

TAC ATTACK

TAC Attack December 1965



December 1965



TAC ATTACK

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COVER PHOTO:

An unusual angular study of Phantom II

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angle of

ATTACK

After considering the many endeavors which constitute a tactical mission, it is proper to conclude that there will never be a single, simple way to prevent aircraft accidents. However, a careful observer will notice most aircraft accidents have a degree of sameness to them . . . that quite often one or more of the people involved were too readily content to accept a mediocre effort as par for the course. You can almost hear them say, "It's close enough for government work." Meaning that they could have done better had they really felt like it.

This is a dangerous attitude. "Close enough" slides lower and lower until a point is reached where someone else's supervision in the form of quality control or other safeguards is the only thing standing between their work and a complete failure. From that point on an accident is inevitable. Eventually the system of safeguards will break down and a failure occur.

When each person in this command learns to be satisfied with nothing less than his best performance . . . when each changes his concept of "close enough for government work" to mean his absolute top effort, then I sincerely believe we will no longer need to search for a way to prevent aircraft accidents.



Colonel Gust Askounis discusses special F-4 gun installation with Colonel Floyd White, Commandant, USAF Fighter Weapons School, and Capt Everett T. Raspberry of the school's tactical evaluation section.

According to the experts, there are three phases to most spins... the incipient phase, the spin, and if all goes well, the recovery. Then we have aircraft which embellish on these phases. In fact, some contractors have been known to coin fancy words like post stall gyration to more or less explain away the behavior of their creations.

Perhaps this term is a more accurate description of what happens between stall and spin... but this may be one time when accuracy leads to confusion. Confusion, because the incipient phase is not always well defined and can last from a fraction of a second to as long as ten seconds, with the aircraft going thru one or a combination of motions.

Actually, the important consideration is that at least one wing of the aircraft must stall before the machine goes into a post stall gyration or spin. Correct the stall and you remove the main ingredient for a spin.

When your bird approaches a stall, ease off the elevator without aggravating aileron or rudder... and do it soon enough, and smoothly enough, and you will regain control before the aircraft starts its less refined gymnastics. In fact, this same corrective action will usually prevent a spin after your bird has stalled and is into the so-called post stall gyration. However, you don't have to gamble if you learn to recognize your aircraft's pre-stall characteristics, pay attention to them, and AVOID STALL.

Despite what some of you may be thinking right now, this will not degrade your ability to maneuver to maximum. On the contrary, it will enhance your capability! Once you let your aircraft stall you have



passed the fine line and are no longer getting the most from it... with many types, you are no longer in complete control, either.

Let me expand on this. The old T-6 told us when it was getting ready to stall by buffeting nicely a few knots beforehand. Performance dropped off in the buffet range, so we usually stayed just out of the buffet. If we went too far into the buffet, the bird generally snapped... which was the stall itself.

You could operate in the buffet range without too much risk, even tho you were never sure just how far into buffet you had gone. This was because you could correct the stall before the aircraft went very far out of control. All you had to do was relax just a bit of aft stick, and sometimes ease in some rudder. Of course the T-6 was easily controlled in stall. You could hold its wings level with rudder and do a rudder exercise

stall up and down until you tire, the game and relaxed the back stick. Or, you could slow to within 20 or 30 knots of stall, snatch back full aft stick and slam in rudder to make one wing suddenly stall and the aircraft do a quick snap roll... which is nothing more than a controlled spin.

So much for honest aircraft. Many of today's machines are too unpredictable when stalled for us to play with the stall.

Most, such as the F-100, the F-104, and F-4, buffet many knots prior to stall and do their best turning deep in this buffet zone. This forces us to use other indicators to warn of actual stall and to operate in the buffet zone. Unfortunately, the depth of the buffet zone varies. It can be very wide in one configuration (heavily loaded F-4), and not nearly as wide in another (clean F-4). It also varies with the amount of control input. The bird may buf

heavily, yaw from side to side, then attempt to roll just before stall and lull a tiger into expecting these warnings as stall indicators. Then he snatches back on the stick at the same altitude, configuration, airspeed, and attitude and finds it whops thru all these warnings in a fraction of a second, leaving him wondering how to recover.

Study the stall indicators for your bird. Learn what to expect under varying conditions. While you're at it, study the flight operating limits diagram in the handbook to see how many G you can safely pull at normal cruise speed at normal cruise altitudes. Compare this with higher airspeeds. I don't expect you to memorize a set bunch of figures...but you should learn where the ball park is. This will help you understand the bird's capabilities and do much to keep you from over extending yourself until you are perfectly at home with the machine.

If you are doing very much maneuvering, there will be times when you fail to read the warnings and encounter a stall. The first indication may be rather subtle... the aircraft may fail to respond to a control input... adverse yaw in the F-100, for example. If you blindly fight back, you are in for a thrill. At this point, you can usually regain complete control by EASING OFF back stick and neutralizing aileron. This is not the time for rapid mechanical action. In fact, you should NEVER take mechanical action.

The experts keep telling you to "fly the aircraft." They mean just that. You don't suddenly jam in forward stick to break a stall. You ease off back pressure. We had someone prove that just the other day. The bird was approaching stall on a snap-up maneuver. The pilot slammed in forward

stick and the bird reacted by going into an inverted spin. Personally, I don't blame it. The same holds true for spin recovery. If you automatically crank in spin recovery control to correct for an incipient spin, you may cause the bird to spin. Once spinning, you should gradually relax proper spin recovery control as the bird starts to recover or you'll end up in a spin in the opposite direction. In other words, you must still fly the airplane!

When some aircraft are fully stalled, they have been known to snap, go thru high yaw rates, pitch up, or dish out a combination of these goodies. Test pilots say to neutralize the controls and wait. If the bird doesn't recover, it will enter a fully developed spin. Wait for the spin to settle down before you attempt to recover. This isn't permissible with some aircraft, such as the F-100. With other aircraft, you can and should. For two purposes... it helps give the bird time to recover while you are holding the controls neutral (or have turned loose), and gives you time to settle down and analyze the direction of spin.

Analyzing the spin isn't so all fired easy. When the contractor pilot demonstrated spins during the test program, he had several things going for him. He studied engineering data and knew what to expect. He kicked the bird into the spin and, hopefully, forced it to spin in the direction he wanted. Also, he had lots of practice in this sort of business.

When you get thrown into a spin, chances are you're going in cold. You may have been trying to outshine another troop. Suddenly, your bird quit doing what you wanted it to do. You fought it. It snapped, flipped and seemed to tumble. At this point, the fluids in

your inner ear go sloshing about in a most unaccustomed manner. The horizon goes wheeling around, you are balled up in one corner of the office or slammed up against the canopy...you may find this unnatural and confusing.

You may have trouble thinking...you may not know where to look...or may find you have tunneled vision and just sit there staring at one instrument. In short, you may not know whether you are right side up, inverted, or standing on your nose.

Some things are not affected by this. In a few aircraft you can check the angle of attack to find out if you are inverted. In the F-4 the indicator will be pegged at 30 units in an upright spin and read zero in an inverted spin. You can check the accelerometer to determine this with other birds.

So much for which direction is up. To get the direction of turn, check the turn and slip indicator. The ball may be more accurate than the needle on some aircraft...(stand on the ball to correct yaw).

Remember one other thing. It will take you longer than you realize to settle down and start recovery...and take much longer than you may think for the recovery itself.

All of this is well and good, but you must remember to take an occasional glance at your altimeter...and get out if below the critical spin recovery altitude for your bird.

As you can see, it is much simpler and safer to recover from a stall than from a spin. Keep flying the aircraft, and don't react to the unusual by slamming the controls around, and stick to the easy route. Don't press a stall and you won't spin!



THIS IS THE TIME of year most small fry become unusually resourceful...when they develop a talent for peering under locked doors and breaking into hiding places. Most parents attribute this activity to well developed curiosity. Actually, the more aggressive ankle biters are trying to find out if it's going to be worth their effort to stay out of trouble until Christmas. Staying out of trouble reminds me of some other seasonal problems that are more serious...like trying to fly when you'd rather die, or clomping your teeth down on a bit of get-home-itis. Come to think of it, I have a prime example of that last one.

The bird belonged to another command, but made its last launch from one of our pads. It was a long launch, but a short flight. The bird was a twin jet with normally good performance. On this occasion the pilots couldn't get one engine to start. They told the transient alert crewman to go ahead and pull the chocks, that they'd airstart the balky engine.

The transient alert crewman, an airman second, did as bid. But it worried him. In fact, he called the tower and asked them to let him know how the pilots made out.

The bird usually scrambles off in around 2000 feet...it took 7000 feet on one torch. It barely cleared the barrier and made it over power lines off the end of the runway before it began to settle. The gear was still down and the bird touched right gear first, then slammed onto the left, wiping it out. The left wing

tip dug in and the bird broke up. Both pilots scrambled out with relatively minor injuries.

I'm fairly certain the dash one on this bird doesn't specifically say NOT to attempt a single engine takeoff...but does give critical single engine speed. There are always a few aggressive types who will ignore the implication and argue that a T-38, T-39, F-4, or F-5 will do better on one than a hog could do normally. These types also point out that they commonly practice simulated single engine go-arounds and should be reasonably familiar with the reduced performance.

Yeah, but who practices single engine low go's at takeoff weight with an engine completely shut down? And what about hydraulic and electrical systems? With one caged, you don't have a complete electrical system on some of these birds and will have reduced hydraulic power on others. You may not be able to clean up the bird, as happened to these troops, or may have to nurse your way around using limited control movement.

In all honesty, I might gamble on a single engine takeoff in one of these beasts if the flight HAD to go...like to keep from becoming target of the day. Otherwise, no go. There are too many things working against a pilot when everything is at its best, and I sure ain't going to add to the list!

Incidentally, should you lose an engine after you've reached decision speed, leave the bird on the ground until it picks up a little extra speed...around 1

notes above normal lift off speed...and don't get in any hurry to yank up the gear after lift off. When you pick up the gear, the fairing doors open and drag increases. If you are barely flying, the increase can put you behind the power curve. Yes, Tommy, this is one factor in those sucked-the-gear-up-and-slid-to-a-halt bashes. The other factor is that once the tail touches, the die is cast. You can't rotate the bird to increase the angle of attack because it rotates about the wing and...but that's another story.

AN INSTRUCTOR and his student had a little misunderstanding with mobile and ended up in the barrier with a dented up bird and some less than Christian thoughts. It all started with a simulated single engine heavy weight landing. The student slopped it on and considerable smoke boiled from around the right main gear. Mobile took one worried look and transmitted, "Aircraft on landing roll, keep it down!"

The student obediently lowered the nose, thinking he had rotated the bird a bit too vigorously, and continued. The IP wasn't so sure. "Mobile, you want us to bring the bird to a full stop?"

"Rog, Rog, abort the takeoff!"

So, the IP took control, pulled off power and started the abort. 'Course by this time the bird was already airborne and some 3500 feet down the runway. Ugh!

Backing up on this one...we have words like "abort the takeoff" which are far less ambiguous than, "keep it down"...using clear and descriptive language is a must when issuing orders in a fast moving situation.

Second, comes the wisdom of issuing the order at all. In this particular instance, the man in the aircraft should have been in a better position to evaluate the need for terminating, and would have handled things much better if left alone.

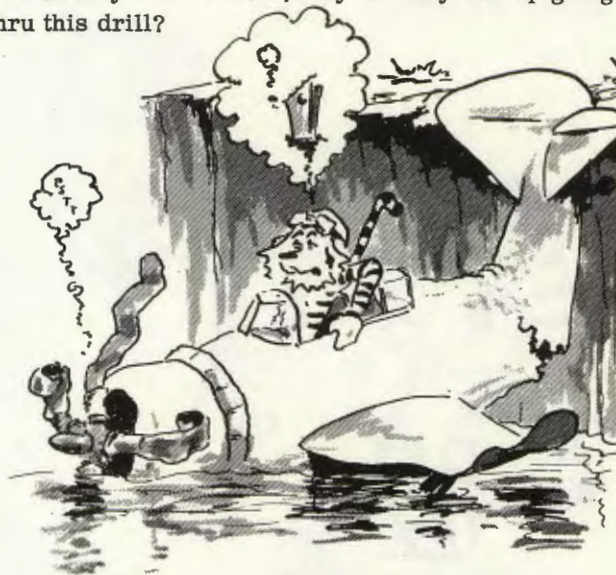
If they'd messed up the gear, chances are the bird would have received less overall damage had they continued the takeoff and burned out excess fuel before landing. True, they might have wiped out a gear trying to get airborne and gone for a real ride thru the boondocks. But wouldn't the same thing happen at just slightly lower speed during an attempted stop?

LEAD HAD JUST turned off onto the taxiway when Three touched down at about 180 knots. When Three deployed his chute he got a streamer and promptly

stomped on the brakes. He zipped past two, steered back to the runway centerline, dropped the hook and took the barrier at around 100 knots with antiskid still cycling. His F-105 did some tricks in the resulting BAK-9, MA-1A tangle, and escaped with around 100 man-hours in sick bay. Not enough to worry about...except for the familiar sequence of events and the fact that every so often this sequence terminates with a lot more bashed aluminum and iron.

The problem started back in the pattern when this lad ended up on final with his airspeed above normal...he either did not or could not correct it before touchdown, and elected to continue. Then, when the chute streamered, he over reacted. Altho this troop had very little total time and was fairly new to the F-105 at the time of this mishap, I'm fairly certain he knew the proper touchdown speed and proper brake technique.

I'm equally certain that most of the troops who follow a similar sequence have this same knowledge...a lot of 'em have considerable more experience too. If they know better, why do they end up going thru this drill?



I don't know for sure...I once dumped a jug into a river bed after landing long and hot on a wet downhill runway. I still don't know why I didn't take it around, except I had gotten away with similar approaches on numerous other occasions. I just flat got sloppy...a luxury we couldn't afford then, and which is even less acceptable today. In those days we were overly concerned with shining our ear with emphasis on a tight pattern rather than a precise one.

It was more difficult to arrive on final at an exact speed than using the current technique. But today,

having proper speed is more critical. What I'm trying to say is that we fly better patterns today because we need much closer speed control. It pays to strive for that speed control on each and every pattern. Form the habit and you'll have everything going for you.

Now, on stomping brake. I would bet that this troop had been warned on how hairy things got with a bad chute. He got a bad chute and he clutched. Reminds me of my first landing in an F-100F. I'd heard the stories and half believed 'em. Sure enough, I got a bad chute. Mobile yelled, "No chute!" and my instructor shouted, "Get on the brakes!"

I got on 'em and he hollered, "Not so hard! Not so hard!" He was late. I'd already felt the anti skid go thru three or four quick cycles and had already backed off. Past experience took over and I braked that fool thing just like it was any other bird and found that it reacted much like any other bird. There was plenty of runway. The moral is to strive for precision on every approach, pay more attention to the handbook than to the bar stories, and to stay relaxed if you get a bad chute so you can do your best instead of clutching.



BIG BOB came in to brighten the morning and cage a cup of coffee. While letting the near lethal liquid cool, and see if it would eat thru the cup, he remarked, "Hey, I see where another F-100 troop bought it. His leader said he was lagging behind during a penetration, and after they leveled, he saw him come up fast from below, overshoot, then pull up and around to the left. After a bit, he looked around and spotted a column of smoke. They can't find out what

happened, but the board figured adverse yaw grabbed him."

Big Bob is pretty sharp, and he likes to set traps. So I tested my own coffee and waited without comment.

"Yes sir," Bob continued, "that poor wingman was just flying along, minding his own business, when adverse yaw reached out and snatched him from the sky! That's real potent stuff."

"The coffee?"

"No! Adverse yaw. I see where it grabbed a couple of F-4 troops, too."

I nodded sympathetically . . . but he wasn't thru. "I got caught by adverse yaw once myself. I was tooling my Porsche just off the mach when the darn road broke hard left." He shook his head sadly, "I didn't even have time to go guard channel, let alone switch the IFF."

His point is well taken . . . adverse yaws, skids, and similar phenomena have yet to cause an accident. It's the throttle bender who plunges in beyond his depth to exceed his and the machine's capability who causes the accident. True, nasty characteristics such as wild skids, yaws, and spins may make it more difficult to gracefully recover . . . but . . .

RIGHT AFTER TANKER hook up, an F-105 troop found he was having to fight a left-right stick oscillation. He said it took about 20 pounds of force to override the movements and that they felt similar to stick movement during rollout from a VTIP auto toss.

The pilot disconnected from the tanker and got an emergency vector from the tanker navigator. He let down enroute, disconnected the stab aug, checked the RAT handle full aft, and turned the AC generators off. The oscillation continued so he reset the AC generator. The stick became easier to control when he slowed to 220 knots, approaching the field at around 5000 feet.

Once lined up on final, the pilot again turned off the AC generator and tried turning off the DC generator and battery, without effect. He turned everything back on and restarted the ATM and continued the approach to a satisfactory landing.

The spool in the valve assembly of the stick power actuator was binding. The pilot did a pretty good job trying to correct the problem, but I would have been inclined to do ALL the experimenting while at altitude and to leave things alone once on final. I think I would put the bird in landing configuration and run a controllability check to within ten knots of my touchdown speed, just to make sure I didn't encounter any surprises at the lower altitudes.

m gonna have to jump for my life, I prefer to do it above 10,000 feet . . . particularly if it's an out-of-control condition that's going to force me out.

HERE'S ANOTHER VERSE to an old sad song. It started with gear trouble. As the pilot burned fuel to landing weight the utility system dropped to zero. He put the gear down . . . tried to anyway, and found the nose and right main indicated unsafe. A flyby confirmed the indications. Mobile said the left gear looked normal but the right one seemed to be over-extended and outboard of its normal position. The nose gear appeared to be part way down.

While the crash crew foamed down the runway, another pilot joined on the sick bird to get a better evaluation of its condition. While he was checking, the pilot of the sick bird started having trouble controlling aileron and told the other troop to move out. Almost instantly, the inspecting pilot lost control and his aircraft pitched up.

Sigh, both pilots ejected from their machines.

All right, let's learn the chorus to this tune and quit adding verses. It goes something like this . . . never get so engrossed in an emergency that you neglect to fly your aircraft. Airplanes are female and get downright ornery if you don't give 'em a fair share of your attention.

A TAC PILOT completed the low level part of his mission and pushed the throttle forward to start his climb. Nothing happened. He checked rpm and found it at 90 per cent and not responding to changes in throttle. He didn't try emergency fuel because the throttle moved much easier than normal and he decided the linkage was broken. Ah so! He pointed his F-100 toward the nearest air base, arriving just as the runway was closed due to another emergency. Undaunted, he took the bird on home, making a PLP. Engine rpm slowly dropped to zero when he brought the throttle to idle and the landing was a success. Sure enough, the throttle cable was broken.

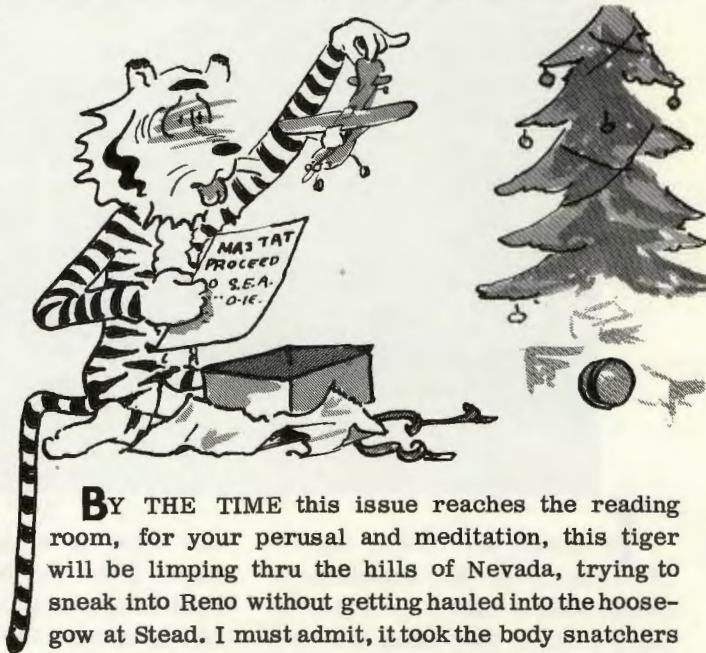
Of note, once this troop found he couldn't control power, he didn't keep messing around to cheat himself out of a ride home. This is good thinking. Secondly, not too many years ago this mishap would have ended differently . . . a broken throttle linkage used to leave the pilot with idle power. A lot of hollering by a lot of safety people resulted in the present fail-safe system. Proving safety types do occasionally manage to accomplish something of value.

TAC ATTACK

THE BIRD, a chopper, belongs to another command, ditto the crew, and after reading the report . . . The pilot encountered a control problem at cruise speed and found it became less severe as he reduced speed. Now let me quote the report: "After obtaining permission from the wing command post, a precautionary power-on landing was made in a level field with no damage resulting."

Talk about buck passing! If he'd bashed, I presume they'd have brought along an extra rope for the command post type.

Perhaps I'm old fashioned, but to me such decisions belong exclusively to the pilot. A competent pilot should call someone for information if he needs it and has time to use it, but to ask permission . . .



BY THE TIME this issue reaches the reading room, for your perusal and meditation, this tiger will be limping thru the hills of Nevada, trying to sneak into Reno without getting hauled into the hoosegow at Stead. I must admit, it took the body snatchers long enough to break up the old homestead . . . but what a way to break it. An assignment to bug smashers, putt putting over the trees in SEA. Where does an old fighter pilot go to get sick?

It is customary on such occasions to turn loose a torrent of words . . . a swan song, getting off all the items you've had on your chest but didn't dare print for fear of getting shipped off to some foul spot flying some lowly bird. Since I've spent the better part of five years unloading everything, I find I have no song to sing . . . no swans to fry . . . no tears to dry. All I can say is I've enjoyed the game, hope I didn't mash too many toes that didn't deserve mashing and trust I didn't mislead anybody. With that, I'll scat, and leave the fishwrapper to Sideslip Shacklock, Ted Giddings and the rest of the gang . . . they've been doing all the work anyway! - TAT ➤

f-100 Drag Chutes ... again



bridle are stowed with about ten inches of the bridle leg containing the pin that holds the liner doors closed coming out the aft outboard corner of the pilot chute compartment. This is directed by safety supplement T O 14D1-3-SS-22-3, which changes the packing instructions outlined in Section V of T O 14D-1-3-22 and supersedes bridle routine procedures contained in T O 14D1-3-545.

The pin that holds the flaps of the pilot chute compartment closed should be installed as shown. However, more important, when using the streamer to pull the pin during chute installation in the aircraft make sure you have the pin and not just the streamer when you finished closing the drag chute compartment doors.

One other point, the section of T O 1F-100D-2-2 and T O 1F-100F-2-2 that illustrates drag chute packing and installation has not been supplemented to agree with the most current procedures outlined in T O 14D-3-22. A technical order change is in the mill and should be out soon. In the meantime if you're an F-100 flight line type or work in Transient Alert get with the base drag chute packers and have them brief you on current procedures in T O 14D-3-22 as supplemented.



To update and clarify our F-100 Drag Chute Drill article in the October issue take a close look at these photos. They show the correct way the F-100D/F, MB-5 deceleration parachute should look when it is packed in the bag,

and when it is installed in the liner. Note the bridle from the main drag chute to the pilot chute comes up over the forward end of the bag and into the forward inboard corner of the pilot chute compartment. The pilot chute and



I. OPERATIONAL HAZARD REPORT										ANONYMOUS YES NO	
TO: Flying Safety Officer					FROM: I.V. Hadit, Maj 999 TCW						
LOCATION OF OCCURRENCE/HAZARD Flight Planning Room - PIF					TIME OF OCCURRENCE DATE 6 NOV 65 HOUR 1700 <input checked="" type="checkbox"/> DAWN <input checked="" type="checkbox"/> DAY <input checked="" type="checkbox"/> DARK <input type="checkbox"/> DUSK						
IF HAZARD OCCURRED WHILE IN AIRCRAFT, COMPLETE THE FOLLOWING:											
DEPARTED FROM Temporary Duty, AFB			DESTINATION Faraway, AFB			MISSION Assault Airlift					
ORGANIZATION AIRCRAFT ASSIGNED 999 TCW					AIRCRAFT TYPE C-130 ACFT SERIAL NO. 12345 Y2 RADIO CALL HELP!						
CLEARANCE LOCAL <input type="checkbox"/> VFR DD 175 <input checked="" type="checkbox"/> IFR DD 75 <input checked="" type="checkbox"/> COMMUNICATION DIFFICULTIES <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO					ALTITUDE Ground Level			WEATHER CONDITIONS Foggy			
CREW POSITION											
<input checked="" type="checkbox"/> PILOT		<input type="checkbox"/> CO-PILOT		<input type="checkbox"/> INSTRUCTOR PILOT		<input type="checkbox"/> NAVIGATOR		<input type="checkbox"/> ENGINEER		OTHER (Specify)	
PHASE OF FLIGHT											
<input checked="" type="checkbox"/> PRE-FLIGHT		<input type="checkbox"/> STARTING		<input type="checkbox"/> RUN-UP		<input type="checkbox"/> TAXI		<input type="checkbox"/> TAKE OFF		<input type="checkbox"/> CLIMB	
<input type="checkbox"/> CRUISE		<input type="checkbox"/> DESCENT		<input type="checkbox"/> LANDING		<input type="checkbox"/> POST FLIGHT					
DESCRIPTION OF OPERATIONAL HAZARD											
<p>At every flying safety meeting you prod us to contribute our ideas on how to increase flying safety. Well, here I go on my pet peeve . . . and I'm taking the lazy way out by putting it in an OHR.</p> <p>Perhaps the only effective way to communicate all the latest poop to us working-level types is to put everything into the PIF and make darn sure we read it before takeoff. The problem is: IT JUST DOESN'T COMMUNICATE! Here is a sample excerpt: "SOME MILITARY FLIGHT PLANS ARE BEING RECEIVED SPECIFYING INCORRECT ROUTE DEFINITIONS. THESE PRACTICES, WHICH ARE CONTRARY TO ATP7110.1B, Paragraph 147.20 and 742 . . ." AND THEN FOLLOWS THE PUNCH LINE ". . . Air Traffic Division facilities shall not accept military flight plans when call signs or route definitions are not in accordance with ATP7110.1B, Paragraph 147.20 and 742 . . ."</p> <p>What did it say??? PLEASE have the boys leave all the fancy military jargon out of the notes and just draw me a picture so that, when I leave base ops, perhaps I'll remember that important notice to conform with, ah, AFR - er, or was it AFM, change "2" to read "22" . . . I'm not sure, but I remember 60 dash something . . . yeah . . . Have I communicated my problem to you?</p>											
DATE 6 NOV 65				SIGNATURE OF REPORTING PERSON (Optional) J.V. Hadit							

AF FORM 457 JAN 62

INVESTIGATION OF HAZARD

II.

SUMMARY OF INVESTIGATION

The PIF was researched and found to contain three items which referenced other publications. Finding and defining these references required a total of over two hours. The item mentioned in the report is quoted verbatim, and it is felt that rather than undergo a long and tedious process of researching unavailable documents, a pilot is inclined to sign off the item without understanding it fully.

RECOMMENDATIONS

It is recommended that PIF entries be edited and prepared for immediate reader consumption and understanding.

ACTION TAKEN

This OHR was submitted to the Air Traffic Control Board where it was discussed by representatives from FAA, Communications, and Flight Operations. It was unanimously agreed that all future PIF items will be prepared and submitted to the file in clearly understandable language.

* U.S. GOVERNMENT PRINTING OFFICE : 1962 O-626146

This is one of the best OHRs we've seen in many a day! It contains one error - that is where the originator states "... I'm taking the lazy way out by putting it in an OHR." He didn't take the lazy way out. This is exactly why the OHR was created, to give him, and you, the opportunity to notify the powers that be that things ARE NOT ALL WELL ON THE FLYING FRONT!

THREE of a KIND

... a losing hand



Mr. Cessna's contribution to tactical aviation will set no speed records and Lt Playboy was just a little bored. The mission had been strictly routine and he was putt putting toward home when he heard Capt Allen trying to raise a ground station. He relayed the call and passed on Allen's position report. Allen wasn't far away. Playboy checked his own position, smiled wickedly, and adjusted his course to make an intercept. About ten minutes later Playboy spotted his quarry chugging peacefully along below. He eased it over, letting the machine build up speed...

Capt Allen let his O-1E fly itself as he studied the terrain below wondering where he could set down should the engine conk. "Probably do a flip in one of those rice paddies ... still, that might be

better than trying to bail out and risk a chute landing in the adjacent timbered areas." Sudden movement brought his attention toward the nose as another O-1E loomed up from underneath. Before he could react he saw the other machine hit his own propeller arc and felt the impact. They seemed to hang together for an instant before Allen rolled his aircraft off to the right.

The other machine continued in a left climbing turn, bits and pieces of metal trailing from it. Allen's own machine was in a shallow dive which he automatically attempted to correct. The stick was partially jammed and he was within 1000 feet of the jungle before he was able to regain some semblance of control. The aircraft was vibrating heavily but smoothed at lower power settings.

"Must have been Playboy," he decided, "pulling another one of his dumb buzz jobs... sure missed this time. Just wait 'till I get my hands on him!"

He would have a long wait. Playboy would play no more.

"Primary cause," the board president dictated, "is pilot error in that 1st Lt Playboy intentionally flew his aircraft in close proximity to another aircraft in an unauthorized and reckless manner." He rubbed the half day's growth of stubble on his chin... "Contributing is supervisory error in that the air division failed to provide adequate control and supervision for..."

The Colonel briefed Captain Cecil to chase him during an instrument mission. After the colonel finished filling h

quares, Cecil was to join Lt Riddle over New Brandy at 15,000 feet at 1900 hours and chase him thru his instrument mission.

Cecil and the Colonel launched and went about their assigned mission. Meanwhile, shortly after Lt Riddle got airborne, Capt Rock joined with him and flew in trail until just before Capt Cecil was to join on Riddle...In fact, Cecil called to say he was joining while Capt Rock was still in sight below Riddle.

From here on things get less clear. Riddle saw Cecil apparently joining on Capt Rock's bird. Actually, he seemed to be bouncing him, so Lt Riddle followed Cecil down and thru the bounce, which terminated in a left climbing turn. Rock, not to be outdone, pulled up to do a little bouncing himself.

This left Riddle high on the outside of a left turn. He lost sight of both Cecil and Rock while both were still turning below him. He rolled out of the turn and started setting up for a practice instrument approach, more or less assuming the play period was over and that Cecil would join him.

It didn't work out that way. Capt Rock later said he saw Lt Riddle below him with Capt Cecil descending off his right, flying almost in trail of Riddle. Apparently Capt. Cecil was looking back, since he flew into Riddle from behind.

The whole aft section broke off Lt Riddle's aircraft and Riddle ejected as his machine pitched out of control. Capt Cecil jettisoned his canopy, but was still in the aircraft when it hit.

* * * * *

"We checked the weather and started down. I was flying in trail behind Harry when he leveled his F-100 at around 10,000 feet. That's when I saw this pair of A-1Es. They were low at ten o'clock..."

I could go on and let this young man tell his story, but by now you should get the point. If not, come with me back to that board president while he's still pondering the contributing cause to the O-1E bash. "Supervisory error," he's thinking, "really you shouldn't have to supervise grown, intelligent men...but leaving them unsupervised is like leaving your valuables out and unattended. You shouldn't have to, but you lose them if you don't."



The PEASHOOTERS

One of the most beautiful biplanes ever built, the P-6 was a first line pursuit plane from 1929 to 1933. It was also one of the last biplanes to be built in quantity for the Army Air Corps.

Despite its hot performance, the P-6 was among the strongest and safest of the then current pursuit types.

Less than 93 P-6s were ordered due to a shortage of funds during the depression.

Specifications:

Wing Span	- 31' 6"
Length	- 23' 2"
Gross Weight	- 3392 pounds
Top Speed	- 198 mph
Landing Speed	- 61 mph
Rate of Climb	- 2400 feet per minute
Range	- 570 miles
Service Ceiling	- 24,700 feet
Armament	- Two .30 cal machine guns
Engine	- Curtiss V-1570 - 600 HP

CURTISS P-6





CHOCK TALK

chock talk

leaky tires

After experiencing several low and flat tires, a unit in another command traced the problem to teflon valve core seals. All valve cores with teflon seals were replaced with cores having neoprene or rubber seals and the leaks stopped!

marman clamps revisited

He had herded his hundred up to 25,000 and cruised for 25 minutes when his console air flow abruptly stopped, he felt a vibration in the airframe, and the oil pressure gage started acting up. He left power at 87 percent and headed for terror firmer. When they finished looking inside the bird, maintenance technicians found the T-bolt on the heat and vent manifold marman clamp had broken. Hot air escaping around the clamp impinged on the oil pressure transmitter cannon plug, melted some solder, and caused the erratic readings. They labeled it material failure and pressed on to more important business. Three gets you five that a closer inspection of that T-bolt would have shown some of the classic indications of over-torque . . . which sounds more like brute strength and awkwardness than simple material failure. As far as we know, the troop who cranked that one down too tight is still using the bigger hammer technique, none the wiser that his over-zealous approach may bend up a lot of hardware some day. (Somebody please show him pages 14 thru 16 in the September TAC ATTACK).

unchained hercules

The C-130 was tied down in the hangar going thru PE when this young troop strolled up to it . . . tool bag in hand and girl friend on the mind . . . wanting to work in the nose wheel well. He was just about to ur the nose tie-down chain when someone stopped him. There was a crew of men working on the aft portion of the big bird . . . a crew with enough weight to tip it back on its tail, were the tiedowns removed!

Y'know . . . it would look kinda like an Atlas missile, if you took the wings off and . . .

bang-bang-boom

Two airmen were on a bird hunting trip in a small canyon out West. They found no birds, so started shooting at cans and rocks. Up the canyon wall, one of them spotted a cardboard box lodged in a crevice, about 50 feet ahead of them. He pointed it out to his partner, who fired his 16-gauge shotgun at it. The resulting explosion damaged both ear drums of one man and inflicted eye damage from flying debris to the other. Luckily both injuries were relatively minor. How, why, and when this box was placed there is unknown, and its exact contents are unknown. However, dynamite is an item used extensively in this mining country.

Many of us shoot at cans, boxes, and bottles while hunting but, as you can see, this practice can be dangerous. Shoot at them if you must, but first make sure they are safe and contain nothing explosive.

Attention parachute riggers

After many months and many, many words, the ripcord T-handle on our personal parachutes was finally replaced with the good old reliable D-ring. We all sat back, relieved that the fight was over... no more fumbling for the elusive handle when trying to hook up the zero lanyard. Then, during the investigation of an unusual ejection overseas, some sharp troops discovered that it took a 48 pound pull to yank the D-ring on one of their parachutes. The D-ring would not rotate out of its pocket when a pilot wearing the chute stood up from an ejection seat trainer with the lanyard connected to his lap belt. They found that the pocket had been sewed tighter than the 12 to 18 pound tolerance specified in the TO. When they checked TO 14D1-2-607, 14 June 1965, which directed the D-ring installation, they found it omitted the requirement for a pull test during 120-day inspections and repack. This test consists of pulling the handle out of its pocket with a simple fish scale type device to determine the amount of force required. An AFTO Form 22 has been submitted to update TO 607, but it may take a while for the change to be published. Meanwhile, it's a good idea to look up the pull test in paragraph 5-30(E), TO 14D1-2-81, November 1963, and check the D-rings that have been installed.

now hear this

Ever hear of Dessi Bell? Engineers use her to measure noise level... actually her true name is decibel... but the sound's the same. The pun is intended, since we are talking about sound and its effect on you.

The sound level here in the office runs about 60 decibels... the typewriter is clattering away, and one of the troops is still moaning about the dough he lost during the world series. Maximum safe noise level is about 85 decibels. Believe it or not, this is somewhat noisier than a roomful of shouting, yelling kids.

If you are working in the immediate area, a recip engine grinds out between 110 and 120 decibels when running full bore. This is enough to damage your ears if you don't protect them. Most jet engines produce 110 to 120 decibels when running at IDLE.

Jet noise is higher pitched and may not seem quite as loud as the recip... but it is doing just as much damage. Incidentally, a jet engine will knock out over 140 decibels at full power... almost twice the noise level your ears were designed to stand.

What's the effect of too much noise? If you don't wear ear plugs or ear defenders, it will make you punchy... it will cause you to sluff thru your work, get too close to a jet intake, or make other dumb blunders. It will also cost you your hearing. So if you must work where it is noisy, wear your cotton picking ear plugs or, better yet, wear Mickey Mouse ear protectors. That way they won't have to wire you for sound a few years from now!

the younger generation

Many of us in the ammunition business are old hands. We've been through WW II and Korea, and some of us are back in the saddle in Vietnam. Something new has been added... a new generation of Americans. These youngsters were reared on a diet of television and rock and roll. Their heroes include Elvis Presley and the Beatles. They are different from us.


We tend to forget this when the chips are down. Most of them are as eager as we ever were. The difference is that the things we think everyone should know about conventional air munitions are entirely new to them. When we mention the AN-M 103 bomb fuse, we can visualize the cup with the spacers held under spring tension. We see a cut-away view of the AN-M 123 series fuse when it is mentioned. Everybody knows all about these things, at least we think they should.

Not so! Very few of the younger generation know these things. They have been exposed to them, but not to the extent that they know them. We have a job educating these people. They want to learn, but when we slight them because they don't know, we're borrowing trouble.

They're the ones we're depending on to get the job done.

Let's be a little more tolerant. Take time to explain the how and why. Tell them why the fuse shack should be neat, why the fuses must be segregated and left packed until used, or repacked when the frag order is changed. They should be told why it is sometimes necessary to change the ammunition load on the aircraft after they've worked like the devil to load it.

These youngsters are smart and they'll work their ears off for you if you go half way with them. They're the future of the Air Force. Give them a chance to prove what they can do, and they'll make you feel that you're ten feet tall.

 AFLC Safety Tips

checking the MARTIN

checking the martin baker seat

The USAF was first exposed to the Martin-Baker ejection seat when the F-4C came into TAC. In many respects it differs from the basic concept of ejection seat design we have become accustomed to since the days of the F-80. A series of unfortunate mishaps this year with the M-B seat prompted us to ask the crew training folks in Arizona for the specific checks an aircrew should make before strapping into the hardware . . .

To begin with, we are extremely satisfied with the Martin-Baker ejection seat, although it is uncomfortable . . . about as hard as the T-bird seat . . . it is reliability that counts. Our ejection in May

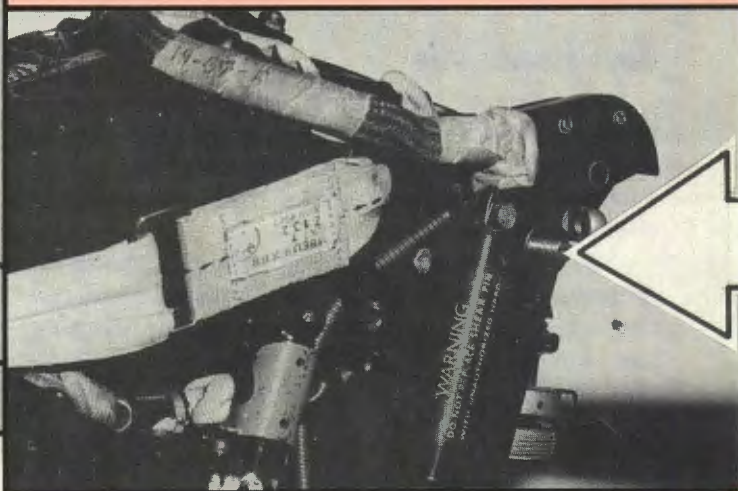
was about the 1000th successful ejection using the Martin-Baker seat, and there has been only one ejection where automatic sequencing failed, but the troop manually separated and deployed the chute.

The seat itself is built by craftsmen. There are scads of moving parts and components that a pilot might inspect, if he could find access, but by and large the dash one catches most of the important areas. I haven't covered them all . . . just a few select checks not covered in the dash one that are worth mentioning.



This photo shows the top left hand side of the seat. The arrow points to the top latch mechanism. This is the little gadget you can visually check to see that the seat is, in fact, secured to the aircraft. As you probably know, MacDill had an inadvertent "ejection" because the rear cockpit seat was not secured. The Navy has had several incidents as well, and one classic at McDonnell.

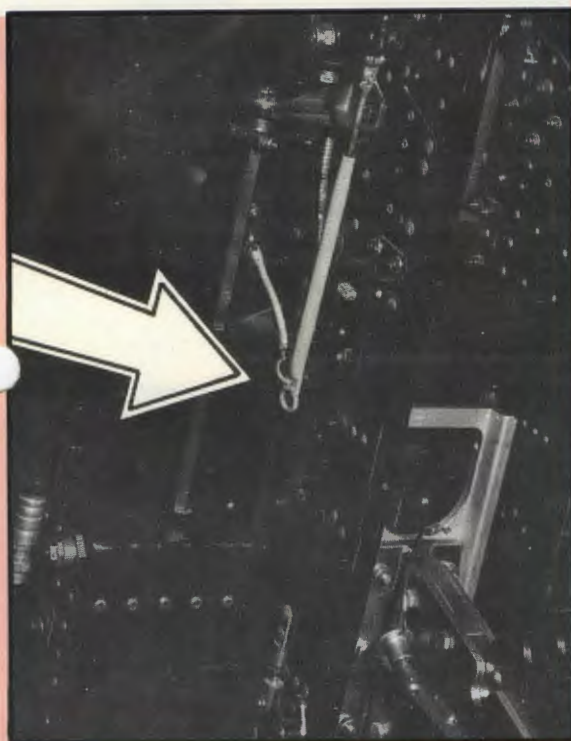
Figure 2-2 in the dash one has a good illustration of the top latch gizmo, but the point is, the top latch visual indicating pin must be flush with the end of



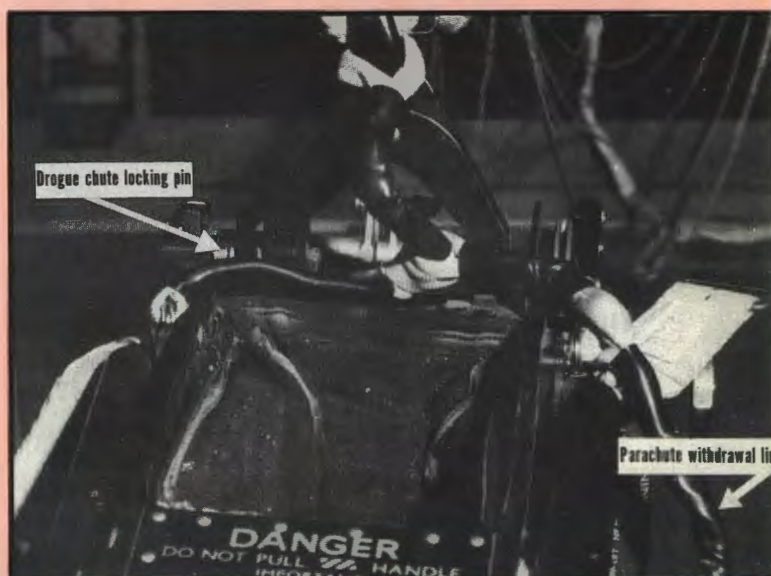
the plunger (threaded portion) and the outer housing. The photo on the right shows the unsecured condition. In this case the pin is indented and the plunger is protruding. Under these circumstances negative G will allow the seat to travel up the rails, cause the canopy to jettison, actuate the drogue gun and time release trip rods, and cause the drogue chute to deploy in the slip stream. This, of course, is anything but desirable.

By - Maj. Hugh P. Ruhsam
Chief of Safety
4453 CCTW

BAKER SEAT

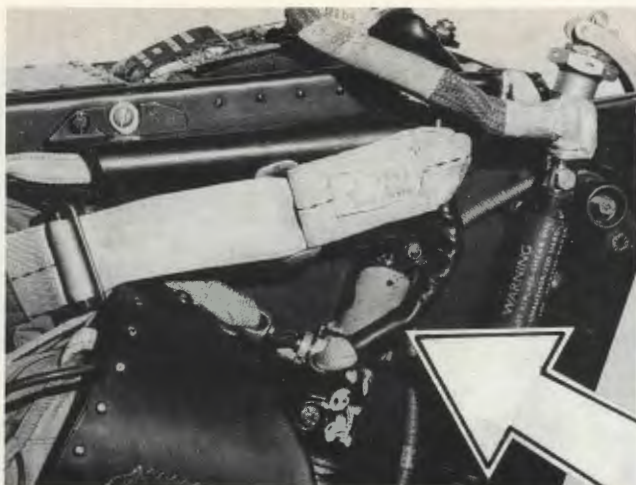


A companion check for seat security also includes the drogue chute trip rod on the lower portion of the seat. The trip rod is shown in this photo. A red unsafe condition, indicated by the extension of the rod, would visually signify that the seat is not fully secured to the aircraft. The pilot must also insure that one end of the trip rod is attached to the seat and the other end is attached to the airframe. The photo shows the bottom end free. It normally attaches to the airframe. If the trip rod is detached, the drogue gun will not fire and all automatic features are cancelled. Should this happen, you will have to manually separate from the seat and then manually deploy the chute.



Next, let's take a look at the scissors locking arm. This time we show the top of the seat, with the drogue chute deployed and strung out behind the seat ... right on out of the photograph. The drogue chute is attached to the seat via the scissors locking mechanism. The scissors locking arm is released by a barostat which is activated after you descend thru 10-13,000 feet after an ejection, and after decelerating below 4 1/2 G (both conditions must be met). When the scissors open, the drogue chute pulls out the personal parachute with the withdrawal line which is routed from the scissors along the top right side of the seat. Now, if the pin has not secured the drogue chute locking arm, the stabilizer drogue would immediately pull out the personal parachute with the pilot still restrained in the seat ... this causes tremendous pain and anguish! The photo below shows how it looks when it is not secured. Guard against this when you check the seat prior to flight.

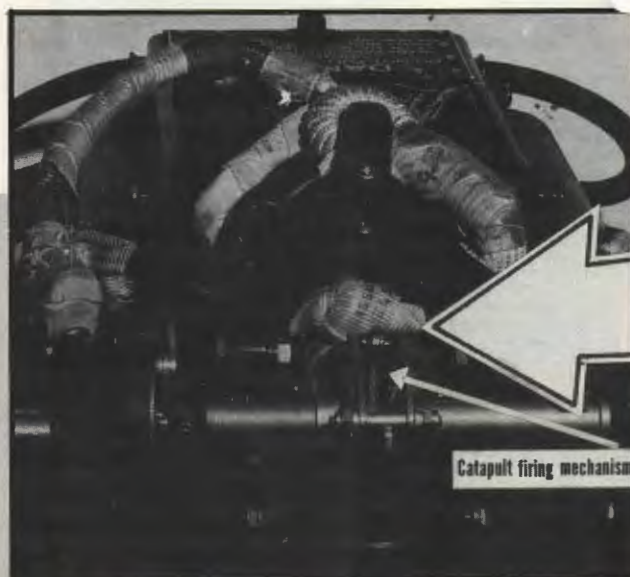




While we are talking about parachute withdrawal lines, let's look at the next pair of photos. The dash one says to check that the withdrawal line passes under the guillotine snap cover and not over it as shown in the left hand photo. This is a must for manual bailout (over the side) or manual separation after ejection, as the parachute will still be tied to the seat if it is not severed by the guillotine blade located under the cover guard. The picture on the right shows the parachute withdrawal line properly routed, but disconnected at the quick disconnect which, again, would require manual seat separation and chute deployment.



Now, let's look at another error. The drogue chute withdrawal line in the wire braided sleeve is passing under the personal parachute withdrawal line. This would probably cause the personal chute to deploy immediately after the drogue gun fires ... with the pilot still secured to the seat. Again, causing great pain and anguish. The dash one says to check that the drogue chute withdrawal line passes over, and lies on top of, all other lines. This is extremely important.



Here we show the drogue chute link line knot mal-positioned behind the scissors. This is one item that's not included in the dash one, but for my money is well worth looking for. This condition will restrict forward movement of the catapult firing mechanism, making an ejection impossible. The knot should be well clear of the firing mechanism ... 'nough sa'

Next we show the emergency harness release handle not attached to the guillotine sear. It is merely lying on top of the sear hook end. Pulling the handle would release all pilot restraints except the personal parachute withdrawal line and the guillotine would not fire. This would keep your personal chute attached to the seat. A bad condition at best.



After leaping into the saddle, you must insure that your lap belt is cinched up tight. This is one problem area in the F-4 which all crewmembers should be aware of, so pay attention. The lap belt is narrow and tends to loosen during flight . . . they say it won't, but don't believe them. If it loosens, you can be thrown hard against the canopy during negative G conditions and find it difficult to reach the controls. This will also compound confusion and disorientation problems. Additionally, as you can see in our photo, if you're up against the canopy it is going to be difficult to reach the face curtain handles.

You'll have to lean forward to allow the face curtain to clear your helmet and this places you in a poor position for ejection. If you're out of the seat with your head forward when the seat slams home, you are most likely going to end up a shorter but wiser pilot. As if that's not enough, when you're up against the canopy, the survival kit can come out of the seat pan and foul the alternate ejection handle. We had graphic proof during a recent inverted spin incident. The negative G made it difficult for the pilot to reach the controls. However, in this case he was able to recover and help submit a report on this subject to DTIG Safety.

We recommend a back pad (in the sacral/lumbar area) be installed in the seat to keep crewmembers from shifting fore and aft since the shifting can cause slack in the lap belt. Anyway, emphasize this fact . . . keep a snug lap belt! It's mighty uncomfortable thrashing about on the canopy during an inverted spin.



Once upon a time there was a bird. A Herky-bird! This ol' bird carried things for his master and his master hired many servants at great cost to care for him. These servants were well paid and specially trained for their jobs. Their duties were to tend, pamper, and keep the old bird well and happy.

One day this old bird was sent down to the tropics to do an important job for his master. After a time there, he began to feel puny and to complain of his miseries.

One day in August, he had a sore tail. His elevator trim tab became inoperative. This was a very important item in his control system. His servants inspected him briefly and decided that his wiring was corroded. They stated that they repaired it and their supervisor, who was more experienced, concurred with them and said the bird could fly.

After he had rested five days, the bird was given another hauling job. Alas and alack, he was still sick. His tail was still sore. His trim wouldn't work. His servants again inspected him. They decided to anoint his tail feathers with oil and grease. This time a higher, more experienced head servant, inspected him and said, "Surely he is now healed."

The next day he tried again. "Oooh!" he thought, "How long can I endure this pain?"

The servants called in their specialized doctor and he decided to operate. They removed and replaced his trim tab actuator and this time his hospital release was signed by an underling, possibly because the headmen were out to lunch or otherwise occupied. The doctors in this instance were not very proud of the operation they had performed because they identified themselves in a manner that was not recognizable.

Six days later his master needed the Herky-bird's services again and once again he groaned about his sore, sore tail.

by SMSgt George M. McGinnis

HERKY-BIRD

LAMENT

The doctors were called and they decided to make a minor operation. This was not deemed serious enough to ground him. So they removed and replaced a ground stud in the elevator trim tab compartment. Again the doctor scribbled his name so that he could not be connected with the operation. Another high head man inscribed his name and title on the release although the bird was not grounded and hospitalized as is prescribed by the bird bible, TO 00:20:5, verse 1:9:d, which says, "Verily the bird shall be grounded and hospitalized whenever maintenance is performed on the flight control system."

The next time he flew, nine days later, the pain subsided although the cause was still there. Or perhaps his driver didn't hear him complain. Seven days after that, he flew again and his tail was as sore as ever. This time he was given a physical and the doctors found nothing wrong and thus released him without grounding or hospitalizing him as required by the aforementioned good book, verse 1:9:e which says, "A bird shall be grounded whenever a safety of flight condition cannot be duplicated."

The next day his master, believing him to be in fine condition, sent him on a five day journey. The loads were light and flying times were short. Each stop was at a strange roost. He didn't complain during this journey because he didn't want to be hospitalized and have strangers poking about in

als.

Upon return to his home roost, his old malady reappeared. He was afforded the same treatment as he had received the time before and a lower underling was allowed to release him without requesting approval of more experienced headmen.

As we approach the end of his fable, the sick, old, sore tailed Herky-bird is returning to the tropics where the vapors and miasmas of the swamps will once again seep into his vital organs. Listen closely and you can hear this lament:

Oh Thou who didst from base metal,
Me with tender loving care assemble;
Who made me tough and powerful;
Who made my feet to tread on jungle grass,
On burning desert sand,
On arctic ice and asphalt strips;
Who bid me transport people of every race
And creed together with their chattels and live-
stock;
Wouldst thou allow me to fall into disrepair,
Disrespect, and utter uselessness,
Through the fumbings of ill-trained laborers
Who have no love for me;
Who look upon me as a burden,

Compounding their trials and tribulations,
Instead a faithful, tried and true troop carrier?
O! Thou! Where is the crew chief of old;
Who with loving care didst bathe me,
Straighten my feathers when ruffled;
Who made me well when I fell ill
And assured that all who labored over me
Did so in a professional manner?
Where are the seers who didst inspect me;
Whose wisdom and judgment all heeded;
Whose ire and wrath none would arouse
By disputing their findings or
By improperly correcting their reports?
Oh where the high priest
Who didst lay about him at will
All subjects who mistreated their birds
Through malpractice or inadequacy;
Who dared perform
In other than professional manner?
Oh woe and alas! Must I suffer
The disgrace of unreliability?
Would that I could quietly
Slip into the green steaming jungle,
Never to arise again.

better mousetrap

better mousetrap



Using the right kind of cord is an important part of any parachute packing operation. And spools of cord rolling off the table or around the floor have long been a problem ... a problem which Technical Sergeant Roy D. Harper, NCOIC of the parachute shop at Shaw AFB, solved with one-quart cans suspended over each packing table in both the personnel parachute and drag chute shops. A hole in the bottom of each can accepts a rubber grommet which allows the cord to feed easily. The spools stay out of the way and cord size is stencilled on each can to reduce the hazard of using the wrong cord.



The airman behind the counter studied the dispatch board. "We have a T-39 that has four seats open. Only trouble, it's out for maintenance and I don't know when it'll be ready. That's the only thing headed your way. Ya care to hang around, I'll give you a call when the crew gets ready to file."

The Old Sarge thanked him and glanced over the lounge to see if he could find anything to read that didn't look as if it had already done service at the dental clinic. Failing, he made his way thru the corridor and across the hangar. If the place hadn't changed, the snack bar sold magazines and was located in the far corner of the building.

He passed by a T-39 and speculated it was his proposed ride home. Two panels were off the nose section and five airmen were gathered by the nose gear studying what was undoubtedly the TO. An airman second was holding a meter, the page they were studying appeared to be a fold out chart of some sort and the Old Sarge could see that one cannon plug was disconnected and hanging loose. He reasoned the trouble was electrical and associated with something in the electronics bay. He resisted an impulse to go over and confirm his assumptions. After all, it was none of his business and they were going at it right . . . at least they had the TO out. He continued across the hangar and reached for the door handle just as it was yanked from his hand. A tall raw boned Lt Colonel stepped thru followed by a shorter man. "Whup. 'Scuse me!" the Colonel apologized, then stopped short causing his companion to bump him. "Well, I'll be . . . I haven't seen you since the year one." He thrust out a huge



OL' SARGE

paw that would have crushed most hands. The Old Sarge merely squeezed back, grinning broadly. The tall colonel turned to his companion. "Smitty, I want you to meet a real mechanic. The Sarge here crewed my '51 back during the war and I'll flat tell you he is a genius with machinery."

Smitty, Major Smith to be more exact, shook hands and said he could use a mechanical genius about this time.

"How's that?" the Old Sarge asked.

"Aw, our little airliner's busted," the Lt Colonel remarked.

"That it?" the Old Sarge inclined his head toward the machine in the hangar. "They seem to be having trouble, judging from the consultation that's going on."

"Yeah, that's it. We lost nose gear steering right after we landed. Both the normal and standby systems. Couldn't get it to work from either button." He laughed and glanced at his watch. "You're right about them having trouble . . . they started out with a couple of five level electricians. They ran thru their bag of tricks and called in a seven level . . . right now they're up to the master sergeant category and no one has found a darn thing. They've only been at

it five hours!"

Something about the bird's appearance triggered a response from the Old Sarge . . . it didn't look right, he groped for more information. "Just how does the system work on a T-39? I've never worked on the bird."

"Neither have these troops. Well, it's hydraulic powered, but electrically controlled. You press a button on the wheel to engage and press it again to disengage . . . if the normal system fails, the standby system takes over and you get a light on the idiot panel. If a change-over doesn't take place, you can switch it over manually."

"Neither system works, so it isn't getting power. How about the idiot light?"

"We didn't get it either."

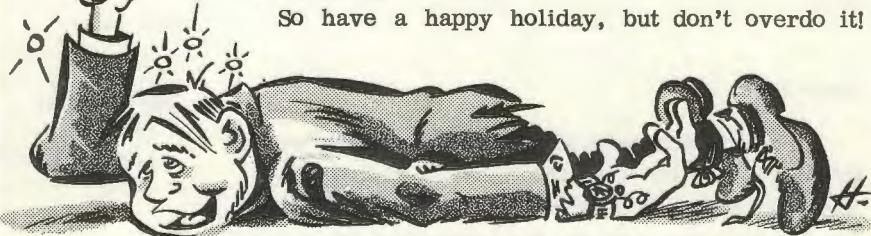
"Have they checked the squat switch? That would be common to both systems. They would design it to remove power from the system when the gear is retracted." The Old Sarge scratched his head.

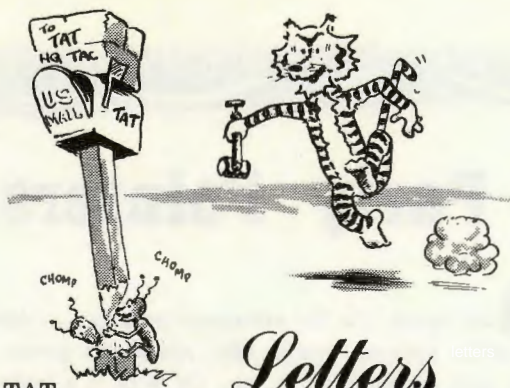
"Yeah. I watched 'em when they checked it. Apparently it checked out OK. I watched 'em unhook it from the nose gear scissors and . . ."

The Old Sarge was no longer

"Aw nuts! Put a call thru to the command post and ask that nice young captain to get us permission to fly on home . . . tell him we got a high priority passenger who's gotta get back tonight!"

So have a happy holiday, but don't overdo it!





Dear TAT

Letters

I just finished reading the October TAC ATTACK and thought I would quote one sentence from the article "DRAG CHUTE DRILL." Quote: "Despite education programs, drag chute modifications, and check lists, people still misroute the lanyards and put pins in backwards." I must smile, because we ALL are guilty of this. A quick look at the center picture "the correct way," will show the pilot chute pin inserted in the wrong direction. Unless the streamer is very long, allowing the pin to be pulled out toward the rear, or the pilot's hand is very narrow, the only result could be a pin separated from the streamer. It's also interesting to note that the appropriate TO shows this pin inserted at 90 degrees to the illustration. This is physically impossible with the "eye" oriented fore and aft.

Let's all shoot for zero defects.

Capt Ronald J. Charrier
614th Tac Ftr Sq

Dear Ron

You're quite right it is much easier to remove the pilot chute compartment pin when you can pull it out toward the nose of the bird. However, the TO doesn't specifically say which way to install it, and as you pointed out, it shows the pin 90 degrees to the aircraft's fuselage line. When you pull these streamers, the important thing is to make sure it's a jerk for zero defects and that you get the pin too, not just the streamer.

The F-100D/F drag chute blurb in this month's issue should clear some of the smoke. Thanks for the letter and we'll try to stop lousing up the zero defects programme.

TAT

Dear TAT

I'd like to comment on your page 11 feature on the 366th TFW in the October issue of TAC ATTACK. You omitted the most important thing about the 366th. In May 1962 they became the first USAF jet tactical

fighter wing to be completely activated overseas. The 366th filled the gap when the Air National Guard and Air Reservists, who were called to Europe during the Berlin crisis, returned to the CONUS in July 1962. Headquartered at Chaumont Air Base, France, the 366th had a TFS and CSG at Etain, Chambley and Phalsbourg Air Bases in France.

A1C Robert U. Petties
McConnell AFB, Kansas

Dear Bob

Due to very limited space in our Heritage feature, we can only hit the high spots and have tried to concentrate on each unit's achievements rather than the purely historical data such as de-activations and re-activations. In this case we had to make a choice between the 366th's overseas re-activation and some of their flying accomplishments.

TAT

Dear TAT

I must take issue. The November issue is perpetuating a myth, VASI does not give you a variable, false glide path indication during winter. Ice does not form over the glass face. It is important pilots rely on this landing aid, and old wives tales such as this destroy confidence. TAC's Communications Sections says it is mechanically impossible. The Norton people say that a fin has been placed on the light aperture to prevent snow or ice accumulation. Further, under continuous operation, the temperature of the filter is normally 150 degrees F, which is hardly conducive to ice formation. Normally VASI operates continuously, day, night, VFR, IFR, usable or dead runway. No URs have been received relative to icing.

Still friends?!!!

Capt Vincent C. Hughes, Jr.
Flight Safety Officer (Airlift Type)
Hq TAC

Dear Vince

Looks like you did more study on this rig than we did. Why didn't you pass it over the partition?

Seriously, you're right, we don't want to destroy anyone's confidence in VASI. It's great!

Yeah . . . still friends.

TAT

BEFORE the fact

- By Major Harry A. Serra
Colorado ANG



TSgt Bill Bath demonstrates handling and safeing of 2.75" practice rocket carried by Colorado ANG F-100s on training missions.

Buckley ANG Base is a busy, around-the-clock airfield. Since Lowry AFB was closed to jet traffic because of its location in the city, Buckley has handled an ever-increasing load of diversified military air traffic in addition to the regular training sorties of the Colorado ANG F-100s based there.

As the number and assortment of Air Force airplanes landing at Buckley increased, Fire Chief Francis Brehm realized he needed to train his crash rescue crews on ejection seats, canopy removal, pilot rescue, and munitions handling, for as many kinds of airplanes as possible. A regular schedule of classes was worked up and the base firefighters started practicing how to approach a disabled or burning fighter, safety the ejection system, and extract the pilot with minimum of injury to everyone in-

involved.

The next step was to provide for accidents that might happen in the vicinity of the base, or emergency landings at Denver's Stapleton Airport. Chief Brehm and Tech Sergeant William Bath, his canopy and ejection system expert, set up classes for the officers and firefighters of the Aurora City Fire Department and the crash firefighters stationed at Denver's Stapleton Airport. Firefighters from three fire stations adjacent to the airport also attended the classes.

Hazards that may be encountered and rescue methods were covered in the four hour course.

We think the boys at Buckley did a fine job on this program and hope other units are doing likewise (or will soon start)! Incidentally, don't overlook the state and local police in your educational efforts. Experience has shown that the police are usually the first authority at the scene of an off-base bash.

TAT

To make the training as realistic as possible, a complete ejection seat was used. The firefighters examined and handled the components. Then a volunteer was dressed in full flight gear and strapped in the seat and the firefighter-students ran thru several rescue problems, timing themselves on safeing the canopy and seat and removing the pilot.

Should the occasion arise, we know that the fire and crash crews in the area around Buckley are well qualified to handle the situation.



Training of civilian crash and fire crews included familiarization with actual equipment.

TAC TIPS

T-LINER TIPS

A T-39 pilot couldn't retard throttle when he got ready to descend from very high altitude, while another encountered the same problem at lower altitude. Both corrected their problem by selecting fuel heat for one minute. That's right, fuel system ice, even tho the fuel was treated.

Another T-39 pilot had an unsafe gear indication right after he attempted to raise the gear on takeoff. Normal hydraulic pressure was 1000 psi and fluctuating. He put the gear handle down, pulled the gear control circuit breaker, and hydraulic pressure returned to 3200 psi. The gear then worked normally. The malfunction did not reoccur until the first flight of the next day, and could not be induced in ground checks until after 12 or 18 hours elapsed. It was caused by an internal leak in the down-lock valve. The valve failed to seat and allowed fluid to by-pass. If you don't take action to correct this condition, the pump will get hot and shut itself down.

WRITE IT UP

The spoken word is like the air but the written word is always there . . . if ya' write it down the maintenance troop must fix it or carry it forward before the bird flies again.

WHOA STOP HALT

Preliminary information coming from current F-4 runway ground roll testing indicates the pilot's

handbook is close for drag-chute stops, but is somewhat optimistic for no-chute stops. Test pilots find they need 25 per cent more runway than the book says. The surprise factor would probably add a bit more onto that.

Answer is to make every approach on speed and to aim for a proper touchdown point on every land and expect the chute to fail.

HOT PILOT

Ever since P-80 days, blowtorch drivers have been quite nervous about inflight fires. With more than adequate justification in some models. However, I can recall more than one pilot who loused up an ejection and died in his haste to depart a burning bird (which stayed generally intact until it hit the ground), or who leaped from a bird whose only illness was in the warning light circuit. Fortunately most pilots today are far less touchy. With good reasons. The century birds may burn and burn but they seldom make like a bomb. I was just reading a message from another command where an F-101 pilot felt an aft section explosion, saw warning lights, and shut down one engine. The fire lights stayed on, so he called May Day and asked his leader to check him over. That's when another explosion shook the bird, followed by more warning lights. Undaunted, the pilot shut that one down and glanced back. All he could see was fire. He advised everyone he was on fire then punched out. Over 15 seconds had clicked by since the first explosion! Count 'em off . . . 15 seconds is a long time during a sweat session . . . and the t

s still hanging together when it slammed into the farm. Altho the bird gives plenty of time, it won't give you all day. Control systems can burn thru and may send the bird down, to void the guarantee on that zero zero seat if you are at low altitude. Also, the bird will explode when it gets hot enough. My point is this . . . you have plenty of time to confirm the fire and, if low, to gain a little altitude before punching out.

BON VOYAGE

On run-in for a practice PLADS drop, the co-pilot turned on the ten second warning light, but the IP called "no drop" because they were not properly positioned over the impact point. Altho the extraction chute had already deployed and was trailing in the slipstream still reefed, the pilot decided to drive around the pattern for another try. On downwind leg, about three miles outside the base boundary, the breakaway strap broke away and the practice load smartly left the aircraft.

On a PLADS drop with the extraction chute out in the breeze, the good book says the load has gotta go. Missing the impact point a few extra feet won't scare boll weevils as much as dropping this load in the cotton patch.

BY THE ROCKETS RED GLARE

An F-4C crew found themselves in the middle of some unexpected fireworks after emptying their six fully loaded, inboard mounted LAU3 launchers on one pass. The aircraft commander reported several of the 2.75s detonated before impact, with at least one popping about 25 yards ahead of him. He couldn't avoid flying through debris; however, the damage was slight and limited to the right leading edge flap above the rocket launcher.

The trouble appeared to be rocket motors exploding. Bad motors or rockets colliding after launch are both possibilities, altho the ripple fire feature of the launcher should keep the rockets apart. Naturally, the more 2.75s you hose off on any one pass, the greater the possibility of a couple of them getting together before they reach the ground. Once your thumb comes down on the pickle button you have payed your dime and took your chance. And, should you end up with an unscheduled fireworks display in front of you, don't let it distract you from the business at hand pulling out of that unscorable-at-twelve-o'clock as you're in.

TAC ATTACK

SHORT SNORTS

Weapon inadvertently released one and a fourth miles short of target . . . unbriefed, fidgety fingered passenger in aft seat accidentally depressed the pickle button on the stick. Bomb release system functioned as designed.

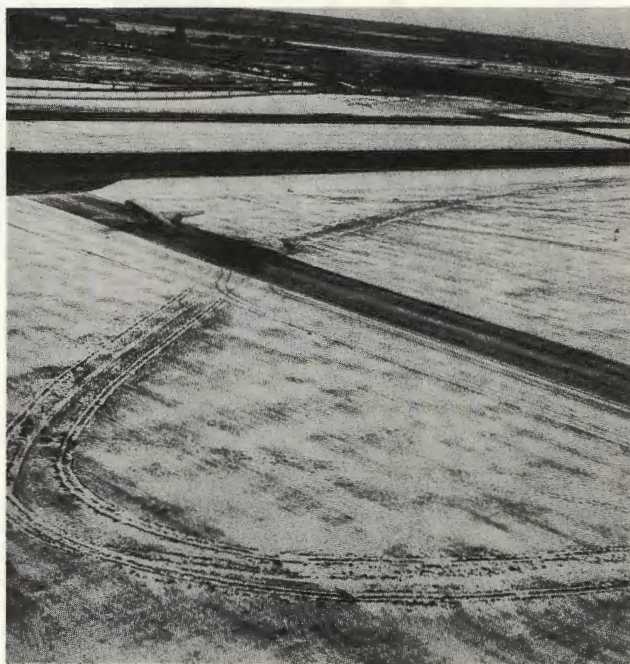
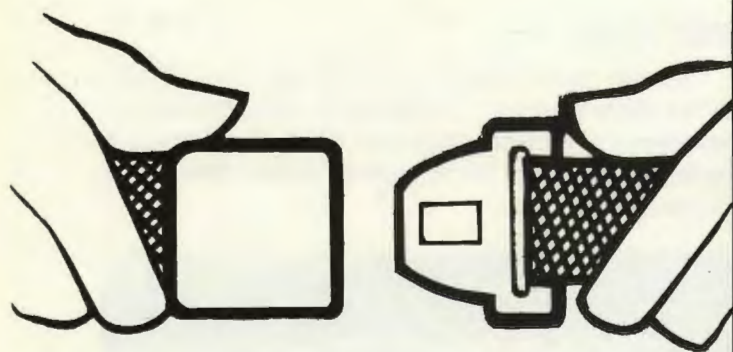


Photo courtesy THE AIR LINE PILOT

TRIP TOE THRU THE TOOLIES

When a crosswind hits the drag chute, brakes or nosewheel steering systems act up, or the slippin' and slidin' factor gets out of hand, we stand a good chance of taking a trip thru the toolies. Too frequently this results in bent or broken hardware because the toolies are not as compatible with airplane trips as they might be. The spectacular example in the photo shows where a 707 airliner made tracks during an aborted takeoff that went awry. We published it to prove what can be done if runway shoulders are properly maintained, the infield kept level and free of ditches, mounds, and the assorted obstructions too often found about the airpatch. In this case, the 707 driver managed to regain control and get back on the taxiway to taxi serenely (?) back to the terminal at O'Hare Field in Chicago. A sloping shoulder, ditch, or concrete runway light base that protruded above the ground could have ruined the whole day. How's your airfield . . . can it pass this test??



GROUND SAFETY

So far this year we've had four airmen killed in motorcycle accidents. Everything considered, this is a pretty rough showing compared to our auto accident record . . . and our auto fatality rate is nothing to be proud of.

Those of you who ride bikes don't need to be told that you'll come out second best if you ever tangle with a car . . . even one of the little bugs. You're naked of protection because you are in the open. Reason enough to wear a good crash helmet. They are worth your life in a bash. Never forget that you are difficult to see. This explains why sometimes it looks like the auto drivers have declared open season on you. You should ride as if they had. Ride defensively. Expect that clod on the side road to pull out in front of you. His glasses probably look like they were punched from pop bottle bottoms and he has trouble seeing other cars let alone your bike.

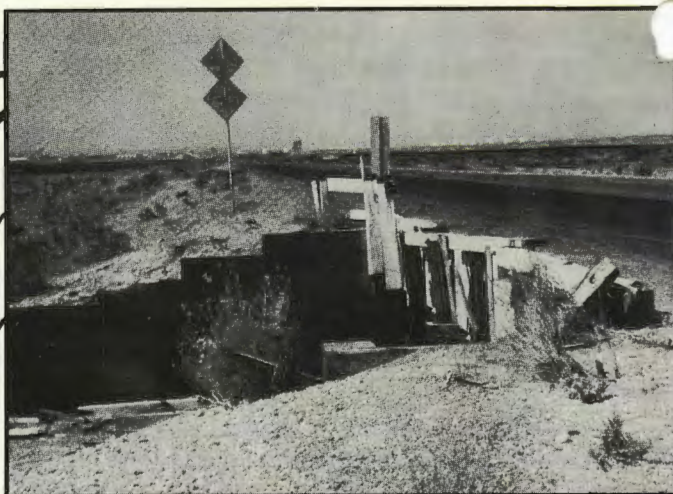
Keep your speed reasonable. It is very difficult for the average driver to judge your speed when you are driving slow . . . it is almost impossible for him to judge it when you are traveling faster than he expects. This is even more important at night when you appear as a single spot of light.

Be alert for loose sand and gravel or anything else that makes riding rough. Keep your speed down when road conditions get nasty.

Don't follow cars or trucks too closely. They can usually outstop you, often don't see you, and the drivers seldom allow for your limitations.

Don't take a strange bike out into traffic until you've mastered it and have become thoroughly accustomed to its controls.

All of this goes double for scooters . . . they are even trickier than the bikes.



EXPENSIVE DISTRACTION

It was not yet daylight when the airman made his early morning rounds to check the status of AGE. He stopped his vehicle, got out and checked several pieces of equipment beside the rote squadron hangar. When he climbed back in and started a left turn towards the aircraft parking area, he thought something was dragging and looked down to be sure the parking brake was off. When he looked up again, the windshield was full of F-100. His reaction and braking time were a lot more than the five feet he traveled before he hit the horizontal stabilizer and afterburner . . . 270 manhours to repair.

When safety is the topic,
Most folks sit and sigh,
They barely listen to the rules
Meant for the other guy.

Safety is for knuckleheads
Who go 'round in a daze,
But you are always wide awake
And never reach that phase.

Who keeps on taking chances
After going scot free once,
But never heeds the warning?
Not you - the other dunce.

We all know the rules of safety
So, why bother to discuss
Rules that apply to the other guy
But never apply to us.

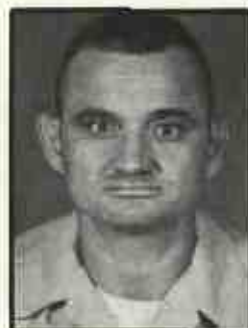
The moral of this story,
As you can plainly see:
To me, you are the other guy,
To you, that guy is me.

Atlantic Coastline Rail

Recognition

Maintenance Man of the Month

Technical Sergeant Charles L. Simmons of the Ninth Air Force, Shaw Air Force Base, South Carolina, has been selected as a Tactical Air Command Maintenance Man of the Month.



Crew Chief of the Month

Staff Sergeant Thomas R. Long of the 4511th Organizational Maintenance Squadron, Luke Air Force Base, Arizona, has been selected as a Tactical Air Command Crew Chief of the Month.

Pilot of Distinction



Captain Donald R. Curtis of the 31st Tactical Fighter Wing, Homestead Air Force Base, Florida, has been selected as a Tactical Air Command Pilot of Distinction.

Captain Curtis was performing an FCF for a reported yawing moment while the landing gear of an F-100F was retracting. He lowered and retracted the landing gear several times with no adverse effects. On his next attempt to duplicate

the problem, the nose gear and left main landing gear extended normally; however, the right main did not indicate down and locked and the aircraft yawed abnormally. Captain Curtis made several unsuccessful attempts to lower the right main gear using the prescribed emergency procedures. Then he turned off all electrical power and reaccomplished the emergency gear lowering procedure, again without success. Faced with the additional problem of low fuel after exhausting all published methods to lower the unsafe landing gear, Captain Curtis attempted a last ditch maneuver. He increased the indicated airspeed to 280 knots, held the emergency gear lowering lanyard out with his right hand, and applied 3 1/2 G to the aircraft. Captain Curtis felt a slight thump in the airframe and seconds later the right main gear indicated down and locked. With all three gears indicating down and locked he landed the F-100 safely.

Captain Curtis' thorough knowledge of his aircraft and its systems and his resourceful handling of this emergency, qualify him as a TAC Pilot of Distinction.

This issue of TAC ATTACK marks the sixtieth time that two names have appeared on the masthead . . . Editor Karl K. Dittmer and Art Director Heinz E. Hirsch. Ever since its inception, TAC ATTACK has been a reflection of the attitudes, ideas, frowns, and chuckles of these two gifted men. Thru their very down-to-earth and common sense approach, with a quiet smile or a guffaw wherever it would fit, they have influenced the thinking of a whole generation of TAC's airplane drivers and fixers. Just as they worked together, now they have conspired to leave together . . . this is their last issue!

We, collectively . . . TAC . . . have been dealt a severe blow, but we'll carry on in their tradition as best we can. The pages of this, their magazine, will remain open to OLD TAT and Princess Ann whenever they care to come visit with us.

The Tired Ageing Tiger is putting the lie to his first two names . . . but living up to his stripes . . . as he heads for his third war. He'll tell you he's been shot at enough, that he'd be happy to just stick with his frantic 'tween-wars rounds of boat, furniture, house, and airplane building . . . that all he wants is more time for sailing, skate-boarding, driving his tiny airliner, and showing the kids how at the father-son ballgames. He'll tell you that . . . but watch him. As the tension mounted across the big water he followed every action, every report. They stirred memories of combat in Europe and Korea. He tried to project himself into the current fight . . . understand the current problems.

Those who come to know TAT in the new war will not long be fooled by the quiet, soft-spoken appearance that tries to mask his quick, clear, incisive mind. TAT invariably sees through a problem and reaches a solution quickly . . . without preoccupation or infatuation with the procedures enroute. He has, without a doubt, in his way saved many, many birds and birdmen for our side in his ten-plus years in the accident prevention business. And he'll carry his thoroughness and dedication to whatever new problems he encounters.

Godspeed, Karl, you're going where you're needed. We'll miss your steady sanity!



Heinz wasn't really standing fireguard that day at Kill Devil Hill for the Brothers Wright. It's his extensive aviation library that gives his work that real authenticity . . . and his personal demand for accuracy and detail. Ever notice his aircraft insignia and paint schemes? This is just one of the things which set him above other artists . . . he loves and understands aviation.

You can also tell he isn't so old by looking at his second great interest, which he draws with the same attention to detail.

Seriously, Heinz joined the Air Corps as a mechanic back when the P-36 was fairly new. Drawing was secondary for years until he came to TAC Headquarters as an artist to draw safety posters and illustrate incident summaries. When the original ATTACK staff was formed he took over the art department. Since, he has slaved over his drawing board, muttering things like "FOLLOW-UM TECH ORDER . . . KER WHOOM! . . . RACKETY-RAK!! All the while he emits huge clouds of smoke, cigar ashes dribble on fresh ink, and he expertly brings Princess Ann and her friends to life.

Now the era comes to a close. Heinz is retiring . . . taking his brushes, pen, and cigar into the cold world outside. We wish him every good fortune. Even tho we've stockpiled some of his drawings and back covers, the ATTACK will never be the same. We'll miss his sly wit, his ready pen, his superb work.

Heinz, it was fun . . .



TAC TALLY

A COMPARISON OF TACTICAL AIR COMMAND ORGANIZATIONS

MAJOR ACDNT RATE

TYPE	1965*	1964
TAC	9.4	10.5
A-1	19.0	10.7
F-4	10.7	4.9
F-5	21.9	0
* F-84	14.3	16.1
* F-86	50.9	13.4
* F-100	14.8	17.8
F-101	0	20.1
F-104	23.8	12.1
* F-105	23.1	26.7
B-26	0	76.0
* B-57	13.5	0
B-66	0	0
T-29/C-131	0	0
* T-33	4.0	0
T-39	0	0
* C-47	0	0
* C/KC-97	8.3	15.3
* C-119	1.4	1.9
C-123	3.3	5.6
C-130	1.6	1.2
U-3	0	0
* U-10	0	17.2
HU-16	0	0
O-1	0	0

ACCIDENT FREE MAJOR & MINOR

JET			
ACTIVE	MONTHS		ANG
354TFW	8	10	126ARW
8TFW	5	7	156TFG
CONVENTIONAL			
ACTIVE			RESERVE
4500ABW	52	107	434TCW
4442CCTW	35	68	435TCW

OCT TALLY

UNIT	MAJOR	MINOR
27TFW	2	
4401HS		1
12TFW	1	
3TFW	2	
313TCW	1	
479TFW		1
102TFW	1	
122TFW	1	
108TFW	1	

The Tally for October is nine major and two minor accidents, with four fatalities.

An F-4C crew made a night overwater low altitude intercept, called tally-ho on the target, and crashed into the water shortly afterward.

During a GCA landing on a wet runway, an F-104C pilot lost directional control, ran off the runway, and collapsed the right main gear... minor damage.

After bouncing three times during a formation landing, an F-100D's nose gear failed resulting in major damage. An F-100D flamed out on a VFR downwind and the pilot apparently ejected too low for successful chute deployment. On a night owl mission, an F-100D pilot encountered an uncontrollable roll, was unable to keep the aircraft level, and had to eject over the range. On another night owl mission, an F-100D crashed after the spacer pass. The pilot did not eject.

An F-84F's engine failed shortly after takeoff and the pilot ejected safely. Two other F-84Fs ran together while one pilot tried to check the other's gear which showed unsafe. Both pilots ejected successfully.

An F-86H pilot ejected successfully when he couldn't get an airstart following engine failure on a GCA missed approach.

A C-130B landed with the left main gear retracted, veered off the runway, and damaged the number one prop causing a wing fire.

A UH-1F received minor damage when the tail rotor drive shaft failed after it hit the ground during recovery from an auto-rotation demonstration.

* 1 JAN - 31 OCT 1965

indicates estimated rates due to non-receipt of ANG figures at press time.

ATTACK
STAFF

Merry Christmas

GROUND
EXPLO

FLY
SAFE

...and a
Safe
New Year

VUC
MSV

MEET
HIRSCH

