TAC ATTACK

November 1965

TAC ATTACK

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COVER PHOTO:

An F-4C kicks up a spectacular rooster-tail during takeoff in soft, dry snow.

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General Milton on Safety Programs

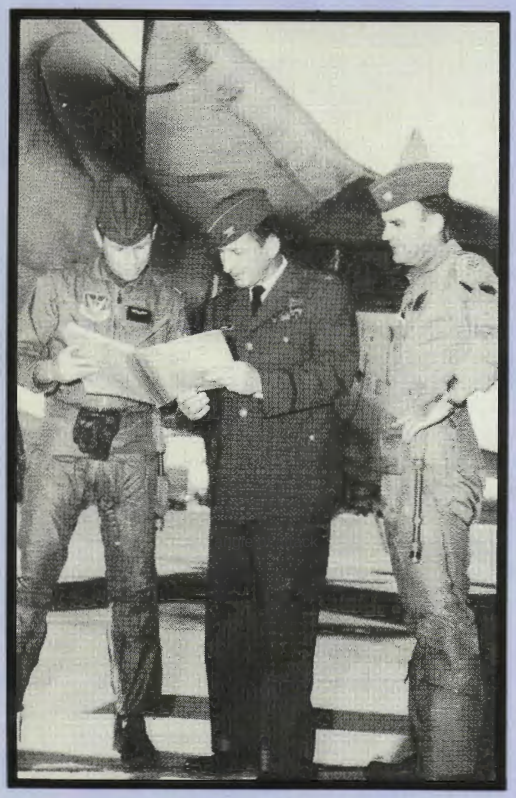
General Milton on Safety Programs

Too often we lean back to admire a safety program and allow ourselves to think that our operation is safe. The program is well documented, all the charts are up-to date, and the safety council meets regularly. The program is complete, thus . . . the operation must be safe.

By focusing our attention on the program alone, we can create an atmosphere that will foster an accident. Once we allow ourselves to believe that a safety program will take care of accident prevention for us, we are heading for trouble. We are ignoring the most important factor in accidents. An effective safety program supports operations through the dynamic participation of all hands. Each of us must have an inquisitive approach to every challenge, investigate all the possibilities in every plan, and continually evaluate each part of our job. Finally, we must insure that the attention, tools, training, and equipment required to make the operation efficient, and therefore safe, are readily available.

To be successful, an accident prevention program must provide the incentive for constant evaluation and attention to the details of its parent operation. Attention to the program alone will not suffice. The emphasis must be on effective completion of the mission if the entire picture is to remain unscarred.

angle of ATTACK



Colonel Gust Askounis, TAC Chief of Safety, examines maintenance record of F-105 at Nellis AFB with 2d Lt Nicholas Pool and Major Waymond C. Nutt, Commander, 4523CCTS.

Most aircrews and maintenance men in today's Air Force are conscientious hard working professionals who realize the importance of the mission and the need for doing each job well. For this reason we should proceed with extreme caution anytime someone makes an apparently foolish blunder that ends in an accident or minor incident. In fact, the more senseless the mistake the more careful we should be in our analysis of the cause.

If we treat the error as senseless, our only corrective action will be to tell everyone else not to repeat the blunder. This remedy may have a temporary effect, but will certainly do nothing to correct the underlying causes, and the mishap will usually be repeated.

Take panels lost from aircraft . . . every pilot and every maintenance man knows the aircraft isn't ready to fly until all panels are buttoned down securely, yet each year TAC loses around 27 panels in flight. The usual corrective action is to re-remind all hands to fasten things down, however, someone in USAFE looked further than the obvious, and reasoned that the problem was one of procedure. They now require all units to insist on having panels either all the way off or all the way on. No in betweens. Hinged doors are to be propped open if unfastened, locked, ready for flight, if closed. Treating panels in this manner strikes at the heart of the problem, the fact that partially fastened panels are very easily overlooked.

In this case, someone had confidence in the integrity and intelligence of the average worker and came up with an effective solution to the problem.

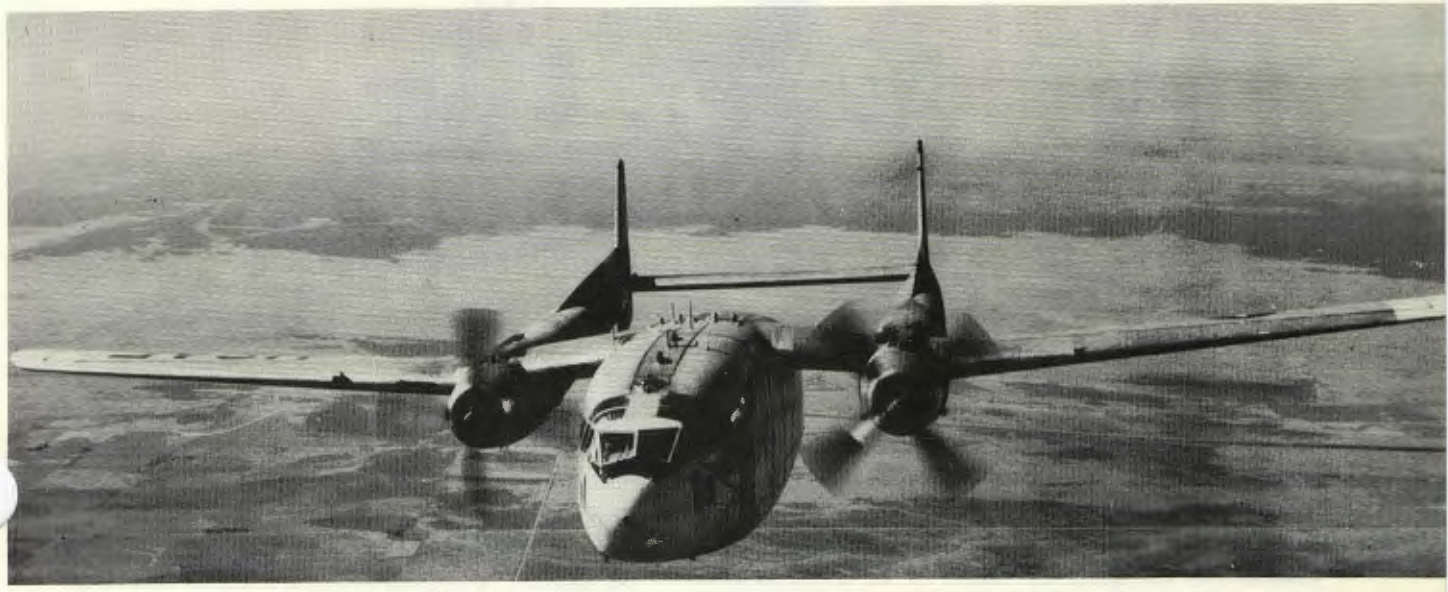
The answer isn't always in the procedure. It can be poor training or poor supervision. I remember an incident that happened some years ago when we were in the middle of a max effort. One of our maintenance men tried to tow an F-100 out of the hangar without removing the torque link pivot pin and snapped the scissors. The line chief dressed him down and everyone went back to work. Thirty minutes later the same man tried to tow another F-100 and made the same mistake. It wasn't hard to determine the underlying cause . . . this maintenance man had been on the job continually for over 30 hours! Worse, his supervisor did not realize he had kept the man working far beyond human endurance.

The point is, by trusting your men and realizing they don't make apparently senseless mistakes without some reason, you must go after the basic weakness instead of trying to cure the individual case. Do this, and you will improve the overall working environment in your unit and this invariably pays big dividends.

PRO & CON

The 434th Troop Carrier Wing completed 100,000 hours of accident-free flying last August. That's 100,000 hours of typical C-119 operation without a major or a minor. Quite an accomplishment in any man's Air Force, and the 434th is quite proud of its achievement. Justifiably proud.

The 434th publishes a monthly safety brief as part of an aggressive safety program. In the September issue, Major L. W. Shinnick, Air Advisor for the 434th, wrote a double edged article on whether the 434th can go for 200,000 accident-free hours. We believe you will be interested in his pro and con approach to this question.



PRO

We are better than other units. A record such as ours was not achieved by good fortune. Our aircrews are highly experienced, well trained, standardized and mature. Their capabilities have been demonstrated from WW II and Korea, through the snows of Willow Freeze to the sands of Pine Cone, Swift Strike, and in the gaggles known as ORI and S/E Visit.

We have blue ribbon maintenance. Because of the calibre of our maintenance people, we probably fly the safest platforms in the business.

We would trade our airleaders for none in the business. They were cast when we were, tempered in the flames of war and honed by a hundred exercises and fire drills.

We're good!

If we don't slip, we'll reach that 200,000 hour mark safely - no sweat!

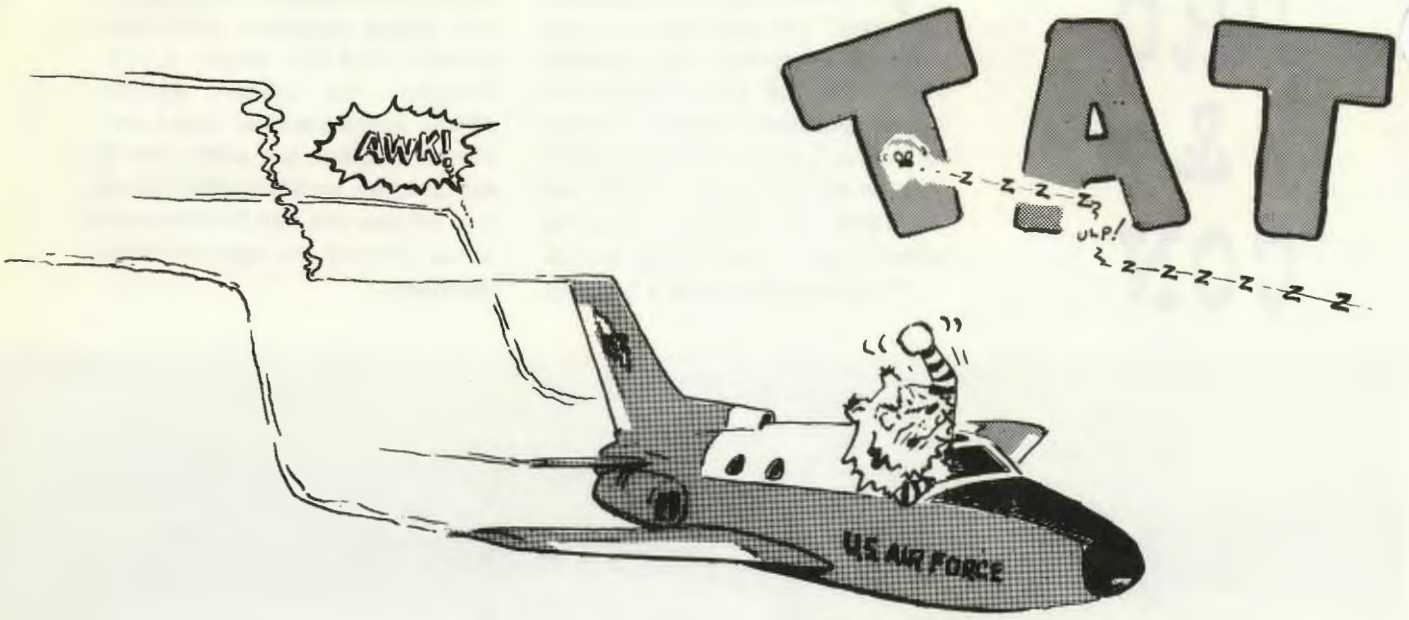
CON

We have been more fortunate than other units. A record such as ours must have some element of luck. Most reserve units such as ours have equally experienced aircrews, outstanding aircraft maintenance and leaders forged in the same crucible as our own. They've had to hack the same standards and have been exposed to the same fire drills.

Statistically, 2.5 accidents will occur for each 100,000 hours of C-119 flying time. That we have had none in a comparable period, may mean we are nothing more than fugitives from the law of averages. Perhaps the next 100,000 hours could bring us five accidents, should the roulette wheel odds of the flying business catch up with us.

Even if we are better than other units, we're not that much better. We've probably had some good luck while they've had some bad.

We won't make that 200,000 hour mark safely - let's sweat!



TWO STUDENT FLIGHTS tried to fly thru the same spot at the same time with the usual costly result. I don't have the full report, but at this writing, the board has made some intriguing comments. They considered the primary cause of the accident to be supervisory because newly established local flying procedures at the particular base did not provide optimum dispersal and separation of aircraft. They assessed environmental factor as a contributing cause because . . . and I quote . . . THE CONCEPT FOR CONDUCTING VFR FLYING DOES NOT PROVIDE FOR, OR REQUIRE, POSITIVE SEPARATION OF AIRCRAFT. They went on to say that the aircraft involved in this accident were closing at a rate which made it physiologically and physically impossible for the pilots to avoid the collision.

Recommendations included a request for higher headquarters to take action to provide and support radar separation of all aircraft within the local training area.

Altho this was not a TAC accident and the board, is not a TAC board I reached for paper and pencil. If this board is right, we might as well close down fighter operations as we know them today. However, don't get in a big rush to turn in your gear!

I like to look out the window when I fly and actually spend a lot of time doing just that, even in the higher flight levels where someone else is supposed to be guarding the store. Many times I've watched a speck on the windscreen turn into an approaching F-104, T-33, T-38, or Boeing 707 (that one is really easy t see!) to slip safely above or below. I admit that i takes a fraction of a second before an image registers as another aircraft, another fraction to evaluate its direction and potential threat, another fraction to direct action, and I'm certain it would take a little time for my aircraft to respond should I need to get out of the way.

But, it isn't at all unusual to see that other bird when it is over five miles away. Were it on a collision course, I would have ample time to scratch my ear and polish my visor before taking action. If we both were holding 450 knots true, head-on, I'd have 20 seconds to get out of the way if first sighting was at five miles. I'd have one second at 1500 feet . . . normal shooting range, which seems rather close in the vastness of the sky.

Most of the people I've talked to who have had close shaves with other aircraft, had them while preoccupied with something in the cockpit, or when they were not properly clearing themselves. Letting down straight ahead, for example.

Don't think for a minute that we can delegate the collision problem to a young man with one eyeball glued to a scope! This will just compound the problem. The only way ground controllers could possibl handle the situation would be to cut down on th

amount of traffic until they are able to cope with it!

Place yourself over that scope. You see two blips that appear to be converging. Are they at the same altitude? You'll have to check another scope to find out. No, you can't use the IFF code . . . you can't afford to gamble on both pilots squawking a code that properly identifies their flight level, particularly students practicing loops, rolls and chandelles.

Once you have determined that both are on the same altitude you will have to identify one of the aircraft in order to ask him to change course. This takes time and time runs out fast at 1500 feet per second.

Meanwhile, half a dozen other blips will have assumed converging courses while one of the original pair may have already changed course... or was he a wingman trying to join his leader?

Sorry, troops, you can't duck this problem . . . I still don't know of anything that will replace the habit of keeping your head on a swivel. Come to think of it, the board may be partly right. This accident could be a result of supervision. Supervision that stresses having near perfect airspeed, altitude, attitude and heading to the extent many students actually fly lazy eights and similar maneuvers more by instruments than by outside reference.

A B-57 CREW had one of those flights. First, the center had to hold them at FL 240, which is unusual indeed in this day and age. Then when they finally handed them over to approach control, the UHF started giving troubles. After starting their big black bird down the slide, the TACAN conked and approach control lost them on the scope.

Weather was anything but nice, so naturally the bird dog wouldn't work. Things got terse enough the B-57 driver set the IFF to 77, squawked emergency, switched to guard channel, and asked for a steer to Seymour-Johnson.

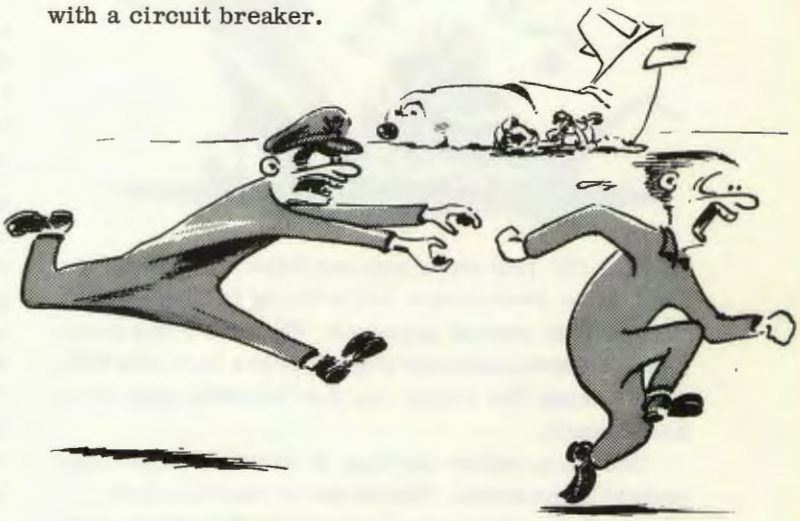
At this point in time and space, Lt Colonel Melvin J. Killian, CO of the 334th Tactical Fighter Squadron, was in an F-105 on the ramp at Seymour. He heard the request for a steer and switched his UHF to the ADF function. No one else seemed to be reading the big bird, so the colonel provided DF steers until the '57 driver was close enough for GCA to skin paint him and complete the recovery. Now that's what we call headwork. Good show, Colonel Killian.

TWO FEARLESS FLYERS found themselves faced with an unusual problem in the usually tame T-39. One engine got stubborn. First, it stayed at 94 per cent even tho they pulled the throttle to idle.

"Shucks, no problem, just stopcock it. Ah, well, how about trying the engine master switch? Humm, well, there's always the fire T-handle ... Say! This thing won't quit!"

Descending from 25 to 17 thousand caused the eager unit to wind up to 100 per cent. Not wanting to tear it up, the crew leveled and tried to starve it out by pulling the circuit breaker on the fuel boost pump. It continued to purr. Off to Edwards, where they hoped to flame it out by using up its fuel supply, then land before the other engine quit too. Enroute, someone on the ground suddenly remembered s o m e t h i n g. Check the circuit breakers. Sure enough the CB to the engine master switch had popped. They pushed it in and the over willing engine sighed and gave up the fight.

Throttle linkage failure caused the hang-up. Incidentally, the circuit breaker bit is something to keep in mind ... most aircraft that use an electrically operated fuel shutoff will have the circuit protected with a circuit breaker.



EVER HEAR ABOUT the aircraft commander who got into trouble on final and wanted to take his flying haybarn back upstairs? With both hands full of steering wheel, he hollered, "Takeoff power!"

And that is exactly what the engineer did. He took off power. The crash was spectacular and at least partially attributed to what I like to call, "shorted communications."

Shorted communications are still with us – verbal and written. Just as we were about to go to press I saw this item on one of our C-130s. The bird developed a hydraulic leak, filling the flight deck and cargo compartment with fumes. The instructor pilot went thru the smoke and fumes elimination procedure while the instructor flight engineer searched for the leak.

After completing the bold face items, the IP asked the student flight mechanic to remove the escape hatch. That worthy pulled the safety pin on the crew door emergency release handle and before anyone could say bomb's away, one each door was drifting earthward.

To make sure I don't have shorted communications with those of you who don't earn your pay in Lockheed's better mousetrap, the check list says to open the flight station emergency escape hatch which is above the crew compartment and opens inward. The entrance door is located below and is jettisoned outward when the remote handle is pulled. It serves as the ground emergency exit.

ONE OF THE more popular ways to bash an aircraft is to over-rotate while trying to flare from a steeper than normal approach. The bird plops in tail first, the nose slams and she slides to a halt with both ends looking like a beer can that had been used for a hockey puck.

One cure, rather obvious, is to avoid steeper than normal approaches. This is easier said than done . . . particularly when you are a little bit above glide slope, and correcting back when you spot the runway thru the gloom . . . and hesitate to land two or three thousand feet down because you know it'll be as slick as TAT's head. Weather hovering around minimums and two or three flights coming along behind complete the picture.

On final I adjust power to control my sink rate and change the attitude to control the airspeed. Those of you who fly aircraft that ooze down final at speeds near the backside of the power curve, do pretty much the same. You may dump the nose a tad in order to increase your rate of sink, but if you hold the new attitude for any length of time, you're going to need a slight power reduction in order to keep the proper speed. We usually count on ground effect, plus a slight increase in angle of attack, to help reduce a normal 500 foot per minute sink rate to zero. On steeper approaches, ground effect and the momentary lift gained from the slight increase in angle of attack (flare) will not hack the program. It takes four times as much energy to reduce a 1000 foot per minute rate of sink to zero as it does to cancel a 500 foot per minute rate. The only answer is power. Power applied early. The bug in the butter is that you're usually at a much lower thrust setting on that steep approach and getting enough power to hack the program will take longer than you expect. Hauling back on the pole will only compound things since the arresting effect is only momentary before you are well behind the curve with much drag and a truly horrendous rate of sink. I usually leave my throttle alone when I steepen an approach during the latter phase. Speed build-up is slight and can be used to help arrest the sink rate. More important, throttle response is better.

Other factors that enter into this type of bash are approach zones sloping toward the runway or a runway that slopes downhill. Both give a false feeling that the glide slope is normal when it is actually steeper than norm. Dust and haze or one of the narrower runways can induce a steep approach. In addition, when vis is poor, the pilot tends to lean forward in the cockpit and can end up with a rather drastic attitude without realizing anything is departing from normal. He usually gets his thrill when he lets the nose down after landing . . . a momentary panic when he thinks the nose gear is still up!

By the way, lying airspeed indicators can set up a short, hard arrival. If you are alert, you can catch this trap by noting sloppy control response and a slight difference in attitude. Throttle setting isn't too reliable an indicator, since you may have to carry a higher setting than usual to offset the high angle of attack.

The main thing is to know what causes these hard arrivals in the overrun, to guard against the traps, and to modify your normal procedure when you can't avoid flying a steep final.

THE AIRPATCH is in the high country and weather was warm ... just what you'd expect for that area in early Fall. The pilot was leading the second element and everything had gone by the book until he reached rotation speed. His bird WAS a faithful F-100, heavily loaded, and rotation was a goodly distance down the launching pad.

The sour note crept in when the pilot noticed hi airspeed was no longer increasing. With over three-

fourths the runway behind, he hauled off power, flung out the laundry, and dropped the hook.

You know me, I wouldn't be writing if everything had come out right ... he caught the cable at about 110 indicated, and promptly pulled it loose. The cable securing clips failed, or were not properly tightened. He wiped out one gear in the overrun and fire ruined the bird. Fortunately the pilot was unhurt.

It would be real easy to rummage thru my cluttered desk to haul out the dash one and find ways to improve this lad's abort procedure. As is, I notice he ended his trip still carrying external garbage and with speed brakes out. This probably had no effect on pulling the tail hook cable loose but may have kept him from properly catching the main gear cable.

His performance is about par for the course ... proper drill would have helped insure a better performance. But, even then I wouldn't bet the bird would not end up in the junk yard. This is an inherent risk that goes with taking a barrier at high speed with a heavy bird.

Don't get me wrong, I'm not excusing the barrier maintainers. If I had my way, the base commander would reach a gentle understanding with them that would make it completely unnecessary for us safety types to keep yelling about barrier TOs and barrier modifications. That agreement would be a one-sided conference that would sound something like this: "If that bird catcher of yours ever messes up one of my machines, I will have your ..."

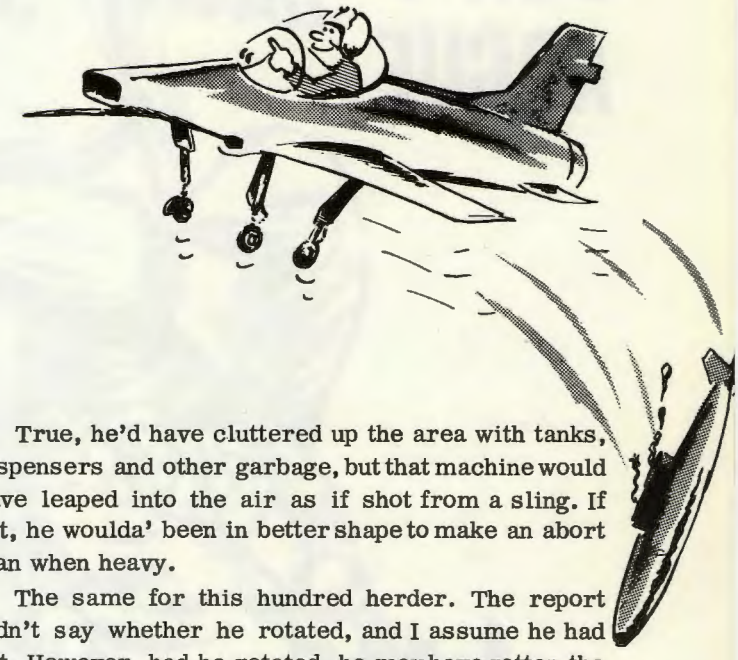
Regardless of how tenderly we maintain each barrier, some birds will get bashed trying for a catch, particularly during aborted takeoffs made late in the game. Accept this fact and use it to temper your decisions.

When the preliminary report on this accident came in, I noticed the board called in several excellent engine men. This is good investigating. At the time, I tried to get a bet that the experts would give the engine a clean bill of health. There were no takers. The reason was in the preliminary report ... no one had said anything about the pilot feeling the aircraft decelerate, or did he notice a drop in rpm or EPR. In other words, the pilot made his decision to abort on the airspeed readings alone ... he didn't verify the problem. Sure enough, in a few days we got a message that pointed the finger at the airspeed indicator or pitot system.

Reminds me of the old doc who declared the patient dead only to find some wag had plugged his stethoscope with chewing gum.

I defend this pilot's right to abort with a sick aircraft ... yes, even a sick airspeed indicator, if he catches it early enough ... but I would much rather find myself in the air without an airspeed indicator - even in foul weather - than to gamble on getting a good barrier engagement at high speed with a heavy bird.

While writing this, one of the troops came in with a report on another expensive abort. Very heavily loaded bird, plenty of speed, but it didn't want to fly. He yanked off power, flung out the chute ... etc., ad nauseam. My nickel says he could have solved his problem with one finger!

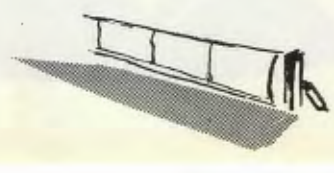


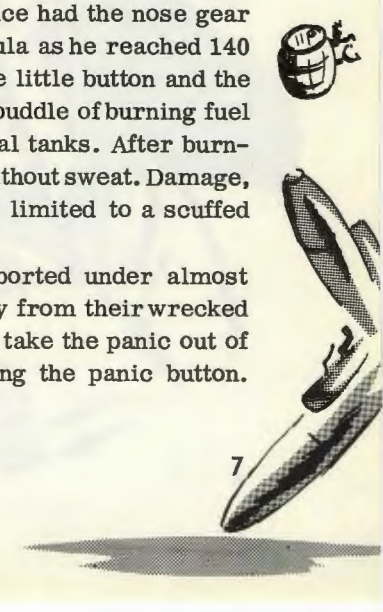
True, he'd have cluttered up the area with tanks, dispensers and other garbage, but that machine would have leaped into the air as if shot from a sling. If not, he woulda' been in better shape to make an abort than when heavy.

The same for this hundred herder. The report didn't say whether he rotated, and I assume he had not. However, had he rotated, he may have gotten the nose too high which would really slow his acceleration. Presto, off goes a couple tons of assorted garbage and the bird would be flying.

One of the troops in the office had the nose gear on his F-104 start a Tahitian hula as he reached 140 knots on takeoff. He punched the little button and the bird leaped off, leaving a huge puddle of burning fuel around each of the three external tanks. After burning out internal fuel, he landed without sweat. Damage, other than the lost tanks, was limited to a scuffed nose gear tire.

Most of the drivers who aborted under almost identical conditions limped away from their wrecked machines! Remember, you can take the panic out of most takeoff problems by hitting the panic button.





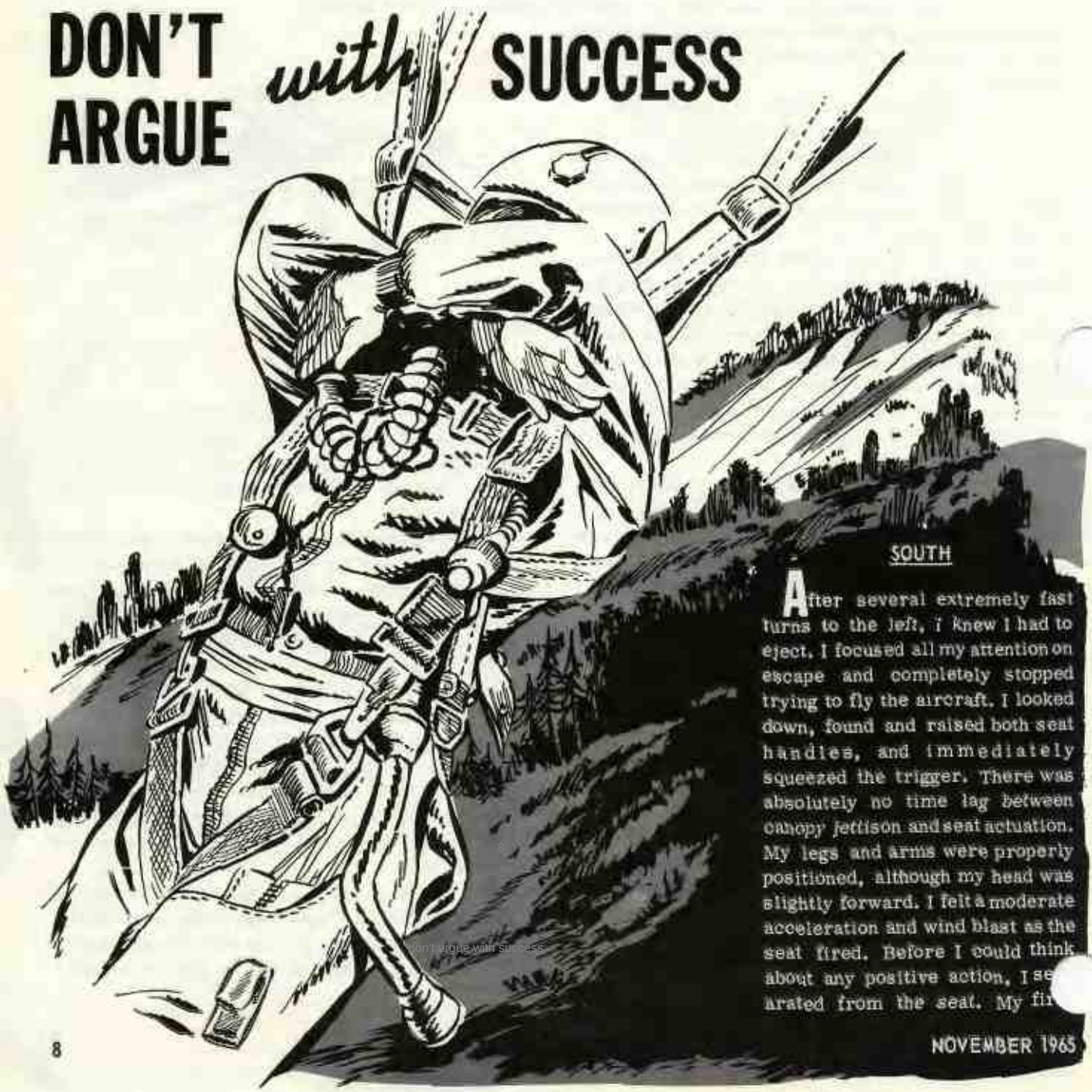
One mid-November day a couple of years back, two men ejected from their disabled fighters over the high Rockies. Altho they were some ten hours and twelve hundred miles apart, there are *several* parallels in their survival stories.

Both men, knowing that survival would depend on their own wits, remained calm and calculating throughout their experience. They were well prepared ... both physically and mentally. They thought out each action in advance, weighing the consequences against an extended stay in the woods.

We believe, had it been necessary, both of them could have survived weeks ... *even* months ... in the mountains. But partly thru their knowledge and *use of* the signalling devices available to them, both were rescued in *short order*.

They both deviated from the *school* solution to post-ejection survival a time or two ... but only after *evaluating* their own particular situations.

DON'T ARGUE *with* SUCCESS



SOUTH

After several extremely fast turns to the left, I knew I had to eject. I focused all my attention on escape and completely stopped trying to fly the aircraft. I looked down, found and raised both seat handles, and immediately squeezed the trigger. There was absolutely no time lag between canopy jettison and seat actuation. My legs and arms were properly positioned, although my head was slightly forward. I felt a moderate acceleration and wind blast as the seat fired. Before I could think about any positive action, I se[p]arated from the seat. My fi[rst]

thought was to get the chute open, ut before I completed the thought I felt a moderate tug, looked up, and saw the chute completely blossomed. I then looked down and saw the aircraft burning where it hit the mountainside.

The only estimation I have of altitude at chute deployment is based on the observations, actions, and decisions I made during descent. My clipboard, minus all papers and data, was still strapped securely to my left leg and I left it there. My sunglasses, minus the right lens, were still on. After raising my visor (it had come half down during ejection), I put the sunglasses in my G-suit pocket and unfastened the right side of my mask. My helmet was still on and intact, as were the survival kit and all the items in my G-Suit pockets. I almost deployed the survival kit, but didn't, since the landing would be in dense forest and I was afraid the kit would tangle in the trees and severely hamper my landing. Just prior to ground contact, I fastened my mask, lowered my visor, crossed my arms over my chest, and held my legs together, knees slightly flexed. I was drifting slightly backward and came down through the trees. As my feet touched the ground, I threw my weight to the right and made a successful parachute landing fall. I came to rest on my right side with my head down the side of a 30 to 40 degree slope. The chute canopy was hung in the trees. My only injuries were a minor skin abrasion on my chin and a very small scratch on my right ear.

I released both quick disconnects on the chute harness, removed all personal equipment, and cut the necessary shroud lines to free the canopy. After spending three or four minutes collecting my thoughts, I looked for some sort of clearing in which to spread the canopy. I found one about 200 feet away. It was very small, but the only place in the immediate area. Moving everything to this location, I spread out the canopy and opened the survival kit. I put the whistle, mirror, compass, matches, and three flares in my pockets and rigged the URC-11. I used the radio continually all day, but to no avail. (The transmitter was later found to be inoperative). I was fairly certain that no search aircraft would be out for another hour because I didn't have time to give any distress signals before I ejected. I wasted one flare on a passing aircraft about 20 minutes after landing. It was too high and too far away.

My next thought was to find a better clearing in which to spread the chute. I started a search and found one about a quarter mile away on the same hillside. This area was fairly large, easily discernible from the air, and high enough to afford opportunity for orientation. I started back to retrieve my equipment and heard an aircraft. Immediately, a T-33 came into sight. When I was positioned so he would see me, I popped a flare. The T-33 started a cap pattern. I was undecided whether to stay where I was, move my equipment to my present location, or go back to the chute. I turned my jacket inside out, returned to the chute, and popped my last flare. The T-33 seemed to see the new location, but I was not sure. I started a fire, and with green boughs produced a tremendous quantity of smoke. This served as an excellent signalling device all morning ... not only for the T-33, but also for all the other search aircraft in the vicinity.

I ejected at 0918 and the T-bird found me at approximately 1045. I had doubts about being picked up that day due to the rough terrain and decided that if no one appeared by 1500, I would plan to spend the night on the mountain, moving my location to someplace where there was water. Therefore, while maintaining periodic smoke signals, I began to chain the shroud lines and sort out my equipment. At approximately 1345, I heard sounds in the brush at the base of the mountain. I immediately blew the whistle. Receiving no reply, I blew it again. This time I got an answer, and using the whistle, a policeman and I homed in on each other. People then began to materialize out of the woods ... medics, Indian guides, firemen, and policemen. After a short rest for the rescuers, we bundled all my equipment in the parachute, put out the fire, and proceeded on foot to the nearest vehicles.

NORTH

I stowed no equipment, but reached for and pulled both handles at once. Cold air hit me in the face ... I had no sensation of leaving the aircraft.

The next thing I recall was falling with my back to the ground and face to the stars. My helmet was still on, so I pulled the green apple, straightened my mask and pulled down my visor. I couldn't see, so raised it again. I had a very strong impulse to pull the D ring, but talked myself out of it. I decided to open my chute as I entered the snow clouds below me, if the aneroid hadn't been activated by then. Shortly thereafter I entered a flat spin. As the rpm built up, blood began to rush to my head. I spread my arms and legs,

and the spin stopped immediately.

Just before I entered the clouds, the chute rustled out of the pack and over my shoulder. I was jerked upright as it blossomed. The opening shock was mild ... not as severe as I expected. I glanced at my watch, it was 1933. Shortly after the chute opened, my oxygen bottle ran out. Breathing became difficult, so I disconnected the hose at the connector and left my mask on for protection when I landed.

In the snow cloud, I began watching for the ground and soon saw trees with large areas of snow between them. I was drifting backwards quite rapidly, but decided not to attempt any chute control. Prior to impact I placed both hands over my face. I hit the ground quite relaxed and rather solidly; I felt a sharp pain in my back. I unfastened my parachute harness straps and remained motionless for a few moments to determine if I had been injured. That's when the 20 to 30 knot wind blossomed my chute. I ran to the canopy, gathered it, and rolled it into a ball. My survival kit was still attached to the harness ... had I been injured, I could have lost the chute and all my survival gear.

The wind was driving snow mixed with rain and visibility was poor. I picked out the largest tree in the area, gathered my belongings, and headed toward it. The snow on the ground was about four feet deep ... and cold. However, I felt very comfortable; my fingers never did get cold since I was wearing nylon inserts under my summer flying gloves. The rest of my clothing consisted of summer underwear, summer flying suit, bunny pants, heavy flying jacket with hood, cotton socks, and insulated boots.

I crawled under the tree and made a tent from the parachute to break the cold wind. I unpacked my survival gear with the aid of my personal flashlight ... while flying, I always carry one that uses two C-batteries. It proved invaluable throughout the night.

I fired a round from the .410 shotgun and blew on the whistle for a while, in hopes of attracting the pilot's attention should he be down near me. I also made two or three calls on the survival radio, but received no answer and finally stowed it in my sleeping bag. I took inventory of my survival kit, then crawled into the sleeping bag. I didn't want to sleep for fear that shock would set in, so climbed out of the bag again and tried to stay busy.

I had no success building a fire. The wood was wet and the wind too strong, so I began walking around the tree. When I could see the stars through breaks in the cloud cover, I located the North Star as a back up for the compass in the kit. Around midnight I decided there was no longer any danger of shock, and attempted to sleep until the sun came up. I didn't try to make a fire again ... felt I didn't need one. I slept well, waking occasionally feeling only a little cold.

I was up at 0600 the next morning and began marking my area. I stomped out a large SOS and spread my chute on the snow in a clearing near me, covering all the edges with snow to keep it from blowing away.

As it became light I made out a sign three or four hundred yards away in the valley. I thought it was important to find out what the sign said. Although the trip thru three or four foot snow was very tiring, I was rewarded. The sign was a National Park trail marker. I could see another one about a hundred yards farther up the trail, and knew that I had a good trail to walk out on. I decided I would wait until 1200 to give search aircraft a chance to find me, after which I would make some snow shoes and begin walking out. I planned to use the same procedure each day until I was picked up or found civilization ... attempt to contact search aircraft until noon, then walk until dark.

The first aircraft were in the area around 0800. I used my smoke flares in three attempts to signal light aircraft. I placed the battery of my URC-11 radio inside my flight suit, with the transmitter hanging out on the connecting cable. I felt that if I kept the battery warm, its power would stay up.

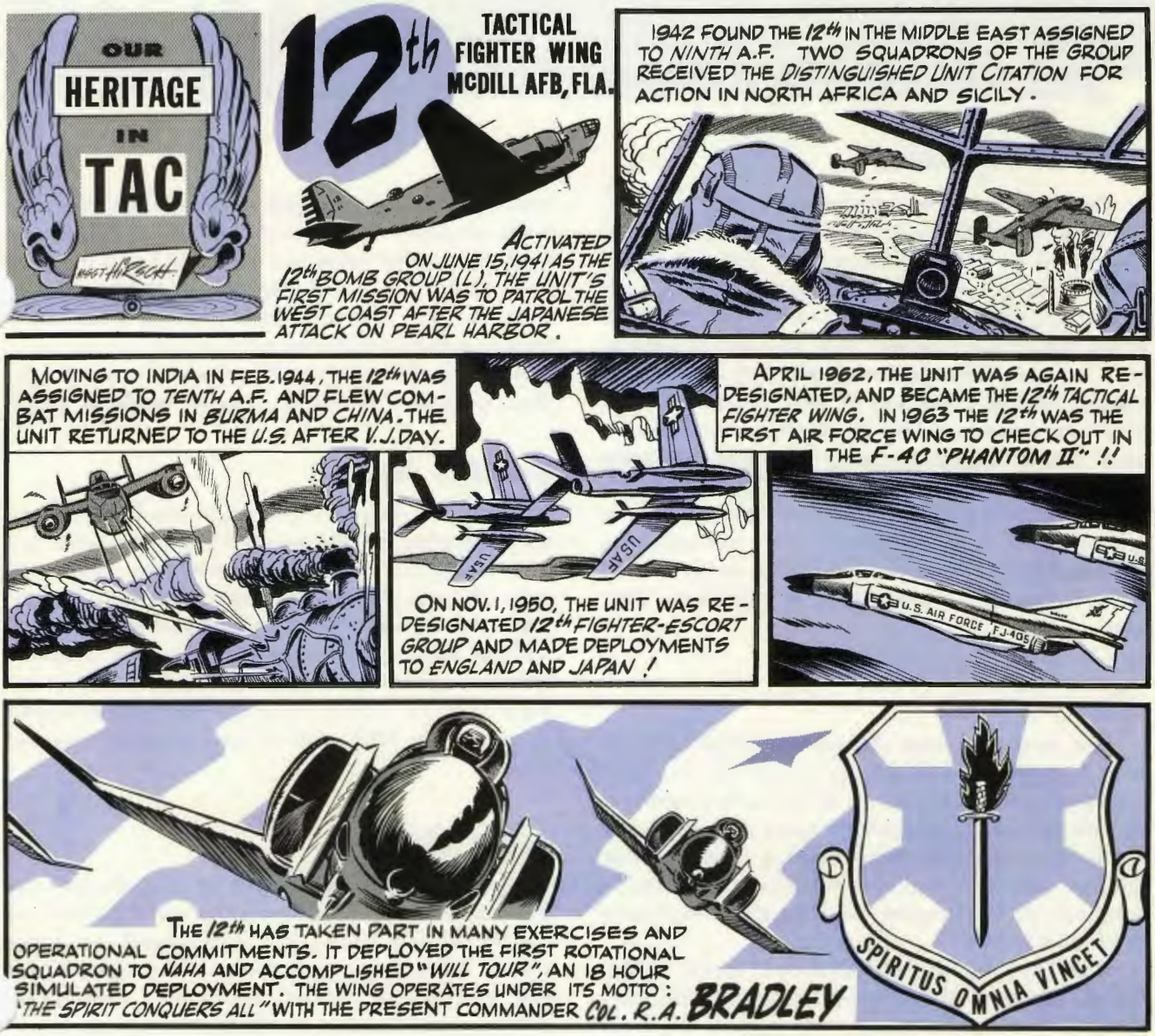
I had no success using the voice function, so I switched to

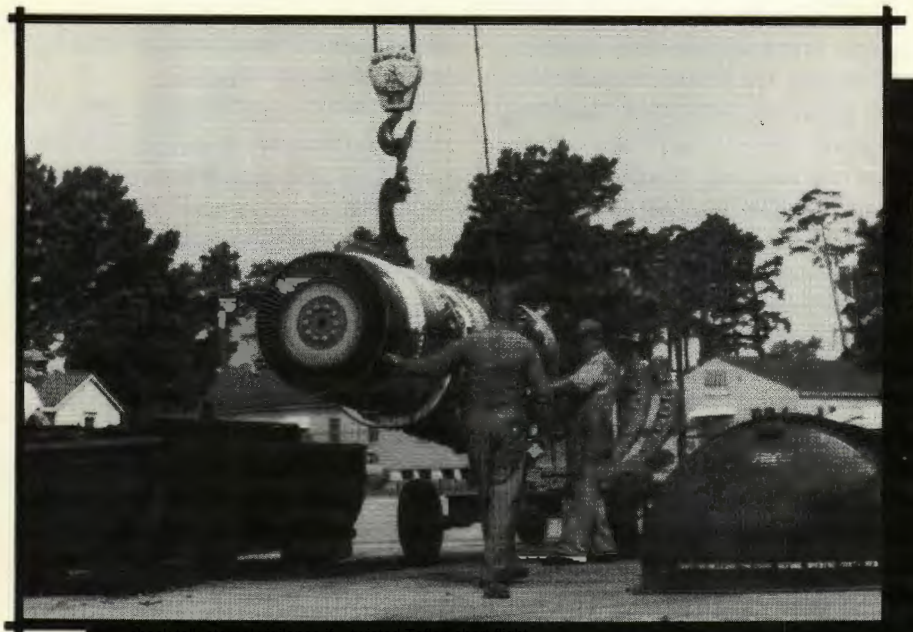
tone whenever aircraft were in the area. I learned later that aircraft had heard me, but I didn't receive any transmissions. Whenever one of the fighters flew directly overhead, I would click the tone button rapidly and stop when he passed by my position. I also used my signal mirror on all aircraft in the area.

My system of using the URC-11 worked. One pilot figured out what I was doing and called in an L-20. I used my last smoke flare on a small Cessna which flew directly over me. He made a sharp turn, but gave no indication I had been sighted and continued on. (He had spotted me, but I feel he should have rocked his wing or given me some other indication).

Around 0900 I spotted an L-20 at the far end of the valley. I held the mirror on him and saw him suddenly bank and head directly toward me, wagging his wings. Using my URC-11, I told the pilot who I was and that I was OK. He informed me that I would be picked up in about 30 minutes.

Within a half hour, two Canadian paramedics jumped in from an SA-16. Very shortly thereafter, a Canadian rescue helicopter made a difficult landing to pick me up. The wind was strong and gusty, and the only clear area was sloping 30 to 40 degrees. He settled on the hill side, holding the chopper level until I could make my way to him and tumble in.





CHOCK TALK

chock talk eternal vigilance if... twisted Teflon short flight

eternal vigilance

The F-4 crew was cruising peacefully at 18,000 feet when the right engine began to compressor stall. The phront phlyer reduced power to idle and landed without further incident. When the engine troops got in the act, they found imprints of a 10/32 steel bolt on the compressor blades. This one doesn't seem to be a case of overlooked inspections or lazy supervisors. The unit involved is very conscious of the FOD and reverse air flow problems on the Phantom. They run an aggressive FOD prevention program which includes vacuuming all engine bays before installation. Rather, this incident emphasizes the need for all hands to be constantly alert, to understand the consequence of a moment's laxity, and to identify themselves with the men riding the engines day after day.

if...

The aircraft's range remained constant at twelve o'clock as the F-100's cannon rattled out nine quick rounds of API. Some of the 20 MMs penetrated the bird around the cockpit area, passing right on through and tearing off the end of the refueling probe. Leaking fuel and the two flares in the pilot's survival kit burst into flames causing more damage to the already crippled aircraft.

If the burning aircraft had been an enemy fighter and not another F-100 sitting securely chocked across the ramp . . . but there were a lot of ifs. If the munition personnel had used their check list when they made the power-on check of the guns . . . if they had used plain horse sense and looked to see if the guns were loaded . . . and if they had cleared the area in front of them, this accident wouldn't have happened. What if someone had been working on or in the cockpit of the bird they damaged? I wonder if it would have changed their procedures or if he would be dead?

twisted teflon

The Ultra-Hog pilot noticed P-1 hydraulic pressure dropping to 1000 psi every time he moved the flight controls, and his F-105 would oscillate in all axes whenever the pressure dropped. It was a pretty wild ride, but he got the bird on the ground OK. Maintenance investigators found that the P-1 pressure hose to the pump had been installed incorrectly, causing it to twist... the teflon inner liner had developed a leak at the twist. Just a little bit of effort could have...

short flight

A young TAC pilot landed at the nearest convenient air patch after the utility system conked on his F-100. Bad pump. The maintenance troops replaced the pump and checked it. The report didn't say whether they flushed the system. Regardless shortly after the pilot launched, severe compressor

stalls blasted his blood pressure up higher than he climbed the bird. Somehow he managed to sneak it back around the pattern and plunk it back onto the runway without dinging anything.

The pump change was made by a TAC maintenance crew. One five-level airman and one three-level did the work, and it was inspected by a qualified maintenance supervisor. After the pump change, the five-level let the three-level install the panels on the accessory section...his first attempt at this task. The three-level placed the panels over the fairing retainer strip rather than under it, then fastened the cam-locks on the rear of the panels. And, since no one bothered to put anything in the forms about removing the panels, the installation wasn't inspected.

Removing the panels is a red-cross item. There are a lot of ways this one could have been stopped, but a little closer supervision would have helped. You would think the guy who signed off the pump installation would expect to come back and sign off the panel installation, or at least take time to glance over the forms.

The paper work is designed to prevent things like this. It isn't worth much if no one bothers to keep it up properly.

suggestions pay off

Once again, TAC airmen walked away with most of the top honors in the USAF suggestion program. A2C Gerald Raynor of the 4453CCTW at Davis-Monthan took the $1500 first prize for suggesting a better way to remove rivets from J-79 engine combustion liners. His suggestion will save the Air Force over $490,000 each year.

TSgt Frederick H. Brenner, stationed with the 15TFW at MacDill earned the $1200 second prize for a suggestion that corrected F-4C weapons control system malfunctions.

SSgt Frederick L. Rose, 355FMS, McConnell AFB won $400 for designing a modular cooling electrical system for the F-105, while CWO George H. Truston, Hq TAC, won $100 for suggesting a more versatile gunnery range layout.

plug not plugged

The F-100 pilot found that he couldn't release one BLU-1B from an inboard station. Altho he tried to jettison it with both the normal napalm release system and the inboard external load aux release button, the BLU refused to shake loose. He finally landed with the napalm still firmly in place under his right wing. Maintenance investigators found the pylon cannon plug had not been fully tightened. With the plug not seated, the pins were not making contact.

naked bird

After an F-105 pilot lost his AC generator and had to make a GCA on the wing to recover, investigators found that the crew chief had left the nose cover off the aircraft during a heavy rainstorm and water drained into the AC regulator. The unit had established procedures for using the covers, but the crew chief just overlooked it. The line chief apparently didn't even give his birds a once-over before going home . . . or did he ever bother about the covers?

bath aftermath

A C-119 flight mechanic spotted fluid drooling out of the number one engine cowl during his after takeoff check. He was unable to identify the fluid and the pilots said their instruments didn't indicate a fuel or oil leak. But because it appeared to be vaporizing as soon as it appeared, they decided it must be fuel and headed for the closest air patch. When they got the bird on the ground, no amount of checking, re-checking, engine runs, re-runs, or hoping would make the leak start again. Thumbing thru the aircraft records, they found the machine had been washed the day before. Most likely water was trapped somewhere around the cowling and started to flow out after takeoff. The unit now has a procedure to open the cowls after washing.

half an airplane

The F-101 pilot was on a night climbout when he saw an explosion over his left shoulder. Engine instruments all looked OK, so he pressed on. However, when he pulled power back to level off, it induced several rapid compressor stalls . . . left oil pressure bounced between zero and 60 pounds . . . the cockpit began to fill with acrid smoke. He smartly shut down number one, punched off his tanks, and got it on the ground. Maintenance investigators found that the left engine air duct dome assembly had been improperly installed after an engine change and ended up trying to go thru the compressor. The mechanics who did the sloppy work and the inspectors who weren't any better take the lumps for this one. Of course, on a single engine bird . . .

RUNWAY AHEAD

By - Mr. Richard G. Rhoads
Hq TAC Opns. Analyst

Every year some of the hardware gets bent while TAC pilots try to get it stopped on a slick runway. Mr. Richard G. Rhoads, TAC operations analyst, has done a lot of research on this subject and applied his knowledge of aeronautical engineering and flying to come up with some facts that will help keep you from making square wheels, or furnishing raw material for the pot and pan trade. This is the best article we've seen on the subject of stopping. We rate it MUST reading for all pilots.

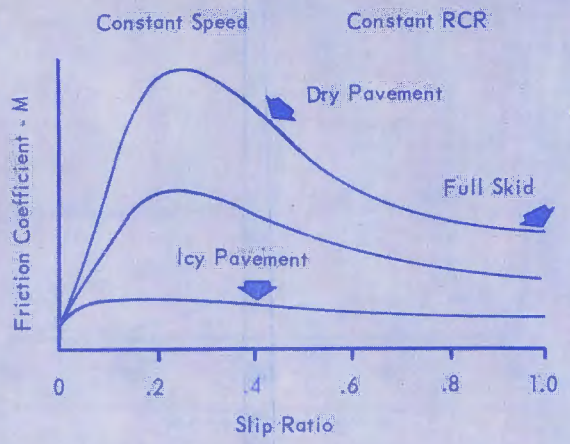
Before we take a look at slick runways, let's glance at a dry one ... not because dry runways normally give trouble, but in order to get some basics squared away.

When you compute the dry runway stopping distance for your aircraft, you should realize that the experts made some assumptions to develop that graph in the handbook. They assumed your aircraft would be operating properly with the engine at idle, the brakes properly adjusted, and the wheels equipped with good ribbed tires. They also assumed you would follow the minimum run landing procedure outlined earlier in the book. On the other hand, they do not expect a super human effort. They realize that your drag chute is not going to deploy instantaneously and that you will not be able to apply maximum braking immediately after touchdown. Further, they used a braking coefficient that is a little less than half of what is theoretically possible.

You rarely make a max stop and certainly don't practice them (why wear out tires and brakes only to taxi on down to the nearest turnoff?) and the handbook stopping distance may seem rather optimistic when compared to your normal landing roll. But, you can achieve it when necessary! The figures are valid if you understand braking and follow the book.

At this point, let's review a little friction theory. Figure one shows a typical tire's friction coefficient versus slip ratio. A slip ratio of zero represents a free rolling wheel with no brakes applied and no slip between tire and runway. A ratio of 1.00 represents a full skid with the wheel locked. As you gradually apply brake, the tire slows in relation to the runway. The friction coefficient, or stopping force on the airplane, increases to a peak. When you apply too

FIGURE #1



much pressure, you exceed the peak. Look at the slope on the graph. It drops fast. This means you can expect the wheel to lock almost immediately causing the tire to skid. It is not possible to hold the wheel in the region of .25 to .99. This means that when a skid occurs, you must release considerable brake pressure before the wheel will again start to rotate.

To get optimum braking you must achieve about .23 slip. Unfortunately, neither you nor the anti-skid system can recognize this optimum, but both can recognize when you have exceeded the optimum. Now we have a learning curve. The wheel skids once; you must note the pressure, release it, and then reapply with a slightly lower maximum value. That is, you want to ride on the verge of a skid, but avoid entering the skid.

This is the simplified theory on which all anti-skids operate. Some of the new systems actually have a built-in learning curve. They remember the pressure that caused the last skid and reapply a slightly lower pressure the next time, regardless of what the pilot does. Most, however, simply release pressure and depend on the pilot to reapply the correct pressure for the next try. Check the dash one for the details of the particular system in your aircraft.

Of importance, correct braking pressure is a function of ground speed. Look at figure two. As you reduce speed, the available tire-to-runway friction coefficient increases, and you must increase brake pressure correspondingly if you are to maintain maximum braking.

The anti-skid may occasionally fail. Under these conditions your best action is to make like an anti-skid. You want to almost skid, but not quite. Remember, optimum braking develops over twice the braking coefficient that is developed during a skid, and optimum braking doesn't blow tires, either. This technique requires extreme concentration but is well worth the effort.

A dry runway is an easily predicted situation. Stopping capability is relatively independent of the runway surface, so long as it is dry. A wet runway is different! Braking capability on a wet runway may be as good as a dry runway or as bad as a greased eel. Stopping distance generally increases as water depth increases, as pavement texture decreases, as pavement waviness increases, as dust, dirt, rubber, oil, and other organic material on the surface increases, as depth of tire tread decreases, as number of tire ribs decrease, as strut inflation increases and is affected by aircraft loading, tire design, and so on and on and on. Even if we could measure all of these variables accurately, we still couldn't precisely predict braking capability.

However, braking capability is repeatable to a degree. That is, two similar aircraft attempting maximum effort stops on the same runway will stop in approximately the same distance. This is the key to Runway Condition Reading (RCR). For obvious reasons, we replace the airplane with a ground vehicle. The RCR which the pilot receives is actually the peak deceleration in feet per second squared that the ground vehicle experienced as it transitioned from a free rolling condition to a full skid on that pavement.

If the vehicle and the technique used were in accordance with TO 33-1-23, then RCR is a meaningful guide to the slipperiness of that runway at that time. By going thru the chase-around chart in the flight manual, you can relate the runway condition to your aircraft's characteristics. You cannot relate RCR directly to a percentage increase in ground run since the AO's truck can't very well duplicate the aircraft's characteristics. The chase-around

FIGURE #2

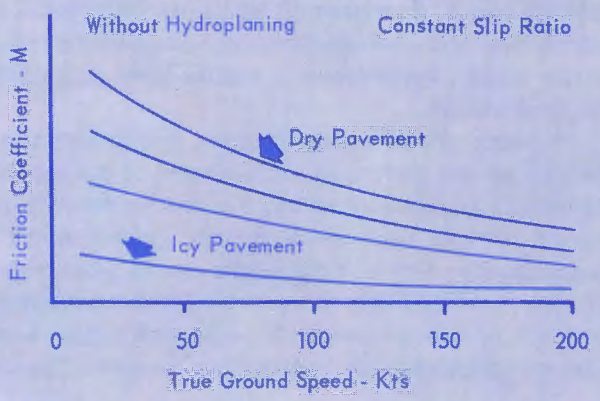


chart is a necessary evil in the system and cannot be removed.

You can get a reasonable feel for the stopping distance from the RCR. The average dry runway has an RCR of approximately 23, although some smooth hot runways may go as low as 17. An infinitely slick runway has an RCR of almost zero, 02 for practical purposes, and a relatively warm ice-covered runway will vary from 02 to 07. Therefore, RCR is proportional to braking coefficient, but is not proportional to stopping distance.

The RCR, if properly measured and used, is the best available means you have for determining stopping distance on wet, dirty, muddy, or ice-covered runways ... if your aircraft has ribbed tires and you follow the flight manual technique.

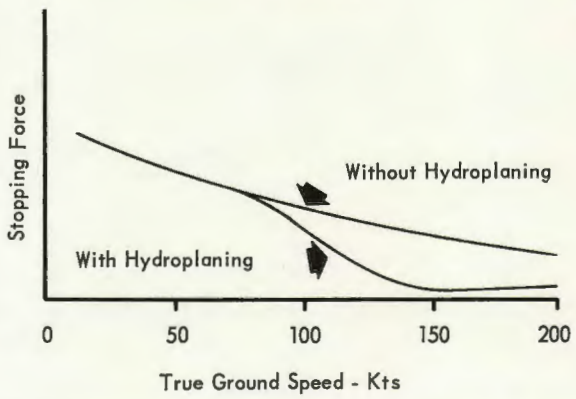
RCR will not predict hydroplaning and you can expect some hydroplaning any time slush is present or when there is any degree of standing water. The amount of water needed to support hydroplaning depends on the type of pavement. You may hydroplane on a very smooth surface in a heavy dew, while it usually takes an extremely heavy rain to cause it on a very rough surface. Regardless, you may encounter hydroplaning on any surface when rain is actually falling or when the runway appears glassy from a distance.

Hydroplaning itself is very often misunderstood. Hydroplaning speed is classically defined in knots as nine times the square root of the tire pressure in psi. For most tactical fighters this is between 130 and 145 knots. However, for practical purposes, hydroplaning can exist down to around 80 knots, and even much lower speeds at times. This apparent inconsistency is because the classic hydroplane speed is defined as the speed where the lifting action of the water will first support the total aircraft weight in much the same way minimum takeoff speed is where the lifting action of the air first supports the total aircraft weight. At speeds below minimum takeoff speed, aerodynamic action will lift part of the aircraft weight, and similarly, at speeds below hydroplane speed, hydrodynamic action lifts part of the aircraft weight.

Braking force equals friction coefficient times weight on the pavement. If one third of the aircraft is being supported by water, the braking force is reduced by one third even though ground speed is significantly below hydroplane speed (see figure three). Note that this is in conflict with the common analogy of the girl on water skis (see figure four). She either completely hydroplanes or sinks. The aircraft can partially hydroplane and experience partial loss of braking capability.

FIGURE #3

Typical Wet Pavement



The importance of this cannot be emphasized too strongly, see figure four again. Under partial hydroplaning, the friction coefficient may be too low to cycle your anti-skid and you may erroneously interpret this as anti-skid failure and turn the anti-skid off. This error could be disastrous ... a properly operating anti-skid is one of your most valuable aids on slick runways.

Outside the lab, we can't predict hydroplaning well enough to crank it into the handbook figures. For this reason, present tactical fighter flight manuals do not consider hydroplaning when predicting stopping distances. Someday they will; however, it still won't be easy.

Tire wear has a significant effect on hydroplaning when runways are flooded or slushy. Braking effectiveness is retained until tread wear exceeds 60 per cent (grooves are 40 per cent of original depth), but effectiveness drops rapidly as tread is worn from 60 to 85 per cent. As wear goes beyond this, the tire is bald for all practical purposes.

If the runway is wet but not actually flooded, some braking effectiveness is retained until tread wear reaches 80 per cent. Badly worn tires are risky on wet runways and dimpled or untreaded tires should be for desert operation only.

My discussion has been aimed at the common or dynamic form of hydroplaning. Recently NASA researchers have recognized a less common but potentially more dangerous form which may explain some of our more puzzling skid incidents.

Consider a tactical aircraft landing on a wet but not flooded runway. Shortly after touchdown the pilot applies the brakes and the tires immediately skid. He should release the brakes. But, with a thin fil

of water on the runway, the friction may not be sufficient to bring the wheel back to speed even after he releases brakes completely. As this skid progresses, enough friction is available to gradually wear a flat spot on the tire and heat the rubber on that spot. If this delicate balance of forces is maintained, the process continues. As friction increases to initiate wheel rotation, the size of the flat spot increases, tending to resist rotation. All this time, the flat spot is becoming hotter and hotter until the surface rubber begins to melt. The footprint area is now hot enough to convert the water film into superheated steam, and the molten or reverted rubber forms a seal around the footprint, trapping the high pressure steam between the tire and the runway. Some steam escapes, but it is immediately replaced as more water is converted to steam. The balance of forces is no longer so delicate. The aircraft is now at 70 to 90 knots where braking action should become effective, but the high pressure steam and molten rubber seal is preventing tire-to-surface contact; hence, preventing braking force. This condition is similar to hydroplaning except that once set up, it will continue until the aircraft approaches a full stop and the brakes will be completely ineffective at all speeds! This effect has been observed on wet grass as well.

FIGURE #4

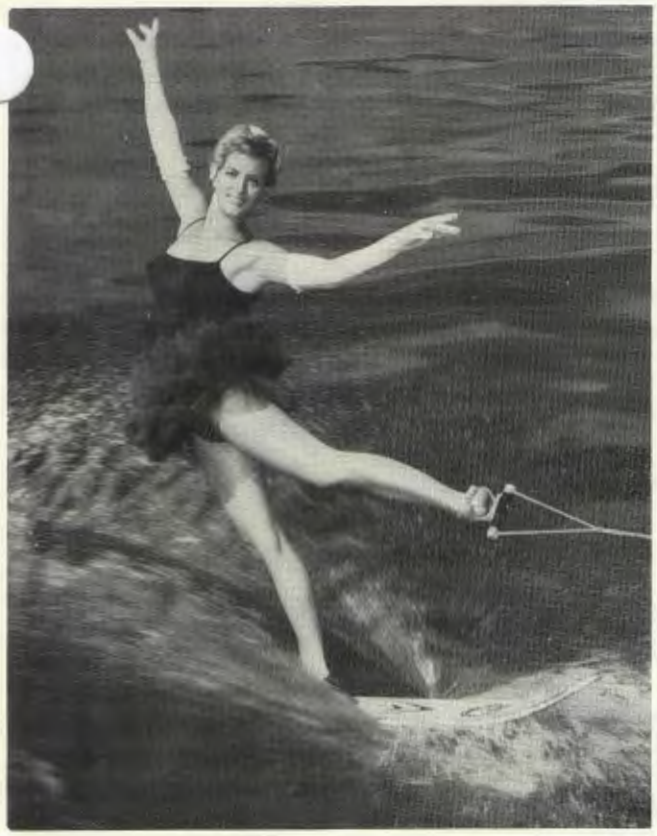


Photo of water skier Judy Scotter, courtesy of Cypress Gardens Association Inc., Florida

The result is obvious, and I hope the barrier engagement is successful. A less obvious result is also possible. Assuming a good chute and a long runway, a pilot may encounter the condition but be unaware of it, or may interpret it as brake failure. He starts to realize something is wrong when he tries to turn off the runway and finds himself skidding sideways into the mud.

I must emphasize that this theory is preliminary and is currently getting some extensive study by NASA experts. When their study is completed, we may be able to devise some techniques to correct the situation. In the interim, caution is the only course of action.

In summary, remember the following points:

*Anticipate stopping difficulties any time the runway is wet or damp, make your approach accordingly, and keep off the brakes until you are firmly on the runway.

*Anticipate hydroplaning when rain is falling, when standing water or slush is present, or when the wet runway looks glassy or slick from a distance.

*If you expect to land on a wet runway, you can also expect trouble if tire tread is worn more than 60 per cent.

*Lack of anti-skid cycling at high speed should not be immediately interpreted as anti-skid failure.

*When rolling along at around 85 to 100 knots on a damp runway, use brakes with extreme caution because a seemingly minor skid may induce severe problems later in the rollout.

*Use maximum aerodynamic braking on wet runways ... check your flight manuals for effect of full-aft stick, speed boards, flaps, BLC bleed air, and other aids.

*Make a low-speed brake check prior to turning off any slippery runway.

*Taxi slowly and with caution. Beware of cross winds, particularly when pulling a chute.

There it is, gents. Lots and lots of information, but no magic number to hang your hat on. The flight manual, the RCR, and the look of the runway are all good guides, but when the chips are down, there is still no substitute for an alert pilot who knows his airplane. Analyze each situation individually, and may all your hydroplaning occur on water skis.

Our attention has been directed more and more SEA-ward, and when we think of survival it runs to swamps, jungles, snakes, escape and evasion. The fact remains, tho, that TAC still does a lot of flying over the arid western US. We can't afford to ignore desert survival . . . summer or winter. Dr. Ray D. Jackson and Dr. C. H. M. VanBavel of the US Department of Agriculture laboratory at Tempe, Arizona, have developed a remarkable water distillation technique for desert survival. They call it . . .

SOLAR STILL

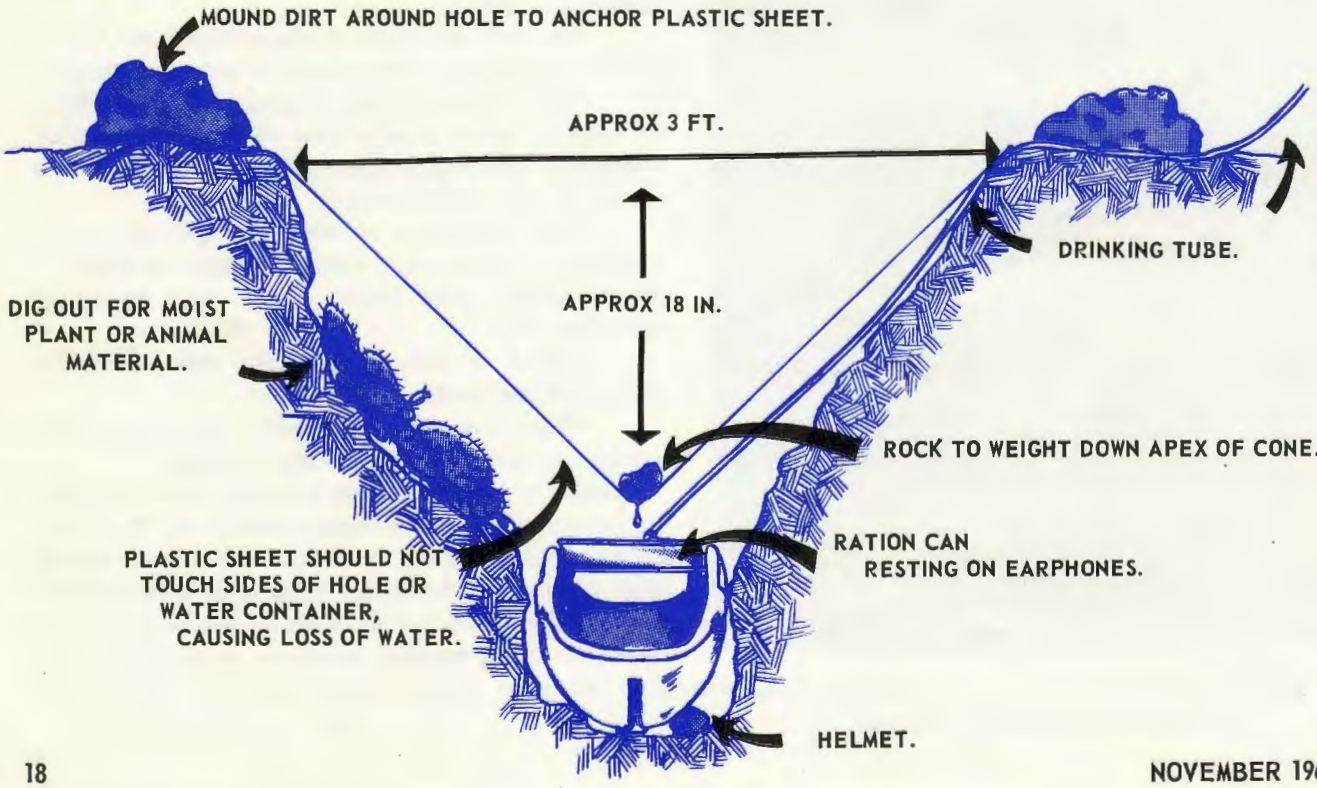
Photos courtesy Capt Karl McCulloch and Luke AFB Photo Lab

The still uses solar energy to evaporate moisture from beneath the surface of the soil. It condenses water vapor into droplets on the underside of a sheet of plastic, then lets it run into a container. You just sip the water thru a plastic tube.

In the Arizona tests, the still produced from one and one half pints to one quart a day for four days or more when located in a wash or depression in desert sand. A still located in coarse sand where water drained away rapidly, produced up to one half pint per day. Stills placed in loam soil produced at least 50 per cent more water than those in desert sand. The distillation process did not stop at night as might be expected. The plastic cooled faster than the soil and the humid air trapped beneath it continued to condense.

In most cases the still's productivity decreased after four or five days in desert soil. But it is easily moved to a new site. Water production was increased and prolonged by lining the sides of the still with cactus . . . or any other plant or animal material that contains water.

The only special materials you need to build the solar still are a 6 X 6 foot sheet of clear plastic (square or round), a four foot length of quarter inch plastic tubing and a plastic bag to store the water. The bag is not essential, you can use your helmet or a ration can; and the drinking tube is a real luxury . . . drink straight from the container you use. However, if you are building a kit, the bag and tube



Materials - plastic sheet, plastic bag, quarter-inch plastic tube, helmet and survival ration can.

take up very little room.

The essential element of the still is the sheet of clear plastic. Water must adhere to its surface. Some plastics are so non-wettable that water droplets will not run into the container. They form and drop off into the soil. For exam-e, DuPont's Tedlar plastic is ufficiently wettable to overcome this problem. (This does not constitute endorsement of this product, but is presented for reader's convenience only.)

Construction is the essence of simplicity. Find a sunny spot (not difficult in the desert) and dig a conical hole in the ground, approximately three feet across. Place your helmet at the bottom of the hole to support a ration can or plastic bag. You can take a ration can, cut out top and bottom and

RATION CAN - TOP & BOTTOM CUT OUT TO SUPPORT PLASTIC BAG.

PLASTIC BAG - DOWN THRU RATION CAN WITH EDGES TURNED OVER TOP.

Plant material adds moisture - increases water production of the still.

rest it on the earphones to hold the bag in place. Next, spread the sheet of clear plastic across the hole and place a mound of earth around the edge to anchor it. A stone in the center of the sheet forms a cone and cuts down wind flutter. If you have a drinking tube, place one end in the water container and run the other under the mound of earth so you can get at it.

The only critical point in construction is to be sure the plastic sheet does not touch the sides of the hole, draining the water back into the ground. Similarly, make

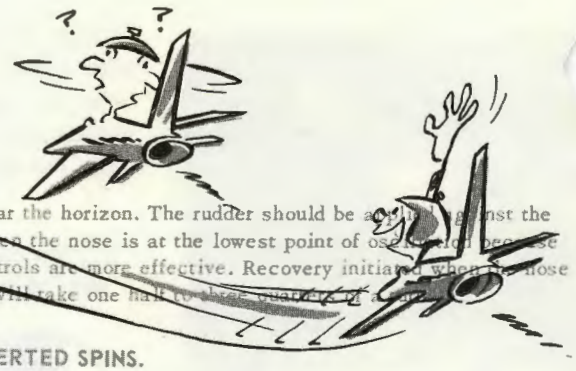
ound dirt around the edge to anchor the plastic sheet. Fist-sized rock forms the cone.

Dig the hole with whatever is handy - knife, ration can, hands.

the hole deep enough to keep the plastic sheet an inch or two from the water container. If it touches the lip of the container, the water will run down the outside and be lost.

Now you sit down and wait.. don't expect drinking water immediately. Within two hours the under surface of the plastic sheet will cloud up and shortly thereafter water will start to drip into your container. It may taste hot and flat . . . it's distilled water . . . but it is unquestionably safe to drink. You could use the same technique to purify brackish swamp water or sea water.

A location on low ground - in a wash or depression - produces best results.



Sideslip CLEARS 'EM OUT

Reduce the airspeed by retarding the throttle to IDLE and maintain attitude by holding the nose up. When the desired slow speed has been attained, it can be maintained by varying the thrust.

SIDESLIPS

Sideslip characteristics are normally good. However a critical limit exists beyond which the maneuver may progress into uncontrolled flight. The out of control condition is [illegible] clears 'em out

STALLS

1G Stalls.

At 1G and gear and flaps up the aircraft stalls normally with plenty of warning [illegible] begins [illegible] and buffet about 10 knots

high near the horizon. The rudder should be applied against the spin when the nose is at the lowest point of oscillation because the controls are more effective. Recovery initiated when the nose is low will take one half to three quarters of a turn

INVERTED SPINS.

Note

An inverted spin is easily recognized because negative-G forces exerted on the pilot will force him against the lap belt.

Inverted spins are usually caused by too much forward stick during slow [illegible] inverted flight of by pushing the stick forward too quickly when rotation stops during recovery from an erect spin. In

"Wing has been looking for somebody to go fight the tanker people at that refueling conference, Sideslip," the Ops officer leaned back in his chair. "As soon as the colonel learned you were back, he wouldn't hear of anyone else going."

"Well, like thanx a whole bunch, Maj . . ." Sideslip hoped this was some kind of a bad joke. "Does he know I just got back?"

"I told him, but he said you're the refueling expert, and you're going!" The major tried to look sympathetic. "You'll have to hustle, get your orders cut, and get on your way."

"OK, sir . . . where, when, and . . . ah, how long?"

"The meeting is tomorrow, and it's on the west coast. I didn't get the details."

Sideslip went to Wing Headquarters and got his briefing. The major had failed to tell him that he was taking Lieutenant Ned Nieuguye with him.

"We don't have an F for you, so you just chase him." Sideslip was told. "He needs time and experience . . . let him do the flight planning and file the clearances. If he learns anything out there at the conference, he may be your replacement as Wing Refueling Officer."

By the time they got their orders signed and bags packed, it was noon. They ate hurriedly and went to check weather . . . they were going right into a howling jet stream. Sideslip knew it would take two hops, but let Ned struggle thru a wasted flight plan to work it out.

Once in the air, Sideslip had to admit that this Nieuguye was pretty smooth. After they finished the departure and reported to Center, Sideslip moved out, looked around the office, and relaxed for the first time since he came to work that morning. He realized he had been driving pretty hard . . . driving the lieutenant to rush, too. "Not quite what the safety cats recommend," he mused, "but at least that young feller's getting a realistic taste of the business."

The cruise at altitude was smooth and effortless, and many yawns later they started an enroute penetration into Halfway AFB. Sideslip noted their fuel had worked out on the money and that they would be a bit heavy on landing. No sweat, with parallel ten-thousand-footers.

The undercast was coming up pretty fast and he moved into close, comfortable position just as they went into the clouds.

"Sideslip Flight . . . Approach, weather at Halfway deteriorating, now six hundred obscured, three-quarter mile visibility in light snow." Ned rogered and looked quizzically at Sideslip.

"Press on," Sideslip answered bruskly . . . too late to switch lead. This wasn't turning out the way it was advertised.

When he checked inside the cockpit for three down and locked, Sideslip received another shock. His oil pressure was nearly zero! Another glance confirmed all other engine instruments were still normal. He reminded himself that he wanted minimum throttle bending and punched the mike. "Lead . . . I've got very little oil pressure. Just noticed it . . . no go-around from this one, OK?"

Ned nodded his understandi[illegible]

as the final controller came on e air.

". . . do not acknowledge any further transmissions. At six and one half miles . . . gear should be down . . . ten seconds to glide path. You have been cleared to land on runway 09 right . . . continue heading 089 . . . Tower has a T-33 on the runway for departure . . . heading 089 . . . "

The voice droned on . . .

". . . on glidepath . . . turn right 092 . . . four miles to touchdown . . . Twins four, Dodgers one, top of the eighth . . . heading 092 . . . on glide path . . . the T-33 should be rolling now . . . cleared to land on the right-hand parallel . . . 092 your heading . . ."

Sideslip was impressed by Ned's smooth style . . . this guy wasn't as green as he'd been led to believe!

". . . two and one half miles touchdown . . . ten feet low on lide path . . . 092 . . . tower has instructed the T-33 to take off immediately . . . " The controller's voice was getting just a bit tense . . . and Sideslip resisted a strong impulse to look for the runway.

". . . one mile from touchdown . . . on glide path . . . 090 . . . the T-33 has . . . ah . . . passing GCA minimums . . . SIDESLIP FLIGHT, IF YOU HAVE THE FIELD IN SIGHT, YOU ARE CLEARED TO LAND ON THE LEFT RUNWAY. I REPEAT, THE LEFT RUNWAY."

He was still talking, but Ned had seen the T-bird. His wing came up abruptly as he lunged toward the clear strip of pavement. Sideslip went after him glancing apprehensively at his airspeed. Ned was neither calm nor smooth now. He S'd violently line up. Sideslip saw black smoke boil from Ned's pipe.

They went screaming across the threshhold. Somehow Sideslip managed to stay with Ned . . . he knew he didn't want to get back in the jet wash. He could see they were going to be long . . . like real long!

They touched together at about four thousand feet . . . Sideslip had his chute out before his wheels were turning. He waited for Ned's chute.

"Get your chute out . . . chute, Lead, CHUTE!!"

"I did, Slipper . . . "

"NO CHUTE, Lead . . . get on the binders . . . NO! Drop your hook . . . punch your stores and drop your hook . . . OK . . . thataboy . . . just steer . . . "

The tanks were rolling to the sides of the runway and Sideslip easily steered between them. Up ahead, Ned's bird swerved gently to the left as the cable pulled him to a stop. Still fast, Sideslip careened around the turn and braked to a stop.

"Sideslip, hold clear of the inside runway . . . aircraft on takeoff." The tower sounded apologetic. "I'm sorry about that T-bird . . . he said he was ready for an immediate takeoff."

Sideslip raised his canopy and shook his fist at the passing T-bird. He completely forgot about the oil pressure and was still muttering obscenities into his mask when he shut down in front of Base Ops.

He scrambled over the rail as soon as the ground crew raised the ladder, then jumped into the transient alert truck and ordered the driver to take him to Ned's airplane in the overrun.

He could only get within five hundred feet when he arrived. There must have been thirty vehicles around it . . . some had red lights flashing. He couldn't see Ned anywhere in the mass of humanity that was milling around the overrun. He found two Air Policemen standing on one side of the crowd and asked who was in charge . . . they didn't know. Then he spotted a major and an L/C who appeared to be discussing something pretty serious. As he walked up to them, they recognized his TAC patch and choroused . . .

"You the pilot of the other . . . ?"

"Yes sir . . . been trying to find Lt Nieuguye," Sideslip looked across the crowd again. "How soon can we get this crowd to disperse and pull the bird back to the ramp?" He looked from one to the other, wondering if either was the Base Ops officer.

"Don't look at us, Captain . . ." The L/C was almost indignant. "We're just out here to check on things. You know, we haven't had a barrier engagement here in years!"

With a look of disbelief, Sideslip turned back toward the crowd. He worked his way toward the airplane and finally found Ned, looking somewhat bewildered, vainly trying to protect his chariot from the well-meaning onslaught of the reclamation crew.

Ned's face lighted with relief when he saw Sideslip. "Am I glad to see you, Slipper . . . what we supposed to do now?"

Sideslip grabbed Ned's arm and led him around the airplane, "There . . . it's quieter here . . . does anybody around here act like they're in charge, or anything?"

"No, Slipper . . . they're all talking about how they haven't seen a crash like this before. This isn't an accident, is it?"

"Hell, no! That was no more than a successful barrier catch . . . looking back on it, I should

have told you to go around and try again, Ned . . . but once you committed yourself, you did just right." Sideslip paused and looked at the crowd again. "You say nobody's doing anything about clearing the runway?"

"Well . . . the fire chief felt like he should spray foam on something, and made some menacing gestures . . . I convinced him that he should work over the tanks I dropped. And some major was running around here telling everyone to write down a statement."

"What about the medics?"

"I think they were sent after the photographer . . . I'm really not sure, Sideslip . . . I lost track."

Just then a little bald major ducked under the nose and came at them, "There you are! Did I tell both of you to write up a statement? And . . . "

"Major, we'll be glad to write whatever you want . . . later." Sideslip tried to sound calm. "But right now I'd like to move this iron off the runway. Someone else might want to use it."

"Oh, no! Oh, NO!" the major spluttered, "We have to take pictures . . . and measure . . . ah, tire marks . . . and . . . oh, there's a lot to do . . . lot to do . . . " he trotted off toward the tail of the airplane.

Sideslip looked helplessly around. Ned followed his gaze, not really knowing what he was looking for. Then they saw the truck. It had SAFETY FIRST in big white letters painted on the side. A bull horn was mounted on the top.

Sideslip whirled Ned around and pointed him at the transient alert truck. "See that yellow pickup? You zip back to the ramp in it . . . round up a tug and a tow bar and get back here . . . like fast! I'll clear this crowd outta here."

He sauntered over to the safety truck, leaned in the window an studied the maze of radio controls and switches. It was all neatly marked with little printed tapes. In fact it looked pretty simple. He climbed into the bed of the truck and casually leaned on the cab. From this vantage he could watch Ned's progress and keep an eye on the airplane.

The yellow pickup disappeared behind Base Ops . . . it seemed an eternity before it reappeared, but now it was leading a Coleman tug. When they were crossing the inside runway, Sideslip jumped down and seated himself in the cab of the safety truck. After one false start, he heard the bull horn come to life.

"Attention . . . attention, please. Now hear this . . . there will be a Broken Arrow exercise in front of Base Headquarters in three minutes. . . "

→

Better Mousetrap

The New Jersey ANG's 108th Tactical Fighter Group has modified their LOX carts to make liquid oxygen servicing faster and easier and keep the cart filler hose from being damaged. The swivel boom is locally manufactured and adjusts on the coupler end for height, keeping it ready for hook-up at all times. By keeping the hose off the ground and away from the cart, it eliminates both contamination problems and scratched paint on the cart. The overflow can is a local purchase item designed to catch oil drained from vehicles. Weight added to the bottom of the can prevents tipping in the wind. The last innovation is an ammo can mounted on each cart to store face shields, gloves and aprons for easy access

→

TAC TIPS

CALL YOUR SHOTS

Seven minutes after takeoff, the Phlyer saw the right engine fire warning light illuminate. He shut down the offending engine and headed his Phantom for the home drome. The irritating red light stayed on until the generator went off the line when he shut down the other engine on the ground. Investigators found the flex conduit to the right fire detector had been pinched in the hinge area of door 83R and blamed it all on maintenance error . . . then went on to explain that the poor guy they hung with the rap really couldn't see the line as he closed the door, and could do little more than hope it wouldn't get ight. The whole situation has been recognized as deficiency . . . and sometime next year someone'll get around to distributing a fix to the field.

OK, guys . . . let's get off the poor wrench-benders' backs! We all acknowledge that it's a lousy design . . . and should have been corrected before it got off the drawing board. Let's put the water where the fire is . . . call it design deficiency, or lousy logistics, or unglued engineering . . . but please don't call it maintenance error when it JUST PLAIN AIN'T!!

FORTUNATELY

For you non-believers who still don't pull your visor down when tooling around at low altitude, we'll quote one of the many bird strike reports that daily drift thru our in-basket. "On climb-out at 350 knots and 4000 feet a loud bang was heard, and something hit the pilot in the face and arms. A hole approximately six inches in diameter was noted in the upper corner of the right windscreen side panel. Bird remains (species unknown) and plexiglass were scattered throughout the front cockpit. The pilot received minor scratches on his left wrist. Fortately, his helmet visor was down and he suffered damage to his face."

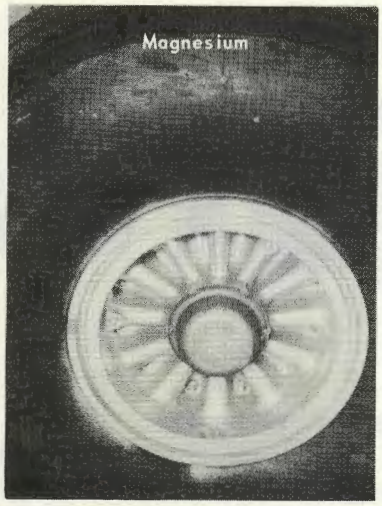
WHO'S CHECKLIST?

The terrible T-bird was tearing along at 320 knots, eight thousand feet above the ground, when the crew felt the aircraft yaw and vibrate. The engine instruments were in the green, so they headed for the closest suitable, and landed. They found the left engine access panel and their baggage pod missing. Only one of the seventeen attaching fasteners had been torn out. The other sixteen had not been fastened. The primary cause was listed as a crew chief problem because the access panel is on his checklist. But there's now one brace of T-bird terrors who look long and hard at the engine doors when they're under the wheel well . . . their clothes were in the pod and it hasn't been found yet!

COOPERATION

After losing normal flight control pressure, an F-86H pilot declared an emergency and was cleared for a straight-in approach to an international airport. He was about four miles out when the civilian tower operator cleared a jet airliner for takeoff on the same runway. Jet wash from the departing big bird made the emergency landing an exciting event ... so much so, the 86 troop depleted the emergency control system trying to keep from bashing.

This near mess points out the value of education and communication. A tower operator can do his job better if he knows enough about the aircraft to understand the potential hazard associated with the more common emergencies. Then responsibility shifts, and it becomes the pilot's job to tell the tower just what is creating an emergency. Communicate and cooperate to keep this hazard to a minimum ... by the way Guardsmen, if you fly off a civilian air patch, this is doubly important for you. How about knocking out a small pamphlet to tell the tower troops something about your bird ... or have them over for a bull session?



HERCULES' ROLLERS

Magnesium wheels on C-130 aircraft have been the subject of numerous incidents, a few fires, and many, many words. Now we're told to use only birds with all aluminum wheels for Phase II and III assault landing training. That's swell . . . but how do I tell at a glance what kind of wheels I have? Chief Master Sergeant I. L. Wagner at Lockbourne has listed the differences for us, and a quick review shows that the most readily identifiable feature of the mag wheel is the presence of support webs protruding into the wheel cavity, and the double rim showing below the gear door.

ALUMINUM:

* Single wheel rim.
* The wheel cavity is dish shaped and smooth.

MAGNESIUM:

* Double wheel rim.
* There are twelve support webs in the wheel cavity extending from axle housing surface to inner face of the rim.

EMERGENCY EAR CLEARING

The AIRSCOOP reported an incident that will interest most fliers. A C-130 co-pilot had a blocked ear which he couldn't clear using the time honored valsalva system. A flight surgeon on board had the co-pilot hold his oxygen mask on tight, turn the regulator to the pressure position (using 100 percent and push-to-test switch). With pressure in the mask, he had him swallow with his mouth closed. It worked. The flight surgeon also recommends this technique for clearing stubborn sinuses.

TRAPPED TROOP

When the engines stopped, the loadmaster opene the door as the passengers stood up and filed out o the C-119 . . . all but one, he couldn't unfasten his seat belt! Each member of the crew tried his hand at opening the buckle, but it refused to budge. They finally freed the wide-eyed young feller by unfastening the belt at its base. This could have been disastrous in an emergency that required rapid evacuation! The ball bearing on either side of the release mechanism had corroded while the belt was left unused during a spell of very humid weather. They rolled just far enough to allow the belt to lock . . . and froze! ACs, loadmasters, and personal equipment troops would do well to keep this in mind . . . take a good look at seat belts that have been out of use for a while, and work the buckle once or twice before someone is strapped (trapped?) under it.

ICY VASI

We have seen and heard many words on VASI (the visual approach slope indicator) since its introduction a few years back. We endorse it heartily and use it regularly . . . but like all other flying aids, you must know its peculiarities or it may trip you up. An RAF officer, reporting in ADC's INTERCEPTOR, ha pointed out that in wintertime a thin film of ice ma form over the glass face of the VASI. An unnatural refraction thru the ice will cause a variable, and false glide path. In one case, a pilot reported a red/red indication when he was actually flying well above the normal glide path. Usually the ice will melt after the lights have been on for a while and the glass warms up; however, in extremely cold weather the lights may not produce enough heat to melt the ice. When the weather warrants, Base Ops and Engineer types should check the VASI regularly for ice. And pilots should keep this phenomenon in mind and check the VASI against a precision GCA or ILS . . . or against the following table:

Distance fr. T. D.	Altitude AGL 2.5° Slope
1 mile	250'
2 miles	525'
3 miles	800'
4 miles	1075'

COLOR IT SENSITIVE

This one happened in a Navy T-bird, but it could have been just about any aircraft. The pilots were c a nite flite at 22 thousand feet. The front seat drive

reached for his helmet bag which he had stuffed down on the right side of his seat. As he drew the bag up to him, it snagged on the canopy jettison T-handle ... the canopy left with a bang. In their initial shock, both pilots thought they had been ejected. However, they quickly recovered when they found they still had communication with each other. Altho the windscreen frosted over during descent, the recovery was uneventful, considering ...

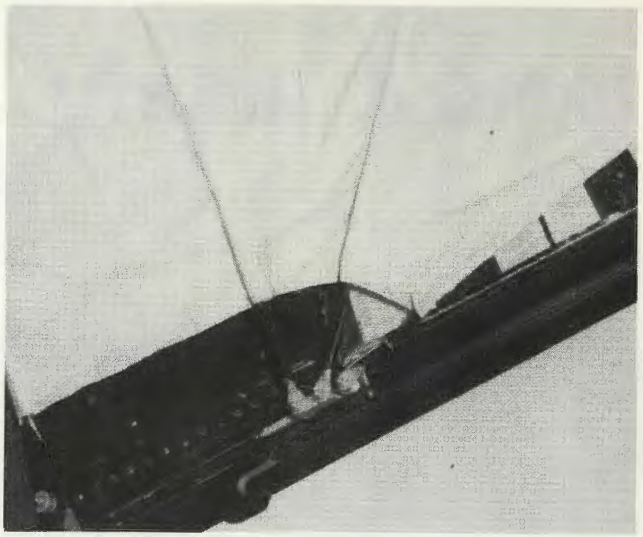
A bag unthinkingly stowed in the wrong place caused this one, but there are many similar hazards in all types of birds. The Navy T-birder later said he didn't think the T-handle was so sensitive.

LESS LIGHT

A recent C-130 landing incident re-emphasized the problems involved in landing the big iron bird with less than the customary two landing lites. The change in shadows, when using taxi lites or a single landing lite, affect depth perception and have embarrassed many a pilot and (sorry to say) damaged many a landing gear. Most often, the pilot thinks he is higher than he really is. Understanding the changes in visibility and planning for them will help to eliminate the problem. Using the longest runway available and a power-on approach, stair-stepping down to the runway, seems to be the best plan.

AISLE DANCE

A couple of old head IP types were spending the afternoon flagpole flying their Douglas Racer (C-47 to you non-old-head types). Each had made a couple of instrument approaches, and because they were both required to fill squares from both seats, decided to change positions and go at it some more. They climbed to 5000 feet, leveled, and put the old Goon on autopilot. The pilot in the left seat unstrapped and stepped into the aisle. When right seat stood up and started across, his cap hit a feather button and number two started to cage. Both pilots, realizing something was wrong, made a dive for the left seat, recovered, and then both tried to leap into the right seat. At some point in the melee someone pulled out the feather button and both of our heroes found themselves back in the seats they occupied before the wrestling match in the aisle. Altitude 5000 feet, attitude straight and level, cockpit full of rueful smiles and bewilderment. Now, about the mid-air problem ...



CORRECTION CARD CORRECTION

Capt Clarence C. Reynolds at Luke sent in a suggestion which we think should be passed to all F-100 units. The pictures speak for themselves, but as he explains ... it's a whole lot easier to see the altimeter correction card in the back seat of an F when it's plastered right beside the altimeter instead of being hidden behind the instrument hood. Besides being easier to find, the card mounted on the panel is a good reminder to use the correction. P.S. We have already given the photographer seven blows about the head and shoulders for getting a pic of a card that says to change to 29.92 at 23,500 feet. Don't bother to write ... we know better.

ground safety

watch the close ones

Just before school started I loaded the car with wife, kids and camping gear and headed out from office and telephone. We wandered thru ten states before pulling back into the familiar car port. I am not an expert driver. With a less than placid disposition, I like speed. However, on this particular jaunt I didn't exceed any speed limits, but didn't dawdle. We had one uncomfortable moment after passing a car poking down the center of a multilane road. Another driver passed him on the right and we both tried to get into the same lane at the same time. Altho I was some feet ahead of the other guy, he started in first. He got the lane.

We stopped at one of the larger cities to visit friend Bob. During the visit Bob - that ain't his name, but it will do for now - drove us across town. We had four close shaves on that trip across town and back. Three with cars, one with a pedestrian. In each instance Bob would mutter something about the other man's intelligence and press on. I'm fairly certain his excess speed fooled the others ... they didn't expect anyone to be barreling along that fast and it messed up their timing.

Yet, Bob is a skilled driver. He'd be dead by now if he wasn't. He has the car under excellent control, but someday he's going to end up in one whale of a smash up. He doesn't leave any room for error and will get caught.

But, it takes more than skill to make a good driver. Good driving takes headwork, and driving w within your capabilities and the capabilities of you equipment. The near misses are the indicator. If you find that you are always having close shaves, you had better look at your driving habits. The good driver expects the other man to make an occasional goof. He's ready for it and usually takes action to avoid problems . . . he does it so smoothly, lesser drivers probably wouldn't even know a hazard was developing. Try to develop this technique. It makes driving more relaxing, more fun, and a whole lot more certain.

does it fit?

Some of us shop for safety the same way women shop for shoes. We keep trying on safety programs until we find something that looks good. Then buy it, with little thought for whether it fits or pinches our aviation operation.

Like the ladies, we wear our safety with great pride while anyone is watching. But let us get in the privacy of our own bailiwick, and off come the shoes and safety. We wiggle our toes and heave great sighs of relief. Now we can operate.

Why does a safety program pinch? It pinches b cause we substitute <u>don't</u> when we can't answer <u>how</u>. It pinches any time there are unnecessary restrictions.

It pinches because we often find ourselves in the same rut that automotive safety has been in since we started paving roads. Let a holiday weekend come along and the news services are filled with predictions of doom. They tell us how many will be killed and maimed. They do their best to scare us into staying home, and if that fails, they tell us to "Drive Safe!" Not <u>how</u> to drive safe, but "Drive Safe!" In the meantime, we go on building 100 mile-an-hour cars for 60 mile-an-hour roads and 40 mile-an-hour drivers.

Right now is a good time to check for signs of corns and bunions. If your safety program pinches your operations in any way, then you've bought the wrong program. It's time to get rid of it and step into some surefit seven-league boots with a positive approach to safety.

This article was reprinted from June SAFETY TIPS who borrowed it from the APPROACH magazine, who in turn reprinted it from United States Army AVIATION DIGEST.

Recognition

MAINTENANCE MAN OF THE MONTH

Staff Sergeant Walter F. Hackett, 4514th Armament and Electronics Maintenance Squadron, Luke Air Force Base, Arizona, has been selected as a Tactical Air Command Maintenance Man of the Month.

CREW CHIEF OF THE MONTH

Staff Sergeant William C. Cool, 463d Organizational Maintenance Squadron, Langley Air Force Base, Virginia, has been selected as a Tactical Air Command Crew Chief of the Month.

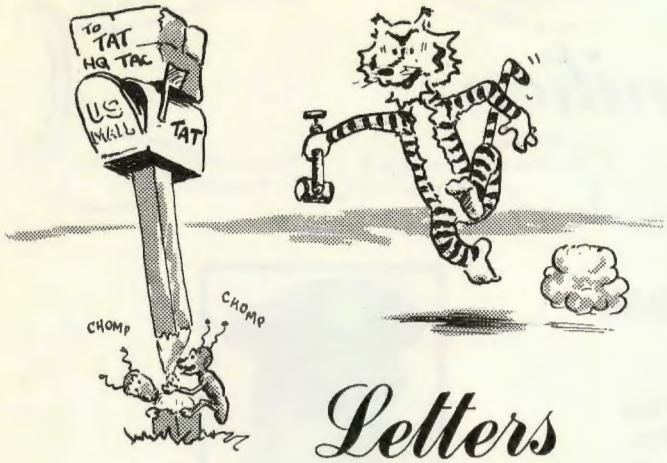
PILOTS OF DISTINCTION

Major John F. Newell and Captain James E. Callahan of the 464th Troop Carrier Wing, Pope Air Force Base, North Carolina, have been selected as Tactical Air Command Pilots of Distinction.

On takeoff from an overseas base, Major Newell, aircraft commander, and Captain Callahan, pilot, noted an unusual thumping noise prior to liftoff. When their C-130E was safely airborne, an inspection of the main landing gear units revealed damage to the left rear wheel. All hydraulic systems were indicating normal and considering the mission, weather and availability of parts, Major Newell decided to continue the flight.

Arriving over their destination another inspection revealed the damaged wheel was immovable. The pilots dumped fuel to reduce landing weight, while the fire department put down a foam strip to the left of the runway centerline. Major Newell and Captain Callahan made a full flap landing, lowered the jammed wheel into the foam, and slowed the aircraft using aerodynamic braking combined with nose wheel steering and differential reversing for direction control.

Investigation revealed metal fragments from a cracked magnesium wheel had jammed the brake rendering the wheel immovable. Their thorough knowledge of the C-130 and professional handling of this malfunction averted serious damage to the aircraft and qualify Major Newell and Captain Callahan as TAC Pilots of Distinction.



Letters

Dear TAT

Reference the article in the September issue of TAC ATTACK entitled "I'm a Believer," which pertained to misidentification of aircraft by air traffic control. I would not attempt to defend either pilot or controller but a few facts come to mind which should be accepted by pilot and controller alike.

Misidentification of aircraft will continue to occur unless someone can come up with a solution to human error, complacency, and congested traffic in the air traffic control environment, especially in terminal areas. However, I believe both pilots and controllers can reduce this hazard considerably by adhering to a few basic rules.

* Pilot - Air traffic control is a service to you the user. Know what service you are entitled to. If you are not getting it, ask for it. If the controller is unable to provide it, find out why after landing. AFM 60-5 and ATP 7110.1B are commonly referred to as the Controller's Bible. Section 300 of the ATP contains specific requirements for identification purposes. It also outlines specific requirements if misidentification is suspected.

* Pilot - Know your approximate position when you are handed off from one radar facility to another. Upon initial communication with the receiving controller, he should give you your position if radar identification was effected by means of identifying turns or radar beacon procedures. He is not required to advise you of your position if any other method of identification was used. However, nothing prevents the pilot from asking for it. Compare his position report with your estimate.

* Pilot - If you are making a radar approach to an airport, the controller is required to inform you of your position at least once before starting final approach. If you do not receive it, ask for it, compare.

* Pilot - Be suspicious of and question any assigned heading which creates a doubt in your mind that it will accomplish the stated purpose.

* Controller - Possess an exacting knowledge of all methods of identification, practice them. When receiving an aircraft, don't hesitate to use more than one method of identification if the slightest doubt exists as to the identity of the aircraft.

* Controller - If you lose radar contact or it becomes questionable, or if the slightest doubt exists, take immediate action to maintain identity, reidentify the aircraft or terminate radar service. If you find that you have misidentified an aircraft, accept it and take immediate action to protect the pilot. This is your insurance policy, the beneficiaries would be too numerous to list.

TSgt Ray M. Short
1999th Comm Squadron
Sewart AFB, Tennessee

Dear Ray

Amen!

TAT

Dear TAT,

Reference is made to the August 1965 issue, page 7; quote; "The report was brief and to the point. It said the left main gear failed to retract after takeoff and that all attempts to lower it were unsuccessful." The article then goes on to say that the crew landed on the right main and nose wheel, etc.

If the left main failed to retract and if, apparently, there was no malfunction of the right main and nose gears, why didn't this pilot simply make a normal heavy landing?

John E. Jensen
Chief, Aviation Services Branch,
National Aviation Facilities,
FAA Atlantic City, NJ

Dear John

Humm, looks like we left out the word "fully." Please insert same between "to" and "retract."

TAT

TAC TALLY

A COMPARISON OF TACTICAL AIR COMMAND ORGANIZATIONS

MAJOR ACDNT RATE

TYPE	1965*	1964
TAC	9.6	10.5
A-1	22.6	10.7
F-4	11.0	4.9
F-5	25.2	0
F-84	11.9	16.1
F-86	49.4	13.4
F-100	13.2	17.8
F-101	0	20.1
F-104	27.4	12.1
F-105	25.8	26.7
B-26	0	76.0
B-57	14.7	0
B-66	0	0
T-29/C-131	0	0
T-33	2.2	0
T-39	0	0
C-47	0	0
C/KC-97	9.0	15.3
C-119	1.5	1.9
C-123	3.7	5.6
C-130	1.8	1.2
U-3	0	0
U-10	0	17.2
0-1	0	0

*1 JAN - 30 SEP 1965

ates are estimated where ANG acft are involved due to non-receipt of ANG figures at presstime.

ACCIDENT FREE
MAJOR & MINOR

JET			
ACTIVE	MONTHS		ANG
354TFW	7	19	108TFW
8TFW	4	9	126ARW
CONVENTIONAL			
ACTIVE			RESERVE
4500ABW	51	106	434TCW
4442CCTG	34	67	435TCW

SEP TALLY

UNIT	MAJOR	MINOR
23TFW	2	
4520CCTW	1	
474TFW		1
479TFW	1	
31TFW	1	
15TFW	1	
102TFW	2	1
140TFW	2	
127TRW	1	

The September tally was five fatalities from 11 major and two minor accidents. During the same period last year TAC had three less major accidents and one less minor, but more important, lost no aircrews.

While making a low altitude intercept, an F-4C entered a spin and crashed with both pilots aboard. Two F-104Cs collided entering VFR traffic at night. Both pilots lost control of their aircraft and ejected safely.

An F-105 pilot ejected successfully when fire and overheat warning lights were followed by loss of flight controls. Another Thunderchief pilot successfully ejected when his aircraft developed a massive fuel leak and caught fire while refueling from a KC-135. A third F-105 pilot apparently made no attempt to eject and was killed when his aircraft struck the ground during a simulated strafing pass.

Rain obstructed an F-100D pilot's view during a wing landing, and he went off the runway, collapsed the nose gear, and buckled the intake. Another F-100D entered a spin during a hard right break at FL 360, and the pilot ejected going thru 10,000 feet. The wingman in a flight of two F-100Cs crashed 15 miles short of the field while making a jet penetration. Another F-100C pilot aborted after nose liftoff and ended up in a reservoir with the drag chute out, the tail hook down, the tanks still on, the speed brakes out, and a broken MA-1A tail hook cable.

While taxiing, the rpm and EGT of an F-86H increased, altho the throttle was at idle. The pilot stopcocked and evacuated when a witness told him the bird was on fire. An RF-84F flight leader was killed when he and his wingman collided on initial at night. The wingman landed his aircraft despite substantial damage to the nose section.

A T-33 pilot landed short and wiped out the gear, while another T-bird pilot went off the runway in a crosswind and damaged the right strut and both tip tanks.


Princess ANN
MEET HIRSCH
THERE HAVE BEEN MANY CHANGES IN ORDNANCE AND EXPLOSIVES, BUT KNOWLEDGE AND DISCIPLINE ARE NOT OLD FASHIONED!
TIME WAS WHEN ALL A GOOD WARRIOR HAD TO DO WAS KEEP HIS BOW STRING TAUT AND HIS ARROWS SHARP, BUT ORDNANCE IS MUCH MORE COMPLICATED NOW!
DISREGARDING EXPLOSIVES HANDLING PROCEDURES AND DIRECTIVES DURING MAINTENANCE, TRANSPORTING, LOADING, AND DELIVERY ENDANGERS MEN, MACHINERY, AND THE MISSION!
KAPOW
KPLITOOOM!
YUP, IT'S EMPTY
HOW 'BOUT THIS ONE?
VROOOOM BAROOM!
THAT'S A ROCKET PASS?
KRANG!
WUMP!
BASE C.O.
BASH
SEEEEEEOOO
PHATOOOM
U.S. AIR FORCE
POW!
EXPLOSIVES SAFETY IS EVERYONE'S BUSINESS!!
TAKING ANY EXPLOSIVE FOR GRANTED... IS JUST ASKING TO BE COVERED WITH GRANITE
GONE TO HAPPY HUNTING GROUND
The End