touchdown. This isn't easy. You can't see very well from that back seat and you spend a lot of time shifting around hunting for a better view . . . still, one of the things an IP must always do, is anticipate mistakes. This is why he's there!

Just as we were about to go to press, another report came thru featuring an F-84 herder who made like the second T-birder . . . yanked up the rollers on the go from an SFO . . . engine slow to accelerate . . . same tune, just played with a bigger heavier fiddle. SCRAPE!

By the way, a short while back an airline pilot with some 27,111 hours under his belt slid a 707 to an embarrassed halt because he pulled up the gear on a missed approach before the bird was in a positive climb.

O.K., with three examples, you should get the point . . . we just wanted to show you that even qualified people get into trouble when they fail to follow the rules. Check your own habit patterns from time to time . . . you too may have gotten into a dangerous rut in this or some other area.

AFTER MAKING a normal approach and landing, an F-105 pilot pulled . . . PULLED . . . P U L L E D the drag chute handle but nothing happened. He stomped on the binders, blew both tires, called for the barrier, and came to a stop some distance short of the net. Obviously he over-reacted to a failed chute . . . something all pilots must continually guard against when suddenly faced with the unusual or with an emergency. Of course, we have the other side of the coin where an F-105 pilot hit the barrier at about 50 knots with cool brakes after his drag chute fell off. (Cause of the chute loss was not determined.)

Your old TAT has only one suggested cure for this. First, study and know the dash one stopping distance—this will give you an idea of what can be done.

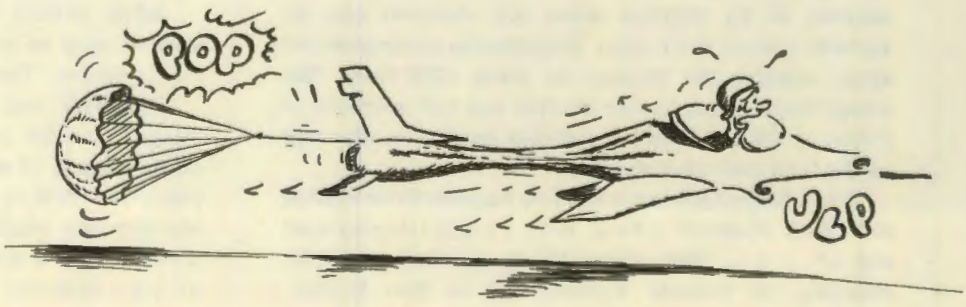
Unfortunately we can't practice max braking with heavy hardware . . . so the best you can do is memorize someone's description of the technique and hope for the best. Try to bring the tires to the point of skidding. Do this with steady even pressure. Don't pump the pedals. Above all, you must stay cool so you can sense a skid. When you do sense a skid, and you will if you are braking correctly, ease off slightly, then come right back with the pressure, because the slower you get the more pressure you can apply without cutting a ply.

If you're flying a bird with anti-skid use steady pressure, and try to keep it just short of cycling. You do this in exactly the same way.

Oh, by the way, on that first F-105 . . . they couldn't find anything wrong. The handle had been pulled, but not far enough to actuate the chute. We understand all pilots have been directed to eat a well-known cereal for breakfast . . . might be better to smooth out the system, though.

THE F-100 DRIVER started his take-off roll at 1944 hours. At 1946 he crawled out of the wreckage, unhurt. Short flight. Looking back, we find he made good his line speed of 126 knots at 2000 feet and was airborne at about 4000 feet. Everything was according to plan until shortly after the gear started retracting at altitude 20 feet. At this time the pilot felt a strong deceleration followed by a milder deceleration. The machine staggered for some 3000 feet while he analyzed the problem and made up his mind to abort. The aircraft then hit tail hook first and slid to a halt just short of the barrier.

Quite a few people watched the takeoff and for once all agreed on what they saw. Just after the gear started up, the drag chute deployed which very neatly accounted for the deceleration. The reason for deployment was never determined. The pilot's analysis of the difficulty was incomplete—even though the mobile controller transmitted a call regarding the drag chute. The whole affair started and ended in just a few short busy moments, and this pilot undoubtedly was concentrating too hard for Mobile's message to register. On his abort, he planned to put the gear down, but pulled the drag chute handle... At least the drag chute handle was full aft, and the gear handle was up. We are not writing to criticize this pilot because we have no assurance that our reaction would have been much better. We do think you drivers should know that it is possible for a chute to deploy during takeoff and with this knowledge stored under your hard hat, perhaps you can save the hardware should it happen to you.



GUARD CHANNEL sure has been getting popular lately—it has gotten to the point where we'd be inclined to use the normal tower channel to declare an emergency . . . except hardly anyone would be listening to it. There isn't much excuse for this. Most of the chatter seems to come from ground stations trying to contact someone with a bum radio. This is rather pointless, since there is a back-up channel they are supposed to use and if their radio is out on one channel it's probably out on guard, too. Perhaps us drivers are indirectly at fault for not always going to this back-up frequency when we fail to make contact on an assigned one.

It doesn't always work. We had a ground station bleat up a storm trying to call us on our last cross-country. We'd had contact, but apparently something went wrong with our transmitter. They called, we answered, they called . . . etc. Finally they called us on Guard and requested we respond on Guard. We didn't, we went to the back-up channel, got a hold of 'em after two calls and then advised 'em quite coldly that we had heard their call on guard but refused to answer back on that channel because it is supposedly reserved for emergency use and we didn't consider ourself to be experiencing an emergency.

No reply.

Another troop was telling us that an approach controller gave him 243.0 as a frequency to work GCA. He refused, stating that this was guard channel, and asked for another. They replied that GCA's regular radio was out and that this was the channel GCA gave them. He remained stubborn and they managed to dredge up another channel for him. Proving that they really didn't need to use guard after all. Us aviating types can stop this abuse by refusing to answer back on guard, and by submitting a hazard report against those who do abuse it. After all, it's to our advantage. One of us will be doing the heavy sweating when an actual emergency takes place . . . unless some of those controllers suddenly find their chairs sprouting wings.

WORKING INSTRUMENTS on a VOR station, VFR on top at 275, a TAC crew was turning from 68 degrees to 25 degrees when the observer saw an airliner headed their way. He pulled up and chandelled away, missing the airliner by about 1000 feet. The troops were under Center control and had been told of traffic at 290 but didn't remember getting an advisory on the bird they almost hit.

The station they were working happens to be located on a well traveled airway near a large international airport . . . They were being exposed to traffic climbing to enroute altitude and to thru traffic. Everything considered, it wasn't the best place over earth to practice instruments even tho they'd checked in with the Center and were observing proper separation altitude.

Remember, the centers are not required to give traffic advisories, they give them as a sort of ground-to-air super service . . . if they happen to get right busy they are going to do the same thing your neighborhood super service station operator does when he's swamped with customers . . . . In short, you can't expect them to advise you of all traffic, so if at all possible do your practicing where there is no traffic.

ONCE UPON A TIME a pilot took a proficiency and standardization check in a Tee three three. While cruising at flight level 310 he got into a discussion with the IP in the aft seat on what effect an electrical failure would have on fuel and oil pressure instruments. To settle a point of contention, the pilot turned off the battery generator switch, checked the gauge readings and returned the switch to normal. He then requested permission to try the gang start switch and was told to go ahead. Apparently, the IP liked to experiment too. Anyway, the pilot retarded the power to 90% and hit the switch . . . no Junior, he didn't flame out. That happened when he tried to return to the normal system.

As the old mill unwound thru 50%, the IP told our hero to try the gang start switch. This and the next pair of trys (all were above 25,000 feet) induced no response from the engine. Turning toward the nearest airpatch, which had scattered clouds with four miles visibility, the pilot tried about ten more air starts using the gang start, manual and automatic procedures. No light, ten times.

Pawing frost off the canopy, peering through the murk, this pair descended to about 2500 feet before they realized that what they thought was the airpatch wasn't.

Up came the handles. "Bang!" went the initiator . . . but the canopy remained firmly attached to the machine. Seems someone had not connected a flex line in the canopy jettison system. Incidentally, this particular connection is an item on the maintenance preflight check.

After getting rid of the lid manually, the pilot ejected only to have his chute tangle in the seat and fail to deploy. The IP made it O.K.

Old TAT has long been curious about several things . . . for instance, we've often wondered what would happen if we suddenly turned off the fuselage pump in a T-Bird above FL 360. We've also wondered whether we could complete a loop starting at 200 knots, drink a stein of beer without pausing for air, or what happens after death. Obviously, since we're

still sober and here, we've managed to live with some of this curiosity . . . and we whole heartedly recommend that you learn to do the same. After all, we are not test pilots. It isn't our business to experiment . . . what we need to know along such lines can usually be found by reading the handbook.

Experience is not always the best teacher, mainly because you don't always survive the lesson!

We also have a few short, terse words regarding the quality of the maintenance and maintenance preflight . . . unfortunately none of them are printable.

The reason the pilot's chute got all wrapped up in his seat was not fully determined . . . off hand we'd guess that his chute was deployed prior to the lap belt opening. The zero lanyard was connected, the belt had separated automatically, and both the chute automatic release and "D" ring were pulled.

AN F-104 PILOT from another command felt his missile trying to roll to the right during a touch-and-go-landing. Thinking he'd either blown a tire or was having a boundary layer control malfunction, he tried to raise flaps to take-off position . . . but . . . raised the gear handle instead. You can guess the rest. A four-knot crosswind from the right apparently caused the rolling sensation.

This is an oldie caused by inattention or by a too hasty reaction. It has been our experience that more pilots have gotten into trouble reacting too fast to a possible hazard than reacting too slowly. Reckon they swallowed that old hog wash about pilots needing keen sight and quick reflexes . . . now where did we put our glasses??

THEY TELL US that the F-105 canopy is made of acrylic glass, which is right tough stuff. So tough, that the safety troops out at Republic don't think a pilot could survive an ejection through it. They tried to get a test program set up to find out for sure--no volunteers?--, but were turned down. They did get the dash one amended to delete the statement saying that an ejection could be made through the canopy. They were still worried. The more they looked into the problem the more certain they were that a through-the-canopy ejection would be fatal. As a result, the AMA was asked to furnish pilots with this information. Interim Safety or Flight Supplement, T.O. 1F-105B-SF-1-40 gives the AMA's ungarbled word. We'll quote it for you. "The canopy material used on the F-105 does not possess the tendency to shatter when struck with an object in the manner that the molded type canopy does. Each portion of the seat and ejectee may have to dislodge portions of canopy when passing through. This inherent toughness of the canopy presents an additional hazard when ejecting through . . . "

The T.O. then adds a warning to the ejection procedure, stating not to eject through the canopy unless all methods of removing it have been tried and have failed.

From where your old TAT sits, it looks like it would be considerably harder to punch out between those chunks of plastic than it would be to read between the lines of this supplement. In short, a through-the-canopy ejection in the F-105 is strictly a NO-GO show, at least until we find out differently.

TAT NOTICED a short terse report on a flight that was apparently somewhat more than uneventful. The pilot, from a command which has long stressed professionalism, filed for 2 plus 22 enroute with 2 plus 50 push water. ETA at a TAC base was for 1538 local. This was revised enroute to 1548. At 1551 the pilot declared emergency fuel with about 500 pounds remaining. At 1556 the pilot cancelled his IFR clearance. Four minutes later he landed at the TAC base with 140 pounds of fuel on board.

When he declared emergency fuel, this pilot was directly over another airpatch sporting 7500 feet of concrete (plenty of runway for his bird) with a wide variety of letdowns available and field grade weather. His destination had good weather too, but it was some 46 miles away.

Total flight time was 3:01, 11 minutes over his "total fuel on board" . . . and he was exactly 39 minutes late. Seems he'd been counting on friendly winds and they got tired. Had he flamed out and slid in a wee might short, this would have made a rather sickly excuse, particularly considering that us professionals are supposed to continually monitor flight progress and should go into the closest suitable field should forecast winds deplete fuel to a critical state . . . but then there are some few who never seem to get the word, neh?

People look at things differently, and the above photo is a good example. To many, it is simply a picture of some rocks, nails, and other bits and pieces. The average safety officer would immediately recognize these as debris collected from a ramp or taxiway.

Actually there is a lot more to it than that. This picture represents an aggressive, positive approach to Flying Safety. These bits and pieces were picked up by a seven-level aircraft maintenance man who works in the Flight Safety section at one of TAC's busiest bases. He collected them during one of his frequent walks around the ramp and taxiways. He is TSgt Richard J. Walsh who is assigned to the Flight Safety Section at Nellis AFB. To him, these tell an even more significant story.

The nails were found in and around the aircraft dearming area. Instead of being content with just picking them up, Sgt Walsh hunted for their source. He soon learned that they were coming out of wooden ammo boxes which were being used to collect ammunition links from aircraft being de-armed following gunnery missions. Metal cans are now being used, and the nails are no longer a problem.

Sharp edged rocks in the photo are pieces that chipped off the ramp. A certain amount of this is normal, but often it indicates an early need for ramp repair. The rocks with worn edges were traced to a different source. They were being carried onto the taxiway by drag chutes whipping over the edge of the taxiway when aircraft were turned off the runway. As a result, this area was stabilized and another hazard eliminated.

The ramp check is just one of the many things Sgt Walsh does. Incidentally, the reason he makes this check is because earlier visits to the engine and tire shops--plus a review of data collection--indicated a foreign object damage problem. In typical fashion, he traced the difficulty to its source and initiated this aggressive program to correct it and keep it corrected.

He furnishes much technical knowledge needed for both accident investigations and the accident prevention program. He maintains a T.O. file for the safety office, keeps tab on all UR's sent from the base, and keeps copies of pertinent UR's submitted by other bases. He handles the unusual occurrence file and monitors all aborts and emergency landings, screening the records on many of these aircraft looking for the cause behind the cause. He usually finds

T/Sgt Richard J. Walsh
4520th Combat Crew Training Wing

A STITCH IN TIME

it, since he has trained himself to look for the little things that have a tendency to spoil the big picture.

When screening records, he continually looks for improper use of symbols, specifically red cross discrepancies posted in the forms under a red diagonal. This is important because such items will not receive a proper inspection and could result in an inflight emergency. The emphasis that Sgt Walsh has placed on this area has greatly reduced this problem.

He continually looks for repeat discrepancies. For example, he found an F-100 that had been written up several times for a gear shimmy. When he brought it to the attention of maintenance personnel, they found that the complete gear system needed to be rehabilitated.

Last but not least, Sgt Walsh is able to look at all problems from both the viewpoint of a safety specialist and a maintenance man. This gives him an unusual perspective which has proven quite valuable.

How effective has he been? The answer is at least partially indicated by the accident rate . . . The number of maintenance and materiel factor accidents has dropped a noticeable amount since he started to work for the safety section. This was not done single-handed, of course, because the sergeant can only observe and recommend, then it is up to the supervisors and working troops to carry the ball.

a stitch in time

MAINTENANCE MANAGEMENT

Equipment Reliability and Safety—real solid, satisfying words, but they don't count for much unless they are backed up by effective maintenance.

Design reliability, good as it is, cannot assure us of the operational dependability required for mission accomplishment in this aerospace age. Effective maintenance is required to produce the reliability we need and no amount of design ingenuity can take the place of the care required to maintain this equipment.

The increased complexity of our equipment intensifies the maintenance problems to such a degree that they can only be effectively overcome by the application of a sound system for effective management. In fact, there is no other field of endeavor where it is more obvious that we must have a system which will insure sound planning and programming of the limited resources available if we are to maintain the proper standards. (Such a system is outlined in AFM 66-1.)

Safety, like maintenance, is a complex problem for which there is no single answer and while effective maintenance management will not guarantee complete safety, ineffective maintenance management will assuredly produce accidents, possible fatalities, and loss of combat effectiveness.

In short, it cannot be overly emphasized that attainment of safety and combat effectiveness must begin in the maintenance shop and that without reliable equipment safety is only an illusion and sustained combat effectiveness a farce.

HENRY H. WALLER, JR.
Colonel, USAF
Deputy for Materiel
Headquarters Ninth Air Force

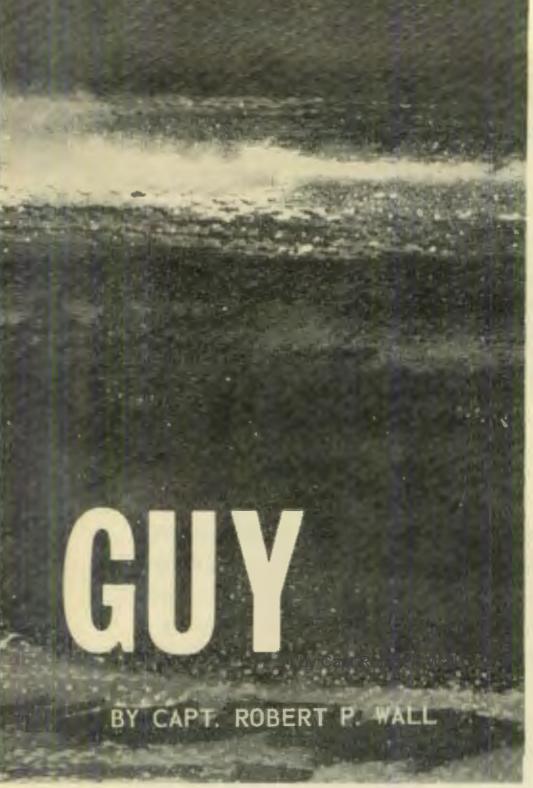
IT ALWAYS HAPPENS TO THE OTHER

Captain Wall is a T-33 instructor pilot and 60-3 check pilot of considerable experience, with a reputation for being a competent professional pilot. He also teaches 60-3 ground school and as he put it, "I'm supposed to know what I'm doing."

In the following article Captain Wall gives a frank account of a recent T-33 flight he made that ended with an ejection and crash. We believe you will find his self analysis of this flight both interesting and informative.

HAVE YOU EVER WONDERED how not to advance your position in the Air Force and still gain a certain amount of notoriety. It's really quite simple. The first requirement is to be the pilot of an aircraft many miles from home returning from a cross-country flight. After you launch, press on until the engine quits and when it gets real quiet, just squeeze the "get-out-fast" triggers and let her go. When the bird touches the ground at a point other than the designated airpatch you've got it made. I can guarantee that you will be well-known before your feet ever touch the ground. Let me tell you how I came into prominence following this method.

We took off in a T-bird from an East coast base about noon one Sunday for our home base in the West. We planned to make only one intermediate stop. I was the aircraft commander and was riding in the back seat with a buddy of mine in the front. The first leg was completed without incident, except our radio seemed a little weak on the receiving end. It was Sunday afternoon and we thought that perhaps the centers had their



GUY

BY CAPT. ROBERT P. WALL

radios turned down. No sweat, press on!

We had a refueling delay at our intermediate stop so had plenty of time to plan the next and last leg—a distance of 990 nautical miles. This was our first mistake, let's face it. The book says you can fly that far and farther—no sweat, but we had a forecast head wind of 40 knots. The book still says you can make it with just enough fuel to be legal. And why make three flights when two will do? That T-bird seat gets pretty hard, and besides we wanted to get home as fast as possible. We estimated our flight time enroute to be 2:45 with 110 gallons of fuel remaining at destination. That's plenty. Our fuel on board was listed as 3:10. Using just a little smarts anyone can figure out that we would have only five minutes of legal flying time to play with since we needed twenty minutes of fuel reserve for a IFR-VFR on Top flight plan, no alternate required.

We launched and leveled at FL 360 without incident, but at our first reporting point we were six minutes late. We must've fouled up our climb schedule. A little smarts here would've shown that we were now in violation of AFR 60-16 fuel reserve requirements, i.e., 20 minutes at destination fix. There weren't too many smarts out that Sunday afternoon though. We attempted to give a position report but it seemed that the guys on the ground were goofing off. No problem, we'd just contact the next station.

"Hey, shouldn't we be over our next reporting point by now.?"

"Yeah, we must be dragging our feet a little. Guess we'll be a little late." Sure enough we were late again. The Center was sleeping there too and we had to give our position report to the radio station.

At the third reporting point we were fourteen minutes late and had been airborne for 2:21. We thought about landing at the Duncan-Hienz recommended stop there, but decided to continue on since home wasn't far away. It'd be close, but it looked like we'd have about 100 gallons on arrival. Let's see, we planned for 45 minutes from here home. Better change that to 50. (We didn't find out until later that we had average head winds of about 85 knots for the entire flight.)

Shortly thereafter our main wing tanks ran dry. The leading edge tanks burned for about 20 minutes. Real strange. About 100 miles short of home we were suddenly on our fuselage tank. Well, we should be able to glide home without any fuel and we had 95 gallons. No sweat . . . at least not much. We started a power let-down, and at 3000 feet above the ground had zero fuel indicated. We squawked emergency, and then it got awfully, awfully quiet. We both ejected safely although I had considerable trouble locating the trigger.

I was oscillating severely in the chute during the descent and struck the side of a very rocky ravine. It was almost dark and I didn't dare move for fear of sliding down the steep slope. I rolled up in my parachute for warmth. It was 35 degrees that night and all I had on was a summer flying suit. It started raining at about 2300 and continued all night. Believe me until you've tried this trick, you don't know what cold is.

The next morning I started walking with some difficulty. I had sprained my ankle when I crashed against the rocks during landing. An extensive air search had been initiated at about 1000 hours and I was located in a farmyard about 1500 that afternoon.

What happened? It doesn't take a genius to figure it out. We were late at each check point and we were over an excellent Air Force base after being airborne 2:21. 50 minutes yet to go would make airborne time 3:10—exactly our estimated total fuel on board. How about a ground speed check? We goofed . . . we made precisely none. Why didn't we check our total time airborne? Why didn't we have survival equipment? Why did I leave my chute? Why didn't I build the fire rescuers were looking for? YOU TELL ME.

I have been flying fighters for seven years, mostly F-100; without an accident or incident of any kind. A perfect record. With all that F-100 time how could I have an accident in a simple old T-bird? The lack of humility may be the answer. It can cause a man to become over-confident, cocky, and impervious to fault. I had lost this very necessary attribute. I had become too big for my shoes.

Take it from me; this is not the way to become famous, infamous or notorious. You say things like this never happen to you—they always happen to the other guy. Well I was the other guy. If you feel that you are above making a boo boo like this, you'd better keep out of airplanes because you might be the other guy the next time.

INCIDENT REPORTING.

When you report an engine failure or flameout with the abbreviated incident report format, you can help the AMA help you by giving some additional information. These people need the engine serial number, type, model, time on engine, overhaul agency . . . in other words, give the data required by Attachment 2 to AFR 62-14B . . . eventually DIG/Safety will resolve this by changing the requirement. Meanwhile, you can save yourself some answering by furnishing the desired info even though it exceeds that required.

BAD APPLES.

We become increasingly dismayed when we find the maintenance ranks infiltrated by people who are not aviation mechanics. We are not referring to beginners or apprentices or to experienced workers who have neglected to obtain their certificates. Neither do we mean the specialists who cannot meet the varied demands made on the mechanic. We refer explicitly to the men who draw mechanic's pay for mechanic's work but who do not think as mechanics, or work as mechanics, the men in the hangar or on the line who lack the character and integrity that make the true mechanic a justly proud and respected citizen.

We are aghast because these people are endangering lives and equipment through their sheer indifference. We are apprehensive because they appear to successfully hoodwink supervision. We are dismayed because they are damaging the fine reputation of the craft and the honest craftsman.

Fortunately, these rotten apples are few in number. They come about one to the barrel. But few as they are, they are more than either we or the industry can afford. We can survive them only by the grace of God and because of good inspections which discover and nullify most of their mistakes. Let's cull them out--or convert them to our way of work.

Let's be intolerant--extremely intolerant--not of people but of wrong attitudes and poor workmanship. Let's show our distaste and disdain for carelessness, and our scorn for indifference and dishonesty. Let's make it uncomfortable for the man who tightens a leaking oil line with 9/16 rag and frees a binding control with a pencil. Let it be known that the supervisor who "buys' or encourages an unsafe repair has been recognized and is expendable. These people must change--or leave for jobs where their methods will endanger neither lives nor reputations.

—FSF Avn Mech Bulletin

COMPASS TROUBLE.

Have been having trouble compensating compasses on the F/RF-101 birds? Here's a possible solution.

Several cases of persistent compass error which could not be compensated, even though the compensator was replaced, were traced to magnetism in the hydraulic hoses to the stabilator power cylinder and pusher cylinder. When these hoses are magnetized the compass is accurate on north-south headings, but not east-west.

You can easily correct this condition by removing the hoses and passing them through a depolarizing coil. You can find one on a Magnaflux machine. Do not use a hand degausser without removing the hoses from the airplane, since this will foul up the compass transmitter.

The cause of magnetism in the hoses is something of a mystery. Possibly it is caused by lightning, static electricity, or by residual magnetism left from a previous Magnaflux inspection. The only DC current in the area is in the pusher solenoid circuit, and this does not seem strong enough to have much effect. Regardless of what causes the magnetism, it will pay to check for its presence when investigating compass trouble.

If you suspect this condition, check for it with a hand compass. An inexpensive one is adequate, in fact, a cheap compass is better than a high-quality one since the needle is not damped and is more sensitive to small attractions.

ALMOST GROUNDED.

A navy troop tried to fill his cigarette lighter while a crew chief was draining the rear sump on the Navy's version of the gooney bird. Much to everyone's surprise, the fuel immediately caught fire. It took two 5-pound CO_2 bottles to put it out. No one was hurt and the bird wasn't damaged . . . but it was close.

The static discharge line was resting on a few inches of snow instead of the ramp. Investigators decided that static electricity must have discharged between the aircraft and the man with the lighter.

Maintenance men should insure static discharge lines are grounded before they do anything with fuel . . . and no one should fill his lighter from an aircraft. It's too dangerous and lighter fluid is too cheap.

KB-50 QUICK ENGINE CHANGE KITS.

Lear Incorporated, out at Ardmore, Oklahoma, has been awarded a contract to overhaul 85 KB-50 QEC Kits for TAC birds. In addition, ten kits have been removed from storage at Tucson, Arizona, and will be sent to TAC after being overhauled. At this writing, thirty kits have been sent to Lear, and at a rate of ten per month, the contract should be completed by June.

B-57 STARTER.

The MC-2 starter cartridge doesn't always work according to plan. Instead of burning slowly and starting the engine, they have been known to go at once, sending parts and pieces of the starter several hundred yards. This has happened three times to date, and might happen again, so DON'T USE THE MC-2 to start the B-57, except in an emergency. If you do have to use an MC-2, keep everyone out of the area that doesn't have to be on hand during the start-up and alert fire fighting equipment.

BLACK ALERT.

An unusual incident occurred when a starling flew into a hangar with a lighted cigarette butt in its beak and dropped it on the hangar floor (no doubt startled by the No-Smoking signs). This incident could have been serious had the lighted cigarette fallen into something flammable. Recommend that: Selling cigarettes to birds (starlings, black) be discontinued; the Personnel Officer procure twelve cats (alley, sure-footed) on an indefinite loan for the purpose of stalking down the birds, and that personnel be rebriefed on the importance of field stripping cigarettes before discarding them.

QUALITY CONTROL.

The people in Quality Control have reason to be proud of their craft. It is established and recognized and it has achieved a remarkable record of success. Its long fingers poke into purchasing, design, manufacture, assembly, maintenance, servicing, fuel storage and handling. It has become one of the influential branches of our very complex business. But there is another quality control that is even more important. It is written as a single word, "integrity."

Quality Control is concerned primarily with material things and how they meet specifications. Integrity controls the things of the head and the heart. Quality Control may dictate when work should be performed, but integrity governs the quality of the work itself. It compels a man to do his very best.

Quality Control places responsibility. Integrity determines the acceptance of responsibility. It does not permit a mechanic to let down the supervisor who trusted him, or booby trap the man who will take over the job at the end of the shift, or betray the crew that will fly the airplane.

Good housekeeping and safe work practices are demanded by Quality Control, but they are the children of integrity, for the principled man takes practical steps to see that his job does not burn down and that his fellow-workers are not endangered. It can be said that integrity is quality control of one's self. Fortunately, it is in plentiful supply as the common denominator of the aircraft mechanic.

—FSF Avn Mech Bulletin

C-130 RASH RAFTS.

After three more life rafts were lost, WRAMA engineers developed and bought an improved vacuum pump to get all trapped air out of the rafts when they are repacked. These pumps were sent to Sewart and Dyess on 4 November. Not content, they designed a vent valve to allow CO_2 leakage or trapped air to escape as long as the CO_2 cylinder has not been actuated. When it is actuated the vent valve is closed, permitting the 20-man raft to inflate. Testing was completed early in December and a TCTO should be out shortly.

Just in case this didn't solve the problem, a strap arrangement was dreamed up which is supposed to keep the raft in the compartment until it is needed. This is a field TCTO requiring about 50 man-hours and you should have the kits before this is off the press.

These fixes should stop the boats from falling out in flight . . . . provided your maintenance people follow thru and repack them correctly and follow all the established procedures.

THE OLD SARGE knocked the ashes out of the new corn cob pipe and glared at it before shoving it in his pocket. He wondered just how long it would take before it tasted and felt as good as the old one. Even then it wasn't as bad as the expensive metal and briar affair his kids gave him for Christmas. He shuddered; between it and the mild sick-sweet smelling tobacco his wife had given him, he'd just about quit smoking at home. It'd got so that he'd take a walk whenever he wanted to smoke . . . . . even tho the new corn cob wasn't as good as the old.

Arriving at the hydraulic shop, he stomped the snow off his feet before going into the heat of the office.

"Hi," a white-haired Master Sergeant said, his pale grey eyes peering over heavy framed glasses perched just below the bridge of his rather large nose. "You slumming again?"

The Old Sarge grinned, shoved some papers to one side and sat on the corner of the Master Sergeant's desk. "George, when are you ever going to clean up this cotton pickin' desk. It looks like a turkey roost."

"Aah, you're a fine one to be talking. With the clutter on yours, you couldn't find the telephone and had to come over here to spoil my whole day."

The Old Sarge snorted, "So! I've a spy in my office. You know why I'm here."

"Trouble, of course."

The Old Sarge nodded. "Nickle Four Duce, that clunker that we picked up a short while back. You fixed the nose gear uplock assembly and it didn't stay fixed. Drooled some of your nasty fluid all over my clean ramp. We sent it back and if my timing is correct, we should be able to catch your man reassembling it . . . . . that is if you'll get unglued from that soft chair."

A look of immediate interest flickered thru the pale grey eyes. "Nag, nag, nag. My good clean fluid spilled on your filthy ramp. Your story is enough to make me ill. Where the thunder's my glasses?"

"I haven't the slightest idea," said the Old Sarge.

A short time later, the two were apparently lost in idle conversation, holding half filled coffee mugs by the doorway of the hydraulic shop. After a bit, the Old Sarge nodded his head towards the bench where a young Airman Second was starting to install an O-ring. George glanced at the Airman and walked over to the bench. Very quietly he asked, "Harold, did you check the T.O. on that before you started?"

"Ah . . . . . well, I ah, I checked it the last time I installed one."

"You make sure of the part number for the O-ring?"

"Oh yes sir," more brightly, "I compared it with the old ring."

"Oh?" George peered over his glasses again, "Did you check it against the part number listed in the T.O.?"

"Well, ahh, no sir I didn't."

"I think you'd better . . . . . and . . . . . when you're looking it up, read the assembly instructions. I think you'll find that you're supposed to cover the threads with cellophane tape before running the O-ring over them." His voice remained gentle with a note of firmness in it. "If you'd checked the T.O. last Wednesday, you wouldn't be working on this assembly again. It's the same one. Don't ever trust to memory . . . . . use the T.O., you'll save time in the long run. I see you did use some of the fluid from the system it'll be working in to lubricate the ring before trying to install it. And you did check to make sure it wasn't twisted. But, besides running it

over the unprotected threads, which could nick it and make it leak, you had to stretch it quite a bit. That's why I'm certain you have the wrong size ring. Do you understand?"

"Yes sir."

"One thing more, don't call me 'sir'. Save that for officers and decrepit types like my friend here, the Old Sarge."

MISSILES

and Munitions

ATTENTION AIR MUNITIONS SAFETY OFFICERS!

Flight Surgeons and Medical Officers are expected to evaluate personnel who work with or around nuclear weapons. Guidance on the importance and intent of this evaluation is given in Chapter 7 of AFM 122-1, but there's a couple of hitches. The manual is SECRET and the Medics aren't on distribution. Give the Ole Doc a hand and see that he gets a chance to study this chapter.

HOT STICK.

On a routine proficiency flight, a T-33 pilot accidently depressed the bomb release button on the control stick . . . off went the tips. The rear cockpit was set up for use of the bomb release; however, the system was supposedly deactivated by T.O. 1T-33A-557. Records on the aircraft did not indicate noncompliance. The records are important and it is imperative that they reflect the true configuration and status of an aircraft. This goof might have gone undiscovered for years had this aircrew followed proper published procedures.

THE FLIGHT OF THE MACE A.

The sun highlights the scurrying activity on the desert floor. The feeling of tenseness is a tangible thing. The time stands at X minus 60 and counting. From the cement block house, anxious eyes scan the smooth flowing operation.

After a while, the silence is split by the thunderous roar of a jet engine. The bird sitting on its launcher seems to take on a life of its own. Blowing sand causes a local dust storm and the banshee wail of the engine increases as full power is applied. Finally, the noise is punctuated by a resounding blast as the rocket motor is fired. The missile roars from its launching pad, leaving a sudden silence. All heads turn to watch the flight, chase aircraft begin their reports and radar operators watch the missile flight throughout its programmed course. The mission itself is soon complete and recovery takes control. Commands are sent to the electronic brain and among other things, chutes are deployed and the bird begins its descent. As it nears the ground, pillows inflate to absorb the landing shock . . . and another TM-76A Mace has flown its training mission and has been recovered to fly again.

WHO FIRED THAT SHOT?

Our problem with cartridges is not that they don't work, it's that they sometimes work when we don't want them to. It only takes a little electricity to fire a cartridge, and for one reason or another there always seems to be plenty. Safety is built in if "no voltage" checks are accomplished, but sometimes in the rush and fuss to get the mission off, the "no voltage" checks are missed or are only half done. Next, someone forgets to install the ground safety pin and the result is like death and taxes . . . inevitable. All that's left is picking up the pieces and writing the report. Inadvertent releases might not fade away, but we can certainly get them out of the spot light by following Regs, SOPs and Tech Orders to the letter. Supervisors . . . how about some supervision in this area?

F-105 ARMAMENT PANEL MICRODIALS.

Too many people are bumping into the armament panel when they get in and out of the F-105. They damage the microdials used to set burst height, IP range and IP bearing, then gears and cams jam and when some impatient pilot or maintenance man tries to set the dial, it doesn't turn, so he forces it and strips the teflon gears. Eventually, these indicators will have brass gears .... meanwhile, we're running out of available replacements. So use a little caution when you crawl in or out of the cockpit . . . and don't force one of these dials if you find it hard to turn.

TAC TIPS

WATCH WINTER WEATHER.

January is here and our annual campaign against Jack Frost should be in full swing, but with the holiday season just behind us it might be a good idea to review the pilots' cold weather check list. Your review could start with these items:

* Instrument flying proficiency.
* Use of personal and survival equipment .
* Operation of aircraft anti-ice and de-ice systems.
* Notams for airfield and facilities status.
* Cold weather procedures in the flight manual.
* Winter weather phenomena such as fronts, fog, icing, etc.

WHO'S LOST?

The distinction of being the world's most angry navigator can be credited to a MATS navigator who was navigating his favorite commander (a B/G type). After having flown for six hours in weather he discovered a small typographical error on his map . . . (The 29 degree magnetic variation was labled "West" instead of "East" . . .) His classic remark is one of the most concise, realistic and descriptive set of words that can't possibly be put into print.

—ATC Navigator

PERILOUS PASSENGERS.

Too frequently, accidents or near accidents are caused because loose objects are left in aircraft after maintenance has been performed. The most recent involved a T-33 and an F-100. Both crashed after the flight controls locked in flight. Investigators in both instances found wrenches lodged in or near the flight control systems. Maintenance personnel should be continually cautioned about this hazard and impressed with the need for making a careful inspection after completing their work. A positive hand tool inventory is another good precautionary measure.

PRACTICE MAKES PERFECT.

Units that manage to keep a tight lid on their aircraft accidents usually have more than their share of trouble when they do break an aircraft. Crash crews will be slow to respond, board members will have transferred out or will stand around wondering what to do, pertinent agencies will not be notified of the crash and other glaring holes will appear in the accident plan.

Fortunately, all of this can be avoided without having an actual aircraft accident. Instead, about every three months an aircraft accident can be simulated.

To provide realism, an actual aircraft and crew should be selected from the flight schedule. After the aircraft lands from its normal mission, the tower should be advised that the aircraft is to be a simulated crash victim. The tower then requests the pilot to taxi clear of the runway and hold. The crash alarm is sounded and the exercise commenced. Crash equipment is dispatched, the investigating board assembled, aircraft and aircrews records impounded and screened . . . in short, everything is done that can be done without actually wrecking an aircraft. In addition to highlighting problems in the accident plan, the records screening will also locate weak spots in maintenance and aircrew training.

PSYCHOLOGICAL SCIENCE

Got a problem? Have things on your mind? If so, take care of 'em before you take off on that flight. Frustration, worry or anxiety can cause various reactions when the stress of an emergency is added to them. These can range from intense panic to complete disregard for the potential danger. Neither extreme is conducive to safe flight. Most poor mental attitudes are temporary and are caused by fatigue, an accumulation of worries or a conflict of opinions. Such complaints hardly merit formal psychiatric diagnosis, yet can be distracting enough to cause difficulty. So if you know your attitude is poor, stay out of that airplane or change your attitude.

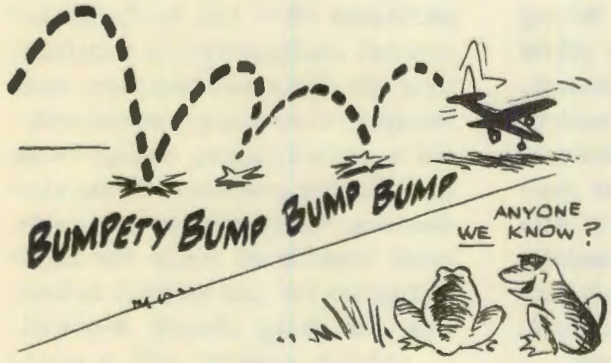
TACTICAL JET MISSION PLANNING.

Some of our unit's don't give their troops sufficient time to properly plan tactical missions. For example, briefing will start at 0700 for an 0800 takeoff. Obviously, something has to give. Usually it will be mission planning or the aircraft preflight. Neither condition is conducive to long life or successful mission accomplishment.

Should this condition induce an accident, the pilot usually picks up the tab because he made the last mistake. Actually, poor management from supervisors started the ball rolling. Commanders should review their present procedures to make certain enough time is allocated for proper planning. Good management here will result in better training and fewer accidents.

CARELESS BIRD.

The report stated that the aircraft taxied into an upright 100-pound fire extinguisher, breaking the glass on the guidance and control unit of a sidewinder slung on the aircraft. Someone taxied the aircraft and someone left the extinguisher in the immediate area where it was a hazard . . . the aircraft can hardly be to blame . . . must have been the two people involved. The rules of the game are well-spelled out in AFR 62-10 and T.O. 1-1-309, follow them.



CONFESSIONS OF A HOG HERDER.

On landing I was engrossed with traffic and went thru the motions of checking gear down, etc. Turning from base to final the aircraft began to shudder as if close to a stall although my turn was not unusually tight. I was losing altitude too. Instead of shallowing out and going around, I ended up S-turning onto final somewhat lower than usual. The reason should have been evident. Although I had moved the flap handle toward the down position, I didn't get it fully down and it slipped back to neutral . . . no flaps . . . Yep! The landing was a gasser, too--Ugh!

—166 TFS Pilot's Home Companion

PITOT STATIC.

Good news for F-104 pilots. SAAMA has requested an Engineering Change Proposal to install a compensated pitot static head on all series F-104's. This change will practically eliminate the altimeter position error in the subsonic speed range . . . and should help end the controversy over which way to apply correction data.

GUESS WHO.

During a practice instrument mission in a T-33, two pilots experienced smoke in the cockpit, observed both fire warning lights on and noticed oil pressure headed toward zero. After the pilot up front stop-cocked the engine, he ordered the other to eject. The aft pilot shoved the hood full forward and raised the arm rest. From then on he completed his work in the dark, since the hood blew off and draped itself over his head.

He was able to remove it after the ejection and chute opening sequence was completed . . . while floating down. Meanwhile, his companion found a field and made a successful flame-out landing. Moral: Stow the hood aft, should you have to eject from the rear seat.

OOPS! WRONG NUMBER.

Our apologies to the 113th TFW. The TAC TALLY for October gave them credit for two F-84 accidents, and they don't even fly the machine. The accidents should have been posted in the next column under the 108th TFW. Sorry!

While at it, the November Tac Tally should have credited the 459th TCW with a Major, conventional . . . the 514th TCW mishap was classified as "Minor" . . . we'll get the regular crew chief to work on the Tally from now on out.

SAFETY

IT IS SURPRISING how much one man can accomplish once he sets his mind to it. This is particularly noticeable in the accident prevention business where quite often a determined Captain or Major can practically eliminate a hazard within a wing. This happened some time ago at one TAC F-100 base with regard to tire failures.

Nine times during the course of a year, F-100's from this particular base blew a tire during take-off. Eight times, the pilots successfully handled the failure, keeping the aircraft under control and preventing additional damage. This was not easy. It took considerable skill and not just a little luck. This fact became painfully apparent when the ninth tire failed.

The pilot was well experienced, an old head and plenty sharp . . . but the aircraft configuration, speed and weight were all critical at the time of failure. The pilot had two choices, both poor. He could abort and hope for a good barrier engagement, or he could continue the takeoff and attempt to get airborne. He chose the latter, failed to make it, and died in the crash.

A Captain, who had just recently been made the Flight Safety Officer, had been scheduled to fly this particular mission in this particular aircraft. A last minute change had resulted in a good friend of his taking the mission. He had flown with this friend and knew his skill. To the Captain, this accident emphasized the critical nature of tire failures and he decided to do what he could to stop them.

He had faith in the point system and in existing procedures. He also knew that due to last minute changes in missions, maintenance personnel often had to change the aircraft configuration in minimum time. He suspected that many such changes were accomplished without a corresponding change being made in tire pressure. He had also observed badly worn tires on aircraft considered ready for flight and suspected that the point system was not being closely followed.

Arming himself with a newly calibrated tire gauge he started checking records and tire pressures on aircraft released as ready for flight. He found many that had improperly inflated tires and he found tires that had accumulated excessive points.

He talked to supervisors. He pointed out hazards and opened some eyes. But he didn't stop there. He initiated an extensive FOD control program, doing everything possible to cut down on rocks and

CRUSADE

trash that could damage tires. He followed up on both programs again and again until people started to shape up.

Tire failures became a thing of the past. During the last year, this base had no tire failures even though considerable hours were flown . . . all because one dedicated man virtually forced people to follow procedures they should have been following all along. He should not have to do this. But he did.

There are many similar areas in the Air Force where adequate guidance exists, but where for one reason or another it is not completely followed. These areas are not limited to maintenance—they extend across the board. In operations, in supply, everywhere. No one man can locate and put emphasis on each of them. Nor can an individual hope to find those which create an accident potential. Yet very often this is precisely what base personnel expect from their Flight Safety Officer.

A good safety officer attempts to do just this. He tries to find problem areas, call attention to them and make certain that they are corrected. In essence, he is attempting to correct the shortcomings of every key supervisor on the base. Because, basically, each supervisor is responsible for seeing that those under him follow existing directives and attempt to do each task honestly and correctly.

Why don't they do this? Is it because they don't know any better? Is it because they are bogged down with detail work and are not supervising? Are they setting a bad example by disregarding their own directives? Or are they deliberately ignoring guidance or regs in order to expedite the job?

These are not easy questions to answer—and they only hint at the basic problem. At times, regulations can be unrealistic leaving a supervisor with two choices of action. He can ignore the restriction and press on to complete the mission or he can have his men follow the reg and compromise the unit's capability. If he chooses to press on, he establishes a dangerous precedent . . . on the other hand, he might get into trouble for not maintaining combat capability. The dividing line between right and wrong is never distinct and it often takes true courage to make the truly correct decision . . . the decision to follow the regs and procedures. If everyone did this, the unrealistic rules would soon disappear.

RECOGNITION

CREW CHIEF OF THE MONTH

STAFF SERGEANT JAMES E. HICKS of the 4528th Organizational Maintenance Squadron, Nellis Air Force Base, Nevada, has been selected as the Tactical Air Command Crew Chief of the Month for the outstanding manner in which he has accomplished his duties as an F-100C Crew Chief. His aircraft is seldom removed from published flying schedules because of unscheduled maintenance and only on rare occasions are minor discrepancies found during quality control "spot checks." His aircraft is consistently ready for assigned missions and during a recent period flew more than any other F-100C assigned to Nellis. Instructor pilots and students alike look forward to flying Sgt Hick's well-maintained aircraft because of its reputation as a "good shooter."

MAINTENANCE MAN OF THE MONTH

FOR HIS KEEN INTEREST and devotion to duty, STAFF SERGEANT DONALD J. HANSON of the 4434th Air Transport Squadron, Randolph Air Force Base, Texas, has been selected as the Tactical Air Command Maintenance Man of the Month. During a recent assignment as NCOIC of the Engine Specialist Section, Sgt Hanson spent much time and effort to increase the skill level and proficiency of the personnel under his supervision. He personally set up classes and gave lectures on engine conditioning, engine changes and engine preventive maintenance and repair. In conjunction with this program he established a vigorous OJT program for three and five level engine mechanics. Both the quantity and quality of work performed by Engine Specialist Section improved markedly during the period Sgt Hanson was NCOIC of this section.

TAC TALLY

MAJOR RATE ALL AIRCRAFT 1 JAN - 30 NOV	
1961	1960
15.1	14.4

ACCIDENT FREE
(MAJOR & MINOR)

JET

ACTIVE	MONTHS		ANG
474 TFW	8	36	123 TRW

CONVENTIONAL

ACTIVE	MONTHS		RESERVE
4430 ATG	36	73	442 TCW
314 TCW	28	60	434 TCW
464 TCW	9	51	302 TCW
4505 ARW	8	49	94 TCW

NOVEMBER MAJ ACCIDENTS

ACFT TYPE	832 ADIV	122 TFW	479 TFW	140 TFW	446 TFW	4 TFW		
F-105						1		
F-104			1					
F-101								
F-100				1				
F-86								
F-84		1						
T-33	1							
CONV.					1			

MAJOR ACCIDENT RATE 1 JAN-30 NOV.

TYPE	1961	1960
F-105	25.8	66.5
F-104	76.2	36.9
F-101	6.0	25.1
F-100	20.1	26.5
F-86	37.5	0
F-84	41.4	39.9
B-66	24.3	0
T-33	5.8	4.0
KB-50	6.0	9.4
C-130	7.1	0
C-123	5.8	1.8

Start sending in your OPERATIONAL HAZARD REPORTS