

NOVEMBER 1964

TAC ATTACK

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TAC Attack November 1964 Team Effort



TEAM EFFORT



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NOVEMBER 1964

GENERAL WALTER C. SWEENEY, JR., COMMANDER
LT GEN CHARLES B. WESTOVER, VICE COMMANDER
COLONEL EUGENE S. WILLIAMS, CHIEF OF SAFETY

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EDITOR

Maj Karl K. Dittmer

ASSISTANT EDITOR

Capt Walter I. Bostwick

ART DIRECTOR

MSGT Heinz E. Hirsch

ART AND PRODUCTION

SSGT Richard C. Radar

ADMINISTRATION & DISTRIBUTION

SSGT Richard D. Reid

PRINTING

Hq TAC Langley AFB Field Printing Plant



COVER PHOTO:

P-100s of the 113 TFW take on fuel
 from 126 ARW KC-97s during Ready Go.

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Angle of Attack



Colonel Eugene S. Williams
Chief of Safety

Commanders and safety people at all levels spend considerable time studying the causes of aircraft accidents and taking action to eliminate weaknesses and problem areas. Training, education, modifications to the hardware and changes in procedures are typical actions used to reduce hazards and accidents. All of these actions have one thing in common... their effectiveness depends on people.

The world's finest aircraft can have safety factors designed into every component and still be badly damaged or turned instantly into scattered debris if a pilot forgets to lower the gear, throws procedures to the wind or misjudges his pullout and hits the ground on a dive bomb pass. Similarly, a modification intended to make an aircraft safer and more effective can boomerang if the man doing the work ignores tech order instructions and tries to rely solely on memory and experience.

Every plan, program and action depends on the personal responsibility and integrity of the people who do the work. No matter how you look at it, safety and effectiveness depend on individuals. This year, over half the aircraft accidents in Tactical Air Command were attributed to personnel errors. These accidents were preventable. We can eliminate similar accidents in the future provided each man in this command takes time to appreciate his own responsibility to live by the directives and do his best to operate within the framework of proven procedures, accomplishing each task to the best of his ability. I can think of no goal that is more important.

The Season of



WHEN OLD Mr. North Wind comes howling out of his home up in the icy arctic, he brings his two troublesome pals, Gloomy skies and Slippery Runways. Around the old flying pasture it's an even bet as to which one brings the most misery. Gloomy, with his sudden tears, sleet and snow, makes it so difficult to find the old flying pasture, while ol' Slippery makes it even more difficult to stay on the pasture once it has been found.

It is the season of the dragon ... if a landing birdman looks back and sees a Good Chute Dragon behind his iron bird, he can usually quit sweating. If he looks back and sees a Bad Chute Dragon, or no dragon at all, he'll sweat like a blast furnace stoker in July. If he gets a Hook Dragon in time, he may be able to keep from bending his bird with the added help of a little Chain Dragon or Tape Dragon. However, neither will ever take the place of the Good Chute Dragon for normal oper-

ations.

Units with firm drag chute controls and procedures usually provide their pilots with Good Chute Dragons...those that aren't so strict invariably have the most deployment failures. If you wonder how you stand, check your drag chute deployment success rate. If it is less than 99.5 percent, get busy. At least one major command has established this as their goal and report that it is attainable.

Here are some tips which will help you reach that goal:

- * Check new chutes thoroughly. They may be improperly packed, or could have been damaged in shipment, exposed to extreme heat and so on.

- * Review your inspection and repack procedures regularly. Are chutes that show wear or have tears, burns, scrapes and holes rejected so they won't fail in use? Are packers following the TO? Are chutes allowed to thoroughly dry out and is foreign debris such as sticks, rocks, and tar removed?

Has debris damaged panels or risers? Are shop personnel highly critical of marks and scars that could weaken chutes?

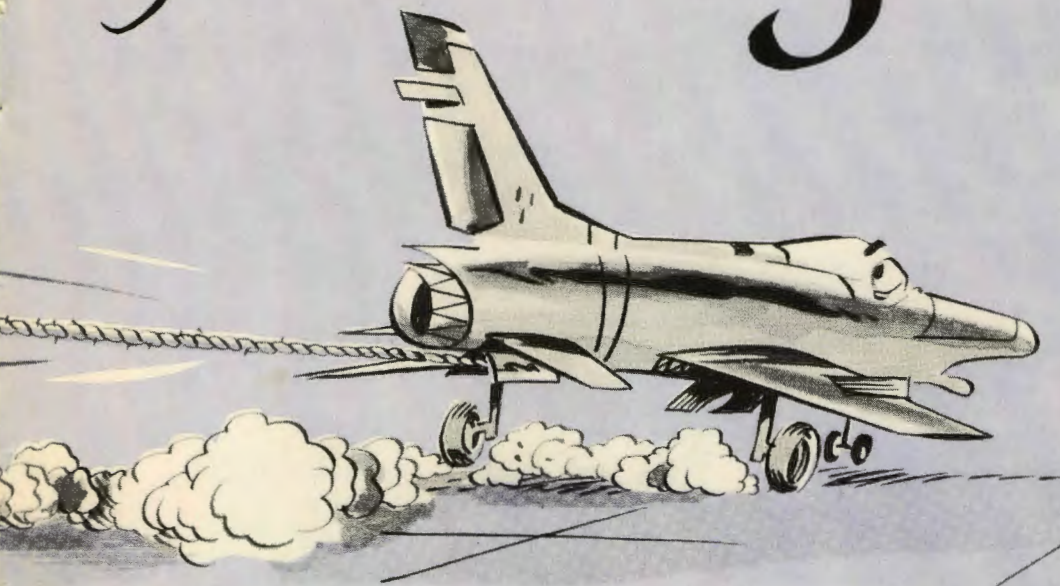
- * Maintain chute records. Good record keeping pays off in trend analysis to determine chute service life. You can then take action to condemn chutes after an established number of deployments.

- * Use dummy compartments to help insure chutes are packed to the right size. If the chute won't fit the dummy compartment, it won't fit in the aircraft.

- * Monitor handling procedures. Are chutes treated carefully in transit to and from the flight line or are they just thrown around?

- * Check storage. Are chutes jammed into some kind of rack, dumped on wet or oily floors, hidden in dark corners, sat or walked on? Ventilated carrying bins which hold the chute from the time it is repacked until it is

the Dragon



placed in the aircraft are excellent. Some units use a carrying tube that is slightly smaller than the aircraft compartment. The tube protects the chute on its journey, is inserted into the aircraft compartment, the chute pushed in place and the tube removed. The results are positive. Incidentally, storing chutes too long weakens the pilot chute springs and causes failures.

* **Installation.** When are your chutes installed? In soggy climates a chute that was installed yesterday will be a block of ice at deployment time. Best bet is to install them just before start engine time. How are they installed? Are installation crews properly trained to check chute condition, pins, and the aircraft mechanism? Do they use proper tools or do they use screwdrivers and jam the chute in place with baseball bats and number 12 bro-

gans? Most chute failures are traced to installation errors. A drag chute installation team, or requiring pilots to supervised drag chute installation, has paid dividends at many bases.

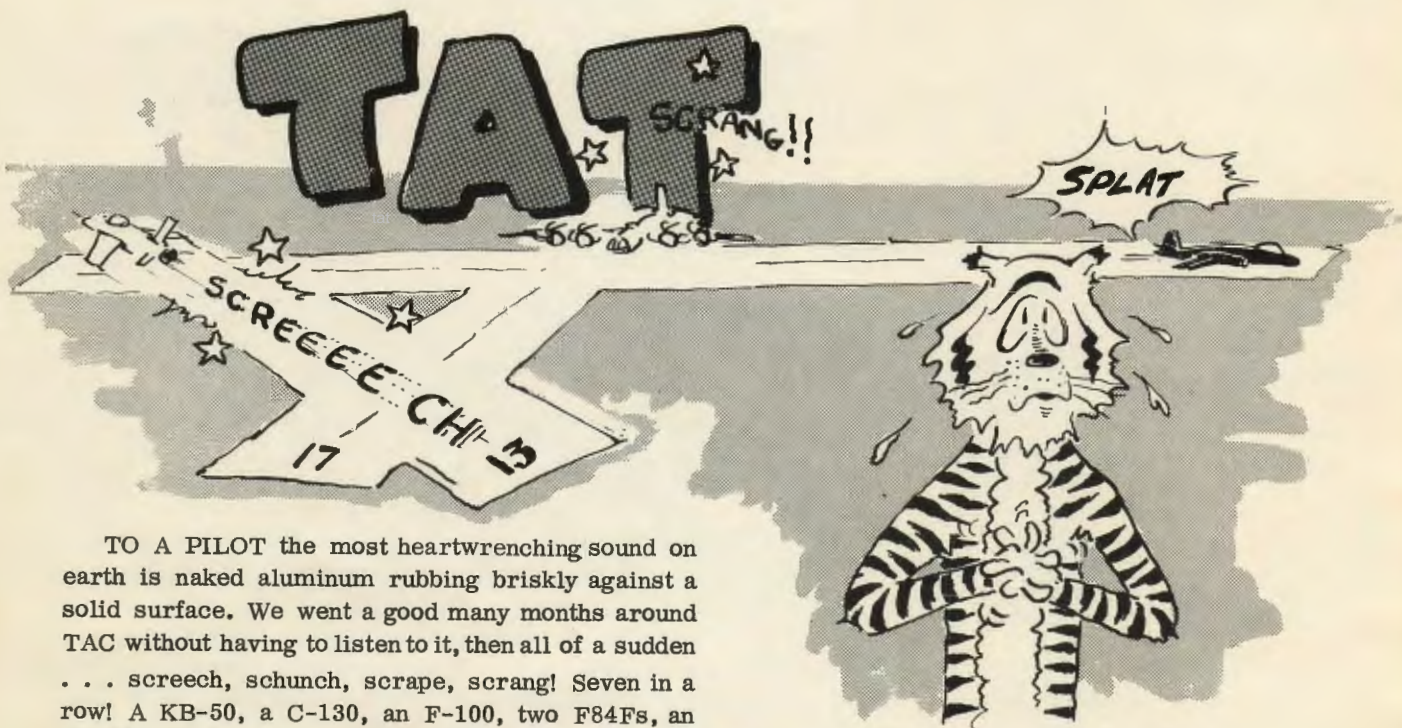
* **Lubrication.** Lack of lubrication in the aircraft chute mechanism also causes failures. Maintenance personnel should be very conscientious when investigating pilot write-ups of stiff handle operation. Cable lubrication should be carried on work cards. New cables should be properly cleaned and lubricated before they are installed.

* **Recording failures.** Failures must be recorded and the information brought to the right people if you are to stay on top of the drag chute problem. The "right people" include the chief of maintenance and CAMRON personnel. Carried one step further, failure data should also include the reasons for failure, otherwise the info is worthless.

* **Operation.** Proper approach speeds will prevent overstress failures. Pilots should know and observe minimum and maximum deployment speeds. They should stay below maximum permissible power for taxiing with a deployed chute, too. Pilots must be motivated into making timely write-ups on stiff mechanism and other discrepancies. Use drag chutes on all landings to save brakes and tires. This will exercise the system and prevent embarrassing visits from the Chain Dragon.

* **Final handling.** Are deployed chutes dropped in clean well defined areas and picked up promptly? Or are they left to lay for hours to soak up sun, oil and tar? Are chutes damaged enroute to the repair shop by tools, chocks, oil and other stuff left in the pickup truck?

This doesn't hit all the areas, but does give a clue or two on some things you can do to get rid of the Bad Chute Dragon.



TO A PILOT the most heartwrenching sound on earth is naked aluminum rubbing briskly against a solid surface. We went a good many months around TAC without having to listen to it, then all of a sudden . . . screech, schunch, scrape, scrang! Seven in a row! A KB-50, a C-130, an F-100, two F84Fs, an RB-57 and an A-1E. All were a little different, most have much in common.

At the risk of being accused of locking an empty stable, let me review some of the basic reasons for this type of crunch. First, I'd like to get the attention of you young sharpies who think it can't happen to you because you can tell the difference between a clean bird and a dirty bird. Don't you ever believe it! We fly many final approaches on the back side of the power curve, and altho a bird with gear up and flaps down isn't going to slow as fast as a fully dirty one, once you get it slowed you'll find very little difference in the power required to hold it on final. The trap isn't nearly so obvious as it looks. I almost fell into it ONCE and can speak with some authority. Those pilots with bitter experience will mirror this statement. The quickest way to buy yourself a gear-up accident is to think you're immune!

High on the list of causes comes distraction. You turn base, and just before reaching for the gear handle, someone taxis onto the runway and you start sweating him off. Will he make it in time?

You extend your pattern, which gives your aircraft time to slow in the clean configuration. By the time you roll out on a longer than normal final you are able to get in the groove with only the flaps down.

A quick check of the selsens indicators shows all of them are alike. . . they read up, up, up, but the clown on the runway has finally started to move out and you are busy judging your spacing.

A cousin to this cause factor is abnormal conditions. Poor visibility which causes you to put more than normal attention toward looking for other traffic or hunting for the runway and results in an abnormal traffic pattern. Simulated engine-out landings in multi-engine aircraft can also set you up. Gear is usually extended after the runway is made, breaking the normal check list chain of actions... ditto landings on extremely short fields where you have to back off and really concentrate on a proper touchdown at minimum speed.

Beware of anything that causes your pattern to deviate from normal... along this line we have those souls who concentrated so hard trying to salvage a slightly hot approach it never occurred to them that their birds refused to slow normally because the gear was up.

Another basic cause of gear-up landings falls under the heading of transposition. This usually traps the pilot with a log book filled with time in one aircraft who is flying another.

When flying the bird he knows best, he extends gear on downwind and follows with the flaps as he starts his turn to base. In the strange bird he is supposed to extend 20 degrees of flaps then drop the gear and follow it with full flaps. Or perhaps the SOP calls for fooling around with dive brakes at the point where he normally extends gear. The victim will accomplish the new operation and mentally accept it. . . or pass it off. . . for gear extension. If he is careless about his gear check. . . oof!

Finally, we have mechanical malfunctions that go undetected. All aircraft that have a high gear malfunction rate also have high gear-up landing rates. Rather obvious... the pilots who get caught are the ones who are casual with their gear-down check. This brings us to the single best way to prevent ALL inadvertent gear-up landings. That is by developing a personal habit of making two, or three careful gear checks while on base and final. These checks must be carefully deliberate with the final one just before you reduce power for landing. I say again, it isn't enough to check that all indications are alike... you've got to see them. This may not prevent you from forgetting to extend the gear, but it will certainly keep you from making a gear-up landing!

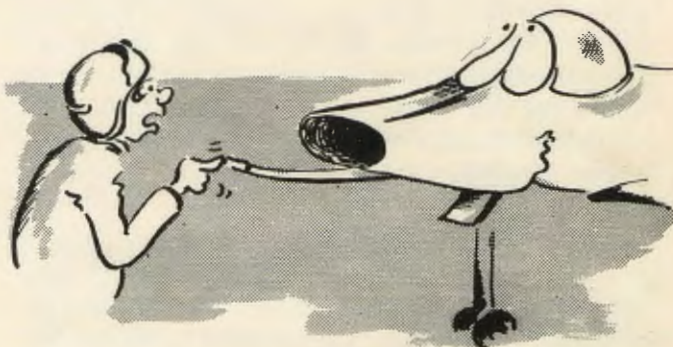
AFTER DROPPING OFF the tanker, an F-105 pilot found he couldn't stow the air refueling handle. He had to abort the mission, landing with full 450s. This is the third bird that has malfunctioned like this... the problem is a design weakness. If you twist the air refueling handle as you pull it out, the teleflex cable will sometimes drop off the pulley, jamming the handle. This could be terse on a long overwater haul . . . particularly out over the Pacific where the sharks are hungry. It can trap 12,610 pounds of fuel if you have 450s, a belly tank and a bomb bay tank.

AN F-105 PILOT burned internal fuel to 2400 pounds and brought his machine in after he couldn't get the 450s to feed. The landing weight was within limits, but the drag chute streamed and he had to do some energetic braking in order to cheat the barrier. He parked in the hot brake area and the right tire blew about 27 minutes later. The left one lasted three minutes longer. The exploding tires did 68 manhours damage to the gear doors, wiring and hydraulic lines. Some time back . . . in the January 1963 issue to be exact . . . we mentioned a procedure for handling hot tires that was developed by McDonnell Aircraft.

They put a cage around tires that appear moderately hot, then measure the temperature. If the temperature is more than 375°F (the tire is ruined if it gets that hot), they tow the aircraft so the affected wheel rolls over a steel plank that has spikes imbedded in it. Punctured tires almost always deflate slowly. Should one explode, the force of the explosion would be into the plate and would cause little damage. Tires that are cooler than 375° are further cooled using a stream of compressed air.

This is a real simple technique that should save a lot of risk and effort . . . why not use it?

Incidentally, in cases like this, it's safer to jettison the tanks and eliminate the problem at its source.



. . . you cheated!

A CENTURY BIRD PILOT leaped off on a cross-country and figured he had a hot bird when it indicated between ten and fifteen knots above his computed line speed. He should know you don't get something for nothing. There was a stiff crosswind at his first en-route stop and he blamed it when the bird suddenly settled on final. Full power didn't quite correct the rate of sink and he touched down a hundred feet short of the overrun. Fortunately, it didn't do any damage.

Returning home he had the same trouble on his final approach but was able to check the excess sink rate with full power. That's when he remembered the high line-speed. Maintenance checked the airspeed indicator and found it reading about 30 knots high in the low-speed range! When he was holding 180 on final, the bird was actually at 150 knots . . . no wonder it wanted to fall out of the sky.

I hadn't thought of using line-speed to check out the airspeed indicator, but it swings. If you get a high reading, check it out by flying formation off someone and you won't get caught short on final.

Continued next page . . .

WHILE A FEW of us were swapping lies the other day, one troop told about the two characters who woke up just after their L-20 flew into the ground. He had heard the story about fifth hand and I didn't have the heart to tell him I'd reviewed the accident report some years ago. A true classic, the report was just as entertaining as his version. . .

Strangely, most of us can remember long flights or even auto trips we've made where monotony, a warm sun and other factors have combined to make us extremely sleepy. The approved cure in an auto is to pull over and walk around a bit. This isn't always practical with a car and is downright impossible with a fighter. For the past couple of years I've been using a gimmick that works wonders . . . I carry mints or other hard candy and when I start feeling sleepy I eat one. The effect is immediate and positive. In aircraft I get real good mileage . . . coast to coast on three rolls of lemon drops. On the road the wife mixes seedless grapes, dried fruit and cookies into the candy routine and on a recent jaunt to Oklahoma and back I only gained one and a half pounds per 1000 miles . . . but was wide awake the, burp, whole trip.

CLIMBING THRU 3000 feet at 300 knots, an F-100 from another command started a mild porpoise. The pilot slowed it, dropped gear and flaps, and found he could control the porpoise to his satisfaction and with no further flim-flam, he brought it right on back home. Good head.

When the wrench and pliers set opened up for a look see, they found the cotter pin, nut and washer missing from the bolt that attaches the control bungee assembly to the stabilizer actuator control valve arm. The bolt itself had partially worked loose. If it had fallen completely out...scratch one century bird.

The washer was still in the compartment but the nut and cotter pin were nowhere to be found... chances are the pin was never installed.

Seems to me the only cure for this type failure is for every mechanic to work as if he were going to ride on every flight with no one checking his work, and for every inspector to inspect as if all mechanics were trying to booby trap him.

WHILE MAKING a simulated ILS approach, a T-33 pilot discovered his glide slope indicator was reversed! When the bar moved above center, he had to increase his descent to bring it back. This is guaranteed to mess up an approach. . . fortunately the weather was VFR.

To correct the write-up, troubleshooters removed

the electrical leads and put them on their proper terminals. The aircraft had recently been thru a mod program to equip it with TACAN and the modification drawings had the lead installation reversed.

Seems to me that this should have been caught and corrected by the test pilot. . . perhaps it was caught on other aircraft but no one stopped to wonder why the leads had been reversed.



A T-BOMB PILOT smelled strong fumes shortly after takeoff. Reducing power to 96 percent the fumes disappeared, so he readvanced power, noticed no more fumes and pressed on. The tip tanks went dry about half an hour early, with 480 gallons on the totalizer and the pilot was forced to land at an enroute base. If you old-head T-bird pilots have guessed that the lost fuel had something to do with the fumes, take a bow.

But I'd bet a broken boost pump against a stuck float valve, you'll never guess what and why.

When this play-it-by-nose character checked his fuselage tank, he didn't get the cap properly secured to the inner part of the Santa Anita assembly... the float. The fastener had been modified with a tab welded in the screwdriver slot. The tab was long enough to just clear the metal flap that covers the cap.

With the flap down, it pressed against the tab which held the fastener down, which pressed against the float, keeping it from sealing the tank. The fuel this lucky lad smelled was fuel syphoning out and into the plenum chamber thru the sucker doors. Shortly after he reduced power to 96 percent he accelerated thru 180 knots and the doors closed and you can guess the rest. Whew!

There are many T-birds running around with modified fasteners on the fuselage tank cap...so watch out, you might be the unlucky lad who gets blown into orbit. We hate to mention this, but the tab bit is not an approved mod. —TAT—

TELL A STORY

WE'VE BEEN RUNNING some tests on an airborne vibration monitoring system that measures engine vibrations. If you are interested I can come over and give you a rundown on what we're doing."

Interested? I thought back to the early 50s to that sunny afternoon when I felt a strange vibration in my F-86. It was a mild vibration, unlike anything I have encountered before or since. I checked the gages and received no confirmation of trouble. Uneasy, I forced myself to concentrate on following the new pilot I was chasing, rationalizing that it was nothing more serious than a sick air conditioning system or accessory. A few minutes later, I was floating down beneath my parachute cussing myself for not deserting the student and having the aircraft checked. Had the engine on that aircraft been equipped with a reliable instrument capable of detecting abnormal vibrations . . . of course I was interested!

My caller was CWO Rust of the TAC DM shop and we were soon chatting over a couple of cups of that thick black liquid that passes for coffee around the safety shop. I asked, "Is this a new system?"

"No, not entirely. In the original concept, the equipment was rather bulky and it gave too much trouble to be of any real value. In addition, it didn't measure a wide enough band of frequencies. The latest equipment is very reliable

and is accurate over a wide range of frequencies. It automatically tunes itself to the vibration frequency. Transistorized circuits cut down on size and weight and up the reliability."

"How does it work?"

"Essentially they put a couple of pickups in each engine - transducers they call them - that take the mechanical movement induced by vibration, turn it into electrical energy, and transmit it to a monitor unit. The monitor unit amplifies the incoming signals and delivers them to a gage or gages in the cockpit. All of this can be run thru a pre-set alarm system that lights the master caution light and a warning light when vibration exceeds a certain level."

"Hummm, I see. It turns on a light. Will it come on in time to save the engine?"

"That depends on the type of impending failure. Actually, this thing is going to pick up any abnormal engine vibration regardless of its source. It will be set to ignore the normal vibrations. When an abnormal vibration triggers the alarm system, we'll have to trouble shoot the engine to find the source. I expect it to fit in nicely with our oil spectroanalysis program. By making an oil analysis, the technicians can quickly determine just what part is failing, unless the vibration is induced from mounting difficulties or some exterior source."

"How about airframe vibrations? Will they trigger it?"

"No sir, they won't. The pick-

ups are small enough that they are only affected by vibrations in their immediate area. In fact, we believe only one pick-up should be triggered on a vibrating engine . . . the one nearest the vibration source. This means that we can get some indication of the difficulty just by finding out which one is transmitting the signal. One transducer will be mounted at the turbine section, the other in the diffuser area. We'll know a lot more, of course, after we complete our tests. At present we have units installed in two F-105s and are planning on installing them in one or two F-4s and C-130s."

"How about cost? Are these installations very expensive?"

Mr Rust grinned, "Still worried about your taxes? You can relax, they should save us money. However, the transducer is very precisely made and the magnet assembly . . . that's the part that tends to stay still while the housing moves around it during periods of vibration . . . this magnet assembly is mounted in a gold-palladium alloy bearing that slides in a highly polished stainless steel cylinder. As you would expect, these units cost a lot of money, but since we'll be able to extend the time interval between overhauls, they should more than pay for themselves. The added safety comes as a bonus."

"Ah, will this equipment require very much maintenance?"

"No, it should be very trouble free. The design is quite straightforward and, well, there just isn't much to go wrong."

I don't know about the rest of you troops, but this program looks pretty good to me. It sure beats relying on the seat of one's pants. I wonder if it will smooth out the old mill on those long over-water hauls?



OLD NEWS

4450th Standardization Evaluation Gp.

Know your Stdn Evaluators



MAJOR ROBERT E. TARRANT
CHIEF, SPECIAL AIR WARFARE BRANCH

Major Robert E. Tarrant was born in Charlotte, NC and received his commission in 1950 when he graduated from the Citadel, Charleston, SC. Enter-

ing active duty in April of 1951, he completed pilot training in January 1954. From April to October 1954, he was with the 90th Bomb Squadron at K-8, Korea, and was the first pilot from that unit to transition into the B-57 at Randolph AFB, Texas. In June of 1957, he joined the 405th Bomb Squadron in Laon, France, for a tour in B-57s. The next few years he spent in the Recce business flying RF-84Fs and RF-101s, where he saw duty as a flight commander at Shaw AFB, SC.

Assigned to the 4450th SEG at Langley AFB, Va, in January 1962, one of Major Tarrant's first tasks was to organize the TAC stdn/eval program for the T-39. After this, came the same job with T-28s, B-26s and the A-1E. Since August, 1962, he has worked as a standardization officer and flight examiner with the Special Air Warfare Center mission. To further his knowledge of the SAWC mission, he performed a tour of duty in Viet Nam as a replacement aircrew with the 1st Air Commando Wing, flying T-28s.

Major Tarrant and his wife Caryle are the parents of four... a son, Bobby Jr., and daughters, Suzanne, Patricia and Nancy.

ALL ABOUT SMOKE SNIFFING

by Capt Max Ibach

Several years ago when the F-100 program was in its infancy and the "C" was the plane of distinction, I spent one day per quarter at the base fire station sniffing smoke. At the time, the F-100C was having troubles. They were falling from the sky at a fearsome rate from various and assorted maladies. Bearing failures, heat and vent malfunctions and pilot panics were sort of routine. The rage at the time was to become a member of the Caterpillar Club.

If you weren't a caterpillar, you were nobody! Don't ask me what the accident rate was during the four years I was at that base; I wouldn't remember, but it must have been gargantuan. Years later, the time spent there was referred to by the surviving members as "The Ordeal."

The smoke sniffing bit resulted from a premature bailout by one of the junior birdmen. It seems the gear warning horn shorted out and during the ensuing smoke he thought he was on fire and "BAM"--- the

bird made a neat solo landing in a farmer's field but sustained major damage. Both the accident board and the wing commander had a few words to say about this one! Shortly thereafter, a new square appeared on the quarterly training chart. It was labeled simply "Smoke Sniffing." In order to fill the square a pilot had to migrate to the base fire station and be tortured by the fire chief and his fiendish crew. The fire chief would subject his captive audience to the smoke from burning hydraulic fluid, electrical wiring, oil, etc. Altho this happened years ago my sense of smell, somewhat faded by time, can still recall the odors it was subjected to during the years of The Ordeal.

While I no longer fly that particular bird, I still suffer a pang of nostalgia when I see one fly over. During one of those nostalgic regressions I happened to be at Buckley ANG Base, Colorado, swapping war stories with some of the minutemen. After several had been related and the atmosphere had assumed an aura of, "Can you top this?", I suddenly found myself being forceably propelled into an F-100C simulator. Flashing hands started the engine and secured me to the monster, the canopy slammed shut and I was told to take off. Under threat of duress, I became airborne to the accompaniment of engine noise and fiendish chuckles over the radio. After an invigorating flight of thirty seconds the engine compressor stalled, the aft fire warning light came on, and the cockpit filled with smoke. I grabbed the throttle, tried to transmit with the electrical cage button, turned it loose, said,



Pilot's cockpit is a reasonable copy of the F-100A.

"Oh, damn," and eventually screamed over the radio, "This thing's on fire; let me out!"

A voice replied, "What kind of smoke is it?"

"What do you mean, 'What kind of smoke is it?' What kind of smoke do you generally get from an electronic nightmare like this?"

"Hey! It's burning my eyes! It's hydraulic smoke!" About that time I crashed unceremoniously into the ground with flashing lights and clanging bells. I won the booby prize uncontested. I had just entered Phase I in learning about the electronic wizardry of M/Sgt Thomas W. Linam, who converted an obsolete F-86L simulator into an F-100C simulator. This in itself was no small feat, but some of the locally engineered and manufactured extras were hard to believe. They included:



SMSgt Thomas W. Linam,
sparkplug of the simulator program.

- * A rocket seat, complete with "Wiggins Disconnects." It has been modified to indicate when the pilot has his feet in the stirrups, head against the headrest and if the seat pins are out. The pilot who leaves a seat pin installed is assured of a fire and explosion immediately after takeoff.

- * The back type parachute in the simulator is wired to indicate if the bailout bottle is activated and whether the zero lanyard is connected or not.

- * The IFF/SIF panel has an indicator to show selection of Emergency and Mode 3, Code 77.

- * A reostat is installed which gives the instructor control of the EPR gauge.

- * The oxygen regulator panel is modified to indicate the position of the diluter and emergency levers.

- * A smoke generator capable of producing elec-

trical, oil or hydraulic smoke.

* The oil pressure gauge can be failed or adjusted to any desired setting.

Many more items are included which add to the versatility of the trainer. In addition, all F-100 accident reports are screened for equipment malfunctions that would be of potential value as additional modifications. With an ever changing simulator and program, interest is maintained at a high level and the utilization rate remains equally high. The fire department has also adopted a training program using the trainer to learn the proper technique for removing injured aircrews.

This simulator does not have the immaculately designed switch panels and reostat controls of its sophisticated brothers. However, it is capable of performing some complicated tasks which are essential for training safety conscious pilots. When designing and building this simulator, the 140th Tac Ftr Wg's motive was predicated on the premise that the more knowledge a pilot takes with him into the air, the better he is prepared to cope with actual emergencies.



Base firemen practice their art. Victim is simulated, not a result of realistic drill.

Judging from the magnitude of these modifications, we decided that the synthetic trainer section was highly motivated, sincere, and above all, able to talk the pilot's language. The section was supervised by a man who makes it a practice to keep one step ahead of the aircrews at all times and can either answer any question or will get the answer in a

matter of minutes. He is, of course, SMSgt Thomas W. Linam — a man selected as Airman of the Year for 1962.

Sgt Linam and outstanding men like him are continuously working to provide the fighter pilots with material, words, suggestions and an occasional awesome jolt to help them do a better job in the cockpit and perhaps someday pull them out of a sticky one. We owe these men a great deal, we also owe it to ourselves, our commanders and the Air Force to take their endeavors to heart and get the most from them!

HOW DID YOU DO ON THE LAST TEN?

By: Captain Robert H. Butler

If your unit received a formal stdn/eval visit during the past six months you were subjected to ten extra questions which were not in the master question file. These questions are not counted when computing the written examination scores, but are retained by the unit for their own evaluation.

Very revealing results have been obtained from these questions. If an analysis of the results reveals a low score on these last ten, the most probable conclusion is that the examinees are studying the master question file rather than the flight manual and associated weapons system data. This conclusion indicates that the examinees are attempting to take the easy way out. This approach decreases the value of the stdn/eval program for both the individual pilot and his commander.

SEG condones the use of the master question file as a study guide; in fact, we encourage it. But, the intended sequence in preparing for a written exam is study, review and test. First, HIT THE BOOKS then FOLLOW UP by reviewing the study guide and finally TAKE THE TEST. If you, as an individual or as a unit, have scored low on the last ten, how valid is your score on the other questions? How much do you really know about your job?

1965 School Schedule

The following StdN/Eval Flight Examiner Course classes are scheduled for the last half of fiscal year 1965.

CONVENTIONAL

19-21 Jan 65
16-18 Feb 65
9-11 Mar 65
23-25 Mar 65

JET

2-4 Feb 65
6-8 Apr 65
11-13 May 65

191
30
57.30



THE OL' SARGE wiped his hands on a rag and started putting the tools back into the carrying pouch. "That should do it, Capt. Green, if you'll give it a try, sir."

Capt. Green slid behind the wheel and turned the key. The engine purred smoothly. The Old Sarge listened critically and checked for leaks. Satisfied, he gently closed the hood.

Major Lewis, a by-stander to the operation, spoke up. "Very professional... Green, I think you owe us a shake for services rendered."

"Where you get this 'us' business? The Ol' Sarge did all the work."

"True, but I came over to bum a ride home and that unreliable machine of yours has delayed me fifteen minutes."

"How about it, Sarge, will a milk shake settle the bill?"

The Ol' Sarge grinned, "You're on, sir. My wife never cooks lunch on Saturday anyway."

The Snack Bar was almost deserted and the three were soon seated. Lewis inclined his head toward the Ol' Sarge. "You sure have a way with machinery. I'd still be out there skinning my knuckles if I was working on that cramped little brute."

Capt. Green nodded agreement. "Me too. But jobs like that are

just plain easy for him."

Lewis shook his head. "He just makes it look easy. That doesn't mean the job is any easier."

Green thought that over a moment. "I don't know. Take mowing a lawn. It's sure a lot easier for me to mow the lawn than it is for my wife."

Lewis smiled. Green's wife was a cute little thing and a good 60 pounds lighter than Green. "I agree, but I'm thinking of the amount of work involved. The amount of work is the same regardless of who does it. That goes for any job."

Capt. Green toyed with his glass. "I see what you're driving at. The Sarge made the job look easier because he has developed the skill or strength to do it and most of us haven't. One thing you're overlooking. He probably did make it easier by not making any false moves. By taking things off and putting them back in the proper sequence."

The Ol' Sarge was just a little embarrassed by all the attention. "There wasn't much planning to that job."

"No," Green continued, "but I've watched you on other jobs and I know you plan ahead. You told me so yourself. Like when you helped me build that hi-fi cabinet. You were figuring out things while you were scraping and sanding the

pieces you'd glued up for the sides and top."

Lewis interrupted. "You're overlooking something. Planning is work, too. If a fellow doesn't plan ahead, he has to do more physical labor on a job like that... mostly to correct his mistakes. This is one reason a good man gets things done faster and with less apparent effort. He is planning while he works. I try to do the same thing when I write up my safety bulletins. I can't plan while I'm actually writing, so I do it when I'm mowing the lawn, sitting around the house in an evening or just before going to sleep at night. When I sit down to write, the planning is already done."

"A lot of it is already done for us mechanics, too." The Ol' Sarge said, "I mean in the maintenance manuals. That's why any good mechanic can be a master mechanic if he'll just take time to read and follow the tech order instructions for each operation. That and use a torque wrench. When we didn't have torque wrenches, we wasted a lot of time re-torquing to correct leaks or taking parts out so we could get at a broken stud to drill and remove it with an easy-out. Today we don't have to mess around that way."

"Touche'," Lewis replied. Looking at his watch, he turned to Green. "Well, how about that ride home?"

Green bristled, "I thought you were waiting to ride with the Ol' Sarge."

"Oh, he doesn't have his car either. My wife drove us in this morning."

"No wonder everyone was so interested in getting my car fixed. Something tells me I've been had."



chuck talk

CHUCK TALK

LOST CAP

The doggone bird seemed OK until he entered initial, then the pilot noticed he had to use 96 per cent to hold his speed. Most F-104s need around 91.

When the ground crew started to refuel it, the crew chief noticed that the single-point refueling cap was gone. He started looking and found what was left of it in the compressor. It had been chewed to bits . . . which didn't help the compressor one bit.

Experimenting, the unit found all caps on squadron aircraft will rotate an eighth of an inch when locked. Press in on them and you can move them an extra sixteenth inch.

A cap that is set like this will creep open and come off, so the unit has painted a stripe across the caps that shows when they are correctly aligned.

HOT FOOT

A Navy bird was damaged when someone parked a starting unit where its exhaust gas blasted against the fuselage. The exhaust was hot enough to ruin the aluminum skin, reducing skin strength by half.

We don't normally stack aircraft and power units in congested confusion like the Navy does on their boats, so this should not be a problem. However, we do have a problem during windy days when it is quite easy for an unthinking crew chief to park the unit where the exhaust gas blows into the cockpit. Aside from being bad manners, this can greatly reduce the pilot's performance by loading his system with carbon monoxide.

Play it safe. Park upwind when possible, or at least point it where the fumes will blow clear.

CARELESS HANDS

From an article by an Air Force Chaplain . . . "I maintain that the careless mechanic, the reckless driver, the sloppy pilot, the slipshod flight engineer, the lackadaisical depot technician--all infringe upon our right to life, liberty and the pursuit of happiness. Their irresponsible and inexcusable and, might I go so far as to say, sinful carelessness jeopardizes our natural, God-given right to life.

All of us have, I dare say, had horrifying experiences which were caused by some careless slob."

PAINLESS

A Naval Air Station reports good success using a dental drill to stop-drill cracks in engine diffusers (authorized in the overhaul instructions for the particular engine). The tiny high-speed drill is also effective for drilling out broken studs and doing a host of other chores where space is too close for a regular drill motor.

SHORTED SYSTEM

Maintenance men failed to secure the panel, quality control failed to inspect the work, the crew chief failed to properly preflight the aircraft and the pilot didn't observe the partially fastened panel when he preflighted. Scratch one engine.

TRAPPED

The incident report starts out, "Maintenance personnel placed a one-half inch square piece of masking tape on the pitot tube prior to washing the aircraft." The rest of the report described how the aircraft hit the barrier. Many mistakes were made in between, but when that tape went on, all that could save the day was prevention. Traps such as this will cause accidents and everyone should take a look and see if they are setting a trap for the next man.

FOD FREE?

Most engine foreign object damage can be traced to nuts, bolts, machine screws and other bits of debris left in engine intakes during maintenance or carried in during inspection and maintenance. Keeping the ramp clean is important, but tidy maintenance in and around ducts and engines is the absolute must.

EXTRA PARTS--EXTRA WORK

Returning to base, an F-84F test pilot retarded throttle to 82 percent but couldn't get it to advance above 87 percent... the test hop was a result of a similar write-up that had been corrected by replacing the fuel control. The fuel control linkage and lever had been binding.

Back on the ground, maintenance Sherlocks found the problem intermittent. . . more investigating. Finally someone found a small button head screw behind the engine bay bellcrank at station 210. The screw would jam the bellcrank when vibration or throttle movement placed it just wrong. An overseas 101 pilot noticed unusual resistance when he applied left stick shortly after takeoff. He checked hydraulic pressure normal and auto pilot off, making certain by pulling the circuit breaker.

A roll to the left required excess stick pressure... left and right stick movement broke the stick loose, causing a rapid left roll. Stick pressures were normal for the rest of the flight...which lasted just long enough to enter a wide downwind for a precautionary landing.

A B-nut was laying loose in the airframe and had been jamming the left aileron torque tube bell crank. Source of the nut was not determined.

Tramp metal left to float around in an airframe is a definite hazard. If you drop a bolt, nut or other object while working on an aircraft, don't rest until you find it. Far better to search right then, than to make your search after it creates trouble... the search could well be thru scattered wreckage!

TAC ATTACK

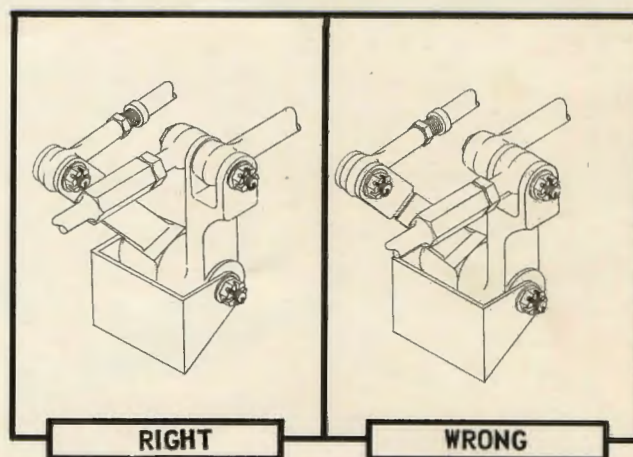
X-RAY STORY

The first recorded X-ray inspection of a completed aircraft structure was conducted at Woolivich Arsenal where glued wood joints were radiographed during World War I. On this occasion the work was taken to the X-ray equipment and it wasn't until 1930 that the procedure was reversed when assembled parts of the airship R. 101 were radiographed.

F-4 FUEL LEAKS

The Navy Crossfeed reports three F-4 accidents due to inflight fires since March of this year... they then list a series of known problem areas that have resulted in fuel leaks. To help you guard against this type emergency we'll list these failures. Four were from broken T-bolts on Marman clamps in the fuel system. Four were caused by cracked welds in the number two fuel tank transfer line weld assembly. One was from a chafed line in the number five fuel tank transfer line assembly, and another from a leak in the bellows of the fuel system manifold assembly.

F-4 BLC VALVE



At least one TAC F-4 has been damaged by hot boundary layer air being blasted into the flaps when flaps were up. Possible cause was listed as binding BLC valve which induced actuator rod failure. The Navy has had several of these failures and believe most were caused by a rather simple installation error. F-4 mechanics should take a close look at our drawing and note the diff between right and wrong.

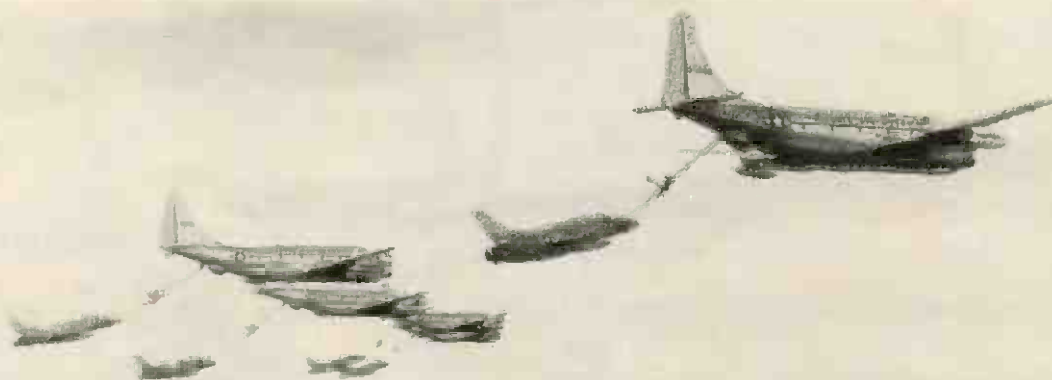
The wrong installation causes the control linkage to bind against a wing bulkhead and this overstresses the rod.

The October ATTACK included a short article on Ready Go. Just after that issue went to press we received a more complete report from Lt Col Pope, and believe it will be interesting to all readers.



TEAM EFFORT

LT COL JOHN A. POPE
113th Tactical Fighter Wing, DCANG
Andrews AFB, Maryland



F-100s latch onto KC-97s... total fuel intake, twenty-five tons.

WHEN THE LAST Operation Ready Go F-100 taxied into the 113th Tactical Fighter Wing ramp at Andrews AFB, on August 18th, it marked the successful end of the most dynamic peacetime exercise in Air National Guard history and the beginning of a new era in

concepts to capitalize on the immediate capability of the nation's reserve forces.

In addition to F-100s from the District of Columbia Air National Guard, this all ANG mission included RF-84s from Alabama's 117th Tactical Reconnaissance Wing, KC-97s from Illinois' 126th

Air Refueling Wing and C-121 transports from New Jersey's 170th Air Transport Group.

For the DCANG, the 8700 mile round trip to Hahn Air Force Base in Germany and return fulfilled a dream denied that unit when it was called to active duty with the Tactical Air Command during the



A touchy point... an F-100 jockeys into position and makes contact.



Pilots listen intently to the weather briefing at Andrews AFB.

Berlin crisis. Scheduled for duty at Ramstein AFB, last minute changes in the Operations Plan called for the 113th TFW to remain in the States as follow-on forces.

ON THE MARK....

Ready Go germinated in the

TAC ATTACK

fertile brain of Brig Gen Willard W. Millikan, the 113th's Commander since 1952. Taking each piece of the package one step forward at a time, General Millikan literally walked the plans through the National Guard Bureau, Tactical Air Command and the Air Force.

Said Major General Winston P. Wilson, the Guard Bureau Chief, as he approved the preliminary planning--"Success could push the ANG program five years ahead of schedule. Failure, five years behind."

The training mission would demonstrate the ANG's capability to mobilize and rapidly deploy operationally ready pilots, aircraft and supporting personnel to augment regular USAFE tactical fighter units in an emergency.

The goal was to reach Europe in one ten hour flight instead of taking five or seven days of island-hopping as was required by ANG F-86s and RF-84s during the Berlin crisis.

Tactical Air Command and USAF worked the plans over with a fine tooth comb, refined and sophisticated them and ultimately gave the green light.

MAKE READY....

Reworking F-100s for in-flight refueling took top priority. Without the additional capability, the mission was impractical. Once completed, a series of refueling missions with ANG tankers was scheduled to work the bugs out of the systems and to insure that aircrews were operationally capable and professional.

Survival gear—the pooppy suit—was dusted off, reissued and tested. Water temperature in the Atlantic bordered on critical, and was just cold enough to require the suits as a necessary safety factor.

The F-100 simulator was rigged for instrument letdowns at destination, alternates and each point enroute. Pilots of the 113th practiced until perfect. A change in original destination from Etain, France, to Hahn was fit into the routine without a hitch.

Maximum range profile mis-

Continued next page ...

sions approximating time and distance of the deployment were flown across the United States. Crew conditioning gave pilots a taste of the readjustment to their "new" day. Plans, transports, tankers, training, aircraft, men and bases --one by one the pieces fell into place.

In July, General Millikan pronounced aircrews and aircraft ready to --

GO....

Support personnel departed in C-121s on August 8th to await the arrival of their F-100s at Hahn.

In the early morning hours of August 11th, low lying clouds covered Andrews AFB. A front with its thick deck obscured the first refueling point at Argentia. H-hour for fighter launch was close at hand.

Major Robert Taylor, Andrews' meteorologist, scanned charts and stayed in close contact with TAC's Command Post.

Then came the word. "Go!"

At 0145 EDT DCANG pilots filed into the briefing room and listened intently as Major Taylor traced weather patterns West to East. No problems forecast.

Pilots bussed to the warm up ramp at the end of Runway 01 where the F-100s had been parked to avoid taxiing so as to conserve every ounce of fuel.

At 0307 EDT General Millikan led the first cell of six F-100s off Andrews and into the black night. Total flight time to Hahn, nine hours, nine minutes, with the first refueling over Argentia, Newfoundland.

The second cell broke ground at 0505 and the third at 0603.

First and second cells hit Argentia on schedule and proceeded to Lajes, refueling point number two.

Enroute to Argentia, one air-

craft in the third cell had cooling system failure and broke out of formation to land at Dow AFB, Maine. One spare filled the gap and the other was directed to tail along to Germany.

Lajes ok, Santiago, Spain, next. Time to go for the next drink two hours, two minutes.

At Hahn, the weatherman began to play tricks with the forecast. Ceilings and visibility began to lower steadily in the gathering dusk. Altho the go situation still prevailed when General Millikan touched down with the first cell, Hahn soon dropped below minimums. Alternate plans went into effect immediately. Cell Two was diverted to Ramstein, 50 miles to the South, and Cell Three landed at Lakenheath RAF Station.

When weather freed its grip temporarily two days later, all 19 were neatly aligned on the Hahn ramp and ready to support the USAF in Europe.

AND COME BACK....

Going East to West prevailing winds dictated planning for a shorter flight--Lakenheath to Andrews, 3805 miles.

On Lakenheath for an August 17th departure, the 113th waited for headwinds to abate and sweated through a one day postponement to the 18th.

Winds were marginal on the 18th but the three cells took off, estimated time enroute to Andrews eight hours, thirty-eight minutes.

As Cell One bored across the Atlantic, two aircraft in the second cell ran into mechanical problems and dropped out at Torrejon AFB, Spain, to await enroute support teams and repairs.

Cell One refueled over Lajes and then came the bad news from TAC Command Post aboard a KC-135. Headwinds were 100

knots and increasing. Ground speed slowed and engines ate up fuel until it became obvious that the winds would win.

Reluctantly Cell One reversed course and joined Cells Two and Three on the Portuguese island to wait another day.

August 19th broke clear and windy but with adverse winds continuing to pose a threat.

In a fine demonstration of flexibility, tankers and fighters rearranged plans to include one additional refueling 450 miles West of Lajes. This, with the originally planned refueling at Argentia, enabled the 113th to whip the wind.

Cell One kissed the pavement at Andrews AFB six hours, fifteen minutes later and within two hours, Ready Go was over except for

APPLAUSE....

The sum and substance of Ready Go, the kudos in the States and abroad are summed up by General Walter C. Sweeney, TAC's Commander, when he said, "The outstanding success of Operation Ready Go once again demonstrated the versatility and professional competence of Air National Guard forces. The movement was particularly significant since this was the first non-stop trans-Atlantic flight of National Guard aircraft. The demands on your units have been great, especially in view of the adverse weather which necessitated additional planning on very short notice. Please convey my congratulations to all members of the 113th Wing for their significant contribution to this highly successful mission."

And so, the Air National Guard takes a big jump forward--a five year jump.

TAC TIPS

WHAT'S IN A NAME...

Maybe it's the label "emergency," and maybe not, but in any case, TAC pilots are not using the emergency fuel system when they should. A T-bird pilot notes fuel pressure fluctuating and RPM dropping...hit the gangstart like the book says? No, head for home and hope for the best. An F-100 pilot shoves the throttle forward but the engine won't turn more than 88 per cent. Flip over to emergency fuel? No, hold what you have and hope for the best!

An old axiom among single engine pilots has been "if it's runnin', don't mess with it." There is a lot of merit in this approach, but it can be misleading. In some earlier aircraft, change-over to the emergency fuel control was a thrilling experience, complete with minor explosions and overheat lights. Today's fuel systems have eliminated most of the excitement and the change-over to the emergency fuel control at reasonable altitude and RPM causes nothing more than a mild burp.

What makes this reluctance to use the emergency fuel control unusual is that the system offers nothing except benefits. If the engine isn't running right on the normal fuel system, what can you lose by trying the emergency system? The stock answer is that the engine might flameout. Now really, that's pretty ridiculous. You check out the system just before takeoff and it doesn't flameout there...why should it flameout in the air?

I can't help but believe that the main reason we hate to use the emergency fuel system is because of the name. It is a misnomer. The emergency fuel system isn't any different from the emergency gear lowering handle...you use it when the normal system doesn't work right. It's actually an alternate system.

There is a fallacy in the "don't touch it if it's working" way of life. If the normal fuel system is a little bit bad in the air, how do you know it won't get a little bit worse on final and cause you to wind up a little bit dead?

TAC ATTACK

WOW!!!

The following incident occurred during a practice para-rescue jump and is quoted without comment:

"The airman exited the aircraft at 1000 feet and the parachute opening sequence was normal except that the canopy streamed. The reserve chute was deployed but wound around the main chute and was ineffective. Upon contact with the ground the airman did a parachute landing fall and then lay prone. He was immediately taken to the hospital where preliminary medical examination revealed no injuries."

ATTENTION T-33 TYPES

We've had another canopy break...and the training command has reported several such incidents. All were limited to the aft section of the canopy. This problem seems to have developed as a result of the rocket seat mod. Apparently there is less clearance with it and you will have to make certain the hood isn't bunched over the aft seat canopy breaker head before you close the lid.

Maintenance men should check to make sure the ARN sensing antenna retaining block doesn't touch the canopy breaker head when the canopy comes closed. If it does, the antenna block may have to be relocated - after proper authority for this is obtained.

GOTTA MATCH?

A bow hunter who frequently chases around the high country in the northwest showed me one of the neatest ways to carry matches I've seen. He keeps big, old fashioned kitchen matches in the plastic container Polaroid uses to package the squeegee for fixing the older style prints. It is just the right length, water tight, light enough, small enough and cheap enough you can carry three or four around on your person. Each will carry over half a dozen matches. He claims he's never had one come open accidentally and has no trouble getting a match with cold numbed gloved fingers.

CANNED APPROACH INFO

Seeking a solution to the congestion on approach control frequencies, FAA is testing the feasibility of getting airport info to the pilot automatically. For example, at JFK International, scheduled communications broadcasts and air-ground communications on JFK VORTAC have been suspended and replaced with recorded info such as landing runway, wind, and altimeter setting. The recording ends with a phonetic alphabet code word. Pilots using this feature should repeat the code word on initial contact with approach control. This will indicate that they have received the latest poop. Scheduled weather broadcasts voice and communications will be available thru other nav-aids in the immediate vicinity. Terminal areas where the test is being conducted are listed in the Airman's Guide.

LOOK OUT!

From a Navy pilot's sortie report... "As I started my dive to sea level to pick up 500 knots, I noticed a glow in my fire warning light. There were no other indications of fire and my first thought was maybe it was sunlight reflecting on the bulb. I put all my attention on the light, using the press to test feature and not paying any attention to altitude.

Suddenly, I looked out to see the surface of the water rushing up at me. I snapped the nose up, thinking that I'd had it. In fact, when the aircraft buffeted from the acceleration of the maneuver, I thought I had hit the surface of the water. Number four saw a 'dish' in the water where I pulled up."

Moral: When flying an aircraft, don't ever forget it!

QUIET BIRDMAN

Comment following an incident involving a fuel leak, precautionary landing and post-flight fire: "The crash-crew should have been alerted to stand by. This helps the crash-crew to pass time, doesn't cost the pilot anything, and everyone is certainly alerted should something happen, as occurred in this case."

DEFENSIVE FLYING

From an OHR submitted at a Training Command Base: "While on final approach of a GCA, a light aircraft crossed about 200 feet in front of me. We were on glide slope at 120 knots and saw the civilian aircraft just before the controller told us to break left. The light aircraft made no clearing turns but continued straight ahead, right thru the final approach to the active VFR runway.

C-130 LANDING GEAR

On preflight, a C-130 crew discovered a three inch crack in the right forward main landing gear chine just below the shelf bracket. This is a known problem area that results from repeated short radius turns and use of improper backing procedures.... meaning, when backing you use the power lever to stop the aircraft instead of brakes.

F-105 LOCKED NOZZLE

An F-105 pilot backed off the boom after fuel syphoned from around the refueling probe well. He tried another hook-up without success and recycled the system. His third attempt was successful for about ten seconds, then fuel again started syphoning. Before the pilot could back off the tanker, his engine compressor stalled violently and flamed out.

The air start was successful and the pilot returned home. Apparently the probe had been damaged on a previous refueling mission and not noticed by the pilot. The nozzle was cocked, allowing fuel to be pumped out of the probe. A proper post flight following the previous refueling mission would have revealed this discrepancy.



DISTRESS CALL

Broadcasting a bird's distress call over a loud-speaker is one of many methods being used to scare birds from airfields. However, Air Clues magazine reports that distress calls are not always easy to record. The Herring Gull is one example of a most difficult customer. Many methods were tried without success, until in desperation a rather competent-looking tom cat was dropped into a cage containing six adult gulls. The gulls, while moderately disconcerted, gave no cry. The cat was terrified. Anyone need an excellent recording of a tom cat's distress call?



LINE SPEED

When checking takeoff line speeds, a pilot usually has to estimate the distance he pulls down the runway before starting to roll. Then, he must eyeball a similar distance beyond a runway marker. The 839th Air Division at Cannon AFB has solved this problem by installing "Start Here" and "Check Speed" signs, an exact distance apart, at each end of the runway. The distance between these signs suits the normal check distance for the unit aircraft. A couple of points of caution. Be sure the signs are frangible and are installed according to the civil engineer's procedures (AFM 88-14B). Additionally, set up a procedure that will assure everyone gets the word on the distance between the signs... don't forget transients.

OUT OF SEASON

It took about 100 manhours to repair an F-100 after it collided with two deer shortly after touching down at Volk Field in Wisconsin. According to the report, corrective action is awaiting coordination with the Wisconsin Game Commissioner. Humm.

HELPFUL HURRY-UP

When a TAC pilot arrived at his aircraft after an RON at a non-TAC base, he complimented the transient maintenance troops on their service... the bird had been given a maintenance pre-flight and a power unit was already plugged in. After the usual walk-around inspection was completed, the crew chief followed the pilot up the ladder. As soon as he slipped his arms thru the chute harness, the crew chief laid the shoulder harness neatly across his shoulders. The pilot hastened thru the rest of the strapping-in ritual to keep from inconveniencing this polite lad. About twenty minutes after takeoff, the pilot was shocked to look down and see that the leg straps of his parachute were unfastened. The habits of over 15 years and more than 3000 hours of fighter time had been wiped out by hurry. The only way hurry can be eliminated is, don't. If you get tempted into a hurry-hurry situation be suspicious and make yourself check and double-check every act.

TAC ATTACK

LOST LID

A T-bird pilot had trouble getting the canopy to lock until the rear seat pilot cleared the hood from around the aft seat headrest. Climbing thru 14,000, the rear two thirds of the canopy plexiglass went, POOF! Parts of the plexiglass bounced off the aft seat troop breaking his visor and scratching him up a little.

Trying to lock the canopy with the instrument hood wedged between it and the rear seat apparently weakened or cracked the plexiglass and caused it to fail once cabin pressure started to build up. If the canopy seems hard to latch, check around before you try to force it closed.

F-4 LOST CANOPY

Altho an F-4 pilot checked the canopy closed and locked, it fell off just after he raised flaps on takeoff. At this writing it looks like the pilot may have bumped the canopy linkage with his elbow actuating the external canopy control rocker arm assembly. The unit is designing a shield to protect this assembly.

PEG LEG

According to a Navy study, there is little drama in nosewheel-down, main-gear up emergency landings. In fact, the results are relatively routine. They contend that it is preferable to leave the nose wheel down rather than to retract it. Foam appears better than a dry runway, particularly if arresting gear is not used. Arresting gear (approach end engagement - please) is good if your bird and the barrier can hack it. Crew injury and major damage as a result of the landing are most unlikely. We add one more bit. If the bird has external tanks, run them dry and keep them on. They usually reduce damage.

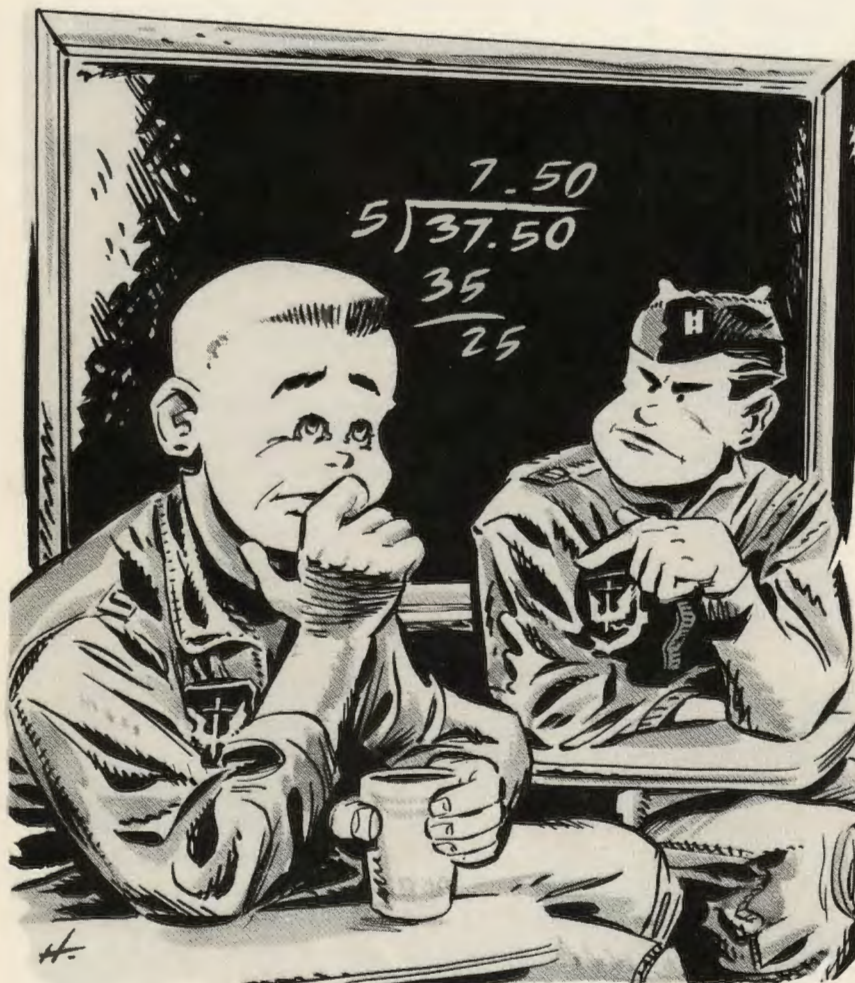
ON TARGET

The tow aircraft was climbing from 20,000 to 25,000 with speed decreasing from .75 mach when the attacking pilot shot the dart off. He ceased firing at about 1200 feet and had no trouble missing the dart. However, he suddenly realized there was a small parachute above the target that looked like the chute used for dart recovery. He steepened his turn to avoid the chute but hit the cable with his left horizontal stabilizer.

The unit was using a dart that has the recovery chute installed fairly close to the target and this is a hazard that exists with this type installation.

INSTANT EXPERIENCE

... just add common sense and stir.



OK CLYDE, what does the bill come to?"

"I figure it at seven and a half for each man in the flight. One thing tho, Captain Sockroller, it sure was a good party."

"That was a dirty trick Major Hardnose pulled . . . asking me questions. I thought since I was acting FSO I would be exempt. One thing for sure, this next month's safety program is going to be different. We can't afford to keep on throwing parties for the whole squadron, and if I spend one more day on mobile control I'll have to start listing it as my permanent

address."

Captain Ellrod T. Sockroller and Lieutenant Clyde Youngfellow were commiserating over the fact that their flight had lost the safety competition for the previous month. Sitting in the flight briefing room, they were preparing the next month's program.

"I've been thinking, sir. . ."

"That rips it."

"Now really, sir, I'm thinking about experience."

"Ah yes, experience. Clyde my boy, I could tell you about some experiences. One time when I was a cadet, there was this beautiful

young thing whose father owned a liquor store. One night while we were driving along in her convertible . . ."

"That's really not the kind of experience I was talking about. What I mean is that there is a lot of things you old heads do that new types like me don't know anything about. There ought to be some way to pass this info along."

"Not a bad idea, Clyde. There are a lot of little unwritten tricks of the trade that are never passed around except in yak sessions. Most of them are learned only after someone has gotten in and out of trouble."

"That's right sir, and I would like to learn the easy way . . . here on the ground. For example, on that last navigation mission we flew together, you filed for a TACAN initial approach fix instead of the station. Why?"

"Simple, Clyde. The surface winds were forecast to be strong from the south and that field has an approach with a fix about 40 miles north. Since that was the approach they were probably going to be using, it was a lot easier to plan the flight that way."

"I've noticed while flying with other people that they have ways of doing things that seem to work out pretty well too. These are what I want to learn about."

"What you are shooting for is kind of an instant polish. I don't see any reason why it shouldn't be possible. These little things set the real pro apart from the rest. In my opinion, the real pro is aware of all of the little things that can happen, so he isn't surprised when they do. He doesn't always work these little things out on a computer, but he knows enough to keep them handy in case he should need them. Now here's the way we'll set up the program . . . there

are about 12 pilots in the squadron with about 1500 to 2000 hours of decent flying time. We'll give each one of them an area to cover and get them to tell the rest of us their own personal techniques and procedures."

"Sounds good, sir. Why don't you think up an example to show them what we're after?"

"OK, I'll take the form 21a. There are a hundred or so little squares on that devil and everyone knows how to fill out the required ones. But, since it is always convenient in the cockpit, I put all the other little tid-bits that may come in handy right on the form. For instance, I enter the forecast altimeter setting and surface winds for the destination and alternate in their blocks. Unless a front has just passed thru, these figures should check pretty close with what they give me for let-down. If they don't, I start asking questions. In the route column, I put the airway designator so I don't have to look it up again when I fill out the '175. In the reporting column, I put the special use frequency for the centers. Time is a problem because there are two good ways to do it. Flying a routine cross country I like to keep track of the time left to go to destination, so I add time from the bottom up. But when I have a target or approach time to hit, I want to know how much time has gone by, so I add time from the top down. Like I said, each system has its place. Some of the other things I put down are the true and indicated airspeed, Mach, fuel flow, flight level and finally, all of the nav aid frequencies for both destination and alternate. Most of the time I don't need all this information, but when I do, it's available and I don't have to dig out all the books and charts in the cockpit."

"I guess planning is the answer, sir. It sounds like a lot of work tho. Is it really worth all the trouble?"

"It sure is, Clyde. Do you think

I was able to locate a lovely who had a convertible and a father with a liquor store, by chance? Negative, it took planning!"

Ellrod's Extras

AIRCRAFT TYPE AND NO. 2/F-XXX		PILOT Sockroller		FROM England		TO MYRTLE B. 29.87 160/12			
ALTERNATE Shaw 29.94 180/10		TOTAL DISTANCE 731		TAKE-OFF TIME A		TOTAL AMT FUEL 9600			
ROUTE (Check points)	IDENT FREQ	IDENT FREQ	MAG HEAD	LEG REMAIN	ETE EST TOTAL	ETA ATA	GROUND SPEED	EST LEG REMAIN	ACTUAL FUEL REMAIN
DIRECT	JAN	MEM	051	140	22		440	2700	
JACKSON	DS	269.7		591	22			6900	
MEMPHIS	MGM	ATL	088	196	21		550	1250	
MEMPHIS	SB	369.9	093	395	43			5650	
J-40	MCN	ATL	065	139	15		540	900	
MACON	B9	369.9	087	256	58			4750	
J-40	CHS	JAX	086	183	20		550	1150	
CHASTON	B2	364.8	089	73	1:18			3600	
DIRECT	MYR	JAX	052	73	8		530	500	
MYRTLE	52	364.8		0	1:26			3100	
DIRECT	SSC	JAX	282	81	11		440	900	
SHAW	3B	364.8							
IAS	290								
TAS	500								
FUEL FLOW	3500								
ALT CORR	+750								
WIND	CLIMB 220/25								

POSITION REPORT							
IDENT	POSITION	TIME	ALT	IFR (VFR)	EST NEXT FIX	NAME OF SUCCEEDING REMTG PT	
AF FORM JUN 58 21a	PREVIOUS EDITIONS OF THIS FORM MAY BE USED					PILOT'S FLIGHT PLAN AND FLIGHT LOG	

A - Destination forecast altimeter setting and surface winds. B - Airway designator. C - Center special use frequency. D - Alternate information. E - Miscellaneous planning information.

the BRAKES



BY: JACK L. GIANNINI
Lt Col, USAF
Information Officer
12th Air Force

JIM CREGO was in love.

The affair had been going on for nearly a year. It was not a sordid thing of dark doorways, in the shadow of stairs, or in obscure and isolated parking lots . . . Jim's girl friend was known base-wide as Queeny.

For some time she had been disparaged up and down the flight line by the pro's. Her idiosyncrasies were well known. Her unreliability was fabled. She was shunned by most of the pilots . . . but this was all before Jim fell in love.

Before she met Jim, she had been treated unkindly by some, held in fear by others, and had long been known as the Hangar Queen. The Air Force referred to her rather unemotionally as AF-7004. She was an F-100.

When an overseas deployment was in the mill, she

was ignored. Everyone presumed she would not be ready. She never had been!

This was before Jim fell in love.

Arriving at planeside long before the first jet roared off the concrete to shatter the early morning silence, Jim would run his hands over her lovingly, and make sure she was ready for the morning mission.

Now, Queen was a clean bird. Sleek but ponderous, she sat stolidly in her berth. She was ready each morning because there was a man that cared enough to take the extra effort to change her from a hangar harlot into a faithful member of the chorus line. The Queen was now coveted. The pilots pulled rank and anything handy to insure that their name appeared opposite her number on the status board.

STAFF SERGEANT JIM CREGO was crouched under the belly of the Queen making a minor adjustment to the right wheel brake when the Line Chief bawled from the maintenance pickup, "Crego, knock it off and get over to the base theater. You're supposed to be at the safety lecture this morning."

"But Sarge," Crego explained, "the queen flies this morning. I've got about an hour's work here."

"Listen, buddy," the line chief replied, glancing quickly at the electrician who was bumming a ride back to the hangar with him, "that old bag will get along without you pettin' her for a while. She ain't been used to that kind of lovin' care!"

Stung by this irreverence, Jim straightened and banged his head against the fin on the right drop tank. Flushed with anger, he opened his mouth to retort but realized it was useless as the Line Chief's pickup roared off.

Wiping his hands, Crego put away his tools and walked across the flight line, through the parking lot, and into the base theater. "Why do we waste so much time with this safety jazz?" he wondered to himself. "Here I got a bird to take care of and some character from Headquarters has to louse me up with a lot of drivel. No wonder we're gettin' behind the power curve around here!"

Arriving late, he found a seat in the nearly filled theater. Some Major he had never seen before

was holding forth on ground safety.

"Now, gentlemen," extolled the Major, "when you are on pass or leave, remember the importance of driving carefully. Not only will you be protecting your own life and your car, but you will be protecting the life and property of your fellow countryman."

"Gee whiz," grunted Jim, "that old boy sounds like he has memorized the manual. Why don't he tell a joke or something? We got that old '76' in basic."

"Recently," the Major continued, "an airman from another base was driving down a crowded street lined with parked cars. A child dashed out in front of him and he ran over her. Of course, the airman had been careful. But had he? Was he driving defensively at the time? Did he realize he was

driving where he should anticipate that a child would run across the street? If he had thought out the situation, he would not be fighting a manslaughter rap!"

This got Jim's attention. He remembered Nat Purvis. Old Nat had hit a guy that got out of his car on the street side. Just popped right out in front of Nat's bumper. Nat had been looking for a house number and didn't see him until it happened. Then Nat had to fight off a criminal charge of reckless driving. He was lucky to prove that things were just as they actually happened.

"I guess it's the brakes," Jim mused.

When the mission was off, completed, and the Queen through for the day, Jim made a few minor repairs and reported her as in commission.

With that, he could concentrate on his date for the evening. A little pigeon had invited him to dinner. Now he warranted that church wasn't the most likely place to meet the fairer sex, but it had happened. Not having had a home cooked meal for sometime, he was looking forward to the experience.

Driving toward the girl's residence, Jim tried to remember the directions. Knowing he couldn't pinpoint the exact location, he stopped at a nearby service station and asked.

Getting a good rundown from the attendant, he finally turned onto the right street. Most of the bread winners had already returned home, the street was lined with cars.

It was a pleasant evening, almost twilight. A bunch of kids were out in the front yards playing games.

"Sure beats having their heads screwed into the living room idiot

box" he observed as he downshifted into second gear. He thought of the old "manual reader" at the morning safety lecture. "Now what if one of those young squirrels decides to run across the street? I'm sure glad I rehabbed the brakes last week."

He glanced at his right hand resting on the steering wheel. The second and third knuckles bore angry red scratches where he had bunged them while replacing the master cylinder. Cruising through an intersection, he realized he was getting close.

"Let's see now... 1412... that will have to be on the far right of this block."

He slowed still further and glanced quickly at the house numbers... just as a yellow ball, about the size of a grapefruit, shot out into the street from under a blue car on his right. More by reflex than by design, he hit the brakes and the horn at the same time.

Out from in front of the blue car rifled a little girl with blond hair flying. She saw his car, heard the demanding blare of his horn and fell directly in front of his wheels!

As his car came to an abrupt stop, the little girl disappeared out of sight, obscured by the fenders and hood.

SSgt Jim Crego froze in horror.

After a lifetime, he realized that he was still leaning on the horn. The insistent blare and the shriek of tortured rubber had caused the houses to empty of parents. His car was quickly surrounded. "What's the matter, buddy? What the hell's going on?"

"Get off that damned horn!" someone else shouted.

Jim looked at him blankly for a moment, comprehended, and released the chrome horn ring. In

a hoarse whisper, he blurted, "A little girl ran in front of my car. She's under the wheels!"

A man near the front of the car leaned down out of sight. Jim sat, clutching the steering wheel, his mind a blank.

A housewife, wiping her hands on a ragged apron, raced out of the house to his right. Hair awry, she ran between the parked cars and out into the street shrieking, "Maybelle! Maybelle honey, are you all right?" She, too, leaned in in front of Jim's car, then arose with a thoroughly frightened, loudly crying daughter in her arms.

Feeling her daughter's limbs and body, she soon satisfied herself that the child was unharmed and with a fishwife's lullaby that could be heard into the next block, gave the child what for for running into the street without looking. Emphasizing her point where it would do the most good, she released her daughter's arm and the child literally flew toward the sanctity of the house.

Turning toward Jim, the mother hoisted her upper midriff and militantly approached.

"Just who do you think you are? Don't you know there are speed laws in this town? Do you think you can come down this street at 90 miles an hour? I just want you to know that you nearly killed my daughter! There are kids in this neighborhood. I pay my taxes and I'm entitled to have a safe place to raise my children. You're just darned lucky that my daughter saw you in time! You oughta be horse whipped. If my husband was home, he'd sure give you a piece of HIS mind."

With what appeared to be a flounce (Jim wasn't real sure at this stage of the game), she tossed her head, went up the walk and

slammed thru the door. The others, feeling that justice of a sort had been accomplished, quickly dispersed.

Soon, the only sounds in the block were children shouting and screaming at each other in their

play. Jim still sat in his car, clutching the steering wheel until he heard a blast from an auto horn. Glancing into the rear view mirror, Jim saw a friendly and understanding motorist lean from his driver's window and shout,

"Whatayuah doin' mister? If you want to park that heap, get it over to the side!"

By reflex, Jim started the engine, slowly slid the car into gear and crept forward.



don't tell the bartender by Capt John D Musgrove stdn/eval off 836 AD MacDill AFB Fla

Don't tell the Bartender

BY CAPT JOHN D. MUSGROVE
Stdn/Eval Off, 836 AD
MacDill AFB, Fla.

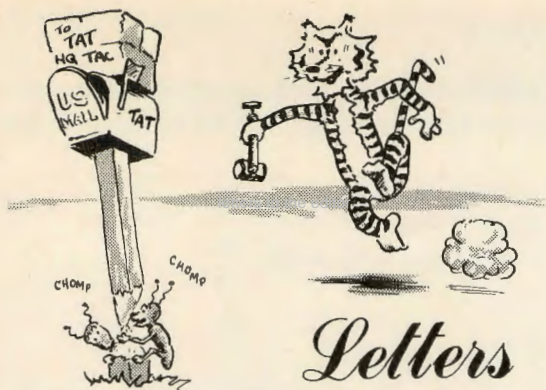
THE USER is always the best source of information for up-dating TOs, regulations, manuals and other directives that pertain to flying. Each pilot should consider this and appoint himself a committee of one to submit changes or improvements when he considers them necessary. As pilots, we can recall many occasions when we have bad mouthed procedures and directives in briefings and bull sessions, or cussed and discussed the agency responsible for such nonsense. This is natural and just as

it should be. We are the experts in this business and often are more current than the man stuck behind a desk and charged with turning out these reams of paper. What I am suggesting is that we, as expert users, give a helping hand to the weenies in the head shed and help them help us. We are deriding the wrong people when we see a mistake in a directive if we take no action to correct it. We are to blame if we know of a better way to do a job and choose the bar or bull session as our only forum. We should take action to correct it.

Here's how. Each wing has a Standardization/Evaluation flight whose sole purpose is to help turn out the best aircrews possible. If we will just sit down and write them a letter and tell them what should, in our opinion, be done, they will submit an AF Form 847, through Division DO, to TAC SEG. This gets action, since items must be reviewed by TAC. If it's a local problem, your S/E flight and DO shop should get together and work it out.

This is a unique opportunity for each of you to set policy and establish procedures that will be used TAC wide. This is particularly true in units with new equipment. For example, procedures adopted by us as the original users of the F-4C will be the basis for much of the future F-4 directives. If you want to do a job your way, tell us about it. Now is the time to start.

As a sort of footnote, I would like to mention what prompts me to write this piece. In the month of July, TAC SEG received only two 847s from all of Tactical Air Command. If we are so good that we only need two changes, this piece need not be written. If this is the case, we are so good that none of us will have occasion to partake of any more bull sessions to bad mouth the system. I, for one, would hate to see the second most popular pastime for fighter pilots die such an untimely death!



Letters to the Editor

Dear TAT:

Your short winter harangue reminds me of a request you made last winter that has been itching for a reply, so here goes - along with another good scratch.

Part One

Iced-up wheels and gear have never been too much of a problem for us, even in this land of lake effect, and we attribute this, in our Century Series Transports, (C-119's) to this procedure:

a. Our Dash One calls for us to stay off the brakes prior to retraction, and

b. After gear is up and locked and climb check list complete, we recycle gear. Not after level off, but after climb is established. Waiting to level off is too late - the damage is done. This works well in our bird because climb speed is identical with max gear speed, and we can sling the slush before it firms up. Possibly these procedures could be adapted to speedier tigers.

Part Two

It seems to me the answer to non-emergency transmission on Guard is already spelled out in the Enroute Supplement and in FAA Center Bulletins. Each of these list "Center Discrete VHF Frequencies", which the Bulletin explains are monitored and terminated at all controller positions, and are to be used to re-establish lost communications. Wonderful!!

The USAF problem is, of course, that we have large numbers of aircraft with no or limited channel VHF. If aircraft with lost communications could call center on a Discrete UHF Frequency that would be monitored by all Center Controllers, the rest of us would not be bothered, and Guard would really be clear for EMERGENCY.

Capt William S. Hall
Base Operations Officer
910th TCG
Youngstown Municipal Airport, Ohio

Dear Bill

Many thanx for your winter tips and idea for calming down guard channel. We liked the guard bit so well we bucked it right over to our FAA people. Positive suggestions like these are a valuable contribution to safety.

Incidentally, the centers monitor 272.7 and this should be your first try when you lose contact.

TAT

Continued next page . . .

Dear TAT

It is never very pleasant to be forced to admit you have ever used anything less than good judgment. In this instance I was spared any possible ill effect by the alertness to duty and safety sense of Captain Robert Edwards and certain men of the 354th transient alert section at Myrtle Beach AFB. I stopped at Myrtle for refueling. An alert ground crewman called my attention to a tire on my T-33 that had been worn to the first ply cord. Rather than risk a lengthy delay I chose to neglect to request a tire change.

Apparently the ground crewman was concerned for my safety and called the situation to Captain Edwards' attention while I was filing my clearance. While I was preflighting, Captain Edwards arrived in a pick-up with a new tire ready to install. Politely he said, "Sir, I could not let you go without changing your tire." Recognizing my hasty, less than safe decision was in reality a needless risk, I felt properly chastened altho Captain Edwards voiced not a single word of reproach. Fifteen minutes later the tire was changed and I was on my way.

A lesser man than Edwards might have taken an "It's his neck" attitude and done nothing. While I am not proud of my own part in this instance, I am proud that we have officers and men like Captain Edwards and his transient alert crew who are alert to the need for eternal vigilance in safety.

- Anonymous

Dear Anonymous

Your letter helps explain why Myrtle Beach has been on Rex Riley's list of outstanding transient maintenance sections for 'lo these many months... there is no substitute for a conscientious effort. Incidentally, it ain't easy to admit being in the wrong. My hard hat is off to you, too!

TAT

TAC ATTACK

Dear TAT

Reference your comments on C-119G cylinder head limits and cowl flap operation in the September issue on page seven.

You stated that the maximum head temperature for take-off is 245 degrees. This is in error, the maximum on the G model is 260 degrees. 245 degrees is the maximum at 70 to 100% of meto power.

As you also stated, control of the cowl flaps is usually delegated to the Flight Mechanic but too many pilots start to sweat when the cylinder heads reach 200 degrees, even on take-off, and they start to toggle them open.

I expect that many of us C-119 types have written you on this issue but I might as well add my comments.

TSgt John L. Whenal
S/E Flight Mechanic
732 TCS, Grenier Fld, N.H.

Dear John

You are right. The max for takeoff is 260°C. I should have checked my input for this article against the dash one. Thanks for adding your comments.

TAT

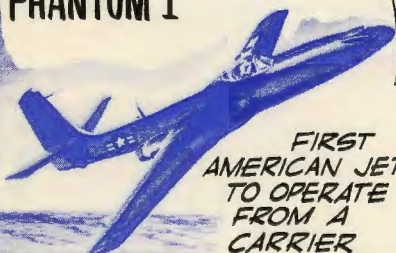
EVOLUTION

MCDONNELL

F-4C

PHANTOM II

PHANTOM I



FIRST
AMERICAN JET
TO OPERATE
FROM A
CARRIER

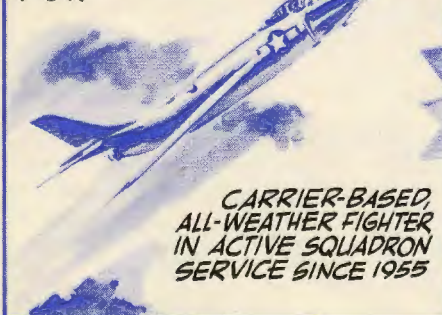
20 YEARS
BETWEEN
PHANTOMS!

F-2H "BANSHEE"

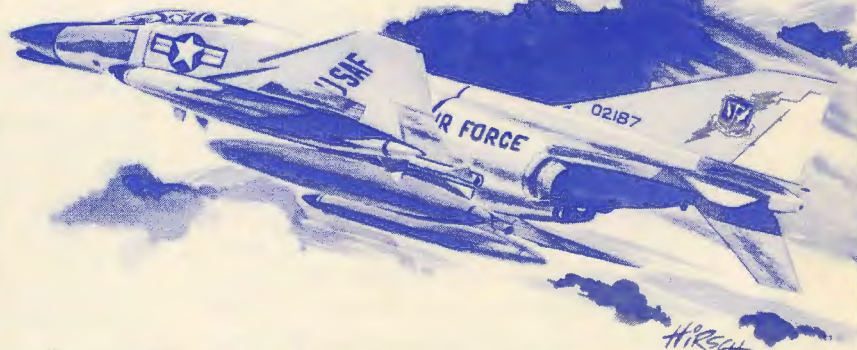


SAW MUCH SERVICE
IN KOREA!

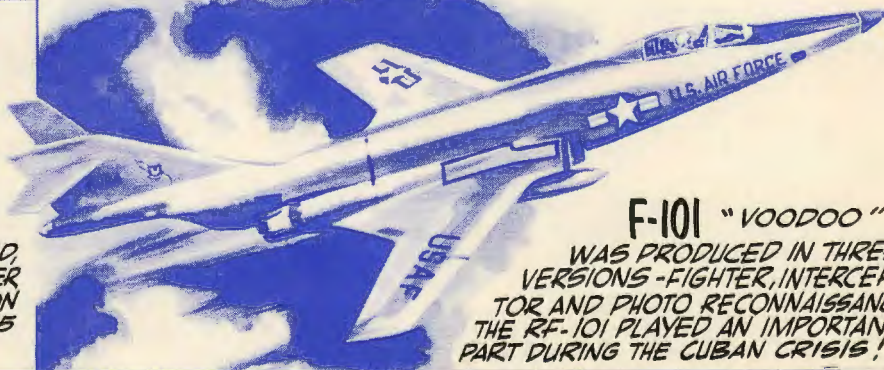
F-3H "DEMON"



CARRIER-BASED,
ALL-WEATHER FIGHTER
IN ACTIVE SQUADRON
SERVICE SINCE 1955



TACTICAL AIR COMMAND HAS SELECTED THIS
MACH 2 ALL-WEATHER FIGHTER ATTACK BOMBER
FOR ITS TACTICAL ROLES.
AND HAS ORDERED A MODIFIED VERSION -
THE RF-4C FOR RECONNAISSANCE WORK!



F-101 "VOODOO"
WAS PRODUCED IN THREE
VERSIONS - FIGHTER, INTERCEPTOR
AND PHOTO RECONNAISSANCE.
THE RF-101 PLAYED AN IMPORTANT
PART DURING THE CUBAN CRISIS!

WELL DONE

Pilot of Distinction



Captain John H. Chrietzberg of the 389th Tactical Fighter Squadron, 366th Tactical Fighter Wing, Holloman Air Force Base, New Mexico, has been se-

lected as the Tactical Air Command Pilot of Distinction.

While at 500 feet, on the final approach for landing, Captain Chrietzberg advanced the throttle of his F-84F. The engine immediately began chugging and lost power. Recalling an aircraft accident that occurred when identical problems were experienced in an F-84F, Captain Chrietzberg immediately took proper corrective action. He configured the aircraft for minimum drag by jettisoning the external fuel tanks and retracting speed brakes, and retarded the throttle to clear the engine. Because of these actions, Captain Chrietzberg was able to safely land his aircraft on the runway.

Captain Chrietzberg's prompt recognition and diagnosis of his problem, and his immediate selection of the proper course of action exemplify professional almanship and qualify him as TAC's Pilot of Distinction.

Aircrew Achievement



A CH-21 helicopter crew from the 4500 Air Base Wing, Langley Air Force Base, Virginia, has been selected for the TAC Aircrew Achievement Award for the period ending 30 September 1964.

While returning to Langley from Andrews Air Force Base on a night classified courier mission, the pilot assigned the flight mechanic to help monitor engine instruments so he and the copilot could devote more attention to forward flight visibility. The flight progressed normally until the flight mechanic noticed the mid-transmission oil pressure fluctuate, then drop to minimum pressure of 20 psi. The flight mechanic went to the rear of the aircraft to check the mid-

transmission area. Before he could return, the oil pressure dropped to zero and the mid-transmission oil temperature gage red lined. Realizing transmission failure was imminent, the crew began an immediate descent. The copilot scanned the area for a suitable landing spot while the flight mechanic resumed monitoring the engine instruments and continually advised the pilot of the deteriorating condition. Through the coordinated effort of each crew member, a successful night emergency landing was accomplished beside a roadway bordered by high tension power lines.

A diaphragm in the mid-transmission pressure warning switch had ruptured, allowing transmission oil to be pumped out the vent line and transmission failure would most probably have occurred within 60 seconds if the oil supply was depleted. Had the transmission frozen in flight, the aircraft could have been lost.

By maintaining an alert attitude, taking prompt action to select a suitable landing area despite darkness and limited visibility, and then skillfully accomplishing a safe landing, this crew demonstrated a coordinated effort that certainly merits a Well Done. Lieutenant Robert R. Dechum, pilot, Captain Richard T. Boehm, copilot, and AIC Peter D. Taylor, flight mechanic, displayed outstanding professional ability which qualifies them as TAC's Outstanding Aircrew.



CREW CHIEF OF THE MONTH

Staff Sergeant Frank H. Cox, Jr. of the 4512 Organizational Maintenance Squadron, Luke Air Force Base, Arizona, has been selected as the Tactical Air Command Crew Chief.

Sergeant Cox's performance as crew chief of an F-100F has been consistently excellent. In a recent two month period, his aircraft flew 65.6 hours while the unit average was 40.7 hours. The quality of maintenance on his aircraft has brought frequent favorable comments from the pilots who have flown it. A documented pilot comment is: "This aircraft is exceptionally clean and in perfect mechanical condition; Sergeant Cox is obviously working to keep it that way."

Assigned the additional duty of assistant flight chief, Sergeant Cox has demonstrated outstanding supervisory ability and is considered to be an outstanding noncommissioned officer in every respect.

Recognition

MAINTENANCE MAN OF THE MONTH



Master Sergeant Leon Wansley of the 464 Field Maintenance Squadron, Pope Air Force Base, North Carolina, has been selected as the Tactical Air Command Maintenance Man of the Month.

Sergeant Wansley was responsible for organizing a Jet Engine Shop to support four C-130E squadrons. Although operating with a minimum of equipment and with only semi-skilled personnel, he was able to support an accelerated flying schedule and maintain an effective training program which fully qualified the inexperienced engine mechanics assigned to his unit. Maintenance procedures and techniques developed by Sergeant Wansley greatly increased the unit's self-sufficiency and eliminated numerous potential NORS situations.

Sergeant Wansley's extensive knowledge of jet and turboprop engines and his vast depth of experience, coupled with consummate skill and ingenuity have been instrumental in enabling his unit to accomplish its mission. His outstanding performance qualifies Sergeant Wansley as Maintenance Man of the Month.

TAC TOPS

TAC all but took over the Air Force-wide military suggestion competition, with seven of the top ten award winners. MSGT John W. Williams of Luke AFB earned the first place \$1,500.00 award for suggesting a system to lubricate jet engine fuel pumps. TSGT Charles R. Park of Dyess AFB took second place and \$1,000.00 for his modification of the C-130 utility hydraulic system. MSGT Homer C. Herron Jr. of Luke received \$700.00 as third place winner for saving manhours with a suggestion for welding first stage nozzle assemblies on J-57 engines. Captain

Melvin J. Anderson of Myrtle Beach AFB received \$600.00 and fourth place for his suggested fix to strengthen the main gear bellcrank assembly of the F-100.

Major Robert E. Anderson, Eglin AFB, took fifth and \$500.00 for designing a flare dispenser. Airman First Class William H. Chapman, Nellis AFB, won sixth and \$400.00 for a more realistic GAM-83 missile delivery trainer. Tenth place and \$50.00 went to SSGT Earl W. Leeper of George AFB for a modification to the rocket launcher adapted on the F-105.

TAC TALLY

A COMPARISON OF TACTICAL AIR COMMAND ORGANIZATIONS

MAJOR ACDNT RATE		
TYPE	1964*	1963
ALL	10.7	10.3
F-4	7.8	0
F-105	28.5	23.5
F-104	11.2	33.2
F-101	26.4	13.9
F-100	17.9	12.8
F-86	0	0
F-84	25.1	22.9
B-66	0	0
B-26	83.2	8.6
T-39	0	0
T-33	0	1.6
T-29	0	0
KB-50	14.3	4.1
C-130	1.6	1.0
C-123	5.7	4.6
C-47	0	0
U-10	35.3	11.6
T-28	0	37.2

*1 SEP - 30 SEP 1964

ACCIDENT FREE			
MAJOR & MINOR			
JET			
ACTIVE	MONTHS		ANG
12TFW	16	20	121 TFW
366TFW	5	17	140 TFW
CONVENTIONAL			
ACTIVE			RESERVE
4500 ABW	39	94	434 TCW
464TCW	17	55	435TCW

APR TALLY		
UNIT	MAJOR	MINOR
131TFW	1	
127TRW	1	
122TFW	1	
4520CCTW	1	1
15TFW	1	
31TFW	1	
4TFW	1	
354TFW	1	

Aircraft accidents in September totaled eight major and one minor.

An F-105 pilot ejected after an explosion and dense smoke in the cockpit interrupted his landing pattern. The cause of the explosion has not yet been determined. Accessory drive shaft failure is the suspected cause of a flame-out in an F-100. This pilot also ejected OK.

An F-100 pilot fell into a habit-trap when he lowered the gear handle but didn't check to be sure the gear went down... it didn't. The attempted go-around after touchdown resulted in a sabre dance, crash and fire. The pilot walked away. Helping to cause this one were maintenance procedures that let the aircraft fly altho the gear warning horn was known to be inoperative.

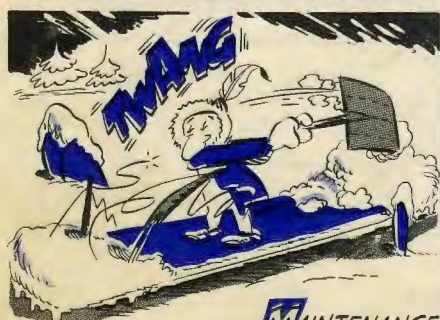
Landing posed a challenge to two F-84F pilots... one pulled the gear up too soon on a go-around and settled back into the runway. The other let his aircraft touch down 700 feet short of the runway, hard enough to break off the right and nose gears. A third F-84F pilot turned off a runway at high speed in order to keep from running onto a public highway. The nose gear failed. He had to land on a marginal runway because fuel mismanagement left him some distance from home.

Altho the investigation is not yet completed, it appears that adverse yaw during ACM cost TAC another F-100... the pilot ejected OK. Both pilots ejected successfully from an F-4C as it spun in weather, reason unknown at this writing.

An F-105 received minor damage to the horizontal slab when a wingman brushed it with his wing tip during a weather letdown.



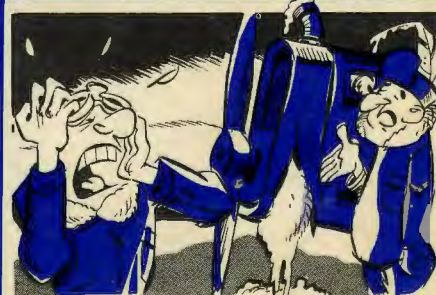
WINTER IS NOW HERE --- AND WE WILL SOON BE BESIEGED BY THE USUAL COLD WEATHER HEADACHES! TO DATE NO ONE HAS BEEN ABLE TO MAKE AVIATION COMPLETELY COMPATIBLE WITH WINTER HAZARDS. LET'S FACE IT - SNOW AND ICE ARE HERE TO STAY!!



MAINTENANCE PEOPLE SHOULD HAVE DEICING EQUIPMENT READY FOR USE. SNOW, ICE AND FROST ON WINGS AND TAILS DESTROYS LIFT AND INCREASES STALLING SPEEDS.



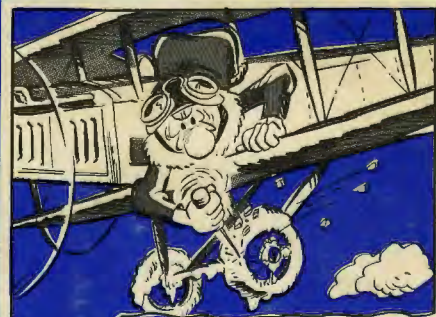
DON'T RUSH THROUGH YOUR WORK BECAUSE OF THE COLD. REMEMBER, THIS IS A CRITICAL TIME WHEN GOOD MAINTENANCE IS IMPORTANT!!



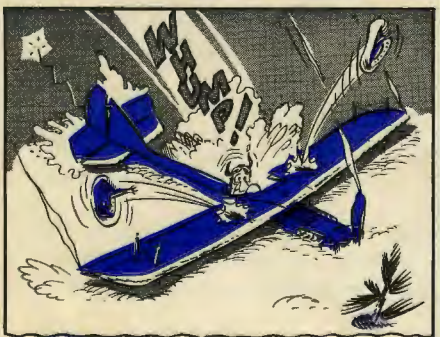
BE PARTICULARLY ALERT FOR LEAKS, --- AND MAKE CERTAIN SHOCK STRUTS, ACTUATING CYLINDERS, FUEL DRAIN COCKS, PITOT TUBES AND FUEL VENTS ARE FREE OF ICE, SNOW, FROST AND DIRT!!



WEAR ADEQUATE CLOTHING AND CARRY SUNGLASSES. TAXI SLOWER-MUCH SLOWER, WITH FLAPS UP. ANTICIPATE NOSE GEAR STEERING PROBLEMS.



OPERATIONALLY CHECK ALL DEICING AND ANTICLING EQUIPMENT. RECYCLE THE GEAR AFTER GETTING AIRBORNE FROM SLUSHY RUNWAYS.



REMEMBER, DEPTH PERCEPTION IS DIFFICULT WHEN THE GROUND IS COVERED WITH SNOW. SO UTILIZE ALL APPROACH AIDS, SUCH AS GCA, ILS AND VGS1!

