MAY 1963

TAC ATTACK

NDT for ME

TAC ATTACK

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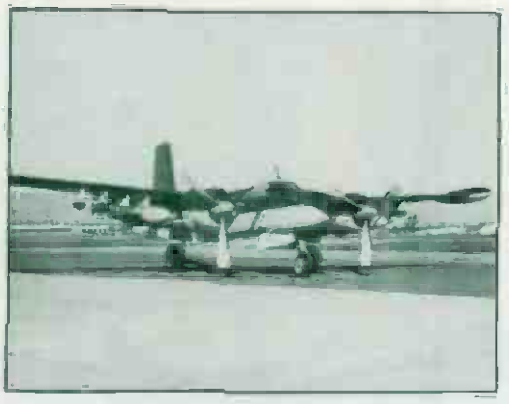

COVER PHOTO

B-26, Invader, gets new look for new role.

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Angle of Attack

Death has so many doors
to let out life.
—Beaumont

Colonel James K. Johnson
Chief, Office of Safety

Back when war was still a gentleman's sport, soldiers guarding prisoners of war used to draw a line around the area where they held their prisoners. If anyone – daringly or forgetfully – stepped over the line he was killed on the spot. The line quickly earned an appropriate name; the deadline.

With many military jobs the parallel is too close for comfort . . . step over the deadline and you are in just as much trouble as the prisoners of war once were. This applies to the armament man handling explosives, the maintenance crew servicing an aircraft or making a trim check and, of course, to pilots flying their aircraft.

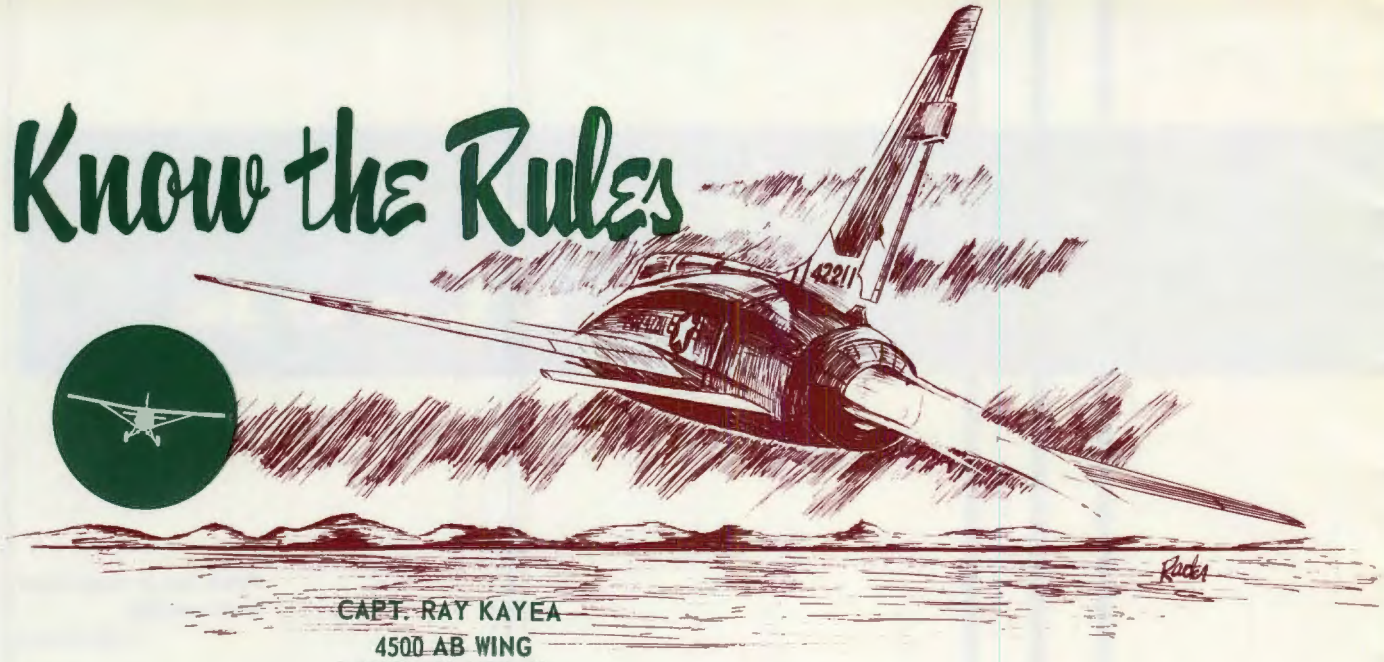
There is one big difference between the deadline in the old prison camps and the modern counterpart. The original deadline was an actual line. You could see it and knew just how far you could go. Today's deadlines are invisible and less certain. For example, explosives will accept rough handling up to a point, then Boom!

A servicing crew may refuel many aircraft without properly grounding them and not have trouble... until static electricity finally sets one off. A maintenance team may run up numerous engines without using protective screens and never have anyone get hurt, or someone may cross the "deadline" the first time they take this chance.

Pilot deadlines are more numerous. Some, such as the red lines on instruments and foul line on the weapons range, are tangible and easy to spot. Others are more subtle, like flying with a cold, descending a few feet below minimums during an instrument approach, flying an aircraft without understanding its systems or knowing the emergency procedures.

Tangible or intangible, visible or invisible, deadlines are as deadly now as ever. Stay well clear of them.

Know the Rules



CAPT. RAY KAYEA
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MOST AIR FORCE pilots think they know the rules for operating Uncle Sam's birds. But there's usually a big difference in what they know and what they think they know. Ask any group of pilots if they're responsible for part 60 of the Civil Air Regulations. Five will get you ten if you get the same answer from all of them. Yet, the fact that they are responsible is in black and white in the second paragraph of AFR 60-16.

With this in mind, let's look at some interesting differences between 60-16 and CAR 60. At the same time we'll review some recent changes.

Take the airport traffic area . . . that's the airspace within five miles of an airport that is under tower control. It extends up to 2,000 feet above the ground. Except in an emergency, you should contact the tower before flying into a traffic control area. Once in the area you should watch your speed. Don't go faster than the dash one pattern speed for your bird . . . initial approach speed for those types making a 360 overhead, downwind speed for square pattern types.

Altho the definition for a control zone was dropped from 60-16, the rules still apply. A control zone is a little different from a traffic control area. Altho it usually covers some of the same space, it has no upper limits. Usually, control zones are found at airports which need controlled airspace for instrument approaches.

While 60-16 restricts both recip and jet aircraft to specific maximum speeds when in these areas below 3,000 feet, it goes on to say that higher performance aircraft can use faster airspeeds. If you do not exceed the normal dash one traffic pattern entry speed for your aircraft, you will be complying with the reg.

In much the same manner, CAR 60 imposes speed limits on arriving aircraft flying below 10,000 feet. They are to slow to 250 knots when 30 miles out. Once again, if this is below the normal traffic pattern entry speed, you can use the pattern speed and still be legal.

When 60-16 states that pilots will maintain a vigilant watch, it isn't just whistling Dixie. Glance at the chart below, and you'll understand why . . . different rules for users of the same airspace!

As an Air Force pilot, you must file IFR when inflight vis is less than five miles. You must make an IFR approach if the ceiling or visibility is less than 1,500 feet or three miles. Your civilian

PART 60 CAR			AFR 60-16	
Location	Visibility	Distance from Clouds	Visibility	Distance from Clouds
Control Zone	3 Miles	500' Under 1000' Over 2000' Horizontal	3 Miles	1000' Vertical 1 Mile Horizontal
Control Areas up to 14,500 MSL	3 Miles	500' Under 1000' Over 2000' Horizontal	5 Miles	1000' Vertical 1 Mile Horizontal
Outside Controlled Airspace, 700' or below*	1 Mile	Clear of Clouds	5 Miles	1000' Vertical 1 Mile Horizontal
Special Clearance for VFR in Control Zone	1 Mile	Clear of Clouds	2 Miles	Below a minimum 1000' ceiling-- 1 Mile Horizontal Clearance

* In some cases, up to 1200'

counterparts can fly VFR in the low altitude structure with three miles inflight vis. They can also remain VFR in a control zone with a special clearance, if they remain clear of clouds when vis is down to one mile. Friend, that's the same airspace you might be using for your IFR approach. This brings up an excellent point to remember—an IFR clearance only assures separation from other known IFR traffic. Anytime vis is one mile or over and you're not solidly in the clouds, watch out for other traffic. Despite delusions to the contrary, an IFR clearance does not give you priority over VFR traffic.

These requirements can all be summed up in one main thought... when you're operating in a known area of converging traffic, slow down and really look around.

Some of us may have been spoiled by the way the FLIP shows current changes in bold type brackets. AFR 60-16 doesn't play the game that way, so read thru it often. Otherwise, you may take some parts out of context. For example, to fly VFR, you still need five miles flight vis, but no longer need a prevailing ground vis of three miles. So, if you have five miles inflight vis and can avoid airports, airport traffic areas and control zones that are carrying less than three miles, you are legally VFR. But, don't interpret this to mean you can fly over a broken or overcast cloud deck without filing IFR, because you can't.

By the way, it's easier to get boxed into a blind canyon now that the minimum altitude for VFR flying is 500 feet, even in mountainous terrain.

The new 60-16 contains a couple of old rules from CAR 60. It says that aircraft in distress have the right-of-way over all other traffic. It also gives base commanders the prerogative to say what type traffic pattern will be flown. It might differ from that specified in your handbook. This doesn't mean you're to follow instructions from the ground blindly. When you've been designated as aircraft commander, you are responsible, so don't jeopardize safety by following obviously wrong instructions.

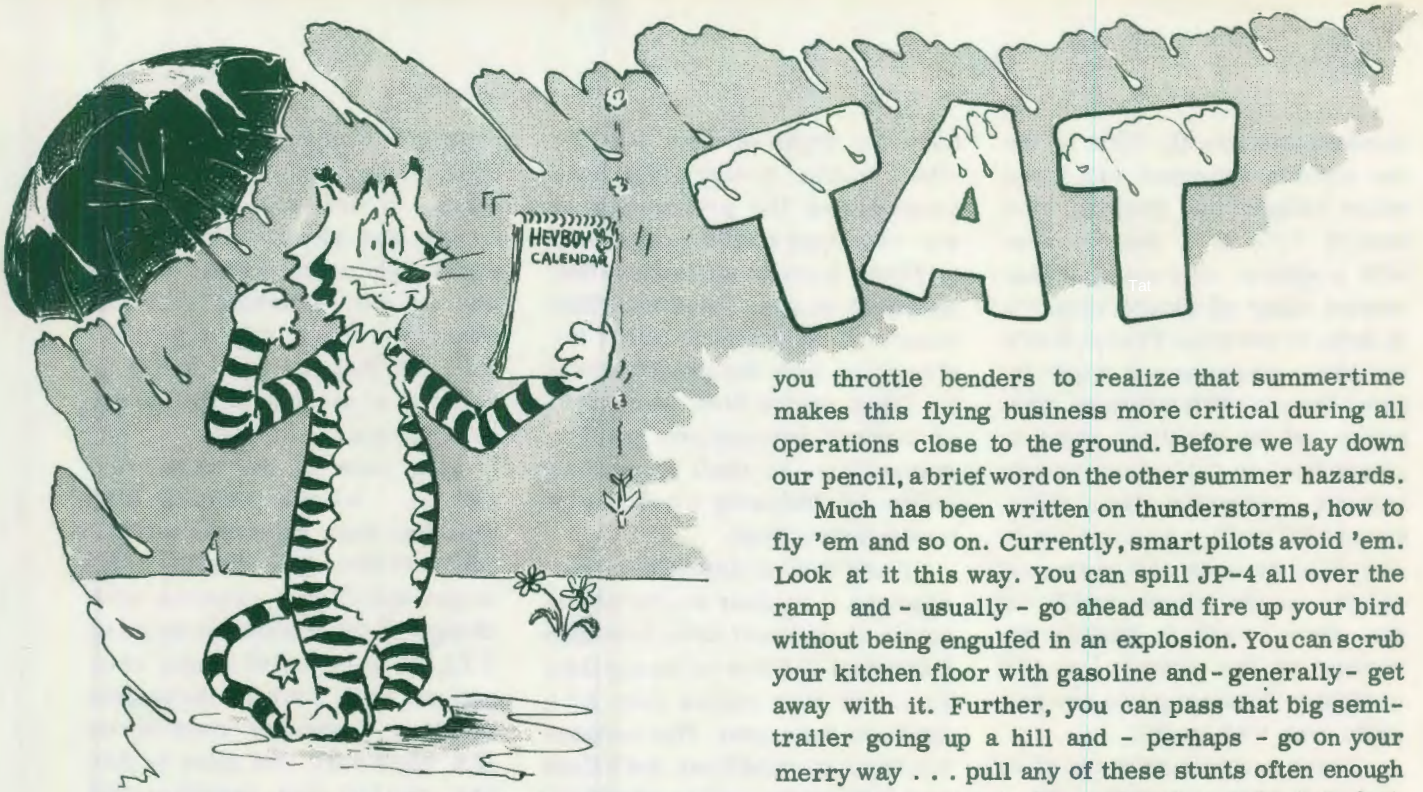
You'll find an alternate is now required if weather at your destination is forecast to be less than 5,000 feet and five miles any time from one hour before your ETA until one hour after. This includes intermittent conditions and brings up some mighty important points. First, an intermittent condition may make it necessary to go to an alternate. Secondly, the alternate information in your DD 175 is not transmitted to ARTC, your destination or your alternate airport. The only time it is given to ARTC is when you have a communications failure. As soon as the destination airport acknowledges receipt of your inbound flight plan, the departure airport quits monitoring your ETA as well as the enroute and destination weather. No one, but no one, monitors the weather at your alternate. That responsibility lies strictly between the stick and the throttle.

There's a gray area here that is not of your making. Suppose you had radio failure during penetration and descended to minimums without breaking out. Who would know the route and altitude you intended to take to your alternate? It might take ten minutes or more for ARTC to research your flight plan to find your intended alternate. In the meantime, picture yourself with a bit of a fuel problem--a normal situation for fighter types who might find themselves in this spot. How many holding and approach patterns would you punch through on the way to your alternate? FAA is aware that this situation may occur, but they have no rules to cover it at present. If you have a solution, send it to 'em!

But, back to the brighter side . . . weather briefing void time has been extended, certification of formation briefing is no longer specifically required and a change of 30 minutes or more in ETA has to be called in only when you are VFR. Perhaps the biggest break is passenger stops on an IFR flight plan. The rules on this are concise and specific. The liberal time of one hour plus ARTC delays gives you the time to refuel, pick up SIDs and leave correct manifests. But, be sure to put the ETE between stops in the remarks section. The key here is preplanning. Don't goof whatever you do, or we'll surely lose this privilege.

One last point concerns authorized deviations. Like most pilots, you know that a deviation from 60-16 requires a report, but do you know that CAR 60 requires you to report any time you have an emergency that requires ARTC to give you priority over other pilots? This holds, regardless of whether or not you deviate from CAR. Paragraphs 59 and 60 of AFR 60-16 tell how to report.

There are a few gaps between CAR, part 60 and AFR 60-16 but generally speaking both are fairly liberal. The main point is that even though you adhere to AFR 60-16, there are some other rules you must know. From a professional standpoint, you'll do well to know them all.



HOO BOY! Looks like we survived again. Yes sir, with May once again posing for us on the old calendar, we feel less like the fly that fell in the punch bowl and more like our old fat-cat self. One glance at the takeoff roll distance is enough to remind us that hot weather is no longer just around the corner . . . it is here.

By now, most of you realize that your old bolt bucket has somewhat less than sterling takeoff performance when the temperature climbs . . . that hot air is less dense, which reduces the thrust available even on a Gooney. Less common knowledge is the effect the thinner air has on true airspeed. If you normally lift off at 160 indicated you'll have an actual speed of 158 knots when the temperature is a balmy 50°F at sea level. This climbs to 162 knots when the mercury climbs to 100° at sea level and jumps to 169 knots when you make that hot weather takeoff at Kirtland. This extra two to nine knots doesn't amount to much by itself, but when you realize that your takeoff roll goes from 3200 feet at 50°F to 4500 feet at 100° - and jumps another 1100 feet when the takeoff is made 5000 feet above sea level, you begin to see why summertime is often accident time. Weight the bird down a bit and these figures really grow, along with wear and tear on tires and ye old accident exposure.

The extra speed has some effect on landing rolls . . . somewhat offset by less push from the engine at idle power. We won't go into the mathematics - having trouble enough trying to keep up with our kids' math homework. The important thing is for you throttle benders to realize that summertime makes this flying business more critical during all operations close to the ground. Before we lay down our pencil, a brief word on the other summer hazards.

Much has been written on thunderstorms, how to fly 'em and so on. Currently, smart pilots avoid 'em. Look at it this way. You can spill JP-4 all over the ramp and - usually - go ahead and fire up your bird without being engulfed in an explosion. You can scrub your kitchen floor with gasoline and - generally - get away with it. Further, you can pass that big semi-trailer going up a hill and - perhaps - go on your merry way . . . pull any of these stunts often enough and you're going to have a hot time indeed. In fact, you may even go to glory.

Read any newspaper and you'll find at least one story about someone who was hurt or killed because he got caught doing something unsafe. Odds are the poor devil didn't get caught the first or second time he pulled the stunt - unless it was trying to fly, without wings, from off a six story building.

Thunderstorms are like that. Flying thru 'em is risky . . . and just because you've been successful a few dozen times is no guarantee that you have mastered them. As the sage said, "Show me a man who has never taken a fall and I'll show you a man who is ready for the biggest fall of all!"

However, hang on while we do a real quick 180 right in the middle of this street. We'd never make a 180 in a blunderstorm mind you, but we have to make 'em every so often when writing to make sure we scrape everything up on both sides of an issue.

Altho punching holes in these big boys is risky, it isn't as risky as accidentally stumbling into one then going into a full scale panic. So if you do get into one, cross your toes and teli yourself that 98 percent will have nothing more than a little rain, some real pretty St Elmo's fire, perhaps a leetle lightning and from mild to moderate turbulence. The rain, the instrument conditions and all the old bar stories tend to make mild turbulence lean more toward the severe side, while a scared hand on the stick may actually turn it into severe.

Another caution . . . should you happen to be somewhere between 20 and 30 thousand and fall into one

of these critters, don't let those stories about the worst turbulence being close to the freezing level disturb you too much. You'll get into less trouble maintaining a level attitude than trying to climb to a better altitude. Personally, we've bumped into far worse turbulence at 35,000 than we ever encountered during too many penetrations at 25,000. This doesn't prove anything . . . but a friend once followed us thru a couple of storms at rather high altitudes and got much worse turbulence than we did at 25. Again, this does not prove anything.

This does. We have reviewed several thunderstorm accidents that ended in lost control and ejection. In every case we can remember, the involved pilot went into the storm at very high altitude while trying to top it or because he was trying to stay as far as he could above 15,000, the magic altitude of most severe turbulence.

So, if the mission must go and you can't avoid that line of weather factories, TAT would advise you to stay at least 5000 feet below the best cruise altitude of your bird and to break out the scope, if you have one, or talk to the scope troops on the ground and then work your way thru calmly and surely.

We'll jump from here to our final fun wrecker . . . the black blizzards of the great Southwest. Wind is your clue and you should know enough about isobars and pressure patterns to know when to suspect a forecast of gentle surface winds.

Even when these fail to signal danger, keep a close weather watch when headed into this area. More than one pilot has been rudely shocked at how fast the vis at Roswell, El Paso, Clovis, Big Springs, or ABQ (we can't spell it) has dropped from 50 miles to ten times as many feet.

A DOLLAR NINETEEN crew had to cage a fan during a test hop because the engine lost all torque. Altho this is not so doggone unusual, the reason torque went to zilch is . . . A bird built itself a nest of safety wire in the carburetor air scoop!

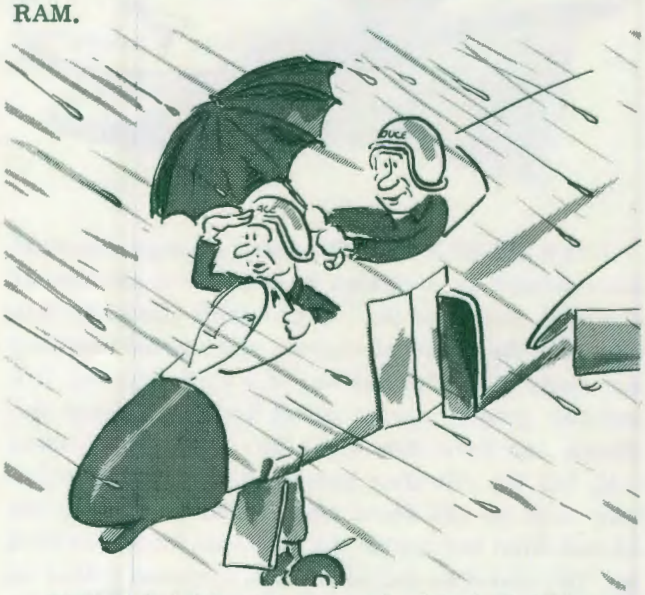
Either the nest builder is one of those hardy souls who prefer a harsh existence to one of comfort, or is unusually lazy and made its nest from whatever material was in the immediate area. In either case, the nest builder was doing a better job of keeping trash off the ramp than the people working on these birds. Somehow, leaving bits and pieces of safety wire all over the place seems to go hand in hand with leaving duct covers to gather dust rather than protect the big birds from the little birds.

EVER HAD TO FLY IFR on a VFR day? It can get real hairy and isn't as uncommon as you might think. Friend of ours once had to do it when he leaped in a T-bird without checking the pressurization valve in the speed brake area. By the time he realized he was getting into trouble the canopy and windscreen were well iced.

He spent some frustrating moments trying to convince center, approach control, and GCA - each in turn - that he absolutely could not see and needed positive radar separation from other traffic... weather was clear and fifty.

TAT had his worst go at this some years back on a damp day in an F-84F. We had the cockpit temp set rather low, the side air outlet open and the cockpit went full IFR just after we started to roll on takeoff. This is real IFR, as any who've had it happen will attest. You can't see the clocks much less what's outside. Fortunately we didn't shut off anything important while fumbling for more heat or ram air. It did take a few thousand feet to get the cockpit straightened out again.

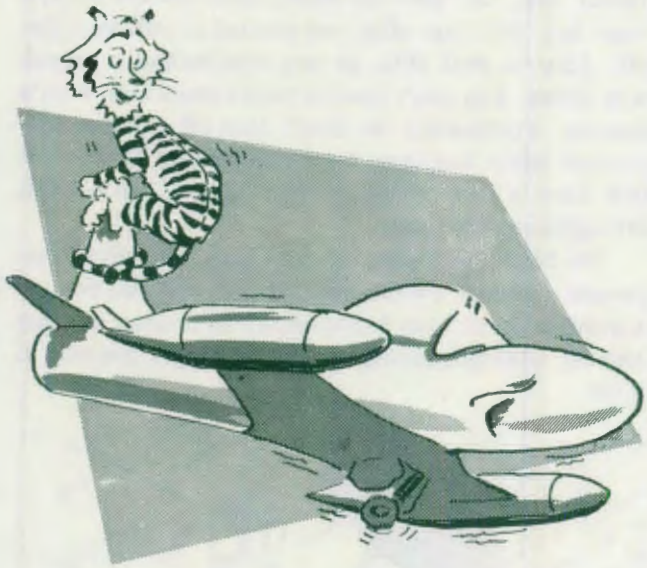
We hear the F-101 is even less tolerant of improper comfort switch settings and that you can get a similar thrill in an F-105 simply by making a water takeoff without placing the temperature control to RAM.



WHILE ON this same general subject, F-4C troops will have trouble seeing beyond the windscreen when it's raining. Some slip stick artist gave boundary layer control priority over the rain removal system . . . when you lower the flaps, off goes most of the rain removal air and you're back with us ancient birdmen who have to peek out the front edge of the canopy when it rains.

FROM A FORM 847: "According to the F-105 dash one, the pilot must pull ELECT SYSTEMS CONTROL POWER or CIN POWER circuit breakers prior to start. If they want this circuit breaker used as a switch, let's install a switch in its place or delete the procedure."

TAT agrees with this troop all the way. It's not because we're too lazy to hunt up the circuit breaker, pull off our glove and nimble finger the critter out, it's because we hate to see anyone use shade-tree type procedures with an aircraft as expensive as the F-105. Rather akin to wiring the door shut on a bran' new Caddie, 'cause the latch doesn't work positive enough.



EVER HEAR A THUMP, feel a strange vibration accompanied by a change in noise level and loss of airspeed, even tho the power wasn't changed? This tiger did the other afternoon, and started checking our rusty T-bird on the way to a high, high key. We reduced power, cycled speed brakes, checked the clocks and scratched our head. Everything looked O.K. but the vibration continued and it took 90% to hold level at 220 knots and 20,000. On a hunch, we slowed down and cycled the gear even tho it indicated up. The vibration and noise quit, airspeed picked up and all returned to normal. 'Nuff to make a fella feel foolish . . . but 'tis wise to play such things safe. Take the case of two other T-birdmen who noticed their faithful machine vibrating slightly. Various RPM settings did little to soothe the old girl, instead the RPM made an occasional fluctuation.

Both birdmen decided this was potentially serious and diverted toward the nearest Air Force base about 45 miles away. It was a good thing they did. Four minutes later at 25,000 feet the unit flamed out and refused to respond to airstart attempts. The crew made good a flameout landing. They'd thrown a bucket which vibrated the throttle linkage until it broke.

WE HESITATE TO brief another T-bird mishap . . . but this one just can't keep. A pilot from another command was flying a navigator on a trip. He briefed the guy, strapped him in and had everything going like clock work until reaching 80 knots on takeoff, and that's when the nose gear retracted. Seems the pilot asked his passenger to check the air vents and the guy raised the gear handle instead of the standpipe vent handle! We usually brief such passengers, make certain their cockpit is set-up correctly and then after they are strapped in, show them what controls, levers and knobs are to be left entirely alone. It pays.

SOME YEARS AGO almost all jet fighter troops used to hold their birds on the deck after takeoff until they'd accelerated to best climb speed plus. Fact is, some still do. This tiger never could buy this practice. Some rough and dirty calculating told us that if we climbed out slower we'd be in better shape should our engine get too tired to push at any given time after liftoff. In short, a climb at near full weight flameout glide speed put us closer to the air patch, where depending on wind and other conditions, we might make it back. At the very least, we'd be able to evaluate things quicker than our flat, fast-climbing brethren since they'd have to claw for altitude before they could get a reading on how things were going.

We haven't changed our mind on the subject. In fact, just recently we saw a brief of some tests on the subject that verified our thinking. The tests were conducted to determine what airspeed a certain fighter craft would need on the deck in order to zoom to a safe ejection altitude. As a by-product, the testers found that the best takeoff profile for max altitude gain in event of engine failure was a steep, slow-speed climb during the low altitude range. Admittedly, this ain't as thrilling.

FRIEND OF OURS who's still pretty much of a tiger had one of those bleary-eyed spring colds.

DROWNDED?

"TAT" he sniffed, "I have an item for you. I called scheduling this morning to cancel my afternoon flight because I picked up this beauty sometime yesterday," he blew his nose as if to emphasize the point, "but they wouldn't cancel me without orders from the flight surgeon making me DNIF. My first reaction was to go ahead and fly despite this slopped-up head. I thought better of it, went down to the dispensary and waited out sick call for my supply of APCs. Somehow it seems to me that my word on the matter should have been sufficient. After all, by now I should know when I should not fly. If not feeling up to par and there is no pressing need for my services as a pilot, then I don't think I should be pressured into either flying or hitting sick call. This particularly applies to a cold which is an ailment the medical giants admit they can't cure."

He has a point. If a fella has the sniffles or some simple temporary ailment like the Carolina quick steps that isn't serious enough to keep him from operating OK on the ground, he should not fly and it should be left to him whether or not to camp on the friendly flight surgeon's doorstep. HOWEVER, if the ailment is more serious, hangs on longer than normal, or if the troop wants to feed on pills and stuff, then he should certainly go see the flight surgeon.

DE RAIN WUZ gently falling while de flight of F-100D's made a TACAN approach. Starting a second approach, the rain became less gentle, so the flight leader decided to make a full stop. Fuel on board was about 3000 pounds.

He and his wingman touched down at approximately 150 knots, some 800 feet down the 10,000 foot runway. After the wingman reported a good chute, the flight leader tried to deploy his.

Sigh, the cable locking jaws became unlocked sometime during flight and the cotton-picker wasn't about to deploy. The flight leader made sure his flaps were up and got started with the stoppin'.

Antiskid worked properly, but cycled rather fast because the runway was wet. As the big beast approached the far end of the runway, the leader believed he had everything under control and started his turn-off onto the taxiway. About two thirds of the way around the turn, the bird started to skid sideways. He straightened it momentarily and tried to slow it further . . . it went off into the mud and folded its nose gear with sufficient enthusiasm to wrinkle the nose section.

The taxiway was located about 1000 feet from the end of the runway, the barrier was located on the end and the runout area was naught but mud.

Some arm-chair-dash-one thumbing leads us hindsighters to think that he could've gotten completely stopped short of the barrier . . . regardless, had he gone straight and had his accident in the mud beyond the barrier, the accident should have been attributed to facilities. As is, faulty judgment will most likely head the list.

TAT doesn't doubt for one moment that this lad thought he was slow enough to negotiate the turn and can sympathize with him. Damp asphalt or concrete can fool you. This tiger once bounced his Porsche off a guard rail on the turn-off from a turnpike because he got fooled by a little water . . . once the excitement is over, all a fella can do is kick hisself firmly and resolve to be more cautious in the future. Mo better, be cautious all the time and avoid the excitement.

—TAT—

Do I get a MULLIGAN?

BY MAJOR WALT DYER
5th AF SAFETY NEWS

Do I get a Mulligan? This was the question George asked as he stepped up to the number one tee at the Greenvalley Golf Course. Seconds later the ball dribbled a few feet in front of him after he attempted to kill it with his driver. Getting a nod of approval from Frank and Bill, who were struggling to hold a burst of laughter, I said, "OK George, take your Mulligan."

This was an often repeated performance. George asked for a Mulligan before his first stroke every time the four of us played together. He was a good golfer, but his confidence at the beginning of each game left something to be desired. At first we allowed him a second try, but when we found that his second drive was always a long, straight one and he ended up walking off with the winnings, we had a three-man conference and decided to put a stop to it.

All four of us had been stationed at the same base for three years. We each held staff positions in a fighter wing, but all of us flew jet trainer type aircraft and had become well-acquainted thru staff meetings, local and cross-country flying, and our weekend golf games. George was considered a very good pilot but, like his golf game, his greatest weakness was lack of confidence, especially in unusual situations.

The last time I saw George was in the base weather office where he was being briefed for a flight of two hours to another base for a parts pick-up. After the weather briefing, I asked him if he had time to join me for a cup of coffee in the base operations coffee shop.

At first he said he couldn't because he would have to hurry to make his takeoff time. After looking at his watch he changed his mind and decided he would have time, if he hurried. He didn't have much to say as he stirred his coffee. He seemed worried and I asked him if there was anything wrong.

He said, "Walt, I tell you frankly I am a little scared to take this flight."

I had noticed that the local weather wasn't too good, but it wasn't really bad. The ceiling and visibility were above precision minimums for a radar approach, but the ceiling was just below the non-precision approach minimum. George and I had flown together many times under conditions as bad or worse.

He said, "You know, Walt, I would feel a lot better if you or someone else were going with me."

I would have, except he had to keep the back seat open for the part. So I suggested, "Why don't you tell Jim that you don't feel like going, or tell him the truth about how you feel." Jim was our operations officer and an excellent one.

" I need the flying time," George said, "and besides they may put me up before a flying evaluation board for fear of flying if I tell them the real reason I don't want to go."

"Jim will understand," I reasoned, "every pilot has his limitations and the smart ones won't exceed them. You know that our flying time is limited, and we can't expect to be as good as the troops who fly every day. That part you are going after isn't really that important anyhow."

All my talking was in vain. George was determined to go. I threatened to call Jim and tell him not to let him, but George became furious at the suggestion. I said, "George, I know you are a good pilot and can make it but if you are in doubt, I sure hate to see you take the flight." Ten minutes after schedule I saw George on his takeoff roll. Although he didn't see me I gave him a sharp salute as he passed in front of operations and said, "Good Luck, George, I know you will make it."

I went back to the weather office to get a reading for the next day, which was Sunday. We had our usual golf date and George was to be back in about five or six hours. As I talked to the forecaster, I heard the fire trucks and emergency vehicles. The forecaster and I ran to the operations lounge where we listened intently for news of what the emergency was. We stayed well out of the way of operations personnel who were on duty and didn't bother them with questions, still it wasn't long before I learned that George had crashed.

George had failed to gangload the fuel switches and did not turn on the tip tank switch. Apparently he was preoccupied with copying his clearance and other preparations for takeoff, or hurrying to make good his takeoff time, then failed to observe the low warning light and forgot to gangload the fuel switches. He was evidently too low for an airstart and his ejection was unsuccessful because his parachute did not fully deploy before he struck the ground. If George could have had another try, I am sure everything would have been all right, but in the flying business, you don't get a Mulligan.

Letters to the Editor

Letters to the editor

Dear TAT:

It ain't often that I lose an argument and even less often that I admit it. Many years in grade have made me about the most stubborn LTC (Life Time Captain) in the business. But, after reading the last promotion list, I choked with emotion and realized the argument I let the boss win last year must have paid off. For years I'd been trying to convince the board that I should be promoted ahead of my contemporaries. Last year I didn't even send the board a post card, and believe it or not, none of my contemporaries made the list with me . . . they all made it a couple of years ago. This all adds up to the fact that I have mellowed during the past few years and have started to examine things from all three sides; the topside, bottomside and the SEG side. Speaking of SEG, those boys have some arguments you just can't beat. Yup, I know you won't believe it but I've been indoctrinated and that's really what I wanted to write about.

I finally snookered a slot in the February SEG Indoctrination Course . . . just had to know if those troops could really walk on water. Now, you'll have to draw your own conclusion on that TAT, 'cause I don't tell tales out of school.

Anyway, they sure have a nice classroom set-up and good training aids. The instructors are well informed, very professional, friendly and helpful. They are extremely receptive to any suggestions from the field and keep stressing the use of AF Form 847 — that's the simple form to use when you want to change flight handbooks, checklists, stand manuals and such. They seem well aware that the troops in the field have lots of problems and they're eager to help solve them. They say, "Standardization is not stagnation - show us a better way to perform a maneuver and we'll put it in the manual your way." They're not at all the egotists you and I might have thought they were. And, maybe they can't exactly walk on water but they are experts in their field and they get their orders straight from the Commander,

TAC. That's rowing a pretty sturdy boat for my money.

One of the most interesting lectures was on their data collection and reduction set up. By now, they've collected enough grades to make valid decisions from the figures. Unit commanders can take the TAC HQ Forms 01 and 02, that SEG sends 'em, and tell just how their unit stands in comparison to the wing, numbered air force or TAC. In just one quick glance, they can pinpoint their unit's strength and weaknesses and determine what to emphasize. Needless to say the weak areas can well point out accident potential. Believe me, this info is a real management tool and is readily available.

One interesting subject brought up during the course was that of combat doctrine. That's when I thought I might lose some newly-won friends. You and I know damned well you just can't standardize a combat situation. Well, those boys at SEG know it too and will write the doctrine to give us a broad brushed guide to depart from. This will let us use our experience and judgment to fit the situation to the circumstances. Sound better?

I really enjoyed the four day school and learned quite a bit. It was worth the time and money. You'd probably enjoy the course too, but if you attend, be sure to remember there are three sides to a question - your side, my side and the right side. I'm sure I made money by leaving my old one-way attitude outside the classroom. Like I said - those troops not only have a good argument but facts, figures and the horsepower to back 'em up.

The course cleared up a lot of questions for me, but there is one thing that still bugs me and that's the point about stagnation or finding a better way to do things. If we go strictly by the book how will we find a better way?

Yours 'til I lose my checklist.

John (C.Q.) Beach, Prospective Major

Dear John

Your last name sounds familiar. Are you, by chance, a son of the Beach who stole my hat at the Eagle Pass Officers Club back in 1943?

Regarding the question you ended your letter with . . . being very adept at fielding hot potatoes we fielded this one to Colonel Brett over at Stan/Eval. His answer follows.

TAT

Dear John

As the saying goes, "that's a good question!"

Ideas from the field we most desperately want, but to try out or practice new techniques, procedures or tactics in the field is not normally a good idea since all available engineering data and other pertinent studies and information are seldom available. The troops trying them out might well wind up in trouble. Also, they may not document or disseminate the results.

TAC has several agencies that can and will try out new procedures for size in a controlled situation. For example, there is a gang of real shiny guys at the Fighter Weapons School whose charter calls for just this. Moreover, they have all the facilities to handle fighter ideas. There are some real fine, knowledgeable people here at TAC Headquarters in Requirements and Ops Analysis, and they certainly have definite input into any changes. So do the SEG troops. In the past, SEG has received some sterling suggestions and ideas which have resulted in new and excellent procedures. Recently, we received several 847's questioning mandatory use of afterburner above 24,000 pressure altitude in F-100/KC-135 refueling. TAC Test 62-61 was the result. Afterburner use will now be predicated on pressure altitudes computed for the existing temperature conditions when the F-100 is at full load gross weight. This change will also produce more accurate flight planning. This is just one of several procedures - new or old - that have been changed for the better. To reiterate, standardization is not intended stagnation - give us the idea and we'll check it out six ways from Saturday. If it's the one best way, it goes in the book.

- Lt Col Devol Brett

WING TIPS, from the first Marine Air Wing told of a real old Pro who said to his crew during a long overwater flight, "You're in the best simulator money can devise right now and you've got a couple of hours of doing nothing - why not go over your procedures for various emergencies?"

The capacity of an organization to meet new challenges depends on the adaptability of individuals. In a rapidly changing world, versatility is a priceless asset.

–J. W. Gardner

CHOCK TALK

SPARK PLUG PROBLEM

During the past several years many messages and articles have been written on the misuse of spark plugs, with little apparent effect, since plugs are still being misused at an alarming rate.

The General Accounting Office keeps a sharp watch on everything turned in to salvage, scrap, or resale. What they've found about spark plugs has really embarrassed the people in SAAMA who have been trying to buy better plugs.

Altho TO 8E2-6-1-37 is constantly being revised to improve the plug program, violations continue to occur. Some people are still shipping plugs to SAAMA . . . or were as late as February of this year. The 6 November revision of the TO made it clear that plugs are no longer to be shipped to SAAMA from out of the SAAMA area. Hundreds of new plugs - some still in the factory cartons - have been sent for reclamation.

The General Accounting Office even mentioned this waste in one of their reports to Congress. They reported that over a period of years, 4.6 million dollars were wasted because maintenance units in the field did not obtain the minimum desired service life from platinum electrode spark plugs. That's a lot of wasted money and no wonder GAO included it in their report to Congress.

SAAMA makes an annual survey trying to learn how reliable plugs are. When this survey arrives at your base this year, give it full support. If you don't, the entire spark plug program may be in trouble. SAAMA spends eight million a year on spark plugs (their largest single repetitive procurement item) which should give you an idea how important this program is.

Here are some ways they may have to use to manage this program:

* Issue plugs on a one-for-one basis.

* Issue them to each base on a flying hour basis with so many plugs per thousand flying hours.

* Not issue premium plugs to bases that continually misuse them. These bases will have to rock along on the old $1.25 massive electrode-type plugs which were pulled from service because of low life.

* Not fill requisitions to bases that don't indicate type of application.

Whether the AMA implements any of these plans depends on how well we straighten up our own plug program. We've reached a point where action must be taken. We either take it, or SAAMA will.

SAAMA started buying the finest platinum, fine-wire plugs at the direct request of the major commands and it is to our best interest to stop any malpractices. The spark plug program should be made a prime inspection point at your base. This is also what we told IG.

WORD TO THE WISE

It's unfortunate that every young lad who dons Air Force blue and aspires to the exalted position of aircraft mechanic, can't spend an hour, a day, or a week reading aircraft accident reports before he turns that first spanner.

What's in an aircraft accident report that would interest a potential 43 type? You might say it's a collection of facts giving the sequence of events leading up to and including an aircraft accident. Often it is a collection of facts that reads like a gripping detective story. And in a way, accident reports are detective stories.

A lot of detective work is needed to find out why an accident happens. All too often this detective work leads to the discovery that an aircraft mechanic didn't do his job. When this is so, the report makes painful reading to a maintenance man. More painful,

however, is when that errant one appears before the investigating board when they are compiling the facts for the accident report.

The investigating board, whose members are made up of experts from the fields of operations and maintenance, can ask many questions, some very embarrassing indeed. More important than the embarrassment of course, is the realization that an aircraft was lost due to carelessness. In the final analysis, these accident reports time and again prove the old saw that accidents are caused, they just don't happen.

If you are a mechanic, or hope to be one, nip accidents in the bud. Don't let one result because you blundered. The Air Force has gone to considerable expense to print TOs, checklists, and procedures. Know and follow these guides and you'll help save Air Force aircraft, and save yourself considerable embarrassment - among other things.

SERVICE STATION

With summer here again it's time for June bugs and a host of other juicy insects to end it all on aircraft windscreens. Crew chiefs and transient alert crews can give pilots a real break and include a quick windshield wash job as part of each turn-around. This will make for better inflight visibility and may even prevent a mid-air collision.

FIRE ON TAKEOFF

After takeoff on a functional test hop, the engine compartment fire warning light of an F-100 came on. EGT was 620°C and all systems were normal. The pilot climbed to 2000 feet, came out of burner and reduced power. Thirty seconds later the warning light went out so the pilot landed the aircraft from a modified low key. After clearing the runway he shut the engine down and firemen extinguished a fire just forward of the aft section fire wall. The cause? Fuel was leaking around the pressurization and dump valve distributor because someone had failed to install a seal on the secondary sector of the distributor.

FLIES IN THE BUTTERMILK

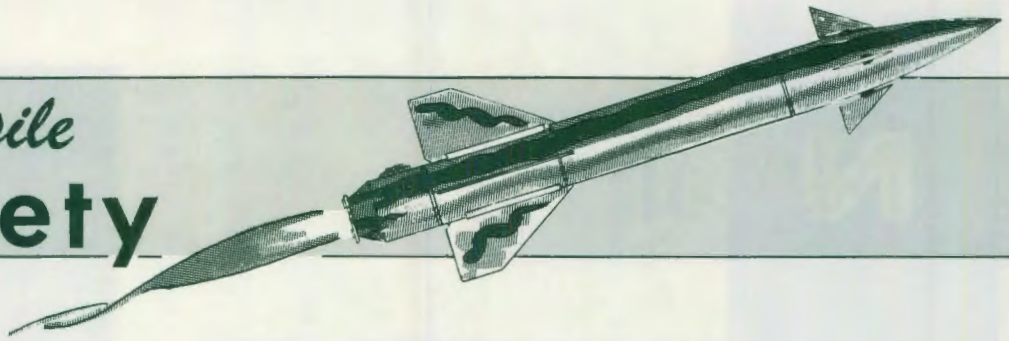
Unexplainable refueling probe malfunctions at your station? The Second MAW reports that contaminated fuel has been transferred from tanker aircraft to receivers. They describe the contamination as a gray jelly-like substance, and say that one of the first indications of contamination is a malfunctioning fuel probe. If you're having trouble you might give this a check.

QUESTION OF THE MONTH

The most common torque wrenches used for daily aircraft maintenance are:

(a) Type IV
(b) Class A
(c) Type I
(d) Size 6

Nuclear/Missile safety



nuclear/missile safety

NUCLEAR HAZARD REPORTS

Are you one of the many who can see a problem without doing a thing beyond saying to yourself that you'd sure take action if you were the regular crew chief? Too many of us are regular dues paying members of the union whose motto is, LET GEORGE DO IT!

While this attitude hurts any operation, we just can't afford to wait for George when nuclear weapon systems are involved. Each of us working with weapons or a weapon system must get corrective action started as soon as a hazard shows up. George may never see the same hazard until the day the problem ceases to exist and changes into a large cloud of the mushroom shaped variety.

We have done our best to make hazard reporting truly painless. In each nuclear weapon system work area, you should be able to find a supply of TAC Form 122s. It's a simple form that can be filled out in pencil; you can even omit your signature if you want. The important thing is to get a report of the hazard on paper so action can be taken.

After you complete the Nuclear Hazard Report it goes to your unit nuclear safety officer who will review the report and then normally brief the nuclear safety council. If the hazard can be eliminated at the local level the council will take necessary action. If the problem you've found requires action at higher headquarters, an AMA or manufacturer; your TAC Form 122 will be forwarded, along with a record of local action and recommendations for further action.

At this point your hazard report may generate allied action in the form of a work order request, an EUR, an AFTO Form 22, or some other action document. While the TAC Form 122 is the best tool for getting action started, it is only a trouble flag. Someone must still follow thru with one of these other forms. Once again, this is no time to wait for George.

After your nuclear hazard report has been processed through the chain, it will be returned to you with a record of the actions taken to eliminate the hazard you have identified.

The next time you see an accident or an incident just waiting for the proper time to turn into big trouble, don't look the other way, grab that hazard report and get action started. The base you save may be your own!

CERTIFIED LOADING CREWS

Recently, we've had three GAR-8 incidents that resulted in umbilical cable damage. After reviewing these incidents it appears that they emphasize the need to comply with the loading crew certification program.

We can't overstress the impact this program has on missile safety. True, no one can prove that these incidents would not have happened had the involved crew been certified. But, the same crew had all three incidents and certification would have insured that they were trained and knew the correct procedures.

The certification program provides the commander and his supervisors with a system which will make certain that each loading crew knows how to perform their job safely and efficiently. However, before the system will work, each unit with an air-launch missile mission must have an effective program to train and certify loading crews. Further, commanders and supervisors must insist that only certified crews be permitted to load and unload these weapons, except during supervised training or during an actual or simulated war emergency when no certified crews are available.

ABE

Not Lincoln, but the air breathing engine used in our tactical missiles. The name means just that - these engines are built to consume air and fuel, not bolts, dust caps and other foreign objects. Before cranking up, inspect those intakes and engines thoroughly, and say good-by to FOD.

NDT for ME

on Destructive Testing

CMS William R. Morgart, presently at Luke AFB, inspects J-71 second stage blades using an ultrasonoscope. Insets show scope picture with center blip indicating cracked blade, and X-ray photo of the same blade.

J-71 compressor as it looks to an inspector.

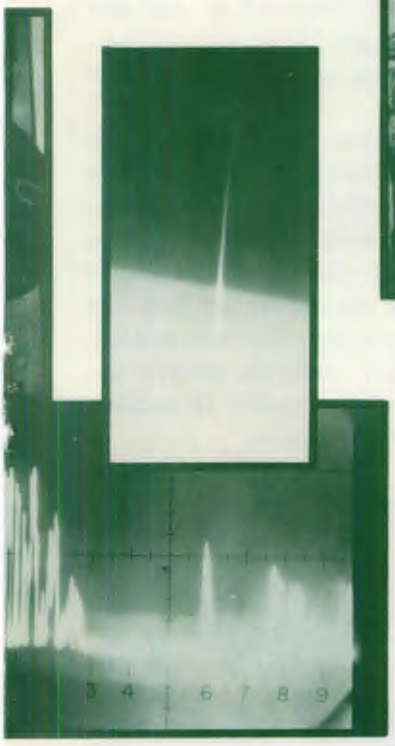
THREE TIMES we had J-71s disintegrate while pilots were just starting their takeoff roll. Three times we were wide open to a major accident and lucked out! The AMA teardown on the first of these failures pointed toward a second stage compressor blade. We fired off an emergency UR. The second failure resulted in another emergency UR. The depot wasn't getting too excited - in fact they were more concerned about trying to solve an eighth stage problem and had published a TO requiring a visual blade inspection using a four power glass. Have you ever tried looking for compressor blade cracks thru a four power glass? It's a staggering job.

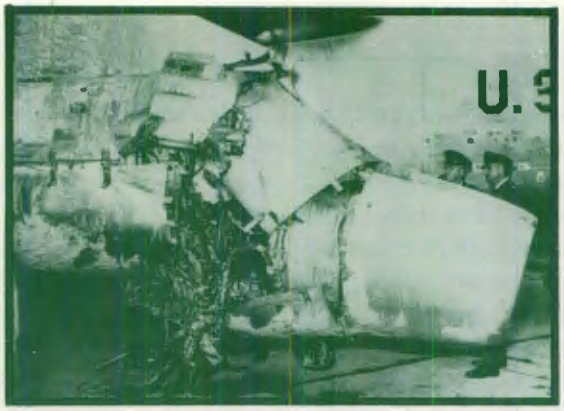
All of those blades grinning up at you are enough to make your eyes water. They play tricks on you. We found that most men couldn't inspect more than ten blades before their eyes gave out and another inspector had to take over.

Fortunately, a short time before these failures, the Chief of Maintenance had sent me over to a nearby RAF Base to have some main gear door locking cylinders X-rayed. We'd learned thru the grapevine that they were pretty well equipped along those lines.

While I was over at the RAF Base they showed me their non-destructive testing lab. They also showed me photos of failures and other evidence to prove what they could do with this lab and I was quite impressed. In fact, I've

BY:
MAJOR JESSE L. TRENT
4505 CAMS
Langley AFB, Va.





End result of a J-71 second stage blade failure.

never ceased being impressed even tho, as it turned out, that old standby, the dye penetrant check proved to be the best way to find the failures in our landing gear locking cylinders.

When the third engine blew up on the runway, we managed to get authority to buy some ultrasonic inspection equipment to go with X-ray equipment we'd managed to get set up and in operation the month before. We wasted no time putting the new equipment into use. We found we could inspect all 2nd stage blades on a compressor in about an hour . . . far quicker than by eyeglass and with far less strain. The ultrasonic inspection indicated some blades were cracked altho visually they appeared sound, so we took X-rays to confirm that these cracks existed.

The X-rays did just that, so we sent a report to the AMA explaining the extent of the problem. They fired a message back giving us hell for using an unauthorized inspection technique and asking us to verify our results. We sent back the X-rays and a world-wide retrofit soon resulted.

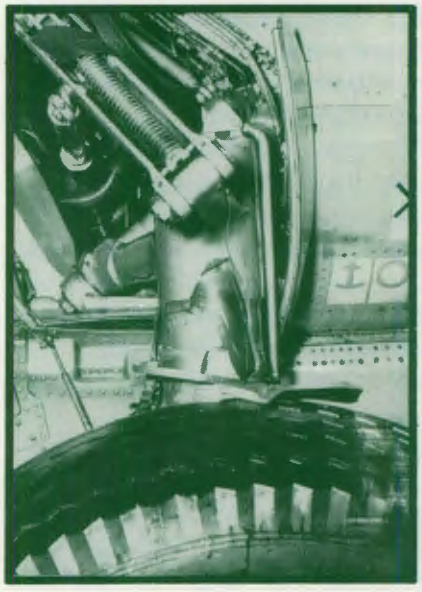
And no wonder. Thru our ultrasonic inspections we'd found 11 engines with cracked second stage blades. Two of those engines had just come from overhaul and had zero time. Since a second stage blade failure invariably causes the engine to come apart, we saved quite a few dollars with this inspection. I'd estimate the Air Force would have lost about 16 million in just two wings. Compare this with the cost of our ultrasonic equipment . . . less than $5,000 and that included training an airman to use it!

We had other problems with our B-66s besides in the engine. One was with the nose gear actuating cylinder lug. When the first one failed, the pilot heard a loud bang and altho he didn't know it, the gear was able to swing freely in the extended position. It let the nose slide on the runway after he landed.

The second one failed on landing. The pilot heard the "bang," realized the significance, brought the aircraft to a stop and shut down the engines. In other parts of the world two more B-66s made crash landings because of this lug.

We airlifted the failed struts to California and about two months later the AMA directed an inspection using hand magnifying glasses, magnaflux and dye penetrant.

The strut has a rough surface and this isn't conclusive to good dye penetrant or magnaflux inspections. It's too easy to confuse cracks with normal surface irregularities. The struts were painted of course, and had quite a bit of equipment installed on them, so it took several manhours to get them ready to inspect. But worse, neither dye penetrant nor magnaflux revealed the cracks because the propagation point was inside the hole provided for a bearing and under the bearing. The bearing was staked in place.



B-66 main gear strut failure. Proper eddy current or ultrasonic inspections could locate defective struts well before failure. These inspections can be made without removing struts from the aircraft.

If we'd had our nondestructive testing lab at that time, we could have saved ourselves about 60 manhours per bird and at the same time made an inspection that was

meaningful.

We had a similar problem with MF-1 trailer wheels. After some of them collapsed, we found that they had been cracked for quite some time before they actually broke.

Reacting to the URs, the AMA directed an inspection, but left the technique up to the individual units. This was also before we had a proper nondestructive inspection lab and we were still working and thinking in terms of zyglo and magnaflux. We had to remove 400 wheel halves, split 'em apart and remove several layers of paint before we could even start to inspect. Just getting ready cost us 1500 manhours.

Using dye penetrant, we condemned less than two percent of the wheels. However, 11 percent of the wheels we inspected failed at a later date. All that work and preparation and we didn't find one-fifth of the defective wheels! From what I now know about eddy current, X-radiography and ultrasonic inspections, one of these techniques would have located all defective wheels without making it necessary to strip off paint and make other time-consuming preparations.

Less preparation is one advantage ultrasonic, eddy current and X-radiography all have over visual techniques, including dye penetrant and magnaflux. An excellent example was an inspection the airlines had to make a short while back on the fuselage where two subassemblies are joined together. Cracks were developing in the substructure and to make a visual inspection, they had to remove all the upholstery, soundproofing and other appointments in the vicinity of the joint. The joint went all the way around the fuselage. The inspection didn't take long, but getting ready for it and replacing the interior appointments afterward was a staggering job. After they wised up, they were able to make this inspection by wrapping the fuselage joint with X-ray paper or film and then placing an X-ray machine with a 360 degree head in the center of the fuselage. It didn't take long to prepare the aircraft for X-ray and they made the actual X-ray shot when everyone working on other areas of the aircraft was away, such as during a coffee break.

Without disturbing the interior or upholstering, X-ray permitted them to inspect the joint just as well as they could visually. Needless to say, this was at a fraction of the cost.

Our newer aircraft, such as the F-4C, use quite a bit of honeycomb structure. This will make it imperative for us to use all available inspection techniques . . . often two on the same inspection. X-ray to locate moisture in the honeycomb structure, ultrasonic to pick up lamination.

Incidentally a new way to inspect honeycomb structure which shows great promise takes advantage of heat conductivity. A special fluid is spread on the suspect surface and then heat is applied - usually with infra-red lamps. The fluid follows the area of good heat conductivity and forms a honeycomb pattern at the surface wherever there is a good bond. Lack of the honeycomb pattern indicates where the bond has failed.

The Air Force and AMAs are finally getting on the nondestructive band wagon. In fact, ECL 763, Set, Nondestructive Inspection Equipment, was published 30 March of this year. This ECL is to support methods and techniques required to evaluate the structural integrity of materials and components at base level . . .

According to MAAMA, who published this ECL, TAC will have to insure that selected people attend the Nondestructive Inspection Course at Chanute before any of our units can qualify for ECL 763 allowances and, that the activity which has qualified people assigned, will normally be authorized this equipment.

X ray machine being positioned to photograph B-66 wing doubler. This will permit locating cracks without removing wing skin.

At this rate, it shouldn't be too long before each TAC base will have its own nondestructive testing lab, and along with it, the capability to detect many of the failures which now cause accidents.

Private Line

Dear John

I PROMISED I wouldn't tell you about any more of my hairy experiences and I'll stick to my word, but you might get a snicker out of this incident. You know how I've always prided myself on radio voice communications - never make a mistake and all that. Well, I'm eating crow and I don't like it - it's too tough for an old pro. Altho the laugh was on me, I think the system was actually at fault.

I leaped off for a week end cross-country in a T-bird with a flight surgeon in the aft seat. He wasn't familiar with the radios so I was doing all the yakking and frequency changing. With my time in the bird, this wasn't much of a problem and I was batting a thousand setting in discrete frequencies.

We spent a lot of time in the weather and I thought about my poor buddies in single seat fighters battling wing position while manually tuning in these frequencies. Some trick, even for the most experienced, without completely losing their leader, much less control of their aircraft.

To get on with the story, things had been going reasonably well. I only had to recover from two unusual positions until I quit writing down the frequencies and just started dialing them in. On the second day, just before midnight, we made a penetration at an East Coast base. The weather was interesting... right at minimums. We were on a long final for the runway and I thought we had it made no sweat, then the controller told us to contact GCA on another frequency. I finally fumbled it in after a few mild gyrations of the bird. I think the Doc was a little scared 'cause I heard him say a short prayer. It was only two words, but I knew what he meant. Anyway, when I called GCA on the new frequency, they didn't answer. I tried again and still nothing. I started to go back to the center frequency but couldn't remember what it was. Boy what a memory block, but then I never was much good with them kinda figures. I really felt like an idiot, but thought I'd play it safe and not try any heroics with the books, looking for a frequency. Guard channel worked fine and we were soon on the ground.

I was more than irritated with the controller for giving me that low altitude frequency change and wondered why he couldn't have given me a frequency at high station that would have taken me all the way in. Guess those scope-types don't remember old Bill Shakespeare saying, "It were easier to tell 20 men what good were to be done than to be one of the 20 to follow mine own instructions." I'd sure like to have one of them along sometime.

This discrete frequency assignment plan works fine when you've got a couple of pilots on board... cuts down communications confusion, but I kept thinking about you guys flying single seat fighters. When I got back to my desk in the TAC safety shop, I started to pound the table again for single frequency approaches from high station to touchdown. I found out that this was already provided for and required by AFM 55-14 and FAA Manual ATS-2-A, but that not everyone was doing very much about it.

We wrote to Air Force restating the problem - you know, pilots of TAC's single place aircraft were being forced into dangerous corners, safety was being compromised, etc. Air Force sympathized but put the monkey back on us and said we'd have to get the system going at our bases and then continually follow up to correct deficiencies. This we did without too much of a problem at bases where we had our own approach control. We just instructed them to do it, but it wasn't so simple at our bases where ARTC was the approach control agency. They said they'd like to help us but they just didn't have the capability or frequencies to support the requirement.

This didn't set too well with us, so our Chief wrote to the big Chief with a couple of requests and recommendations. One, that all Air Force control facilities be required to give single frequency approaches to single pilot aircraft at night or in weather, and the other, that FAA do the same.

Now it looks like our labors are bearing fruit and that the word is out from headquarters to get the single frequency system in effect as soon as possible at all bases.

Wish someone had listened to reason before that last scare cost me so much hair... oh well, it could have been worse. I've still got an earthly address and you can still write to me... try it for a change, won't you?

As Ever,

Digger

BY: CAPTAIN HARRY R. BEARD
4450th SEG
Langley AFB, Va.

The synchronous roar of the props was broken just shortly after takeoff by an abrupt engine failure. Even though the gear was neatly tucked away and the flaps were up, the heavy twin engine bird was lumbering along just a little over single engine minimum control speed when misfortune struck. Luckily, the propeller feathered as the terrain swept by just two or three hundred feet below. — Brother, that kind of luck doesn't just happen . . . you gotta know your procedures! The pilot knew his performance data promised that single engine flight was possible to the tune of a 100 FPM rate of climb, and the bird made good this promise. Now let's put you in the driver's seat.

Let's play BET YOUR WINGS - that comedy fun game where you win a "well done," "primary cause, pilot factor," or a "cold slab." Are you ready? Here come the questions: Would you sacrifice part of that 200 feet to accelerate from single engine minimum control speed to single engine best climb speed? Would you remember to close the cowl flaps on the dead engine and close them as much as possible on the good engine to reduce drag? Would you fly straight ahead, terrain permitting, and gain more altitude prior to attempting any turns? Would you insure that you maintained nearly coordinated flight with the bird in a slight bank into the good engine, even tho you had to push terribly hard on the rudder?

If your answer to any of these questions is "NO," not only will you fail to qualify for the "well done," you will qualify for "primary cause, pilot factor" and may even get the "cold slab" for a bonus. Those who win the latter award are dangerous and should remain on the ground until they finish reading this article.

Now these whachama-call-it speeds for single engine operation come in two flavors. The first speed, SINGLE ENGINE MINIMUM CONTROL SPEED means what it says; namely, if you aren't going this fast, you will not be able to control the airplane with rudder while carrying maximum power on the good engine . . . and who wants less than max power in a heavy tin bird on one engine? Most of the dash ones recommend that you achieve single engine minimum control speed before you get serious about getting the airplane unstuck from the runway on takeoff. If you are flying the C-123, or making a maximum performance takeoff in your airplane, you may become airborne prior to getting this airspeed. If you lose an engine prior to reaching safe single engine airspeed, you'll have to work the problem out for yourself. Your dash one outlines the procedure. Otherwise, you'll want to obtain the second flavored airspeed, SINGLE ENGINE BEST CLIMB SPEED.

By reducing drag and applying maximum power on the good engine, you may or may not be able to accelerate to single engine best climb speed while maintaining level flight. You might be on the so-called back side of the power curve. More technically stated, your slow airspeed is producing the following effects:

First you have an increased angle of attack to get the proper amount of lift from the airfoils. With this lift at low airspeeds comes induced drag, meaning that instead of having just the tolerable frontal area of your airplane speeding through the air mass, your airplane is actually flying in a belly-go-first attitude and is much harder to move.

Next you'll find that thrust horsepower is less at lower airspeeds. By increasing airspeed, you increase thrust horsepower until you reach the peak efficiency speed which is generally above normal cruise speed.

On the other hand, parasite drag is less at lower airspeeds and an increase in speed results in an increase in this drag. This is the only aerodynamic principle of the three which acts in your favor if you insist on staying slow. Consequently, if it becomes apparent that your flying machine isn't going to accelerate in level flight, you will have to dive it slightly until the airspeed builds up to single engine best climb airspeed. Getting back to a reasonable

aerodynamic explanation of what is taking place during this dive, you are:

* Decreasing induced drag as the angle of attack decreases.
* Increasing thrust horsepower.
* Increasing (not significantly) parasite drag.

Once single engine best climb airspeed is obtained, you will have your airplane ready to start upstairs.

It is imperative that you be very conscious of drag during single engine flight. Cowl flaps on the good engine can usually be closed almost entirely just as long as you don't let cylinder head temperature exceed the maximum. On some aircraft, like the C-119, the minimum drag setting for the cowl flaps is not fully closed, but is that position which creates a smooth contour along the nacelle.

Near coordinated flight is equally important. Dropping a wing about five degrees into the good engine will reduce the rudder forces needed, giving less drag. This holds true thruout the low speed range . . . including V_2. Above all, NO turns if at all possible.

Convinced? Could you win the "well done" in our fun game? Perhaps you still can't win any more than "primary cause, pilot factor" when playing Bet Your Wings. Well, this problem needn't bother you longer. Sit right down now and learn your procedures. Know your dash one! Talk about one arm paper hangers — brother! In the time it takes you to read what to do, you're on that cold slab!!!

And, after you have the procedures down pat, why not take your two motor to altitude and practice shutting down a fan? Read TACR 51-16 first to be certain you know the rules. Then, see first hand how these airspeeds, when properly flown, will make the difference in aircraft performance. SEG thinks you'll be convinced to such a degree that you'll want to tell others.

While cleaning out our files we discovered a tightly rolled piece of parchment addressed to one M. Anthony. Unrolling it we read:

"Dear Mark

I am appalled at the lack of supervision you have been giving the men in your legion during your campaign on the Nile. Since the first of the year you have lost three men in garrison duty to what can best be called stupid accidents. I don't know which is the worst . . . the man who sliced off three fingers trying to see how fast he could unsheath his sword, the one who ruined his foot when he dropped a sword on it; or the man who stuck his friend using a practice sword which had inadvertently been sharpened."

Someone had spilled coffee on the rest of the scroll so it was unreadable except for a fancy seal and the signature of one J. Caesar. We're certain that this Caesar character would have been just as appalled by some shenanigans occurring in TAC during the year 1963 which resulted in a .38 caliber hole in one airman's leg (quick draw?); a .30 caliber hole in a guard shack roof (the carbine was loaded, and promptly went off when an airman slammed it butt first on the floor); or the near death of another airman - shot in the abdomen because someone was playing with a loaded weapon.

Since way before Caeser's day, men have been killed or hurt playing with weapons . . . with good reason. Weapons were designed to kill people and make damn poor playtoys!

TAC TIPS

JET ENROUTE PENETRATIONS

Pilots of jet aircraft may request en route penetrations from the ARTC controller at the destination airport. Controllers are free to approve or refuse these requests depending on workload and equipment limitations. Once an en route penetration has been approved, the controller cannot terminate it without the pilot's consent, except in an emergency. Altho the controller may approve an en route penetration when radar is not available, he usually will not since he has no way to vector the aircraft to the final approach course. Check Section II of your Flight Information Publication for exact communications procedures. We understand that controllers prefer pilots, to request en route penetrations. Besides expediting traffic, it permits them to maintain qualification requirements.

BLACKOUT

Just read about a couple of T-bird pilots who had a flameout during a penetration at night. They noticed the tip light come on before the flameout, but were waiting for fuel in the fuselage tank to burn down before turning on the wing tanks. Both had their fuselage low level warning light cover turned to dim; and did not see the light come on. They couldn't start the engine and the co-pilot ejected. The pilot landed short of a nearby runway with minimum damage to the aircraft, but with greatly shattered pride. We recommend that all warning light covers be left in the bright position and that they be turned to the dim position only after the lights come on and dimming is necessary to cut down glare.

FLIGHT PLANS

Your IFR flight plan should show, as the last entry, the arrival fix from which you plan to approach. For example, if you are filing IFR to Andrews AFB you should list Brooke, Patuxent or Herndon as your last entry, not Andrews. Your FLIP terminal charts show the destination fixes you can use.

If you are cleared to any other fix near your destination airport and then have radio failure, all possible approaches to your destination must be cleared until you complete your approach. By terminating the flight plan properly at a specific approach fix, you are indicating the approach you intend to use in case your radio fails. Are you one of the GUILTY?

ATTENTION SAFETY OFFICERS

You've been told and told! Besides, you're waking people in the middle of the night with Ops Immediate messages that should have been sent routine.

At least two reminders on this subject have been sent to unit safety officers. A third is now on its way. It will state that incident reports which do not have urgent safety implications should be sent routine or deferred. After all, you have plenty of time to get 'em in. Also, supplemental accident reports may be sent priority unless they contain info that might concern a safety hazard.

Reporting procedures are covered in Attachment 9, page 38 of AFR 127-4. Let's follow these instructions and restore the meaning to "Priority" and "Operational Immediate."

TIME STUDY

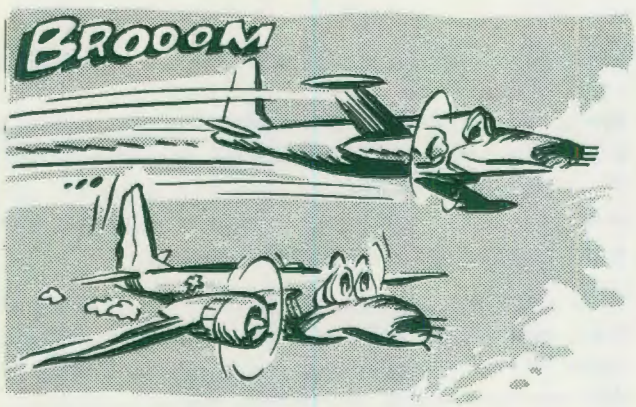
A study of takeoff and landing accidents in transport aircraft has brought out some interesting time factors. Percentages show that in 94 of 100 accidents the pilot had less than one minute warning. In 82 cases there were less than 30 seconds of time to react. In 61 cases the time was less than ten seconds and less than five in the remaining 24 accidents. Not much time to find and fasten your shoulder harness, especially when you're trying to control the aircraft.

PRESS TO TEST

Nellis Quality Control people have advised us that if you have a system one, press-to-test-button stick down after you make this check on your F-105, to try rotating the button slightly to see if it will pop back out. Some of these test buttons are designed to lock in when given a slight twist. If it doesn't pop out after being twisted, then you naturally should abort.

PHOTOGRAPHERS

Once again we are asking for your help! It takes a lot of photos to publish a magazine and our supply is being rapidly depleted. We will welcome just about any photos pertaining to flying or support operations. Four by five, eight by tens or what have you. Black and white please. How about checking your file for photos of aircraft in flight and on the ground; maintenance activities; armament loading; personal equipment; missile firing and loading; or something along these lines? Send prints of those you find to the Editor, TAC ATTACK.



OLD BIRD, NEW LOOK

SAWC is conducting tests on a modified WW II B-26. This machine may eventually be adopted as a special air warfare weapon. Pilots familiar with the old B-26 would find little resemblance. The modified version incorporates proved components of first-line aircraft such as the C-135, T-29 and C-118 aircraft. Larger engines and reversible propellers greatly increase the allowable gross weight and permit the aircraft safe operation from short airstrips.

MIXED SIGNALS

What does "Roger" mean? A pilot had to taxi down the active runway to get to the parking ramp. He asked the tower, "Am I clear to take the runway?" The tower answered, "Roger," so the pilot started to taxi. At the same time the tower, on a different channel, cleared another aircraft to take off in the opposite direction. A hump in the runway prevented the pilots from seeing each other. Luckily, the aircraft taking off got airborne and they did not collide. The tower operator's instructions probably were not explicit enough for this day and age. Altho AFM 57-37 and other publications say that "Roger" simply means "I have received all of your last transmission," it has come to be universally accepted as an affirmative answer. How do you use it?

TIPPERS

Hey, all flying types! How about coming thru with some tips? Most of you have a technique or procedure that makes this business of flying easier or safer. Why not let everyone benefit from your ideas or recommendations? Send them along to the Editor, TAC ATTACK.

SEG NEWS

4450th Standardization Evaluation Gp.

Know your Stdn Evaluators

Lt Col Immel was born and raised in Pittsburgh, Pa. He entered the Army in 1941 while attending Duquesne University and was commissioned in the Corps of Engineers in April 1943. He received his pilot wings at Luke Field, Arizona in September 1944 and since then has logged more than 10,000 hours in B-17s, B-29s, C-54s, C-74s, C-97s and C-124s. Lt Col Immel piloted General Lucius D. Clay's C-54 shortly after Germany was occupied and, during the Berlin Airlift, flew over 400 missions. Prior to his present assignment, Lt Col Immel commanded the 4451st Stdn/Eval Squadron at Headquarters Ninth Air Force. His concept of Standardization/ Evaluation is to so thoroughly know the equipment and procedures that full attention can be applied to mission accomplishment. The evaluation process, in his opinion, begins and ends with honest self-appraisal.

LT COL HARRY D IMMEL, JR.
Executive Officer, 4450th Stdn/Eval Group

HAVE A HEART

We are downright delighted to see that you flight crews are reading and understanding the standardization manuals. The reason we know you are reading and understanding is because way back in Section E of AFM 60-2 it tells how to prepare and process an AF Form 847, "Recommended Changes to the Flight Manual" . . . and your AF Form 847s tell the story. For example, a change was issued to the C-130B flight manual which hit the field on 15 February 1963. As of this writing, some five weeks later, we have received approximately 150 AF Form 847's, recommending changes to this brand new manual. Of this group, better than 78% recommend typographical errors be corrected, commas be moved or added, i's dotted and t's crossed. The remaining 22% are concrete and legitimate recommendations that actually apply to operating the airplane.

We are not begging off on our responsibility to treat each Form 847 on an individual and personal basis. We have long since given up golf and fishing so that we may serve you better. We are not crying distress. We are only saying, "Have a heart fellows." We would like also to say that our group had 78% fewer cavities.

THE NAME OF THE GAME

With pleasure, we noticed a steady improvement in grades on the aircrew written examinations during the evolution of the Master Question Files. However, much to our chagrin, the grades are not necessarily synonymous with flight manual knowledge. Some sneak (not in TAC) recently administered an exam composed of DASH ONE questions that are not in SEG question files and the results were embarrassing. Actually, this no-notice written was composed of general emergency procedures and consisted primarily of questions concerning notes, cautions and warnings which we took for granted every CR qualified crew member knew verbatim; like BOLD FACE. We'll plug this gap by including all warnings and such in future question file revisions. In the meantime, it's still up to the individual to study the flight manual and other documents that tell him how to use his machine correctly. So the name of the game is "Know your equipment and how to employ it; in a standard manner that is." The question file is only intended to stimulate you to study the publications and to improve the TOs. While we're on the subject, how about sending your pet question to us on an AF Form 847?

HELP

ANG units assigned to TAC who are operating the KC-97 have a problem. The flight manual was written by SAC, MCOPI for the KC-97. For SAC crews, this is great, just as it should be. But as all of you ANG troops know, these procedures just don't work in our operation.

Did you ever try to play golf for the first time by trying to learn from a book on chess? Difficult? Did you ANG KC-97 crews ever try to refuel an F-100 by following the procedures in T O 1C97(K) F-1? Impossible!

CHECK INSURANCE

Ever see the pilot who says, "Now when you are getting a check, you'll want to . . . " We SEG types have seen this pilot fumbling around trying to do it right - just for the check - when we know that he routinely plays it off the wall. Who could he fool when he gives a complete briefing when he's only expected to say, "Briefing complete," or maybe CHECKS the carb heat when it should be COLD! How about it troops - let's go by the book. If you don't agree with the book, send us an 847 and we might change the book so you'll be right and won't have to play it off the wall.

WELCOME WING

A relatively new addition to the TAC family is the 126th Air Refueling Wing, ANG. The wing headquarters is located at O'Hare International Airport, Chicago, Illinois. The three squadrons of the Wing are at O'Hare, General Mitchell Field, Milwaukee, Wisconsin, and Clinton County AFB, Ohio. The wing is equipped with KC-97G tankers and all have the drogue adapters for the refueling booms, so they can refuel any type receiver in the TAC inventory. Most of their refueling missions, however, are with the ANG F-84, RF-84 and F-100 units.

Stdn/Eval is fairly new to most of the personnel in these units, but all are conscientiously working toward a good program. Our SEG KC-97 team has visited each of the units and has offered assistance and suggestions for setting up and implementing their Stdn/Eval program. These Guard troops are all hard workers and they are looking forward to becoming C-1 outfits.

SUPER SERVICE

A KC-135/F84F refueling compatibility test was recently completed at MacDill AFB, and the old hog did surprisingly well. The bird was hard-pressed when straight and level refueling was attempted above 25,000 feet; however, great things were achieved when the KC-135 towed the hog during refueling. All aircraft in the test had 450s aboard and many had outboard pylons plus centerline bomb racks, yet everybody was able to take on a full load from as high as 31,500 feet while being towed by the tanker. It was generally agreed that refueling the hog from the KC-135 is about the greatest thing since night baseball. Inflight procedures, presently being coordinated with SAC and the National Guard Bureau, will soon be available.

NECESSARY KNOWLEDGE

Ten feet of C-119 landing gear tucked into each wheelbarrow handle can become a problem to the flight mechanic who has to extend it manually. It can become an even bleaker problem to him if the pilot has to delay getting the gear down until base leg or final, due to an engine being out. Really, now, honorable flight mechanic, aren't you being unreasonable when you say, "I don't have to know the non-bold face procedure for emergency gear extension if I carry my checklist." If you use the checklist as a crutch to bridge foggy memories of an emergency procedure, you might be too slow and end up pumping to the unholy tune of aluminum against concrete.

SEAC NOTES

STDN/EVAL AIR CREW

MINIFON RECORDER - All evaluators who have been waiting for the Minifon Recorder Jackbox Adapter can now start holding their breath! The adapter is completely fabricated, except for the plug which fits into the recorder. ITT has promised speedy delivery, so things are shaping up.

The Minifon Jackbox Adapter allows you to plug directly into the aircraft radio system and record transmissions from outside sources, or to place your own comments on tape without distracting other aircrew members.

As a matter of information, the recorder was demonstrated to PACAF during our trip in February. We recorded some loused-up GCA instructions and bad en route radar fixes. Playback to the offending agencies opened a few eyes.

While waiting for the adapter, read all the instructions on the Minifon, and remember that it is a delicate, precision instrument which was never intended to take rough handling - one drop is the end!

SEG 01 REPORT IS NOW QUARTERLY. We have received numerous requests from the field for 01 reports (that's the item analysis for each squadron) that cover more than a month. We looked them over trying to decide what time span would be best, and decided on three months. One of the most important reasons is that the report should be available to the Stdn/Eval Review Panel during their quarterly meetings at each wing.

The next 01 Report will be prepared in June. It will come off the computer around the 20th and we'll do our best to get it to you before the end of the month so that you can use the information during your panel meeting.

JUST A REMINDER - Recent SEG visits have turned up a few AF Form 8c errors that are common to many organizations.

For example, when should you use an "N" in lieu of an item grade?

Only, repeat only, for those items specifically declared optional in the individual grading manual unless the check is no-notice. Then it should be used for all items not graded.

When is a check complete?

Paragraph 5-55 of AFM 60-2 states that a complete check encompasses all required ground exams plus (here's the problem area) all required flight check areas and items listed in the appropriate grading volume for the type of S/E check of the aircrew position being evaluated. Remember: every item is a required item unless specifically indicated otherwise.

When may "W," for waiver, be used in lieu of an item grade? Only if a waiver has been requested, the approval received and documented on the S/E check form. Using a "W" in lieu of an item grade and entering in remarks, "Request a waiver," doesn't get the job done. In cases such as this, once the examinee's due date has come and gone he is overdue and must be placed on supervised status and removed from C/R status.

Get your check report forms in - Go ahead, mail those checks in. It is not necessary to wait until all corrective action is fully completed and documented on the copy of the S/E check that is sent to SEG for data analysis. A delay of 30 to 60 days just means that the information coming back to you in the form of the SEG 01 and 02 reports is that much older.

So - mail 'em as soon as they're filled out after the flight check and have been signed by the examiner, examinee and the supervisor.

Ground Explosive Safety

BRIDGE BUSTER

The sergeant was out of the pad and on his way to the city by 0700 hours . . . he wanted to get his car repaired. Unable to locate a garage that would do the work while he waited, he drove to another town. Once again he drew a blank. By 1700 hours he was tired, just a little disgusted, had a headache and was beginning to feel drowsy. Had he experienced all these symptoms at home in front of the TV set we wouldn't be writing this. Instead, he was starting around a right hand curve on a country road.

He apparently dozed off momentarily because he took the curve quite a bit too wide and smashed into the left side of a bridge that was just beyond the curve. At present, the sergeant is in the hospital where he can wait for his car to be fixed . . . and this time the repair bill is going to be rather steep.

As with most accidents, this one was caused by a combination of factors. It would be a safe guess that the sergeant had gone most of the day without adequate food, which would explain the headache and reduced capability. He was driving too fast for the road even tho he had driven the particular road numerous times before and knew about the rather sharp curve which approached the bridge.

The warning indicators were all there, but the sergeant had probably encountered and ignored them before—just as you and I have—but this time he didn't get away with it. Prudent drivers heed such warnings, stop and walk around the car to reduce their drowsiness or better yet, drink some coffee and eat a bite.

HARD LANDING

A TAC Noncom made a short, unscheduled flight in the T-bird in the above photo. As a highly trained egress systems technician and one of the best in the business, he was NCOIC of the egress system team at his base. All of his skill and knowledge failed to impress the T-bird and it treated him just like it would anyone else who tried to connect the egress system linkage WITHOUT FIRST PUTTING IN THE GROUND SAFETY PINS!

Even tho he went thru the canopy bow, this man survived . . . you can make certain you survive by insuring against such flights. Use and follow the TO and an appropriate checklist.

PEOPLE DO IT

With all the reports in for 1962 we find that 62% of all Explosive Incidents and Accidents were caused by someone goofing. Gives you something to think about doesn't it?

OL' SARGE

"HEY SARGE!" Tommy yelled thru the open door, "He's getting ready to bring it in!"

The Old Sarge knocked the fire out of his pipe, checked the blackened corn cob, then shoved it into his pocket. He didn't hurry for the simple reason he really didn't want to see an aircraft damaged. But like most intelligent humans, he had strong curiosity and this dominated his other emotions. He was soon standing next to Tommy in the bed of a pickup truck watching the pilot get squared away on final. As the aircraft approached, most onlookers could see that the nose gear was only partially extended.

The pilot made a smooth landing on the main gear, deployed the drag chute and held the nose off until he was starting to lose elevator control. He then lowered the nose gently to the concrete and the scraping began.

The Old Sarge shuddered involuntarily and thought briefly of a math teacher he used to have in high school who was always screeching chalk in her haste to empty her mind on the blackboard. "The old girl would feel right at home," he muttered to himself.

"Who's that?" Tommy asked.

"Uh, he did a right good job bringing it home. The 13th should get by with an incident."

"Yeah." Tommy still looked puzzled, but didn't say anything.

The Old Sarge had hardly gotten settled in his chair when the telephone rang. The colonel, with instructions to drop everything and find out why the 13th was trying to plow furrows in his good runway with the nose of one of their cotton pickin' F-105 s.

Five minutes later the Old Sarge was watching the 13th jack up the nose of their bird. As it came up the nose gear stayed on the ramp, skidding shamelessly aft until the downlock snapped in place. An airman installed the nose gear pin and glared angrily at the now cooperative gear.

"Why couldn't you've done that fifteen minutes ago," he growled, aiming a size 11 brogan at the tire.

"Careful Frank," someone drawled, "you'll make the damn thing blow out."

Many hours later, after much careful hard work, the Old Sarge turned to Major Lewis. "I'd say this was it, sir. As you can see, we got this small piece of metal out of the downlock cylinder. It had been in it long enough to score the cylinder wall. The trouble came from it, or from this stuff." He poked his index finger at a few strings from a rag and a small particle of wood on a paper towel.

"Where did it come from?" Lewis asked, indicating the collection on the towel.

"We flushed the return line and the reservoir. The wood and string were in the reservoir. The return line goes straight to the reservoir. I'd say this stuff blocked the restrictor port in the downlock assembly. That would cause a hydraulic lock between the nose gear actuating cylinder and the downlock assembly."

Lewis nodded, "I mean, how do you think it got in the system?"

The Old Sarge frowned. "Someone wiped off a fitting with a rag and . . . Well, doggone it, you know as well as I do that this is a continuing problem.

"All it takes is one careless man or one careless act. I'm on my people all the time and I still catch someone leaving a line uncapped, servicing a bird from a can they've opened with a not-so-clean screwdriver, or pulling some other shade-tree stunt. It's awfully hard to get it across that the same techniques you use around an automobile just don't hack it around one of these aircraft . . . that there is good reason they cost over a million and a half bucks and that microscopic tolerances are part of that reason.

"I try to get them to treat these machines with hospital cleanliness. This is why I make them wash an aircraft down before they even think about starting to work on it . . . and make 'em use similar care with the hydraulic mules and other support equipment."

Major Lewis sighed heavily and looked significantly at the 13th Squadron chief of maintenance. "You ain't having any trouble either, Sarge."

The 13th maintenance officer nodded agreement. "I get your point . . . and you can bet that the number one project around the 13th will be sanitation for a long

time to come. By the way, do you think that gear would have fallen into place had the pilot bled off utility pressure?"

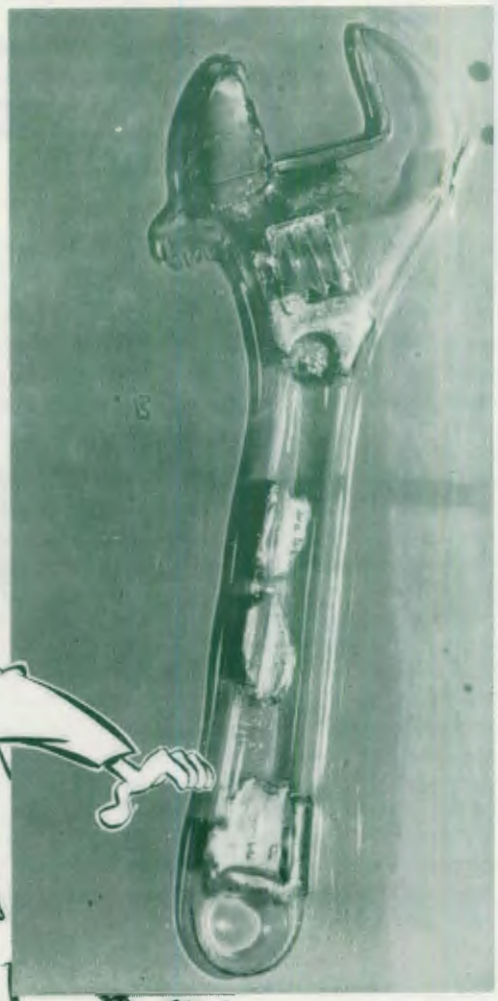
"It might have." The Old Sarge admitted. "Then again it might not. We figure the foreign matter jarred loose while the bird was sniffing the runway."

Lewis laughed, "Come to think of it, it did look a lot like a big hound dog on a scent."

Answer to question of the month:

Class A.

The case of the $60,000 WRENCH



Our title sounds like a Perry Mason mystery and, in a way, this is appropriate. We even included a photo of the murder weapon, but in deference to the squeamish, did not print a photo of the victim.

On the day of the crime, low-hanging clouds and a cold drizzle made a perfect setting. Perhaps you were there. If so, you would have been listening to the smooth, piercing whine of a jet engine being run up.

Suddenly the whine changed to a series of explosions, terminated by the screech of tortured metal as the wildly vibrating engine wrenched free of the aircraft and crashed to the ramp. After the smoke and confusion subsided, the bits and pieces of the murder weapon were removed from the dead carcass of the victim. It didn't take a Perry Mason to find that the weapon was once one each wrench, four inch, adjustable.

The victim? Sixty thousand dollars worth of jet engine, now only worth its weight in scrap metal.

The mystery? Quite simple. Who owned the wrench? Who left the damn thing where it would be gobbled up by the ever-hungry engine? Minor maintenance was done on the engine just prior to the fatal run-up. How did the wrench escape the eagle-eyed inspectors? More important, what are YOU doing to keep an accident like this from happening around YOUR base?

RECOGNITION

CREW CHIEF OF THE MONTH

Airman First Class Albert R. McMullen of the 354th Organizational Maintenance Squadron, Myrtle Beach Air Force Base, South Carolina, has been selected as the Tactical Air Command Crew Chief of the month. Airman McMullen maintains his F-100F aircraft in an exceptional manner; consequently, quality control inspectors seldom find discrepancies during spot inspections. His aircraft meets scheduled flying periods, month after month. During a recent operation in Alaska, his record for meeting the schedule was continued despite the cold and severe weather encountered. In addition, he unhesitatingly volunteers to help other flight line activities perform their maintenance work. The professionalism of his performance was recently illustrated when he received Tactical Air Command's Outstanding Aircraft Forms Award.

MAINTENANCE MAN OF THE MONTH

For his excellent performance as NCOIC of the Aircraft Repair and Reclamation Shop and the Wheel and Tire Shop, Technical Sergeant William Bush of the 464th Field Maintenance Squadron, Pope Air Force Base, North Carolina, has been selected as the Tactical Air Command Maintenance Man of the Month. Sergeant Bush has consistently demonstrated outstanding managerial ability when supervising, coordinating and directing personnel and by efficiently using materials. When a series of wheel failures threatened to cause an operational problem, Sergeant Bush devised a system to expedite wheel inspections thus allowing normal operations to continue. Maintenance personnel frequently seek his advice and very often he works overtime, both day and night, to resolve those problems referred to him. He has been especially helpful to transient personnel and has responded many times during off-duty hours despite personal inconvenience.

PILOT OF DISTINCTION

Major Irving G. Williams of the 349th Troop Carrier Wing, Hamilton Air Force Base, California has been selected as the Tactical Air Command Pilot of Distinction. Major Williams, the co-pilot on a C-119, lowered the landing gear while on a long final approach for a night landing. The nose gear indicated unsafe so he recycled the gear, then when the nose gear still indicated unsafe, tried all published emergency procedures. To confirm that the gear was actually unsafe, the back plate was removed and a visual check revealed that the gear wasn't down quite far enough for the downlock to engage. Major Williams remembered reading about a C-119 crew member who had crawled into an open gear housing without a parachute to force the nose gear into the locked position. Major Williams decided that this would be the only way to get the gear down and prevent a major accident. Cautiously he climbed into the open gear housing using a flashlight to see, and after working several minutes was able to force the nose gear into the locked position. He returned to the cockpit and the pilot made a normal landing. Thanks to Major Williams' good memory, courage and strength, a major accident was prevented.

TAC TALLY

A COMPARISON OF TACTICAL AIR COMMAND ORGANIZATIONS

MAJOR ACCIDENT RATE
1 JAN 31 MAR

TYPE	1963	1962
ALL	10.0	13.5
F-105	55.8	17.6
F-104	24.3	23.6
F-101	65.2	57.6
F-100	7.3	15.4
F-86	0	123.2
F-84	43.8	20.2
B-66	0	0
B-26	0	0
T-39	0	0
T-33	0	0
T-29	0	59.3
KB-50	0	41.8
C-130	0	0
C-123	0	0
C-47	0	17.4
U-10	0	-

MAR TALLY
GUARD AND RESERVE

UNIT	MAJOR	MINOR
117 TRW	1	
107 TFW		1

ACCIDENT FREE
(MAJOR & MINOR)

JET			
ACTIVE	MONTHS		ANG
27 TFW	6	21	113 TFW
401 TFW	5	19	102 TFW
CONVENTIONAL			
ACTIVE			RESERVE
314 TCW	44	76	434 TCW
463 TCW	22	65	94 TCW

MAR TALLY
ACTIVE UNITS

UNIT	ACDNTS*	INCDTS
4 TFW		7
12 TFW	1	8
15 TFW		3
27 TFW		17
31 TFW	1	11
354 TFW	1	17
355 TFW		
388 TFW		6
401 TFW		5
474 TFW	1	4
479 TFW	1	19
TARC	2	17
4510 CCTG		20
4520 CCTG		19
516 TCW		2
314 TCW		2
463 TCW		
464 TCW		2
4505 ARW		1
4442 CCTS		1
1 ACG		2
4500 ABW		2
4453 CCTS		1
831 CSG		1
SAWC		1
4433 ATS		1

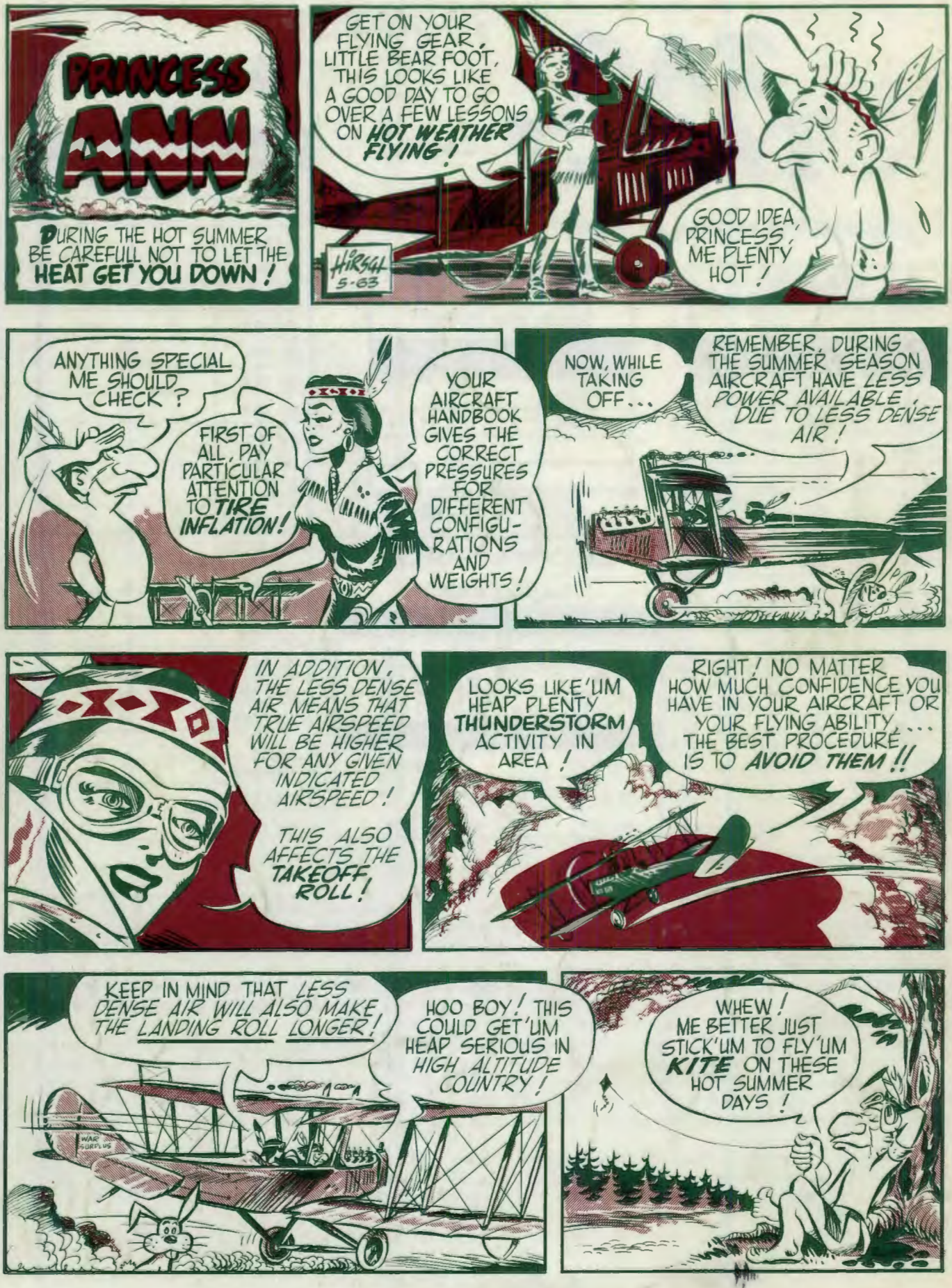
*MAJOR AND MINOR

The picture for March shows the Reserve Forces with one major and one minor accident, while the Regulars fared better than they did last month with four majors and three minors. The only fatality was an F-100 pilot who flew into the water from 12,000 feet. The cause is undetermined.

An ANG RF-84F pilot on a night proficiency flight ejected after two engine explosions were followed by control problems. The cause; materiel failure. An ANG F-100C swerved off the runway after landing and collapsed the nose gear causing minor damage. The pilot said he lost nose wheel steering and brakes.

An F-84F gave its pilot a fire warning light, explosion and then a vertical pitch-up. He recovered to nearly level flight but the aircraft soon fell into a steep spiral. After the pilot ejected he saw black smoke trailing from the aircraft - possible materiel foilure. Two F-100's collided at night while one was attempting to escort the other to an emergency landing. This one is still under investigation. An RF-101 pilot suddenly lost his fuel and tried landing on a 5000 foot runway. The aircraft hit short and bounced onto the runway in flames. The pilot walked away OK. There was trouble with the fuel screen.

The first three minors in the Regular Forces happened after an F-100 drag chute failed on a wet runway landing. The result was a collapsed nose gear. An RF-101 right gear failed while the aircraft was being towed. An engine oil leak caused an F-104 pilot to shoot a flameout pattern. He used the normal gear system on flameout and landed with gear partially extended.


PRINCESS ANN
DURING THE HOT SUMMER BE CAREFULL NOT TO LET THE HEAT GET YOU DOWN!
GET ON YOUR FLYING GEAR, LITTLE BEAR FOOT, THIS LOOKS LIKE A GOOD DAY TO GO OVER A FEW LESSONS ON HOT WEATHER FLYING!
HIRSH 5-63
GOOD IDEA, PRINCESS, ME PLENTY HOT!
ANYTHING SPECIAL ME SHOULD CHECK?
FIRST OF ALL, PAY PARTICULAR ATTENTION TO TIRE INFLATION!
YOUR AIRCRAFT HANDBOOK GIVES THE CORRECT PRESSURES FOR DIFFERENT CONFIGURATIONS AND WEIGHTS!
NOW, WHILE TAKING OFF...
REMEMBER, DURING THE SUMMER SEASON AIRCRAFT HAVE LESS POWER AVAILABLE DUE TO LESS DENSE AIR!
IN ADDITION, THE LESS DENSE AIR MEANS THAT TRUE AIRSPEED WILL BE HIGHER FOR ANY GIVEN INDICATED AIRSPEED!
THIS ALSO AFFECTS THE TAKEOFF ROLL!
LOOKS LIKE 'UM HEAP PLENTY THUNDERSTORM ACTIVITY IN AREA!
RIGHT! NO MATTER HOW MUCH CONFIDENCE YOU HAVE IN YOUR AIRCRAFT OR YOUR FLYING ABILITY,... THE BEST PROCEDURE IS TO AVOID THEM!!
KEEP IN MIND THAT LESS DENSE AIR WILL ALSO MAKE THE LANDING ROLL LONGER!
HOO BOY! THIS COULD GET 'UM HEAP SERIOUS IN HIGH ALTITUDE COUNTRY!
WAR SURPLUS
WHEW! ME BETTER JUST STICK 'UM TO FLY 'UM KITE ON THESE HOT SUMMER DAYS!