

MARCH 1964

TAC ATTACK

TAC Attack March 1964 Spray Pattern Tester



SPRAY PATTERN TESTER

TAC ATTACK



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COVER PHOTO

Phantom II with a new face... Photo reconnaissance version of the F-4.

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AIR

Leadership

AND RESPONSIBILITY

This command continues to experience the loss of valuable combat resources . . . including irreplaceable human lives . . . because some of our aircraft commanders ignore their responsibilities when acting as air leaders. The leader of an element, flight or a large formation is entrusted with judgments and decisions directly affecting the safety and efficiency of all crews and aircraft being led. Too frequently our air leaders fail to appreciate their responsibilities in this regard. Let me give you two examples. I am sure you can think of many others.

Recently a flight leader ignored prescribed weather minimums and led his flight into an overcast during practice LADD maneuvers. He made it . . . a less experienced member of his flight did not, crashing in the recovery attempt. Not long ago another flight leader was confronted with a thunderstorm moving onto the base of intended landing. The flight had more than enough fuel to go to its alternate; however, this leader elected to "beat it in." An inexperienced member of his flight did not make it, and crashed off the edge of the runway in a very heavy rain.

It is absolutely essential that each and every one of you recognize and accept the responsibilities of leadership when given the opportunity to lead. You should be proud that you have been selected to lead, and lead not only by example but with unceasing concern for the safety of all who follow you.

If each of you will understand and accept the obligations of air leadership, and carry them out in a mature and responsible manner, you will have made a major contribution to the safety of your fellow crew members and to the combat potential of the Tactical Air Command. Such a goal is worthy of your utmost attention and effort.



W. C. Sweeney, Jr.
W. C. SWEENEY, JR.
General, USAF
Commander

AFTER FIGHTING our way west against headwinds that ranged between 100 and 180 knots, we had a little less than four hours to go before crew rest would catch up with us. No sweat, with the wind on our tail we should be able to hack it home in one spec-

tacular haul.

The first two legs had given us pretty good readings on the bird's fuel consumption. It was a little on the hungry side and we allowed for this when we knocked out the flight plan.

Yes sir, we should arrive over

high station with 1500 pounds . . . provided we cruised at flight level 370 and the wind held. Weather home was not likely to induce any bar stories . . . about 4000 overcast with 5 miles and expected to hold.

We asked for a radar vectored climb on course and congratulated each other on our fine good fortune when the clearance came thru with one promised. It didn't take long to shatter that balloon. The radar vectors took us on a small cross-country to the north, west and south.

Being a suspicious type, I plotted it out and found that it followed one of the SIDs in the little pamphlet I'd picked up from the local base ops. Oh well, we'd arrive with 1300 pounds instead of 1500. This would put us close to the local policy on fuel minimums, but with luck the bird might not prove quite as hungry at the lower power settings we planned to

Half an hour later, the radar center advised that he was going to reroute us "slightly" because we had filed a direct leg over a center controlled restricted area.

Sure enough, there it was right



on the map, big as life and good for a few more pounds of fuel. The red in the cockpit was from my since I'd drawn up the route while the other troop filled in the 175.

Back on course, I waited out the next check point with poised pencil. Yeah, wouldn't you know it we were down 350 pounds on our fuel schedule. Then the friendly man in the center came thru with a vector to take us around another restricted area.

"Uh . . . my chart doesn't show anything in this area."

"Oh, it's not on the chart, sir. SAC has an exercise going on and they have all altitudes tied up between FL 290 and FL 450."

"How far north will you have to take us?"

"Only about 80 miles, 490."

"Uh, well, keep it to a minimum, center, we have a rather tight fuel schedule."

Brother. This would knock off er 100 to 150 pounds . . . the bird wasn't doing any better at matching the dash one figures at the lower power settings than it did at the high, so we could expect to arrive home with around 1150 or so. Oh well, maybe we could con ATC out of an enroute descent to the GCA handoff point. This would put us on initial with around 1000 pounds and right on the local minimum.

I am truly a dreamer.

A hundred miles from the approach fix the controller cleared us to descend and transferred us to another sector. I reduced power to idle and started down while the other troop tuned in the new freq and gave the center a call. No response.

"Hey, what frequency were we on before we changed?"

"Beats me. Didn't you copy it?"

"I forgot to. Hey! You're only cleared to 25!"

I used the excess speed to gain back the lost altitude, quit trying to locate a center frequency off the chart, then added enough power to hold normal holding airspeed.

Shortly, center responded on one of the frequencies my hard working friend had managed to dig up and promptly transferred us to their low altitude sector.

We made radio contact as the omni began to get nervous and were promptly cleared to 16,000... to hold southwest. We crossed the station at 22,000 with power at idle and speed brakes extended. I cranked into a 45 degree bank (in the soup yet) to compensate for a little extra airspeed and sneaked a peak at the fuel gage. 1050 pounds.

We'd have enough if we could start down quick. The center gave us the numbers for approach control and we wasted no time giving them a call. They cleared us for an immediate approach. I had gambled they would, so our holding pattern was little more than a 360.

Going down the slide the fuel gage suddenly dropped from 1000 pounds to around 600. No fooling. I was watching it when it dropped. By the time we reached low station the low level light was making it hard to concentrate on anything else. I held off the gear until ready to intercept final, just in case the fuel gage was telling more lies, and kept the approach on the high side—much to the consternation of the GCA controller.

No, we didn't flameout on the taxi way. We shut down with about 400 pounds left, which is enough to do quite a lot if you have to . . . but why press so close? Any number of things could have happened between high station and touchdown to change a simple fuel sweat into a full fledged emergency, and next

time I find my safety factor being whittled away bit by bit, I'll land short rather than box myself into a corner where all decisions become critical.

By the way, this frequency changing bit, even at altitude, still leaves much to be desired, especially when three of 'em are compressed into a short period of time. The procedure would have been particularly dangerous for a wingman in an F-100D or other single cockpit type.

Unless you have a better memory than I do, you almost have to copy each new frequency so you'll know what one to use should you misread one. This gets tense in halfway decent weather and is downright hairy at night or when on the clocks.

Along this same line, I've had some centers try to give me low or medium altitude fixes during radar climbouts or radar vectored descents. This usually results in a mad scramble for the proper chart—since I'm one of those poor proud fools who try to please. Actually I should refuse the clearance and request a high altitude fix—unless I was foolish enough to file in the intermediate or low altitude structure. I've also had them give me low frequency fixes when I had no bird dog. These I refused. The point is, by accepting a clearance that causes considerable inconvenience, we leave the controller uneducated and he'll continue this practice until someone gets hurt.

The controllers have a confusing, ulcer making job at best and we should make every effort to convenience them provided their requests are within reason. But . . . when their requests cause an unsafe condition, we should speak up.



FOR MANY YEARS this tiger considered crew rest to be one of those things that applied to more normal mortals; the ones who just barely sneak through the 5BX, can't hold their booze... you know, the OTHER guys.

After reading some dissertations on the subject in safety magazines (which always seemed more intent on finding out what causes pilot fatigue) I'd mentally snort and hunt for something more interesting, preferably with a center fold out. Leave us face it, you don't have to go thru college to know that four max range hauls at 35M in the cramped cockpit of a T-bird will knock the edge off your mischievous nature or that an equal number of dive bombing missions will leave even the hardy types a mite weary.

Not long ago I saw a short item on the subject that made more sense than anything else I've read to date. It was from a British study made at Cambridge using a Spitfire simulator. It told what fatigue does and boiled it down to this:

A tired pilot's motor response timing suffers, he becomes more willing to accept lower standards of accuracy and performance, relies more on instinct than on instrument readings and fails to check instruments and control switches.

If that doesn't sum it up, I'm immune. I remember one time I almost stalled a T-bird out while climbing out of Nellis. It was my fourth flight for the trip...

at two in the morning, and for some odd reason I was beat.

When the bird shuddered I had to force myself to go on the clocks and quit trying to rely on outside references. With no moon and few lights except those in Vegas some miles to the rear, I had entered a nose high climbing turn. For years I've tried to forget that incident. It is easier to accept now that I know that it was a normal reaction to fatigue.

Thinking back, I've made several flights where I had trouble keeping airspeed correct or found myself letting the bird drift 'way off course while I tried to keep my form 21a up to date. I've also flown with troops who let the aircraft stray as much as 45 degrees off course and then were content to merely right the wings when they noticed the condition. In each case it was during a flight at night after a hard day's work or flight.

You can't always avoid one of those flights that thumbs its nose at all crew rest rules... but if you realize what fatigue does to your ability, you stand a better chance of staying out of trouble.

When you fly one of these back-breakers, concentrate on the more important details of your job. Don't squander effort on trivia or unnecessary activities. If you have trained to the point where you have overlearned your job and your emergency procedures, your fatigue reduced performance should be sufficient to carry you thru.

I know one troop who started to read back a clearance one black night only to find that he could only recall half of it, even tho he had copied it c

He told ground control to cancel, then taxied back and shutdown for the night.

o my way of thinking he used the most difficult flow, but at the same time, the most intelligent approach to this problem that will ever be available. Try it sometime yourself. If you are carrying passengers they may be unhappy...maintenance may grumble because you didn't get the airplane back...the old man may wonder what is keeping you...BUT not one of them can criticize your decision. On the other hand, press-on and blow a tire or have some other problem that induces an accident and check what everyone has to say about your judgment.

ONE OF THE LOCAL troops was carrying a load of passengers in a flying banana on a routine haul when he heard strange noises coming from the forward transmission. He was over a cleared area so he alerted his passengers and made an auto-rotation descent. During the descent the forward transmission on his CH-21 grumbled louder and louder as its oil pressure headed toward zero.

Fortunately the pilot won and made a successful landing just as the needle pegged, the transmission low level light came on and the transmission froze! Whow!

Had he been less alert, this little race would have d somewhat worse than my first and last flight on the hen house using an umbrella. In fact, it could have ended in a major tragedy.

A tip of TAT's old hard hat to Captain Page G. Brake of Langley's 4500ABW. You turned in a real professional performance, Page.

THIS TIGER has had better Februarys. Instead of capturing the ground hog, I caught a cold, sneezed and scared the critter so bad he may never venture forth again. You can blame flu shots for this sloppy March weather. Which reminds me, a friend of mine in ATC was telling about kidding on the square...you know, making a barbed remark in a joking manner, yet intending for the remark to get through. He said if you stand around a weather station more than ten minutes you're sure to hear some pilot indulging in this practice.

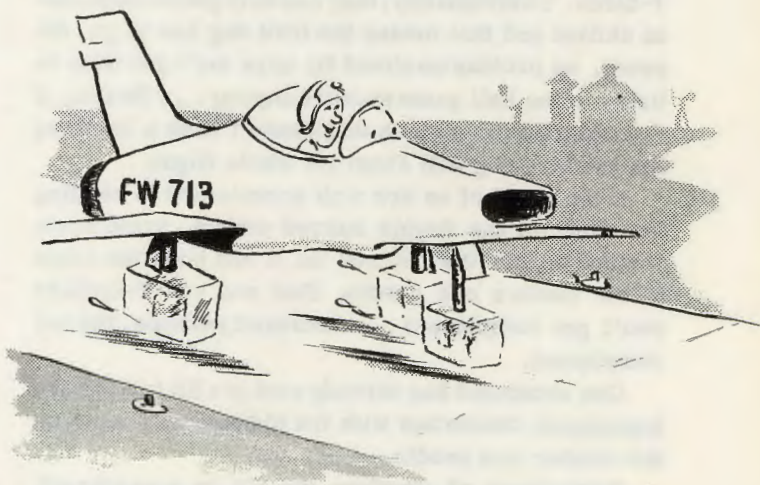
The old "look out the window" quip is a favorite ... but he hastened to add that us pilots are even more guilty of not looking out the canopy and passing on reports. He cited an example where six birds were due to arrive at an airbase which was forecast e 5,000 scattered, 10,000 broken with 15 plus.

The forecast fell apart and weather dropped to 2,500 feet, then 1,300 feet and finally to near zero...all within eight minutes. The first three heros landed when it was around 1,300 feet and obviously getting much worse...yet not one said a word to approach control even tho they knew other troops were following them. With buddies like that, who needs an enemy?

While talking about weather...have you ever listened to an old head call in for his destination weather when it's a mite on the tight side? Did you notice that he made it a point to get the forecast weather along with the latest poop? If the guy was a real shrewd type he probably asked for the remarks at the end of the sequence - provided the forecaster wasn't shrewd enough to give 'em voluntarily.

The old heads have found that weathermen have more trouble giving accurate sequences when the weather is sour...the very time a pilot needs accurate sequences. The old boys get forecasts and pay attention to the remarks section to get a broader picture of what's happening or might happen...that way they don't get surprised quite as often.

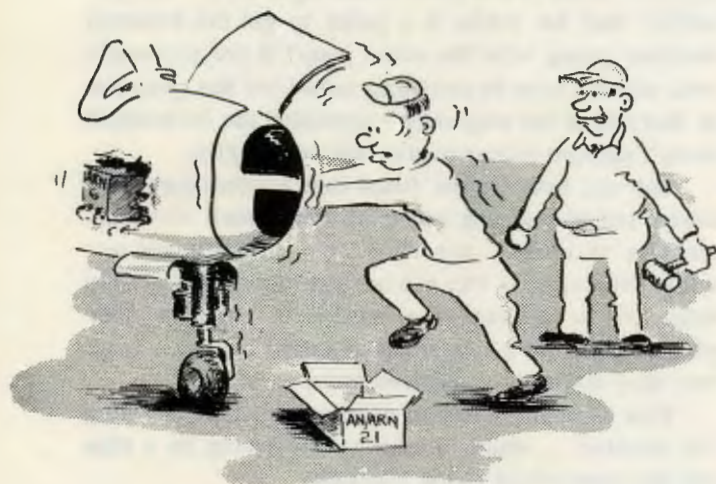
This is another way of saying don't take anything for granted...which is the key to living to a ripe old age even while flying aircraft.



ALMOST EVERY WINTER someone warns to be sure and recycle the rollers after leaping off a slush covered runway in order to keep the critters from freezing up. Altho this tiger has departed from a few such runways, I've always been too busy getting squared away on climbout to remember to take this precaution.

Asking around the safety office brought forth

similar confessions. However, I did read an FAA operations note which told of a pilot who did as bid. Further, after leveling at his cruise altitude, he again lowered the gear to make certain all slush was blown off. On touchdown, all main tires blew . . . instead of clearing off the water he froze up the wheels! If any of you troops have had experience along these lines, drop me a line to either confirm or condemn this procedure.



AT LONG LAST, the machinery is geared and they're starting to install TACAN in TAC's trusty T-birds. Unfortunately, they can only get so much into an oblivet and that means the bird dog has to go. No sweat, us professionalized fly boys ain't got time to listen to the ball game no more anyway . . . fact is, if I'm clearing to a place that doesn't have a low freq fix, the bird dog will sleep the whole flight.

Since most of us are well accustomed to reading the omni on the double barred needle, some brain decided to put the TACAN on it and hook the Omni to the number one needle. This way you T-birders won't get complacent . . . confused perhaps, but not complacent.

One command has already sent in a UR to keep the installation consistent with the old and put TACAN on the number one needle.

Regardless of whether the UR is approved, T-birders will do well to check this equipment before they get off course following the wrong needle.

A DOLLAR NINETEEN IP slowed his big fan van to 130 knots at 5500 feet to demonstrate full dirty stall characteristics. When he put the gear down, it extended violently. The IP sent the AM back to take a look. That young man reported both main gear in the

proper down and locked position, with no apparent damage.

Altho only the left main and nose gear down-lights were on, the IP decided not to cycle the gear. Instead, he entered traffic and declared an emergency. On base leg the right main gear light came on, for three in the green. Good. The IP put the old girl down smoothly and used light braking and most of the runway to get stopped as gently as possible. After the AM put the pins in, the IP taxied clear of the active and shut down.

Troops, you have just read about an old pro handling an unusual situation. There is no guidance in the C-119 handbook on what to do about a hard gear extension, but if they ever do put anything in the handbook she'll go pretty much this way.

Why? Well, as the crew described what had happened to a gathering crowd of staff types, one onlooker remembered these symptoms from another mishap. He got everyone to stand clear while maintenance took a real close look at the gear superstructure. Sure enough, all four drag-links were broken.

An attempt to recycle the gear or less tender treatment on landing would have induced a major accident. So it pays to be a pro.

Two improvements can be added to this crew's procedures . . . put the nose gear pins in before landing and make certain the drag links and structure are unhurt before taxiing clear of the runway . . . if anything is broken, then install chocks fore and aft of the nose gear and let maintenance take over.

"AT 120 KNOTS, I could feel my T-33 lift off . . . at this time the rpm dropped rapidly below 50 per cent and I heard a rumbling from the engine section. I brought the throttle to idle, called the tower and requested the barrier."

"I applied positive braking but the aircraft skidded making it difficult to maintain directional control. In fact I was so busy trying to stay on the runway I had to give up my attempts to open the canopy. When I hit the overrun one or both tires failed.

"The bird hit the barrier just below 100 knots, but the barrier snapped (three feet of excess slack caused the arresting cable to miss the gear) and let the aircraft thru in a veer to the right. The right gear hit the chain and folded. There was no smoke or fire and the engine was still running."

The front cockpit tachometer was loose on the instrument panel and the cannon plug had disconnected. The engine was operating normally.

A young lieutenant fresh out of flying school

Nope, a command pilot with plenty of time and service. It is anyone's guess why he reacted so hastily to a single instrument reading. But it is obvious that he was cocked and primed for an engine failure. Rather reminds me of a young flight leader some years back who carefully briefed his flight on the emergency procedure for the day — TAKEOFF ABORT — then died a few minutes later when he attempted one because of an "engine failure."

During the abort the throttle got shoved forward and the failed engine managed to develop enough thrust to get the bird airborne after a short trip thru the boondocks. Unfortunately the bird failed to clear a wide ditch. The investigators were quite positive that the takeoff would have been uneventful if the flight leader had resisted that sudden quick doubt and relied more on instrument readings than on senses sharpened by adrenaline to the point where they exaggerated normal vibrations and noises into a catastrophic "failure."

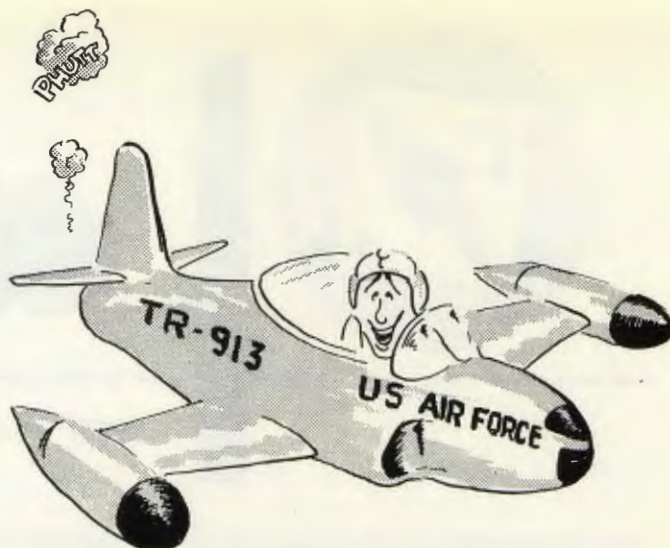
EVERY MONTH Norfolk's DF - Radar net sends us their SAR summary. As soon as it hits my desk I dump whatever I'm doing and take time out to read it. It is always well written, good for a couple of sly chuckles, and sometimes points a finger at some of erring aviators.

A typical comment following a search for a ship supposedly bound for Norfolk but which eventually turned up in New Orleans... "Aircraft aren't unique. Ships have difficulties with float plans too."

One month a TAC aero club pilot made the summary when he reported that he was out of gas and lost between two lakes. A radio station heard the call but was not equipped to get a DF bearing. The center launched a search plane toward the vicinity of the station and notified state police. The state police called back about 15 minutes later to report that the aircraft had landed on a highway, undamaged, and that the pilot was hunting a gas station.

The SAR summary commented that two search patterns would have been needed had the search continued. One centering around the station, the other around a couple of lakes that fitted the description given by the pilot. "But," they added, "what would searchers look for? They didn't know the aircraft type, color or full identification."

"Overly bashful pilots," the summary advised, "not only succeed in embarrassing themselves but endanger people on the ground and cause forces to engage in guessing games... not the best way to run a nut factory."



How about simulating a flameout with this practice steer!

The man do have a point... at the very least, that aero club type should learn to call for a "practice steer" while he has enough petrol left to get unraveled!

AT THIS WRITING, most of the troops in the office have managed to rationalize the smoking survey findings and are back on the little lethal cylinders or, cough, cough, are fogging up the area with cigars or pipes. This tiger tried and discarded the habit all in one afternoon some 23 years ago, hence, can qualify as a disinterested observer. I report the most common reason - excuse, if you like - for getting off the wagon and back into the smokehouse is that the weed keeps weight down.

As one troop put it, "I'd rather take a chance on lung cancer than risk a heart attack from getting too fat." For some reason he didn't respond to my suggestion to substitute push-ups for the habit. But it is an idea... when you get an urge to smoke, just do twenty quick push-ups. For a while you'll huff and puff just like you did when smoking. The exercise will take care of the tendency to gain weight and you will get all the side benefits of not smoking plus the benefits of the 5BX program. Personally I think it's a fine idea, worth copy writing.

The one troop in the office who did manage to break the habit has been giving such glowing accounts of how much better he feels, how much better he can smell and taste, etc., that I'm almost tempted to take up the habit just so I can quit and observe these benefits plus the 5BX bit. Then I think of the expense, the inconvenience and the hazards and decide to leave well enough alone.

—TAT—



SEG NEWS

4450th Standardization Evaluation Gp.

Know your Stdn Evaluators



**MAJOR LOUIS M. HARRIS
CHIEF, JET STANDARDIZATION BRANCH**

Major Louis M. Harris is a native of Jackson, Miss. He entered service in June 1946 and served in an enlisted status until entering into Aviation Cadets in 1948. Upon graduation, Major

Harris was assigned as a basic flying instructor at Randolph AFB. He instructed in the T-6, T-28, and T-33 for the next four years. In January 1954, Major Harris reported to the 91st Ftr Sq of the 81st Ftr Wg at Bentwaters, England, where he flew the F-86 and F-84. Upon returning to the ZI in January 1957, he was assigned as Operations Officer of the 613 TFS at England AFB. The 401 TFW at England was "home" until August of 1960 when Major Harris departed for Command and Staff College at Maxwell. After completing CSC in June 1961, he was assigned as an F-100 evaluator in the 4452 SES at 12th AF. This unit and its personnel were transferred to the 4450 SEG in August 1962 and Major Harris was assigned as Chief of the Fighter Evaluation Branch in the Jet Division. Major Harris has served as Chief of the Jet Standardization Branch since its activation in November 1963.

MASTER QUESTIONS FILES

The forward to all SEG master question files states that units are encouraged to submit questions for inclusion in the MQF.

On 7 January 1964, a C-124 went down in the Pacific Ocean, while on a flight from Wake Island to Hickam AFB, Hawaii. Apparently off-course and lost, the airplane squawked HF emergency keyer continuously for six hours before its fuel was exhausted. Recently, a TAC many-motored unit submitted a number of new MQF questions. Here are two of them:

* On all overwater flights, the Co-pilot will cross-check the standby (B-16) and the N-1 compass system every half hour.

* With the HF emergency keyer in continuous

operation, it is not possible to receive HF transmission from rescue aircraft or HF ground stations.

No one can be sure exactly what happened on the C-124, but it is very possible that the C-124 crew would have avoided their fatal trip into the drink had they known the answer or heeded the warning implied by either of these questions.

The master question file can be an excellent device if for no other reason than to emphasize and re-emphasize important points about any one system. To do so, the files must be kept current, new questions must periodically replace outdated questions and questions must be continually added to the file.

Submit your suggestions for new questions to your SEF now. Let MQF for your unit stand for "Many Questions Frequently."

SEFE NOTE

Someone from the 516TCW came up with a suggestion that our S/E worksheets be covered with some sheets of acetate so item grades can be entered in grease pencil, erased, then used again. Good idea! Another method is to use official AF checklist binders which have transparent pages. Let's give it a try—it may save a bunch of moola.

A SMATTER OF MATTER ON STDN/EVAL CHECKS IN RANDOM PENTAMETER

The following interesting bit of verse was submitted by Capt Frank Goggin, 4th TFW.

If you're current in one bird
in a nutshell here is the word.
The following things you must do,
To spend each year up in the blue.

An instrument check out of the way,
Or we can't say, "Happy Birthday."
A Stdn/Man will have to fly with you,
Within the Ninety Days before it's due.

You have to write the things you know,
After a school of two days or so.
There is extra time for the academic phase,
Before your birthday, One Hundred Twenty Days.

And during the period of all this fun,
A proficiency written must be done.
One more thing before you get older,
We'll talk about the print that is "BOLDER."

The questions are all in a certain style,
See us for a Master Question File.
Because we like you, there is much more.
So, six months later, walk in our door.

You're probably saying, "What the heck!"
But now it's time for a proficiency check.
Written, Oral, and Flight Evaluation,
With the same limits on the time situation.

Two books cover what we've missed,
Put these best sellers on your list.
For flying needs Sixty Dash One will do,
For Stdn/Eval, see Sixty Dash Two.

If you can't find the answers and want to know,
Please give us a call at 1-5-0.

TAC ATTACK

SOUR GRAPES

Many years ago the local populace of a village in Spain planned a very special centennial-type festival. To insure an adequate supply of spirit and have everyone contribute to the affair, the local wheels decided that each family should donate a bottle of their best wine, which would be poured into a tremendous cask placed in the center of the village square.

Pedro, being an exceedingly sly-type, reasoned that he would save a bottle by substituting water for wine. He reasoned that his one bottle would never dilute the final product enough to be noticed, due to the large number of contributors. The day of the festival arrived and after the speeches, the merry-making was to start with the tapping of the cask. Much to the eternal embarrassment of everyone, the cask contained pure water . . . and the party was a flat flop.

This story illustrates what we have frequently encountered on our visits to active duty, AF Reserve and Air National Guard units. The SEF will have no AF Form 847s on file, and have not submitted any. Almost in the same breath someone will ask why we haven't corrected that error in the dash one, why we haven't clarified paragraph so-and-so in such-and-such manual, why we haven't covered procedures on a certain delivery, etc. When we ask why they haven't submitted an 847 the answer invariably is something like this, "I figured somebody would have done something about it by this time." Don't be a Pedro and allow the stdn/eval program to become watered-down by depending upon somebody else. By submitting AF Form 847s, you not only contribute to the overall stdn/eval program, you benefit directly as a consumer and may avoid being party to a flat flop.

THE AIRCREW LOADMASTER

The loadmaster is an important part of all tactical assault airlift missions. He has to plan the load, compute the aircraft weight and balance, load, lash or supervise the loading, lashing and unloading of his big bird. He must also know how to operate material handling and auxiliary equipment. During tactical aerial delivery missions he must be both loadmaster and drop master, and make sure air delivered cargo is ejected safely.

Yes sir, regardless of what is being carried . . . trucks, rubber gasoline stowage tanks, horses, cows or crates of eggs, the loadmaster must know how to load it so it doesn't exceed CG limits or break loose. A goof-up can cause an accident, damage an aircraft

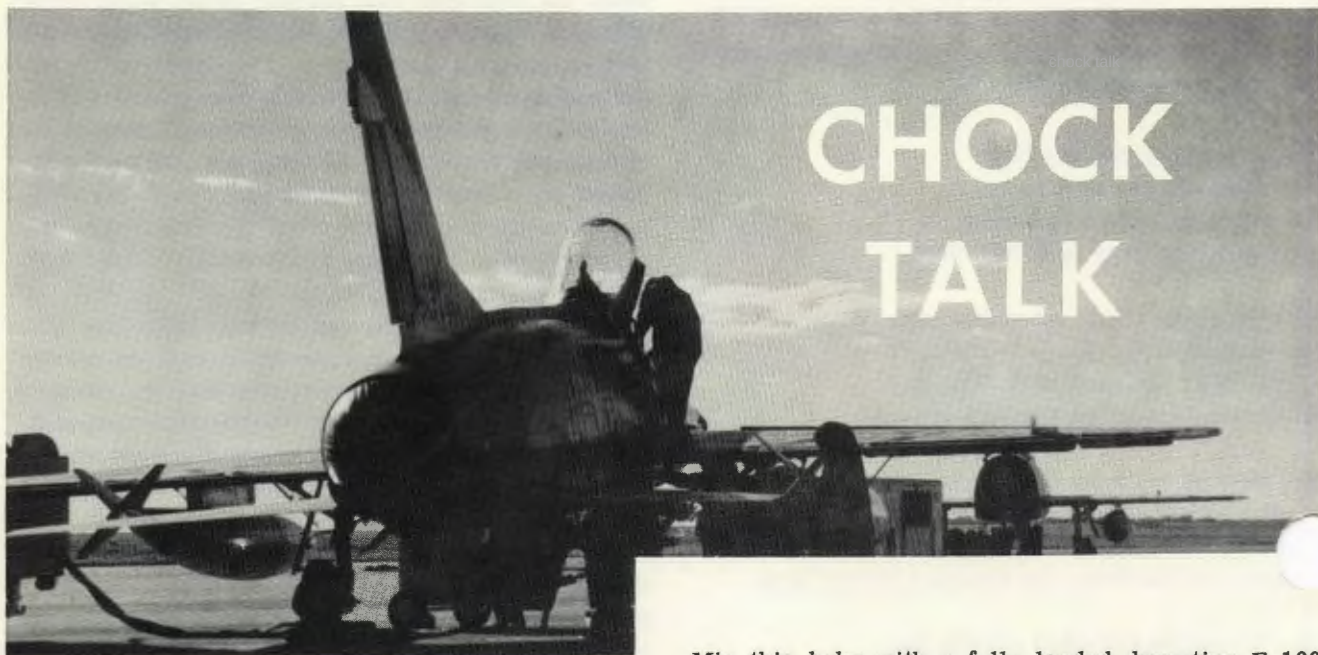
or waste a mission.

With the new extraction techniques and other developments, the loadmaster has become even more essential. In fact, today's airlift aircrew just isn't complete without a top-notch loadmaster.

Unfortunately, many Reserve units do not have adequate loadmaster stan/eval programs, or enough qualified loadmasters. As a result, they are unable

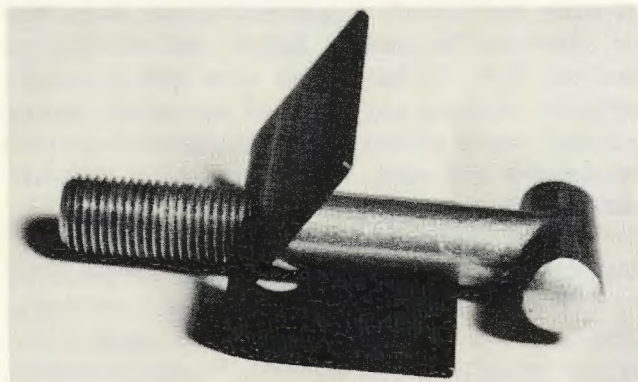
to completely accomplish their mission or get in their full aircrew training.

A loadmaster school is presently being developed at Pope AFB, North Carolina, to help resolve this critical problem. In addition, the Commander, SEG, has placed all SEG loadmasters on stand-by so they can assist units who need help.



LOST AND FOUND

This little bomb was found near where a transition pilot blew a tire on landing. Altho this bolt had nothing to do with the tire failure (the pilot inadvertently locked a brake), it does have the potential. We show it to remind all hands that FOD is a constant enemy.



Mix this baby with a fully loaded departing F-100 or F-105 and the pilot would be lucky to escape with his life.

HERCULEAN COPILOT

While going thru the before start check, a TAC C-130D copilot pulled back on the control column only to have it fall back in his lap. It had broken off!

The bird had operated off the Greenland Ice Cap for four years where many ski-takeoffs were made with both pilot and copilot holding full aft wheel. This may have induced the failure, or the control column may have been damaged by high wind flipping the elevator against the stop when the elevator boost package was removed for maintenance.

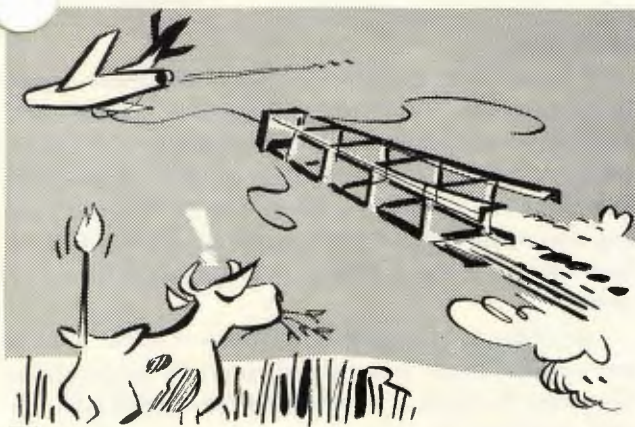
Regardless of the cause, the failure could have caused some anxious, if not fatal, moments in the cockpit had it occurred in flight. At present, all C-130D control columns are getting a closer than normal inspection.

TAC TIPS

tac tips

F-105 LOCKED BRAKES

After being up about an hour, an overseas F-105 pilot was startled by the gear horn and the gear warning light coming on. He recycled the gear but it still showed unsafe and the gear warning circuit breaker was popped. His wingman confirmed gear down and latched, so he brought the bird in. Both tires blew on touchdown. A materiel failure of the left gear forward inboard position switch caused the mix-up . . . and energized the anti-spin system, which put hydraulic pressure on the brake system. As we've cautioned before, anytime you encounter a similar condition pull the anti-spin circuit breaker and pump the brakes over half travel several times before attempting to land.



WOTS NEW

Because he had a little fuel to burn out before landing, a highly proficient F-84 pilot decided to fly around the local area at low level. The weather was reasonable, so he stooged around south and east of the field at 500 feet and suddenly—B L A P! An argument between the leading edge of the right wing and a tall antenna guy wire ended as a draw. Not much new in either the accident or the explanation, but it cost over 100 bucks to scare one 2nd Lt!

The only way to prevent this is to pull your head out of the cockpit and pay attention to where you are and what you're doing.

GOONEY GOODIE

A C-47 crew from another branch of the service heard a loud thud out in the left wing shortly after a night takeoff. Hydraulic pressure dropped to zero accompanied by fluid level. Home was quite close by, so they proceeded there wheels down, with an unsafe left gear.

They couldn't get a good visual check, so made a trial landing. The left wing dropped to confirm that the left gear wasn't locked and the pilot took it around and asked for a foamed runway. While waiting for the foam, the left engine oil pressure went to zero. The pilot wasted no time making an intentional power-on, wheels-up landing.

The left gear actuating system had broken at the hydraulic cylinder fitting, cutting the prop feathering oil line and causing a slow leak. The pilot handled this one right well . . . had he delayed landing after noting his oil pressure go to zero, he would have been in deep serious.

RUSSIAN ROULETTE

Passing 20,000 feet on the climb, an F-100 pilot found he had no cabin pressurization. Since the tankers were scheduled to be between 25 and 28,000, he selected 100 percent oxygen, to be on the safe side, and pressed on (AFR 60-16 gives 25,000 as max altitude). His oxygen blinker wasn't working, but this didn't seem to ring a bell and about an hour later the most amazing thing happened . . . he felt symptoms just like he had experienced during an hypoxia demonstration in the altitude chamber!! He let down, felt better, and landed without any problem, a few hours later he awoke with an ear ache. Come on fellas, let's get serious . . . this game is played for keeps.

THE POSITIVE SIDE

The January MATS Flyer had an interesting photo story showing where a C-130 got into trouble taxiing on an icy, snow-swept ramp. The C-130 crew had the inboard engines shut down and were using nose gear steering to control their big bird when the nose gear cocked and slid sideways. Differential thrust failed to keep the machine from skidding to the outside of the turn down a sloping ramp. Fortunately, the pilot regained control before going off the ramp and was soon able to proceed - cautiously - to his parking area.

Just six days before this incident a sharp safety officer had succeeded in getting the ramp floodlight towers moved back fifteen feet from the edge of the ramp. Had they been in their former location the aircraft would have smacked a tower with one wing.

LESS STATIC

The FAA has recommended that airline operators equip their jets with static dischargers. The dischargers, or wicks, will help drain off static electricity to improve radio reception and may offer some protection from lightning.

Incidentally, if the CAB finds conclusive evidence that a lightning strike caused the December 8th accident near Elkton, Maryland, it will be the first accident attributed to lightning in U. S. aviation history.

Aircraft are actually hit by lightning rather often. Propeller driven aircraft average one hit every 2500 hours while pure jets average a strike every 10,400 hours. Generally, damage is light to nonexistent since the strikes usually just pass thru on their way from cloud to cloud or cloud to ground.

Three fourths of the strikes occur to aircraft flying between five and 14 thousand feet, usually when the in-flight temperature is close to the freezing point.

FAA is developing a program designed to help pilots steer clear of areas where lightning is a problem . . . pilots can support this program by making reports on all of their turbulence and lightning encounters.

Engineering teams are reevaluating the problem of jet fuel tank vents to make sure vents are protected from lightning. They are also wondering if better bonding in and around tanks will keep electrical energy from building up high enough to create a spark. Finally, fuel studies may result in less explosive jet fuel or a practical way to inert the fuel air mixture in the tanks.

C-130 TRIM TROUBLE

Elevator trim ran away on a C-130 from another command as the aircraft cruised in level flight. pilot disengaged the autopilot. When this had no effect, he selected emergency trim and retrimmed. Later he placed the trim switch back to normal and the system functioned OK, except for intermittent failures during the remainder of the flight. A failed number two isolation relay point caused the problem.

Another C-130 had a runaway aileron trim which was readily controlled after airspeed was reduced. The crew was able to retrim to neutral. The aileron and elevator control switch had an internal short.



CLOSE FALL

A C-130 bumped into moderate turbulence as one flight crewman climbed to the flight deck. He lost his grip on the ladder and fell, striking the front crew entrance door latch handle. He moved the latch about two inches . . . had the door opened he would have found himself on his first and last sky dive and would have caused extensive damage to himself and the aircraft.

At present, an engineering study is in the mill to see if the latch can be made so it can't be inadvertently opened in flight . . . meanwhile the hazard still exists, so watch it.

BUM BUNGEE

When an overseas F-100 pilot tried to recover from a rocket pass, the bird refused to respond. He added more back pressure and the aircraft suddenly pitched up. Control movements gave delayed responses which were rather abrupt. The pilot disengaged the yaw damper. When this didn't help, he aborted the mission. The artificial feel bungee was binding and caused the trouble.

PRESSING

Flying chase during a GCA final, an overseas F-105 pilot observed a stab aug warning light. A quick check didn't reveal anything abnormal, so he re-set the stab aug. It promptly disengaged again. The pilot took a wave-off and made another unsuccessful attempt to engage the stab aug before terminating the flight.

Another F-105 pilot was flying straight and level at 1500 feet, 360 knots when the bird yawed hard left. He pressed the stab aug quick disconnect and the machine straightened. He re-engaged stab aug and the aircraft again yawed hard left until stab aug was disengaged. He repeated this cycle three times before leaving well enough alone.

Low altitude is no altitude to trouble-shoot stab aug malfunctions. The F-105 has been known to react quite violently to many stab aug malfunctions, shedding tanks and assorted stores . . . so actually, no experimenting is the wisest course.

Along this line, some pilots insist on continually resetting popped circuit breakers. If a circuit breaker opens, reset it. If it opens again, the circuit is defective, or the component protected by the circuit is defective and you should leave it be unless the particular item is absolutely essential to flight and is worth risking an electrical fire.



LIGHT LID

An F-105 sport noticed the canopy seem to move up a bit during takeoff. Sure 'nuff he could see daylight between the canopy and the seal. The canopy unlock light was out, but the lock handle was unlocked! He landed without further incident—with the canopy still attached. The bulb in the canopy caution light was burned out. He had forgotten to lock the canopy prior to takeoff.

THE WORD

Taxiing out, an airline pilot noticed that the left outboard main tire of another taxiing airliner was low. He called the other pilot who acknowledged the information but continued to taxi out. The first pilot repeated the information, as did the tower. Both times this guy acknowledged, but continued on out, lined up and tried to get into the blue. Both left tires failed a few hundred feet down the active and the bird swerved off the runway and wiped out its left gear. This one is rather hard to explain . . . except perhaps a word to the "wise" isn't always sufficient.

—FSF Bulletin

IFR PASSENGER STOPS

Pilots filing enroute stops on their IFR flights have undoubtedly run into some confusion when they hand their 175 to the Ops Clerk. The procedure for filling in the 175 seems to vary from base to base, and even from clerk to clerk.

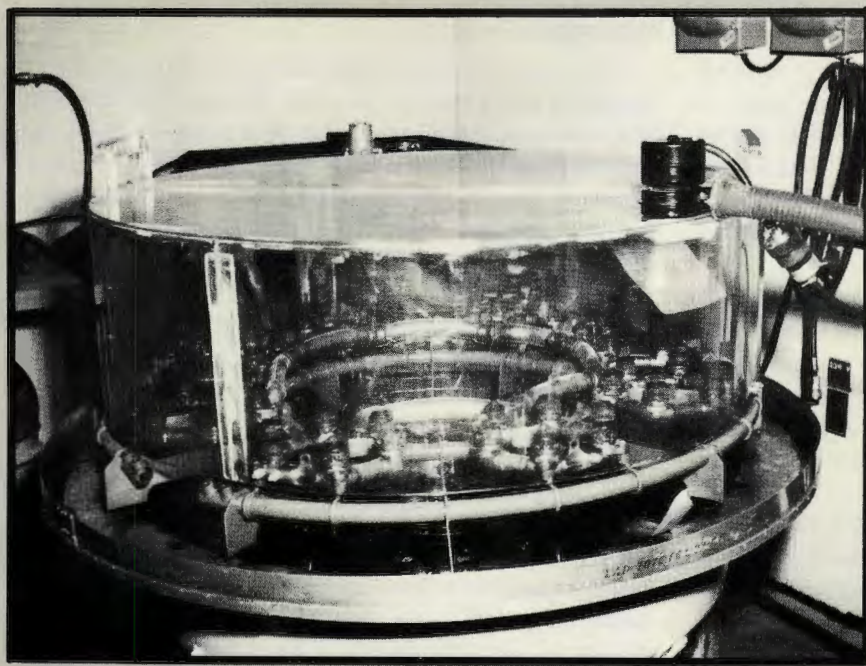
To help this straightened out, your ATTACK Staff checked the rules. To begin with, put all enroute stops in section C of the "To" column along with the route to be flown. Last entry will be your destination airfield. Put the estimated time enroute for each leg following the stop. The first estimate should be to the limit fix serving the airfield while the estimated time enroute for each succeeding leg should be calculated from takeoff to landing—including enroute delays. You do not enter an estimate for the total time enroute.

Remember, only the routing for the first leg is passed to ATC and you will have to file the next leg with a flight service station after you are airborne. If you don't, you'll have to close out your original 175 and refile.

The alternate airport in section C is for the first stop only. If alternates are required for succeeding stops, give 'em in the routing section.

At each stop you must tell the local control agency that you are on an enroute stop and will be getting an IFR clearance filed enroute. Ground time will not exceed one hour, not including clearance delays . . . you can't change the crew or the pilot in command . . . and you should leave a corrected passenger manifest at any stop where a change occurs.

Incidentally, you must get a weather briefing for the complete route when you start and you are also supposed to get another briefing for each leg just before you file from the air.



Plastic cover in place. Suction fan and hose are on right side of cover.

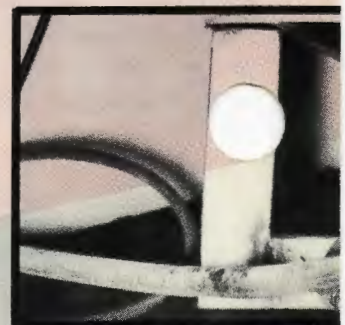


Top view of tester with J-75 is PWA 10068-D. For J-57s, manifold r

SPRAY PATTERN

Tester

BY CAPTAIN MYRON D. LOCKE
4520CCTW, Nellis AFB, Nev.



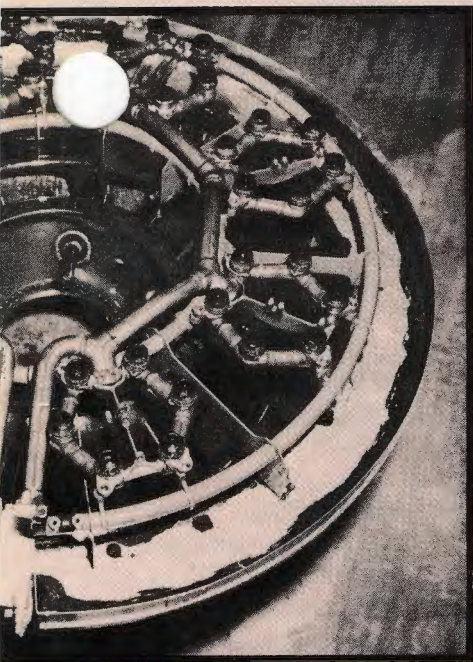
Underside of tester showing

ATENTION ALL Propulsion Shops - Jet type that is.

How would you like to duck some of the many inconveniences and high manhour consumption connected with pressure checking J-57 and J-75 fuel manifolds? You would? Well, Mr. Niles Johnson and Mr. Ralph Tingley, two wide awake civilian employees at Nellis Air Force Base, Nevada, have devised a rig which should be of interest to you. We'll assume that like most J-57 and J-75 users,

you are still pressure testing manifolds after they are installed on the engine. We won't go into the details of this hazardous and impractical method because we are sure you know how it's done, and since the birth of our tester, we don't like to be reminded. Mr. Johnson and Mr. Tingley have put together a device which mounts the manifold and puts it through its complete cycle OFF THE ENGINE, and out where you can see exactly what's going on.

The rig started out with a J-57 diffuser case found in salvage. All openings were covered with locally manufactured plates except the mounting pad for the P&D valve and the two end openings. The P&D opening was used as the connecting point of the fuel manifold to the pressure test machining part number PWA 10602. This connection was made by using a P&D valve distributor part number PWA 10068-D for J-75s and PWA 8281 for J-57s, attached to connect the fluid pressure



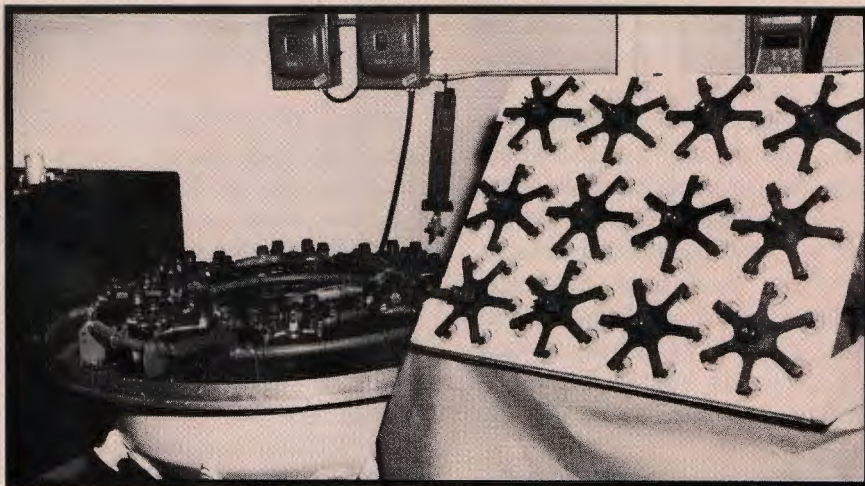
manifold in place. Distributor at the bottom shipping fixture comes out and the 57 mounts in regular position.



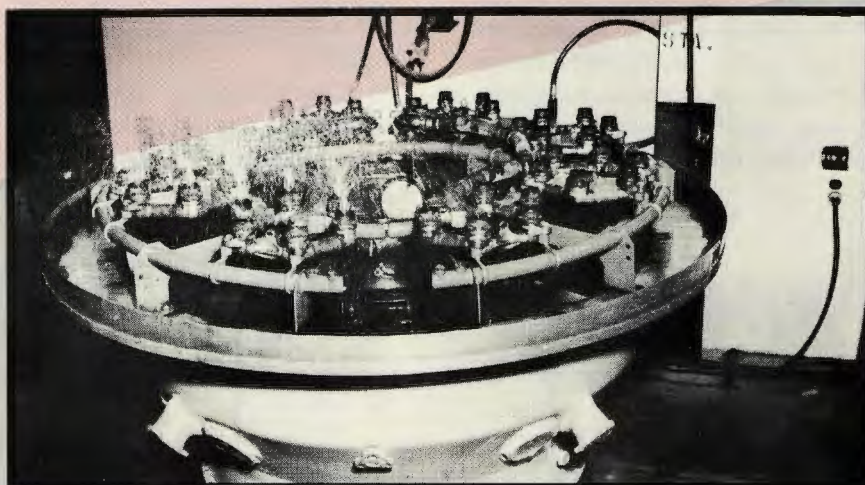
funnel construction, filter, lines and stand.

from the pressure machine. The manifold can be tested in separate sections or all at once and on both primary and secondary fuel systems.

The diffuser case was modified by attaching a funnel like plate to the small end. A fitting was welded in the center of this plate and a fluid return line clamped to the fitting. This line was routed through a filter (a J-33 filter is used) so that 95% of the fluid is returned to the pressure test machine uncontaminated and re-



Rack for fuel nozzle sealing clamps. Opposite side of rack holds J-57 clamps.



J-75 manifold during test, only one side is being tested. Not how manifold is mounted to shipping fixture.

usable.

A stand was made and attached to the small end of the diffuser case bringing the case up to a good working height and mounting it in proper position. A plastic cover was fabricated that completely covers the large end of the diffuser. This cover provides an unrestricted view of the fuel nozzles and their spray patterns. The cover also prevents test fluid from flooding your nice clean shop and keeps it off the skin of work-

ing personnel.

Sounds and looks like quite a Rube Goldberg, doesn't it? Well here is what it does for us at Nellis:

*Reduces pressure test man-hours from 120 to 8, hastening engine turn around time.

*Saves \$420.00 per year by re-using filtered fluid.

*Saves approximately \$700.00 in procurement costs over the PWA #6983 fixture recommended to do the same job.

*Eliminates fire hazards and personnel safety hazards by confining test fluid (be sure the test rig is located in a well ventilated area) and locates the test in one spot instead of all over the shop.

*One mechanic can do the entire test, two speeds it up a little.

*You'll be amazed how overtemp problems decrease on both the J-57 and J-75. We can't quote exact figures but our high EGT troubles have been drastically reduced.

More recent refinements to the tester have been made by Mr. Randall Van Houten, who operates the test, and Mr. Harold McLeod, the shop electrician. These include a small suction fan mounted on the plastic cover which draws out fumes and vents them outside. It was also necessary, on J-75 manifolds, to local manufacture a

bracket to replace the missing structure eliminated by T.O. 2J-J75-625.

If you are interested in building your own tester, here's a complete list of parts needed to join the do-it-yourself ranks.

*1 each stand assembly, Fuel Manifold Pressure Test (220 volts, 3 phase) FSN 4920-625-6851 - PWA 10602C.

*Calibrating fluid, Spec. MIL-F-7024, FSN 6850-264-5771.

*1 each Cover, plastic, clear, local manufacture.

*1 J-33 fuel filter, adapter to return line. (Other filters may do - use your own ingenuity.)

*1 distributor valve, PWA 10068 - D Detail 1 for J-75 manifolds.

*1 distributor valve, PWA 8281 Detail 3 for J-57 manifolds.

*An old J-57 diffuser case.

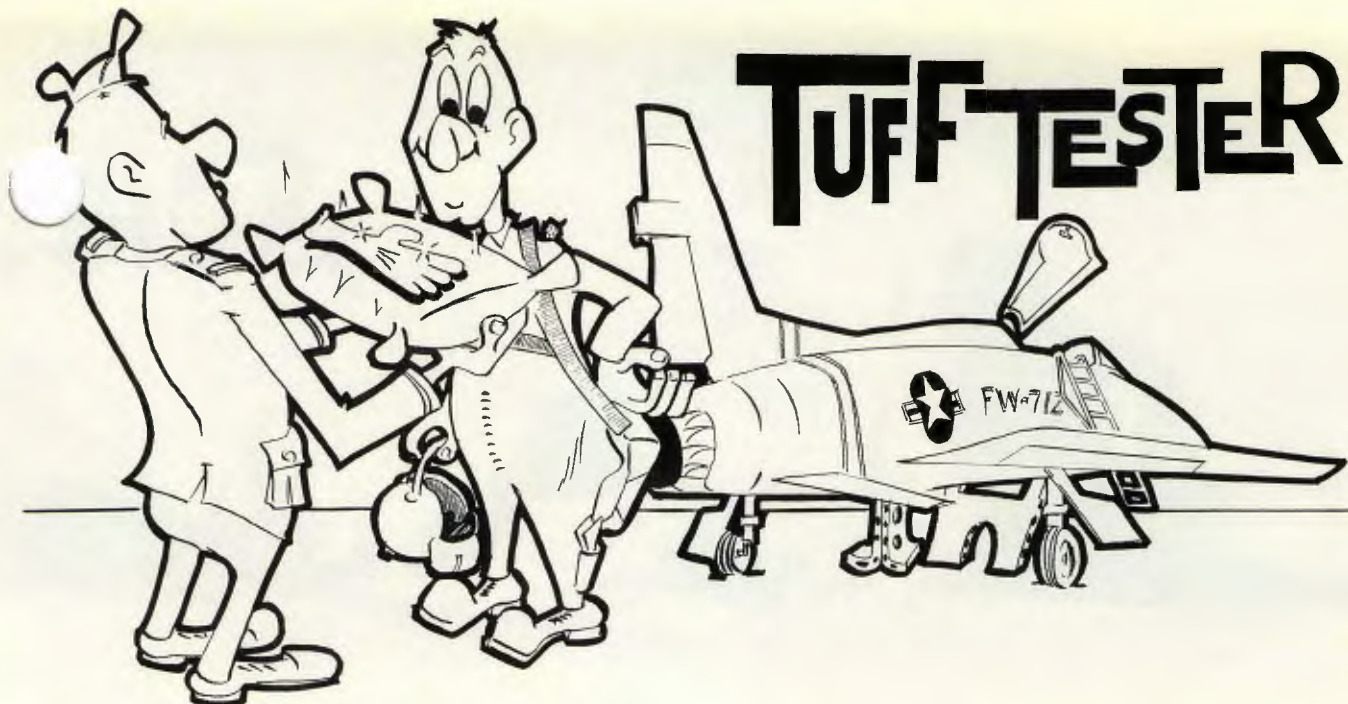
*Shipping fixture for J-75 manifold (this is removed for J testing and the 57 manifold stalled in its own diffuser position).

*At least 8 each of the following: PWA 10067-1C for J-75 PWA 8299-50C Detail 4 for J-57s. These are the spider fuel nozzle sealing clamps. With these you can seal off any nozzle cluster you wish and watch only those you desire. These sealing clamps have a small seal inside which requires frequent replacement. Have plenty on hand.

This completes the works, and with this equipment you can make a fine tester which we know will help your production, reduce your troubles and greatly assist the Save-Our-Spare Program. It sure has helped ours.

PRINCESS ANN





OCCASIONALLY, WHEN a new piece of personal equipment reaches the field, it brings screams of mixed anger and terror from the man who is supposed to use it. For example, the "T" handle on the BA-18 parachute made lanyard hooking a really exciting sport for a wingman flying in weather. When someone gives you an "improvement" like you can't help but wonder just whose side he's on. But wait a minute, nothing is ever procured and distributed that hasn't been field tested by someone like you and me. Let's take a look at this "field test" business and some of the problems it causes.

Part of the problem comes from incomplete or unrealistic testing. For instance when SAC aircrews are asked to test something, they simply cannot tell how it will work when the user is pulling about 5G. Conversely, TAC people are similarly unqualified to determine how an item is going to feel after a 24 hour flight. Because of these conflicts, USAF occasionally buys an item that is suitable for some and worthless for others.

Another part of the problem stems from a less tangible source. New and shiny things just naturally feel better than the weary and somewhat grimy stuff one has been using. Therefore, testers, being human, tend to overlook the new item's faults.

Suppose one day you're getting suited up to fly - you check over your P.E. and find everything normal. Your gloves are well broken in - left thumb missing, right palm perforated, and they are both as soft as reinforced concrete. Suddenly, a bright looking gentleman with a cluster on his Commenda-

tion Ribbon walks up and gives you a brand new, clean pair of gloves. He tells you it's for a field test and says he'll be back in a couple of weeks to find out how you like them. Do you like them? Of course you do! Even if there are a few little things wrong with them, they are a lot better than what you had. So your hands do turn a little green and the fingers are a little short and some of the stitching pulls out just a little. So what, they are an improvement over what you had! When the man comes back you say the gloves are just great. Based on your evaluation the Air Force then buys 30,000 poorly made, short fingered gloves and we end up with 60,000 green hands.

The big responsibility for good field testing belongs to the men who actually do the testing. If this responsibility should fall on you, be super critical. It stands to reason that any discrepancy you may discover during a relatively brief testing period will become much more severe in the long haul. Another factor to remember is that you are probably testing a hand finished version of the finished product, and that any faults will be multiplied in the production model. Don't believe any story that they will correct these minor items without your official complaint or that the difficulty will be worked out at a later date. You are the final authority. Remember, you may be making an evaluation that will effect considerable sums of money, the comfort of many and perhaps a few lives!

Some



THROUGHOUT MEDICAL school we were frequently reassured that every day a physician's practice would be stimulating and exciting, but that some would be more so than others. How true this turned out to be, particularly when practicing medicine as a TAC squadron flight surgeon.

I've been in TAC for almost two years and have looked after my squadron from the Middle East to Southeast Asia and now back to the Near East and the parched desert. My wife affectionately refers to me as her APO husband, and my son insists that "doctors aren't supposed to fly in airplanes." The F-100 is my airplane and F-100 people my patients.

October 8th was to provide another new experience for this flight surgeon in an already memory-crowded TAC tour. I was invited to visit and have dinner with the tribal Emir in the southern part of the country. The United States ambassador, several other officers, and all pilots not involved in the day's flying were to gather for an 0830 take-off. With cameras loaded into the car I was just

about to leave quarters when the phone rang. "For you, Doc."

The caller was from the Embassy asking me to come and see a sick employee, so off I went. It took awhile to get things straightened out at the Embassy, and I missed the flight. "Well, there'll always be another chance at a free meal," I thought.

I walked into squadron operations just as the line chief requested a schedule change to fly the F-100F. "Doc, we need a body in the back seat," said the Colonel. "Want to go?"

I did, since it would give me a chance to see if that canteen in the G-suit pocket was as impossible as the pilots insist. I slipped into a G-suit, picked up my parachute and helmet, forced a canteen into the G-suit pocket, and joined Captain Robbins, who would be the pilot, as he started out to the line.

"This thing going to work today?" I joked to the crew chief as I slapped the side of the aircraft.

"No problem, Doc, it's in fine shape as always."

Captain Robbins rebriefed me on the emergency procedures as we rolled into take-off position.

"Remember, we have the new rocket seat and I'll eject you." He was serious, but I chuckled quietly into my mask. Then came the always exciting surge of afterburner acceleration and we took off over the sprawling desert city. Our wingman huddled tightly to us as we left the pattern slipped out as we turned out over the sand and continued our climb toward the dry and empty mountains. At twenty minutes out, we contacted the tanker that was to give us a few practice sticks at the drogue. The tanker was on time and we could expect visual contact in eight minutes. I scanned ahead anxious to make the first tallyho, but all I could see was empty sky and plenty of wild, dry and empty sand below. The canteen in the G-suit made itself known as it pressed against my shin, but it was a reassuring feeling as I watched the terrain below.

Thirty-five minutes after take-off Captain Robbins called a tallyho at 12 o'clock high. "Eyes must be slipping, Doc," he said, after it took me three more minutes to sight the tanker. Looking down, I sighted a long, k

Days...

BY CAPT LAWRENCE DeSANTO
USAF, MC

by Capt Lawrence DeSanto USAF, MC

ATTACK readers should enjoy Doc DeSanto's account of this not-so-routine flight. The story has its safety lessons, but subtle, so don't overlook them -

looking runway on the sand. "Strange place for an airstrip," I thought. "No city or sign of life around it." Then my attention went back to the tanker as we trading speed for altitude in a climb toward the refueling posi-

Two hundred feet out I felt ge; "speed brakes down," I thought. Then a light, the Master caution light, followed by AC generator failure light, a pause, and then a bevy of lights on the right panel. They told me nothing.

"We've flamed out." Robbins unexcited words came over the interphone.

"It appears that lead has a flameout," The wingman's voice.

"Crazy fighter pilots," I thought, "for nearly two years they've tried to get a stir out of me and they're still trying." It did seem awfully quiet in the cockpit and those lights might be trying to tell me something.

"It appears he's going to try a flameout landing," another voice on the headset announced.

"My God, they're serious, we are flamed out. No flameout landing please," I thought, recalling atistics.



"Get ready to eject, Doc, seat down, head back, disconnect leads, and pull your bailout bottle, now!" I pulled and sat there with the green apple in my hand but no oxygen flow. Panic! I scrambled

to get the interphone lead reconnected. "Get your head back," shouted across the top of the front seat. Then woosh, the canopy leaped away from the silent aircraft . . . the scream of the wind

blast as I waited for the lift of the seat . . . "One thousand one, one thousand two, one thousand three, one thousand four—the seat doesn't work!" my last rational thought as I was lifted gently into the smack and tumble of the bright clear sky. Then silence, and the lovely bi-colored canopy high above my head. The seat was gone and I drifted smoothly down. "Now what?" "Seat pack, pull that cord." I pulled, pulled again, but the pack remained snugly in place. "Well, that's all right, the chute works, and it's such a pleasant slow ride down. You're safe and still alive so don't worry about the seat pack," I said aloud, repressing all memories of injuries from undeployed seat packs. "Now, landing. What did they tell you about landing? You're going down backwards, should be going forward, twist the risers . . . but which way?" I twisted and strained without success as I slid closer to the sand, still backwards. "No time now!" Crunch—into the soft warm sand. Then, began a wild face down ride thru the sand carried along by a gusting wind. "What a lousy way to be killed," my only thought as something beyond my conscious will guided my hand across my chest to pull down the flap and squeeze.

Then silence, sand in the nose, a quick prayer as I stopped my plow through the sand. Arms work, legs work, stand up and up I went. Woosh, as the wingman dashes by. "What's that puff of black smoke above him?" Then "pow-pow" echos through the gusts of sand. "Get down," I thought, "it's our ammunition going off," and down into the sand I burrowed.

Then there's just the noise of the wind as Captain Robbins ran up. "You OK, Doc?"

"I think so, and look, the canteen is still in the pocket." His was too. I unstrapped from the empty harness, pulled the lanyard of the survival pack, and the yellow dingy sat smartly up on the hot sand. We gathered our gear, spread our chute canopies out on the sand and moved over to a tiny tree and sat down with a thankful sigh. Above, we had plenty of company. Lieutenant Wallace, our wingman, was still zooming back



and forth, and high above him was the KB 50 tanker. Captain Robbins took out the URC-11 and called our orbiting friends to tell them we were uninjured and to get away from the periodically exploding, burning wreck. For some reason I won't even try to explain, I took out the signal mirror and started flashing.

"Doctors aren't supposed to jump out of airplanes." Another pearl of wisdom proclaimed by my five year old, and I guess he was right.

As our aerial company moved off to safer distances we settled down to talk over our situation. It was as ideal as one could find in the desert. A long airstrip was nearby, we had extra water, no injuries and friends overhead. Then came the trucks—three from the north, two more raising high columns of dust as they came from

the west, and one approaching from the south. "Boy, we've got plenty of company down here!" I said as we left our bush and walked toward the nearest truck. It was loaded with goats, and six white robed and scarfed men scrambled out. We waved the piece of paper the intelligence people said would get us out of trouble with the natives. One smiling fellow read it aloud to the others. The only word we under-

stood was the King's name, which was repeated several times. Then there were other smiles and a steady flow of handshakes, as more trucks pulled up and the crowd grew. I was still convinced we were in the middle of nowhere but unable to explain the expanding crowd. The explanation became clear when I found there was a village just five miles away.

I made signals for water, planning to collect some for my anticipated several days in the desert. We then signaled that we'd like help to move our gear from our little bush to a pile of rocks near the runway. Our smiling friends, some with guns now, lifted our survival equipment and chutes into the truck, helped us in, and off we went to the west. "But the field is north," I protested to Robbins as we sped away. We both pointed and waved to the n

More smiles and nods were the responses from our companions in the truck, but we continued to move through the sand away from the airstrip. "Stan, we're going the wrong way. Maybe these fellows aren't as friendly as they look," I said, recalling the questionable loyalties of some of the southern tribes. Captain Robbins agreed as he started a steady chatter into his radio.

I reached across the truck for my own radio and sara beacon as we rolled on across the sand for what seemed like hours but in reality was only 10 minutes. We roared into a village with horn blasting, turned down a narrow street and through a gate in a high mud wall. As we were helped down, I saw the sub-machine guns. "You friends?" I queried, digging into my stunted Arabic vocabulary. More smiles and nods were the replies. "Then why the guns and why the hands on the elbows," I asked myself as we were led through a door and up a mud stairway. Captain Robbins also had his doubts as he continued to talk into his radio.

We were led into a large room, empty except for a desk and several chairs. We sat down but the guns were still there. After sitting silently for about five minutes looking at the broad grins of our well armed friends, two men in western dress entered the room. Both spoke excellent English, and they introduced themselves as Pakistani doctors from the village hospital. We explained who we were, our aircraft difficulties and bailout, and our urgent desire to get back to the airstrip. As we talked, we were joined by an old man with a wild red beard and a red checked headress. He stood silently behind the desk as the physicians explained what had

happened to disturb the peaceful day of the isolated village. The old man questioned us through the physicians and finally extended his hand which we shook. The red-bearded fellow, we were told, was the local Emir. Our newly acquired translators continued to explain that the natives thought we were paratroop invaders from the south. They knew Americans were in this country but had never seen our insignia. The puffs of smoke near our since-departed wingman, we were told, was anti-aircraft fire and the shots we heard were intended for us, not our exploding aircraft. Apologies in abundance were extended from the Emir as tea was passed around. Tea I didn't savor after hearing these explanations. As our conversation with the Emir progressed, my anxiety to return to the airstrip grew. We were, however, informed we would now have to stay for lunch. Lunch, at this point, was not one of my urgent needs.

We were escorted into an adjoining room and the sub-machine guns were set aside as we sat down at a long, visibly sagging, table. The sag was from a load of abundant and mostly unrecognizable foods. The Emir apologized for the dinner as he hadn't planned on guests. Each diner had a piece of flat bread as his plate. Hands, we discovered, were the tableware as our host reached into a pile of red rice with huge pieces of goat resting atop. Watching the grease run down the rice, I recalled my thoughts about missing the original feed. I was invited to one sooner than I'd anticipated. A new arrival was seated to my right. He smiled, nodded, and reached into the rice as he was introduced as the commander of the, thankfully inaccurate, anti-aircraft detachment. By this time I was painfully

aware that my only ejection injury was a lacerated tongue, but the host encouraged our eating so I too, reached into the pile.

With dinner finally behind us, the grand tour began. We tried to explain how anxious our headquarters would be after losing contact with us; but the tour continued as we were told that leaving immediately after dinner was considered an insult to the host. Any other day the trip around the village would have been delightful but today I was ready to see familiar faces and savor a hot shower.

The Pakistani doctors escorted me through their new hospital, a truly modern, well-equipped medical center with a staff of eight physicians. They were justifiably proud of their institution as they guided me through the wards and laboratories. I received a brief post-ejection physical with all eight doctors taking their turn with a question, a probe, or a listen with their stethoscope. I even had my aching tongue treated by their oral surgeon.

The tour finally ended, we shook hands with promises to return under more relaxed circumstances, and off we bounced in a Land Rover to the airdrome.

Our rescuers were waiting as we ran onto the runway. Again we congratulated ourselves on the fine choice of an ejection site, as if we had a choice. Another round of handshakes began as we left the Land Rover. Captain Robbins seemed to be enjoying himself so I was afraid he might prefer to stay behind. Finally, we loaded onto the KB-50 and started home. I slipped into a parachute (I never did trust those big airplanes), sat back, relaxed, and thought, "Yes, some days are a bit more interesting than others."

—



"I CHECKED THE OPS order." The Old Sarge said just a little sadly, "and it specified a refueling mission. I guess we pick up the tab, sir."

"You have a mouse in your pocket?" Capt Green asked, then laughed. "Knock off the 'we'. I'm the stupe that assigned the aircraft to that mission and I should've known better than to schedule triple six. I knew she didn't have a beefed-up probe, but I just flat forgot to check it."

"Well, I usually double check . . ."

"How could you? You were trying to get 549 straightened out. One thing, we've sure had better days. Did I tell you about the rat race I went on?"

The Old Sarge shook his head. "No sir . . ."

"Well, I was going by finance on my way to lunch. I had to park three or four blocks away. All the parking places next to the building were reserved for everyone from the finance officer on down to the assistant pay clerk. That should have been a warning. The pay window was closed. Open from 1000 to 1200, and 1400 to 1600 . . . come back later."

"I decided to get my flying gloves replaced since they're about to fall apart. I checked at BEMO, but they said I'd have to go by base supply to get them

condemned. So, I trotted over to supply and walked up to the counter . . ."

The Old Sarge held up a hand, grinning. "I know just what you're going to say. They were on their lunch hour, and you'd have to come back at one thirty. I've been thru that one myself."

"Yeah," Green snorted, getting angry just recalling the incident. "It's bad enough to keep odd-ball lunch hours, but refusing to glance at a pair of gloves and sign a silly form, when all they're doing is playing cards during a lunch break . . . Anyway, our relations with supply will be strained for some time to come. I was just mad enough to do some lecturing."

"That was long overdue," the Old Sarge added grimly. "Did you get your gloves?"

"No, I went back to BEMO but they didn't have my size and had to put 'em on order. I decided I'd better pick up some dress gloves

or something from the BX to use until the new ones come in. Would you believe it? They didn't any. Sold out about a month ago. are still waiting for a shipment to come in."

The Old Sarge just shook his head. "That's almost as bad as the new summer uniforms. They didn't have them until we'd all changed to blues. You know, I went over one day to buy some underwear and couldn't get any my size."

Green nodded agreement. "They only seem to order stuff that doesn't sell. Either that, or the supplier holds up stuff until after everyone has had to buy from the local merchants. Anyway, when I got back yesterday afternoon, I wasn't fit for anything. It isn't any wonder I goofed up on that schedule."

"Captain Green, we ought to get Major Lewis working on this. I'd guess the old man has been too busy frying other fish hasn't noticed that the supply functions have forgotten why they are in business. It's only human nature to set things up to suit your own convenience and they'll gradually go that way unless the Commander notices it starting to happen and flat lays down the law."

"Right, Major Lewis isn't afraid to tell him what's going on. the old man knows it and listens to him and backs him up."



QUESTION OF THE MONTH

Approved smoking areas are designated by the:

- Squadron Commander
- Quality Control Inspector
- Ground Safety NCO after inspection to determine that the proposed area is not in the vicinity of flammables.
- Base Fire Marshall.

Fire Marshall

MARCH 1964

LETTERS To TAT

Dear TAT

The article "3½ Sec. to Eternity" presented in the January 1964 issue of TAC Attack presents a chart of altitude loss during dive recovery. The chart presented has large errors in it.

The F-100D(1)-1 has dive recovery charts on pages 6-8 and 6-9 for 4G and 6G pullouts. The chart in the article shows that about 550 feet of altitude will be lost when using a 4G recovery from a 30 degree dive at 400 knots while the chart in the F-100D(1)-1 shows that about 1300 feet is lost under the same conditions. Comparing the charts further for conditions of 400 knots with a 45 degree dive and a 4G pullout, the chart in the article indicates that about 1300 feet will be lost while the chart in the Dash One shows that about 2500 feet will be lost.

The article states "if you followed the unrevised AFM 55-100 and flew a 30 degree dive at 400 knots, released at 1500 feet and then made no effort to recover, you would die just three and one third seconds later, right on target." When 1500 feet above the ground in a 30° dive the slant range from the aircraft to the ground is 3000 feet. At 400 knots the aircraft is traveling about 700 feet per second. If no recovery is made the aircraft will strike the ground a short distance at 12 o'clock to the target 4.3 seconds after passing through the 1500 foot release altitude.

The most important point to be made is that once the aircraft passes through 1300 feet above the ground at 400 knots in a 30 degree dive it is no longer possible to recover using a 4G pullout. It takes slightly more than ½ second for an aircraft in a 30 degree dive to pass from 1500 feet above the ground to 1300 feet above the ground. To be exact, following the unrevised AFM 55-100 release conditions for rockets, if the dive recovery is delayed for .57 seconds after passing through 1500 feet above the ground, the aircraft will strike the ground if a 4G pullout is maintained.

1/LT WESLEY G. CAREY JR.
306 Tac Ftr Sq
Homestead AFB, Florida

Dear Wes

The dash one charts include reaction time and allowances for differences in pilot technique. The chart we used was calculated by ops analysis and is the absolute minimum altitude used for a perfect recovery, assuming no reaction time for aircraft or aircrew. We should have made this more clear in our article. Regarding the 3 1/2 second bit, TAT recalculated and recalculated and both times came up with 4.47 seconds . . . I'm still wondering where my pencil slipped when I first ran that off. The key point is there. At 400 knots, you have very little time

for fooling around.

Thanks for calling our hand . . . and we promise to be more accurate from now on out.

TAT

Dear TAT

I am a great believer that nothing succeeds like success and anybody who gets the beast on the ground done good, but would like to question your December Pilot of Distinction. I have always had a great aversion to ever pulling the cob off after clearing a stall and wonder if the 87% figure was a misprint. The good book says do not decrease below 97% until landing is assured. Despite my nit picking, you people are still putting out the best rag in the business.

MAJ GEORGE G. HUPP
AFSC STDN/EVAL
EGLIN AFB, FLA.

Dear George

You are right . . . I was unable to locate the original on that distinction writeup, even tho we never throw anything away (after three years in this racket we can hardly get thru the door). I checked the incident file and according to it the engine wouldn't produce more than 87% . . . meaning I must have done Kirk dirt when I edited the copy.

Many thanks for taking time to write . . . that's a nit that could cause someone to pick the nylon act instead of bringing home the bird. By the way, are you still the leading F-104 time hog?

TAT



DEATH is a black camel which kneels at the gates of all.

- Abd-el-Kader

SMOKING can hasten the camel's steps.

- Rich-ard-Rader



A SAM C-131 standing by to transport VIPs attending an official function at Fort Hood.



Excellent maintenance has done much to create the perfect record enjoyed by TAC's four SAM squadrons. Here men of the 4433ATS, Dobbins AFB, tend to an engine.

FOR SEVERAL YEARS, the Air Force has pointed with pride to an ever decreasing aircraft accident rate. But four TAC squadrons haven't followed this trend. In fact, they have maintained a constant rate for over 17 years. Their rate is zero!! The fabulous four are TAC's Special

Air Mission (SAM) Air Transport Squadrons, the 1st, 4433rd, 4434th, and 4435th. Each has maintained a perfect accident-free record ever since activation, more than 17 years ago. The squadrons are assigned the task of providing air transportation as directed by USAF and requested by both the

Army and DOD. Their primary job is supplying first class transportation for distinguished visitors, but the mission also includes emergency airlift and mercy missions in times of disaster. flights must be made into airfields with few navigational aids.

One sure fact, 17 years is a long time and a quick look at how they do it can benefit us all.

Captain Jerry Ohlson, FSO of the 4435th has summed up the "How to do it," and it's pretty simple.

"No single element can be considered the most important item in formulating a safe flying environment, but those factors that contribute to our program can be readily observed and actively pursued. Our record of safe operation is a direct result of a thorough and active standardization and training program, highly developed professionalism at all levels by squadron personnel, and outstanding maintenance of assigned aircraft."

Just what is a "thorough and active" standardization and training program? Each month the chief pilot and the flight safety officer of the 4435th choose a subject and prepare a training program for all pilots. The program consists of ground classes, quizzes, and simulator missions covering the special subject. Then each pilot flies a local training mission. A new subject is selected every month and the cycle repeated. In this manner, constant and highly specialized training is conducted on a continuing basis.

Almost all 4435th flights are over mountainous terrain and aircrews are careful not to exceed maximum gross weight, particularly in hot weather. They carefully evaluate all portions of each flight they are to fly, taking note of all emergency fields. Recently, this policy paid off when one crew feathered an engine after it failed internally. They were flying a leg where MEA was 12,500 feet. Thorough flight planning permitted immediate decisions that led to a safe single engine landing.

The 4434th, which has transported such noted people as President Lyndon B. Johnson and former President Herbert C. Hoover, puts assigned aircrews through one of the Air Force's most exacting and comprehensive training programs. They place great emphasis on individual proficiency. Crews members must know and strictly comply with all flying regulations. They are acutely aware of the importance of their mission and operate accordingly.

Captain William Raybould,



A1C Billy L. West of the 4434ATS, Randolph AFB, pours coffee for VIP passenger

SAM SONG

safety officer of the 4433rd which is based at Dobbins AFB, Ga., credits their perfect record mainly to the high professional attitude and training of all squadron personnel.

Crew members and maintenance personnel are all highly experienced and checkout criteria is kept well above Air Force average. The training program is geared to upgrade all copilots to pilot status and copilots are expected to maintain pilot proficiency.

All units speak highly of their maintenance sections. This is understandable, since no unit can attain a good safety record without

excellent maintenance. When 17 years of accident-free flying is converted into 17 years of accident-free repairing, testing, replacing, and just plain fixing the millions of things that go wrong with airplanes, it's truly amazing. The many many mistakes that could have been made but weren't are not the result of luck.

A 1000 batting average in flight safety can result only from a 1000 average in effort. While gross error can cause accidents, it's usually the little things that catch up with you. Safe operation, 100 percent safe, is the result of doing the job right every single time.

Well Done



OUTSTANDING FLIGHT SAFETY OFFICER

Captain Rondel E. Minter of the 4520 CCTW at Nellis AFB is selected as Tactical Air Command's Outstanding Flight Safety Officer for the period ending 31 December 1963.

Despite the high exposure of diverse training activities, the wing completed the last six months of 1963 with a perfect accident record while flying over 20,000 hours. This is an unprecedented record for a Fighter Combat Crew Training Wing.

Captain Minter's keen investigative mind and devotion to duty while giving direct supervision to the safety program did much to help the wing achieve this record.

There are many tangible and intangible examples of Captain Minter's personal achievements. One of the major ones is the improvement in status and prestige that safety personnel have acquired since he became the safety officer. This in turn resulted in a high degree of cooperation throughout the 4520th.

Captain Minter helped introduce improvements to the unit's aircraft and procedures, such as the improved drag chute striker plate and revised leg restraining system.

Through personal contacts, he helped make personnel more aware of their role in aircraft accident prevention and worked with maintenance to establish a superior system for reporting and evaluating unusual occurrences and to jointly present reports on these occurrences at the Wing Commander's safety meeting.

Captain Minter is a fully qualified instructor pilot in the F-105 and maintains the respect and admiration of fellow instructor pilots and students. His outstanding devotion to duty and work toward accident prevention has well qualified him for this award.

Awards and Decorations

The following TAC men were awarded the Distinguished Flying Cross for extraordinary achievement while participating in aerial flight:

Captain Charles J. Corey	MSGT James A. Howell
Captain John J. Garrity	SSGT George D. MacLean
SSGT Vernon Morgan	

In January the following TAC men were awarded the Air Medal for meritorious achievement while participating in aerial flights:

Major Francis E. Ransford	1st Lt Kenneth D. Barker
Captain James W. Alexander	1st Lt Edward W. Leonard
Captain Donald S. Caulkins	TSGT Melvin T. Smith
Captain Robert E. Edgell	SSGT Joe Lopez
Captain Ronald E. Hebert	A/1C Flem D. Hacker
Captain Richard A. Pearson	A/1C Willie G. Knight
A/2C Terry A. Milam	

Operational Achievement awards

Oct - Dec 1963

Tactical Fighter Squadron
430TFS, 474TFW, CANNON AFB, NEW MEXICO

Tactical Reconnaissance Squadron
16TRS, 363TRW, SHAW AFB, SOUTH CAROLINA

Assault Airlift Squadron
61TCS, 314TCW, SEWART AFB, TENNESSEE

Tactical Fighter Aircrew
CAPT GORDON E. WILLIAMS
612TFS, 401TFW, ENGLAND AFB, LOUISIANA

Reconnaissance Aircrew.
16TRS, 363TRW, SHAW AFB, SOUTH CAROLINA

CAPTAIN GERALD I. REPONEN Pilot
1/LT ALLEN D. KUNKEL Navigator

Assault Airlift Aircrew
17TCS, 516TCW, DYESS AFB, TEXAS

CAPT RICHARD L. W. HENRY Aircraft Commander 1/LT WILLIAM F. H. ZERSEN Navigator
CAPT JAMES A. SURBER JR. - Pilot TSGT DEWEY D. PALMER Flight Engineer
TSGT LEONDIS ANDARAKES Loadmaster

Air Refueling Aircrew
622ARS, ENGLAND AFB, LOUISIANA

CAPT EDMUND B. EVERETTE Aircraft Commander MSGT DONALD P. SANDERS Engineer
1/LT ROBERT W. SMITH Co-Pilot TSGT STEVE CAMUS Scanner
CAPT JOHN P. COTTER Navigator A2C MICHAEL W. TOWNSELY Scanner

Outstanding Combat Crew Training Squadron for 1963
4453CCTS, MACDILL AFB, FLORIDA



**MAINTENANCE MAN
OF THE MONTH**



**CREW CHIEF
OF THE MONTH**

Staff Sergeant Ed Taylor of the 474th Organizational Maintenance Squadron, Cannon AFB, New Mexico, is selected as Tactical Air Command Crew Chief of the Month.

Sergeant Taylor has established himself as a superior maintenance man who does not stop when his duties are accomplished. He continually seeks out other jobs and aids his fellow airman. Due to heavy operational commitments, Sgt Taylor has put in many hours of overtime without complaint. He has served as assistant flight chief while completing his duties as a crew chief and performed well in that capacity.

Sergeant Taylor is an outstanding example of the eager, intelligent, productive NCO the Air Force is constantly seeking.

pilot of distinction

R e c o g n i t i o n

Master Sergeant John C. Zehner of the 363d Armament and Electronics Maintenance Squadron at Shaw AFB, SC, is selected as Tactical Air Command Maintenance Man of the Month.

Sergeant Zehner is A and E flight line chief for all maintenance coordination. He supervises all flight line job accomplishments in an efficient and expeditious manner. He is always willing to accept added responsibilities and conscientiously pursues required tasks no matter how many extra hours it takes. Through his complete understanding of the work center capabilities he maintains the work flow at a smooth and nearly constant rate.

Sergeant Zehner is a highly motivated and completely Air Force oriented technician whose first concern is the wing mission and whose performance easily qualifies him as Maintenance Man of the Month.

Pilot of Distinction



First Lieutenant Howard J. Bear of the 558th Tactical Fighter Squadron, MacDill Air Force Base, Florida, has been selected as the Tactical Air Command Pilot of Distinction.

Forty minutes after departing Patterson Air Force Base, Ohio, in an F-84F, Lieutenant Bear

lost all hydraulic pressure. He immediately shut off the spoilers and pneumatic compressor, notified his flight leader and turned back toward his point of departure. About 15 miles from the runway he lowered the gear by the emergency system. Shortly thereafter, the aircraft lost power pressure and Lieutenant Bear actuated the emergency hydraulic system; however, this system also failed and caused the control stick to freeze in neutral. Realizing that ejection over the city of Dayton could be disastrous, Lieutenant Bear elected to remain with his crippled aircraft. With only conventional rudder control available and without speed brakes or flaps, he maneuvered his F-84F to a safe landing.

Lieutenant Bear's skilled and thoughtful actions saved a valuable aircraft and prevented untold damage to lives and property.

TAC TALLY

A COMPARISON OF TACTICAL AIR COMMAND ORGANIZATIONS

MAJOR ACDNT RATE 1 JAN - 31 JAN		
TYPE	1964	1963
ALL	7.1	5.3
F-4	0	
F-105	20.8	0
F-104	0	0
F-101	0	0
F-100	6.6	7.1
F-86	0	0
F-84	20.5	61.3
F-6	0	0
F-6	0	0
T-39	0	0
T-33	0	0
T-29	0	0
KB-50	0	0
C-130	0	0
C-123	0	0
C-47	0	0
U-10	0	0
T-28	0	0

JAN TALLY GUARD AND RESERVE		
UNIT	MAJOR	MINOR
131TFW	1	
514TCW		1

ACCIDENT FREE MAJOR & MINOR			
JET			
ACTIVE	MONTHS		ANG
355 TFW	16	12	121 TFW
388 TFW	16	9	140 TFW
CONVENTIONAL			
ACTIVE			RESERVE
314 TCW	54	86	434 TCW
463 TCW	31	36	435 TCW

JAN TALLY ACTIVE UNITS		
UNIT	ACDNTS*	INCDTS
4 TFW	1	11
12 TFW		1
15 TFW	1	2
23 TFW		6
27 TFW		18
31 TFW	2	15
354 TFW		16
355 TFW		9
366 TFW		9
401 TFW		27
474 TFW		11
479 TFW		19
TARC		3
SAWC		
4510 CCTW		36
4520 CCTW		14
4411 CCTG		5
4442 CCTS		1
4443 CCTS		
4453 CCTS		1
516 TCW		1
464 TCW		11
831 AD		1
832 AD		1
836 AD		1
4440 ADG		1
4500 ABW		1
1 ACW	1	3
363 TRW		11

* MAJOR & MINOR

The reserve forces broke the ice in January with one major accident and one minor while the regulars scored four majors, one minor with three fatalities.

A flight of four F-84s was in and out of the clouds at 35M after night air-to-air refueling. Number two became separated and reported his gyro out. He ejected, but was killed. Number two in a flight of two F-100Ds on a dart mission, crashed while changing channels and positioning for dart launch. The pilot was killed; the cause undetermined.

An F-105 pilot called off the range due to an MNIA malfunction on his third pass, then crashed into the water for the third fatality. The cause is presently undetermined. An F-100C flamed out twice due to materiel failure. The pilot ejected successfully. Brakes on a C-46 failed as the aircraft entered a parking area. Attempts by the IP to avoid other aircraft were unsuccessful and the C-46 collided with a KB-50. There were no injuries.

One minor accident occurred when the left gear of a C-119 collapsed on landing roll. An F-100 received minor damage when it struck a tree during an FAC controlled camera stroking run.

There are no new trends and the rate is about the same as last year. We are concerned about the number of fatalities... since this may be the start of a serious trend.



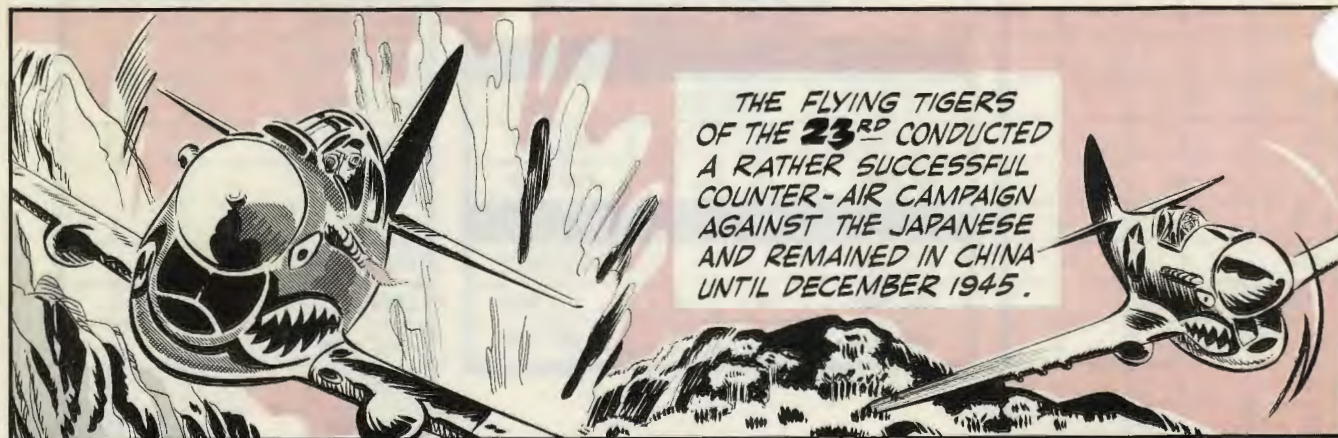
LAST MONTH THE **388TH** TACTICAL FIGHTER WING AT McCONNELL AFB, KANSAS, WAS INACTIVATED AND REACTIVATED AS THE **23RD** TAC FIGHTER WING!



THIS SHOULD RING A BELL WITH SOME OF YOU OLD TIMERS...



THE **23RD** WAS ORIGINALLY THE **23RD FIGHTER GROUP** ACTIVATED IN CHINA, JULY 1942 FROM MAJ/GEN **CLAUDE CHENNAULT'S** FLYING TIGER AMERICAN VOLUNTEER GROUP.



THE FLYING TIGERS OF THE **23RD** CONDUCTED A RATHER SUCCESSFUL COUNTER-AIR CAMPAIGN AGAINST THE JAPANESE AND REMAINED IN CHINA UNTIL DECEMBER 1945.

THE UNIT WAS MOVED TO THE U.S., THEN INACTIVATED IN JANUARY OF 1946.

LT/GEN **BRUCE K. HOLLOWAY**, DEPUTY COMMANDER-IN-CHIEF, U.S. STRIKE COMMAND, COMMANDED THE **23RD** FROM JANUARY TO SEPTEMBER 1943. HE WAS A LT/COL AT THE TIME.

COL. O.E. GILBERT IS PRESENT COMMANDER

