

TAC ATTACK

TAC Attack

AUGUST 1973



WHAT IS AN
AIRLIFTER ?Page 4

Tonkowi

for efficient tactical air power

TAC ATTACK

AUGUST 1973

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Tactical Air Command

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Angle of ATTACK



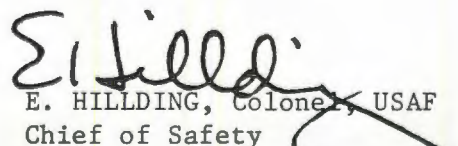
FORMATION

Some of the most enjoyable moments in flying occur while flying good formation. Every pilot worth his salt enjoys leading a good-looking four ship down initial. Conversely, some of the hairiest moments in flying come while in formation. Night weather, night joinups, spatial disorientation while on the wing, all have a high risk potential. So far this year, close to one-third (5 out of 18) of TAC's major aircraft accidents have involved formation midairs or formation type maneuvers.

Flying formation is a way of life for a TAC pilot, and operational requirements continually demand that he fly formation in less than optimum conditions. Extra caution and a thorough knowledge of all parameters involved, combined with a professional approach, are means of reducing the hazards. The pilot who thinks that formation is any less demanding than any other phase of flight is only fooling himself and is an accident waiting to happen. Any time you deliberately maneuver in close proximity to other aircraft, it calls for increased vigilance and attention. What it really calls for is professionalism.

The flight lead must fully recognize and accept his responsibilities. He must thoroughly brief the mission, taking into account the capabilities of his wingmen, any added hazards, such as poor weather, night, etc. He must brief for contingencies, such as inflight emergencies, lost wingmen in the weather, etc. Flying on the wing is no job for amateurs either. The increased attention demanded in normal formation is magnified by night or weather conditions. The lack of references, the lack of depth perception, and the decreased ability to determine closure rates all add up against the wingman. The professional on the wing will slow down his night rejoins. He'll use radar, backseater, right seater, RAPCON, and everything else that's available. He realizes that he probably doesn't have to get in within 180 degrees of turn, as he would in the daytime. He recognizes the increased attention required, and compensates accordingly. In short, he acts professionally.

Let's not forget that formation is "where we put it all together and go out to do the mission!" Let's do it as professionally as we do any other task in flying.


E. HILLDING, Colonel, USAF
Chief of Safety





WHAT IS AN AIRLIFTER?

by MAJ TIM BRADY

This issue is the last one for Major Tim Brady as Editor of TAC ATTACK. During the past two years, under his outstanding leadership the safety message has continued to be heard, as evidenced by the TAC accident rate. He now moves on to bigger and better things at Air Command and Staff. We believe this article reflects his pride in TAC airlift and proudly present it. Tim — you're an airlifter! —FROM THE STAFF

For the past fifteen years or so the TAC airlifter identity has been tied to that magnificent machine, the C-130. Men have served almost entire careers living the C-130 story, drawing from the greatness of the airplane, and inputting the thing that makes the airplane great — themselves. So the question posed in the title cannot be answered unless a large chunk of the answer involves the Hercules.

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And in the same vein, one cannot answer the question without considering the tactical airlift mission. And to determine what the tactical airlift mission is, take a look around the world. Over the past few years you could have seen TAC airlift crews sleeping in tents in Turkey, living on the airplane in the Congo, delivering disaster relief supplies everywhere, dropping troops and equipment in practically every free world country during exercises or actual contingencies, riding in follow-me trucks when transportation was available but reserved for MAC crews, trying to sleep in steaming quarters when their MAC counterparts were "crew-resting" in air conditioned rooms, spending half the year or more on sixty, seventy, or ninety day rotations to Europe, PACAF, and Panama, and compiling a noble list of achievements in a war. That's the mission, or at least a part of it. I haven't even mentioned responses to domestic crises. When the troops are called in they don't walk, TAC C-130s get them there. And when the fighter types are bugged out, their maintenance people don't grab their toolboxes and hop on the nearest Greyhound, TAC airlift takes care of them. Without airlift, TAC has no mission.

But what is an airlifter? That question still remains unanswered. OK. First of all, an airlifter is not necessarily a pilot. He can be a navigator, a flight engineer, or a loadmaster. He is part of a crew and he does his thing to enable the crew to achieve its objective. Each crewmember has his own speciality, each knows his duties and responsibilities, and each is an indispensable part of the crew.

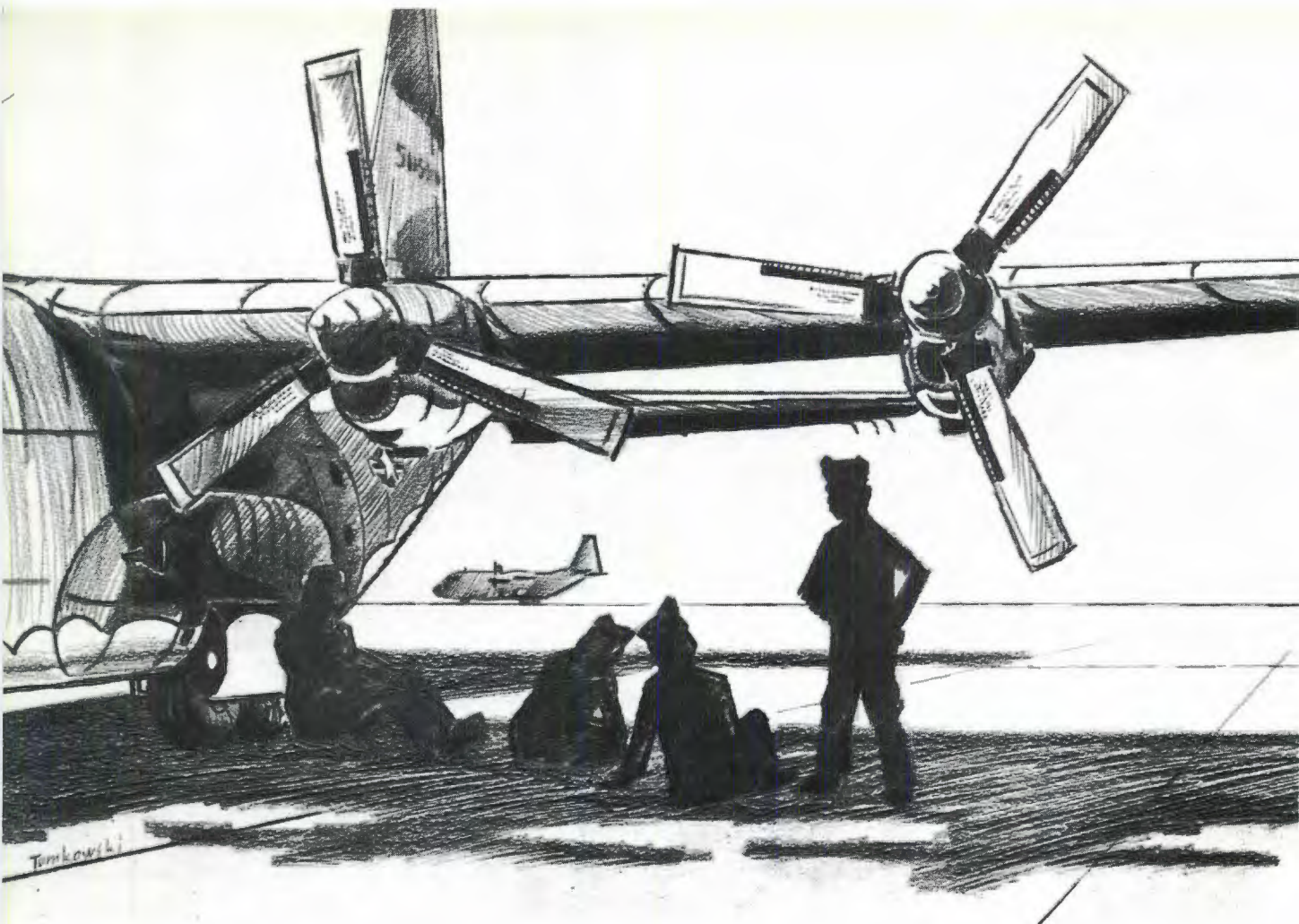
Take the loadmaster for example. When the Army wheels up behind the airplane with two or three jeeps manifested at 2500 pounds apiece but loaded down with twenty cases of small arms ammunition, two cases of C-rations, and about fifteen hundred pounds of mud hanging onto the tires, transmission, and underbody, the loadmaster is the one who looks at the Army type and says, "YGBSM." He then proceeds to estimate the weight

and you can bet your bottom dollar he won't be too far off. As a matter of fact, you do bet your bottom dollar. When the crew is faced with getting that big machine off of a very short runway, say 3000 feet, the weight had better be right or else the departure end of the runway may be to the aft while takeoff air speed is still somewhere out front. Is the loadmaster important? You bet your life he is . . . every day.

Or take the flight engineer. He's the guy who's the resident expert on the airplane and what makes it tick or what is happening to make it untick. There are hundreds of cases where the flight engineer, by virtue of his knowledge and experience, was able to pull the crew out of critical emergency situations. And that goes for in-flight as well as on the ground. Then there's the plush side of the flight engineer's job. He gets to see more sunrises than the rest of the crew. While the pilot, copilot, and navigator are cooped up in base operations worrying with the flight plan and clearance, the flight engineer is luxuriating in the open air, communicating with nature, while going through the pre-flight. Nevermind about drizzly weather, sub-zero temperatures, or steaming hot jungle climates. Nevermind when nature talks back by placing a cobra in the wheel well to greet the flight engineer as he crawls around trying to inspect the gear. It's all part of the job of the flight engineer . . . an airlifter.

Now we come to the navigator. Airlift pilots will tell you there are two useless things in the world: the first is the navigator and the second is undefined but immensely more useful. But you don't hear too many pilots saying that when they are out over the middle of the Atlantic, at night, and the winds have turned sour and the fuel plot is starting to drop below the planned line and the Equal





AIRLIFTER

Time Point is behind the airplane. And you don't hear them saying it when it comes time to fly a low level route, figure a computed air release point, set up the computer, navigate to the drop, and plunk the troops in the smoke. Matter of fact, the only time you'll hear it is when the pilot has just lost a particularly strenuous round of Liars Dice and the navigator is collecting all the drinks. The navigator is an essential element of the airlift crew and his importance cannot be undermined (regardless of what was said in the opening sentence of this paragraph). To the core he is a TAC airlifter.

Next we find the copilot. He's the one in the right seat hiding behind the checklist with his hand on the gear handle waiting for the command that will stir him to action . . . GEAR UP! He also gets to do a lot of the dog work. Call for wheels, pick up the flight lunches, fill out the 175, paperwork, paperwork. But in flight every crew action is coordinated by the copilot through the checklist. In the right seat he trains for the skills, both as a pilot and as a manager, that will lead him to the left seat. Wishing for no evil to befall the aircraft commander, he secretly dreams of the pilot suddenly being smitten with a severe attack of the gout, at which time he can assume control of

the crew, command of the aircraft, and show the true stuff he's made of. A dreamer? Yes. A go-getter? You bet. An airlifter? You better believe it.

Now the troop in the left seat, the pilot, the aircraft commander. He's the man who pulls it all together or lets it all fall apart. He has to solve the people problems, the maintenance problems, the ops problems, and his own problems. If he's a good aircraft commander he knows what each of his people can do and he lets them do it. He knows that to try to do the work of five men is folly and will alienate the rest of the crew, to say nothing of blowing the mission. He is the director, the decision maker, and something else. What was it? Oh yeah . . . he also flies the airplane. And he does it well. He's a TAC airlifter and damn proud of it. Proud of his talents, proud of his crew, and proud of his airplane.

The crew is the hub around which the rest of the airlift function rotates. How well the mission is accomplished depends upon how each crewmember functions and how it adds to or subtracts from the crew effort. It's called crew coordination. So what is an airlifter? He's the troop who'll tell you to cram it if you try to call him anything but . . . an airlifter.

TACTICAL AIR COMMAND

AIRCREWMAN of DISTINCTION



TSgt Wright

Technical Sergeant Howard W. Wright, 4500 Air Base Wing, Langley Air Force Base, Virginia, has been selected to receive the Tactical Air Command Aircrewman of Distinction Award for June 1973.

Sergeant Wright was serving as a student flight engineer on a routine C-118 administrative flight. Approximately forty miles out from Langley AFB, while descending for landing, the crew noticed the illumination of the tail heater fire warning light. Sergeant Wright was sent aft to visually inspect the tail section which contains the tail heater and auxiliary power unit. Upon confirmation of an actual fire, the crew executed emergency procedures for a tail heater fire and auxiliary power unit fire.

After discharging all available CO₂ to the affected area and depressurizing the aircraft, Sgt Wright was again sent aft to make a visual inspection of the tail section. Discovering the fire still burning, Sgt Wright donned a smoke mask, removed the aft bulkhead cover plate, and began fighting the fire with hand held A-20 fire extinguishers, while the crew continued with the approach. Disregarding his own personal safety, Sgt Wright continued to fight the fire and smoke which produced heat so intense that he was forced to retreat from the area several times. Tenaciously he kept fighting the fire until he depleted all available fire extinguishers and finally was able to bring the fire under control. This enabled the crew to complete their approach and landing.

The combination of professional crew coordination and Sgt Wright's individual effort saved a crew, 23 passengers, a valuable aircraft and certainly qualifies him as a Tactical Air Command Aircrewman of Distinction. ➤



WHEN IT HITS THE FAN

by CAPT JIM YOUNG

What do you do if you're the first person to arrive at an aircraft accident scene? Got any idea? If you asked around, you would probably get different answers from every person you asked. Most people would be in agreement on the first step — help the injured. As a matter of fact, there's a checklist of things to do first, and it is put



out by DOD, in Joint Services Booklet 1, titled, "What To Do and How to Report Military Aircraft Accidents:"

- Aid in rescue and care of the injured.
- Take actions as necessary to prevent injury or death to survivors.
- Protect property.
- Notify the nearest military authorities.
- If necessary, and appropriate, also notify medical facilities, civil defense, fire department, and law enforcement agencies.
- Search the wreckage for survivors.
- Guard the wreckage.
- Refer all news media and photographer's requests to a military information officer.

If the above looks like a checklist, it is! As in all checklists, however, there's a lot more to it than meets the eye. Let's look at some of the steps and see what lies behind them.

RESCUE

This is the first action you should take at the scene. If survivors are in the wrecked aircraft and rescue appears possible, remember to stay clear of any externally carried tanks or pods. These may contain missiles or rockets, and



not only the missile itself, but also its exhaust is dangerous. In addition, many airplanes carry fuel tanks which will possibly be ruptured, spreading large amounts of fuel in the crash area. Never disturb any armament thrown clear of the wreckage. It might explode!

Use extreme care in approaching a crash site, particularly if you're approaching along the path of the crash. There could be survivors who were either thrown clear or ejected to safety. Would-be rescuers have actually run over survivors in their haste to get to the wreckage. Don't let it happen to you.

Once you locate the survivors, give them any needed first aid. Stopping any serious bleeding gets top priority here. Unless you're a doctor, avoid any extensive treatment unless it's urgently needed to save lives. Along this line, make sure that medical personnel are on the way. Don't assume that someone else has taken care of calling them. Too many times, everyone thinks someone else took care of that.

If there are indications of a post-crash fire or explosion of fuel vapor, move the survivors away from the crash area. If there is no military medical assistance available, get civilian medical assistance. Should a civilian medical facility be concerned about payments, assure them that they will be paid. All they have to do is bill the nearest appropriate military hospital.

Getting the survivors safely out of the wreckage may require using access hatches or jettisoning canopies. The

location of escape hatches, doors and exits from all military aircraft are indicated by orange-yellow markings on the outside of the aircraft. On jet aircraft, a red rescue arrow will indicate the rescue points. There are instructions stenciled at this arrow, telling how to jettison the canopies or hatches. These are explosive devices, so use caution. Once you get the hatch or canopy clear, you're ready to get the crewmember out. Don't raise, move or tamper with the armrests or any handles on the ejection seat, or with any levers or handles in the cockpit. These should all be marked yellow and black, and are extremely dangerous. In order to get the crewmember out, you may have to disconnect his oxygen and radio leads, and various harness buckles and snaps. Don't pull anything that looks like a D ring for a parachute. If you do, you, the cockpit, and the crewmember will be tangled up in a parachute. At that point in the rescue, you don't need that! If the crewmember is conscious, he can probably tell you how to get him free from all the straps and harnesses. Ask him!

PROTECT PROPERTY

Fire and explosions are always possibilities at a crash scene. You should prohibit smoking and make sure spectators stay well away from the site. Fires and explosions can occur long after the crash and only trained fire department and demolition experts can insure that

when it hits the fan

the wreckage is safe. If evacuation of nearby homes or buildings is necessary, do it promptly, with as little fuss as possible. Panic can be much more hazardous than fires and explosives. If there is a jet fuel or high octane gasoline fire, fight it with high pressure water fog, foam, carbon dioxide, or dry chemical powder. If a bomb is in the wreckage, cool its entire surface with available fire extinguishing agents as soon as possible. Should nuclear weapons appear to be on board, they offer no greater hazard than high explosives. Fire will not cause a nuclear explosion!

NOTIFY AUTHORITIES

Once you've helped the survivors and protected the property, it's time to tell the authorities what happened. Get to the nearest phone and tell the operator you want to report a military aircraft crash to the nearest military installation. You can place this call collect. You should give as much of the following information as possible:

1. Give your name and location.
2. Tell them that a military aircraft crashed at (time, place) and whether there is a fire or not.
3. Give an accurate location of the crash site. ("Four miles west of Podunk" is OK, but "four miles west of Podunk, on Route 13, at the intersection where the general store is," is better.)



4. Whether the crew parachuted (or didn't, or don't know).
5. Whether medical help is needed or not.
6. Whether there are any known survivors or not.
7. Private property damage and casualties.
8. Aircraft type, tail number, where someone will meet the rescue team, nearest suitable helicopter landing area (flat open field, free of poles and wires).
9. Make sure the report is understood.
10. Any other information of possible value.
11. Please wait for any questions before hanging up.
12. Leave number for possible call backs.

GUARDING THE WRECKAGE

This entails quite a bit, including preservation of the accident site. You should prohibit the removal of deceased persons until properly identified by military authorities. However, the laws of some communities may require that remains be first temporarily taken into custody by a local coroner. You should insure that persons not connected with the rescue effort or investigations are kept 1500 to 2000 feet from the wreckage.

Each and every piece of the aircraft, its location and its exact position is important to the investigators. Nothing should be disturbed unless it is necessary to rescue survivors. Make every effort to prevent souvenir hunting, as even a small piece can be vital to the investigation.

NEWS MEDIA

The press has a valid job to do and deserves access to certain information in order to do that job. Normally they'll get this information from a military information officer. However, if newspaper, radio, or television representatives arrive on the scene before the proper military authorities do, you may have to take care of them. Refer their questions to the nearest military information office. They'll know where it is. For their own safety, tell them where the danger areas are, and request that they stay away from them. If photographers are present, remind them that photographing classified equipment is a federal criminal offense. Make sure they don't disturb any wreckage in their efforts to get a story.

There it is, then. That's a few of the things behind the scenes that you must consider if you're the only one present when an airplane crashes.

There are many other items to be considered. Not all accidents are alike, and no two can be treated exactly the same. All this article does is give you a few things to think about before "it hits the fan!"





From a collection of anonymous stories published in
1942 by the Army Air Forces, TAC ATTACK presents:

Lessons That Live

No. 11 of 17
Courtesy of Lt. Col. H. M. Butler, 4500 ABW/SE

LUCK IS PRECIOUS STUFF

Let me tell you how a large-sized chunk of luck was clipped out of my supply. Several years ago when my duty consisted of a year in flying school and a couple of months of active duty with two or three cross-countries on which the success of the trip depended on myself and not the flight commander, I was ordered on a flight to San Francisco from Brooks Field, Texas. The ship was an O-43A, powered with a prestone-cooled Curtiss Conqueror engine.

On this trip I proceeded without incident until I reached Biggs Field at El Paso. The arrival at Biggs was made at dusk before lights do much good and when visibility is poor. The usual 20 to 30 mile gusty wind was blowing out of the west to northwest as I circled for an approach.

As I let down on the east leg of my approach, intending to land approximately west, I realized that the wind sock

was now indicating northwest, so I "cut the gun" and made a rather steep turn with the nose high to kill speed. This put me directly down-wind from the balloon hangar at six or seven hundred feet above the ground.

The next thing I knew, the ship was headed straight for the ground and the controls were completely loose. Here I was, riding the down-draft of air with the ship in a stall.

I jammed on the throttle with the stick full-forward as the airport sand stared me in the face from what seemed to be no more than a few feet away. I carefully felt the stick until it had some effect and then gently eased it back. That good old luck was with me, because I had just enough altitude to pick up speed with full throttle on to make as light and smooth a 3-point landing as I ever have made. All that remained was to close the throttle, roll up to the gas pits, and let my knees shake.

If that engine had coughed once, or if I'd had 15 or 20 feet less altitude at the beginning of that sudden stall, this story would never have been told. Needless to say, I have never since been found in the lee of any large obstruction when the wind is strong and gusty.

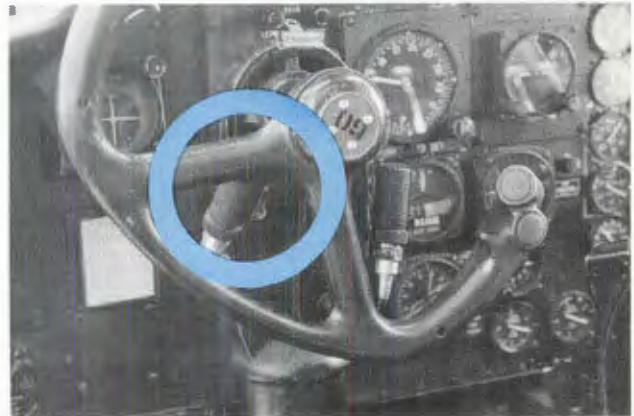
TAC TIPS

...interest items,
mishaps with morals,
for the
TAC aircrewman

SEE THE LIGHT

It was a phase one transition mission for the C-119 crew. Everything was normal up to the go part of the second touch-and-go. Shortly after liftoff, the aircraft started a rapid turn to the right. Both pilots got on the controls but their combined strength wasn't enough to move the ailerons. By reducing power on the left engine and applying a good helping of rudder, the pilot was able to level the wings. He then climbed the machine to 7000 in order to make a controllability check. During the check, the pilots found that the airplane could be controlled in the landing configuration and at landing airspeeds. Since the roll rate was extremely slow in rudder only turns, the crew decided on a long straight in approach. While the aircraft commander was descending in order to set up for the straight in, the third pilot discovered the left eyebrow light on the pilot's control column was lodged between the wheel and the control column. It had either vibrated out or was knocked out of its retaining clamp and wound up in a position to bind the wheel. It had gone undetected by the pilot in the left seat because the TOLD card was blocking his view. Corrective action was to move the wheel to the right and remove the eyebrow light. After that, it was ops normal.

While the possibility of moving the light to a different location is being looked at, in the interim, it might be a good idea for both the ground and flight crews to check the security of that beauty before leaping off.



Note the eyebrow light lodged between the wheel and the control column.



The TOLD card was blocking the pilot's view.



Normal position of eyebrow light.

UNSTRAPPED

After shutdown, the F-100 pilot unhooked his mask, then started to stow the oxygen hose on the instrument shroud. As he pulled on the hose the right leg strap of his parachute came unfastened! (Note photo.) It seems as if the restraining strap on the oxygen hose had made its way into the right parachute leg fastener. A tug on the hose and zingo! — An unfastened leg strap.

Tweak the imagination a little bit and you can imagine what would have happened had the pilot found it necessary to part company with the airplane either by ejecting or by a quickie ground egress. The oxygen hose would have stayed with the airplane in either case. During ejection it could have meant, at best, seat-man



After flight, oxygen hose is stowed here by clipping the restraining strap on the instrument shroud.



The oxygen hose restraining strap became entangled in the release mechanism of the right leg fastener of the parachute.

involvement, and at worse, a free-falling body sans parachute. During emergency ground egress it would have either held the egresser close to the thing he was trying to get away from or could have dumped him on his bean by suddenly retarding his forward progress.

So all you Hun types, be especially aware of this potentially fatal hazard. Watch those leg straps and oxygen hose restraining strap.



One tug on the hose and the right leg fastener releases the leg strap.

SCORPIONS

by Capt Mike Byers
TAC/DOXBL, Langley AFB, Va.

Not too many years ago, in a certain Asian Country, it was noticed that the local Air Force pilots were extremely reluctant to turn in their parachutes for inspection and repack. This rather alarming condition was discovered by a friendly USAF Advisor who, upon returning from a night mission in a local aircraft, found that the chute he had been wearing was slightly overdue inspection — by six years!

A very bad situation, indeed! What was worse, however, when the chute was opened for inspection a number of scorpions jumped out, much to the surprise and amusement of the parachute riggers. The parachute shop supervisor's amusement quickly ended when one of the larger scorpions made a series of high-speed passes up and down his pants leg.

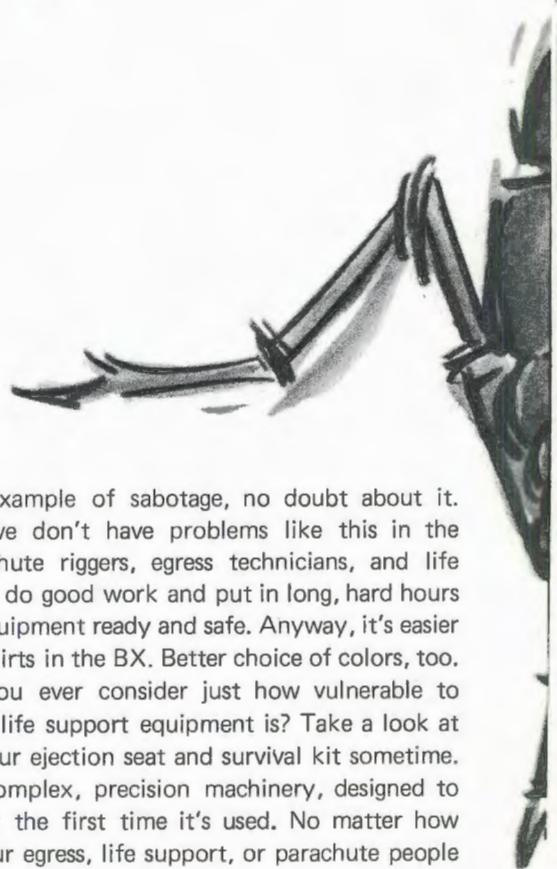
As you can well imagine, this incident led the USAF Advisor to ask certain questions of the local pilots. In fact, several in-depth interviews were conducted, with the following (typical) results:

USAF Advisor: "How come you're flying with that nasty-looking, ratty old chute?"

Local Pilot: "'Cause it's the only chute I got."

USAF Advisor: "Maybe you should get it repacked; after all, it's seen a lot of use since 1958."

Local Pilot: "Repack? You must be crazy, G.I.! Last time I took a chute in for repack the rigger cut out three panels to make shirts for his kids. Made good shirts, but a lousy parachute."



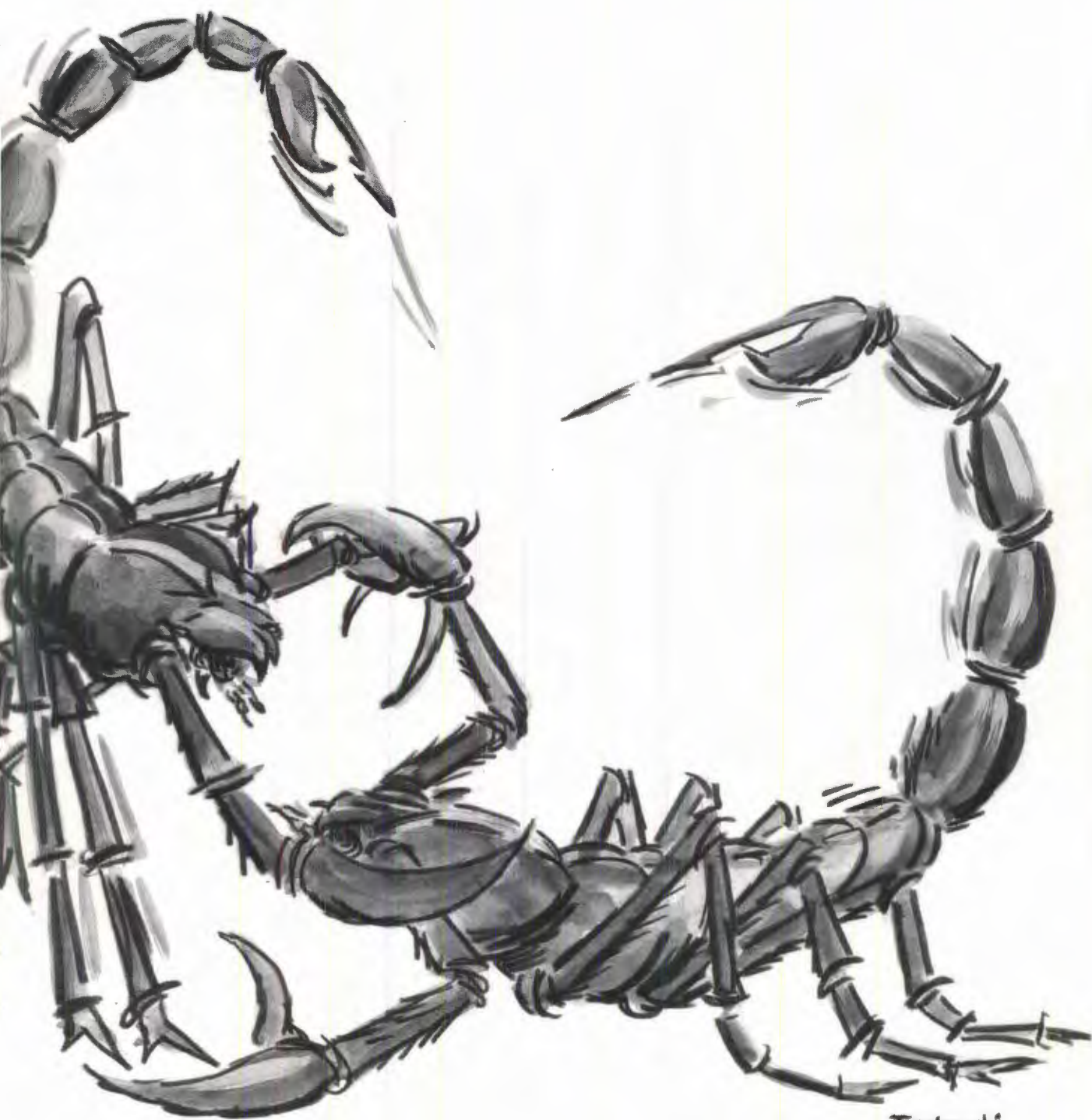
A classic example of sabotage, no doubt about it. Fortunately, we don't have problems like this in the USAF. Our chute riggers, egress technicians, and life support troops do good work and put in long, hard hours keeping our equipment ready and safe. Anyway, it's easier to buy your shirts in the BX. Better choice of colors, too.

But, did you ever consider just how vulnerable to sabotage your life support equipment is? Take a look at the TOs on your ejection seat and survival kit sometime. This gear is complex, precision machinery, designed to work perfectly the first time it's used. No matter how much effort our egress, life support, or parachute people put into keeping your emergency equipment in top condition, it only takes one malicious idiot with a pocketknife to wreck the system and spoil your whole day.

Do you preflight your life support equipment as thoroughly as you do the rest of the airplane? You'd better, because:

1. The SPs can't catch all the nuts bent on sabotage (ask anyone who was Over There for Tet 1968).

2. The crew chief just might not discover the damage on his preflight. In the final analysis, it's your airplane and your life. Watch out for scorpions.



Tomkowski

guess



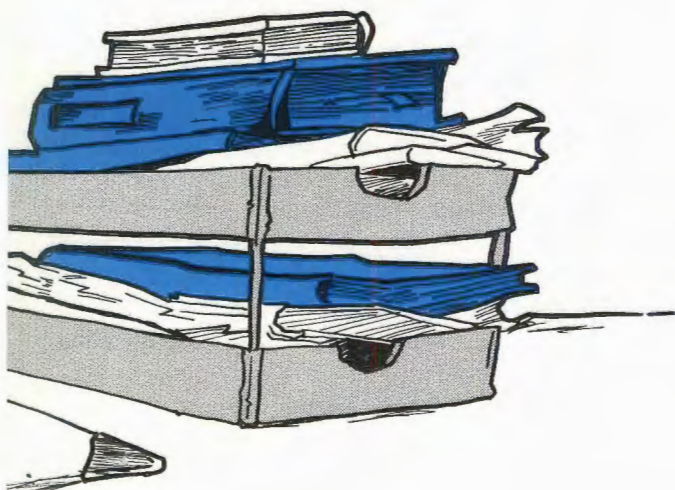
by Maj Joe Tillman

Major Endlis Flack propped his feet on his cluttered desk, a folded sports page in one hand and his third cup of Orinski's "Polish Revenge" in the other.

"Look at this, Or — a double-bogey on seven and nine and he still turned in a seventy — amazing . . . Orinski?"

The Lieutenant was at his desk, emulating his boss, except he was engrossed in a thick report with light blue cover pages and drinking a coke. He never touched his own coffee — he knew better. A light grin played at his lips and he was completely unaware of Major Flack's presence. "Orinski, what are you reading?" Flack knew Orinski's normal reading material consisted of PLAYBOYS

who dropped in ?



and MAD magazines — the Lieutenant's bottom right-hand drawer was crammed full of this unlikely combination.

"Chief, this is a USAF IG report — you wouldn't believe the write-ups. Listen to this: *'Immediately following the inbriefing, difficulty was encountered in determining who was functioning as Deputy Commander for Operations'* — are you ready for that?"

"C'mon, Or, you're pulling my chain." Major Flack put down the 24-ounce cup engraved with obscene gestures he picked up in Japan and took the report from the Lieutenant's outstretched hand.

"See for yourself, Chief."

Flack resettled himself at his desk and buried his short-suspense messages with the folded newspaper.

"Or, did we ever complete that 2095 on me? After all, it has been four months since I was reassigned."

"I think so, Skipper. The last time I saw it, it was on Mary's desk for typing. Haven't you reviewed that thing yet?"

"I'm not sure, Or. By the way, see if you can get me another set of in/out baskets, would you, buddy? The four I have just don't quite hack it."

Major Flack thumbed through the report, muttering as he read — *"One navigator received an annual proficiency check without first accomplishing an initial upgrade check. He had not completed Phase I training."*

A chuckle shook his frame and the Lieutenant looked up.

"By the way, Boss, I handcarried your supplemental 781 over to the squadron for you — the flying training officer wanted to know how you got 12 night landings with only twenty minutes of night time. He asked me about a possible eclipse of the sun."

GUESS WHO DROPPED IN ?

"Orinski, you know that in this job it takes a well-sharpened number 2 Venus to stay current. Besides, there was a heavy overcast and I did keep my sunglasses on."

Ignoring the Lieutenant's protestations, Major Flack refilled his mug. As he ignited an El Ropo with a lighter inscribed with a message totally without redeeming social value, the top half of his person disappeared in a cloud of blue smoke. Peering through the haze, he returned to the report. ***"A mechanic was observed smoking a pipe within a no-smoking area, in the presence of the fire chief."***

Flicking a two-inch ash into the wastepaper basket, he shook his head in disbelief — how could a guy be so indiscreet, he thought to himself.

"You know, Or," he said, "this IG business is a funny thing. It seems they concentrate on nit-picking stuff but they never seem to get down to the nitty-gritty. The really important thing is whether or not the job gets done."

"True, Chief, but I noticed that the unit did pretty badly in boldface testing — eight out of eleven pilots busted their tests."

Lt Orinski fanned the air with an overdue report but the smoke settled about his desk like an insidious ground fog.

"I'll grant you that's an unforgivable sin, my lad, but



memory alone does not a pilot make. Which reminds me — fill out an extra copy of our weekly bold-face tests for me, would you? With all this paperwork, I don't see how I can get to it."

"Sure, Boss — can I use your Dash One?"

"Help yourself, Or. While you've got it out, you might put those safety supplements in it — I think they're in the briefcase there somewhere — now as I was saying, I think most IG teams can't really see the forest for the trees. It seems to me that a unit that gets the job done has already proved itself capable of hacking the mission. Why, I remember when we were on the ice-cap back in fifty-seven . . ."

Major Flack's story was interrupted by the sudden appearance of his secretary — visibly agitated.

"Sir, Colonel Tydown is on the line. He wants to know why you didn't show up for your SOF briefing this morning at the Command Post."

"SOF!! Doggone it, Mary, I traded duty days with Major Upset last week. Didn't those jokers in that worm's nest get the word? Get Upset on the phone."

"Uh . . . Boss," said Orinski weakly, "you told me last week to remind you to remind Mary to remind Major Upset of the change. I forgot to remind you."

"Mary, cancel that call. Give the good Colonel a buzz and tell him I'll be right down — Or, I don't know how I can be surrounded by incompetence when there's only the two of us in the office."

Major Flack sat back down and snubbed out his smouldering stogie. Flipping to the "summary" portion of the IG report, and between sips of his now-cold coffee, he read out loud.

"It is the net assessment of the USAF IG team that this unit had a high accident potential."

"Now, how in blazes do they come to that conclusion? Nothing but minor write-ups and suddenly this poor unit is given the golden "Imminent Disaster" award. It just doesn't make sense."

"Skipper, you had better get going," interjected Orinski. "Colonel Tydown's probably waiting for you."

"Roger that, Or . . . get the phone there, will you?"

Lt Orinski picked up the receiver and punched the flashing button. "Yes sir," Orinski's complexion paled to the color of skim milk.

"Yes sir . . . yes sir, I'll tell him." Orinski hung up the phone.

"Boss, I've got some good news and some bad news."

"Give me the good news first, Or."

"Well, Sir, that was Colonel Tydown — you don't have to worry about SOF right now . . ."

"Great! What's the bad news?"

"You'll never believe it, Skipper. Guess who just dropped in . . ."

TACTICAL AIR COMMAND



Maintenance Man Safety Award

Staff Sergeant Edgar L. Ward, Jr., 834 Organizational Maintenance Squadron, 1st Special Operations Wing, Hurlburt Field, Florida, has been selected to receive the TAC Maintenance Man Safety Award for June 1973. Sergeant Ward will receive a letter of appreciation from the Commander of Tactical Air Command and a Certificate.



SSgt WARD

TACTICAL AIR COMMAND



Crew Chief Safety Award

Staff Sergeant Floyd D. Outcalt, 834 Organizational Maintenance Squadron, 1st Special Operations Wing, Hurlburt Field, Florida, has been selected to receive the TAC Crew Chief Safety Award for June 1973. Sergeant Outcalt will receive a letter of appreciation from the Commander of Tactical Air Command and a Certificate.



SSgt OUTCALT

TACTICAL AIR COMMAND



Ground Safety Man of the Month

Technical Sergeant James J. Bromley, 316 Organizational Maintenance Squadron, Langley Air Force Base, Virginia, has been selected to receive the TAC Ground Safety Man of the Month Award for June 1973. Sergeant Bromley will receive a letter of appreciation from the Commander of Tactical Air Command and a Certificate.



TSgt BROMLEY

WHY DON'T YOU GUYS



by **Major Jack Hazlett**
Chief, Flight Safety Branch
363 TRW, Shaw AFB, SC

Remember the days when each airplane belonged to one pilot and one crew chief? If the airplane flew, one guy flew it and if it broke, one guy fixed it. There wasn't much of a problem in those days with communication between the driver and the mechanic. If it didn't fly right, there was no doubt about who to complain to and if something got left in the cockpit — like a pair of goggles — there wasn't any question about who they belonged to. Woe be it to the guy who flew someone else's air machine and brought it home busted!

But those glorious days are gone forever. Our new weapons systems are far too sophisticated to expect one man to accumulate the knowledge and expertise required to troubleshoot and maintain the many sub-systems

involved. Don't get me wrong. The crew chief is still an extremely important figure in weapons system management. In fact, he is the managOR. He still maintains a broad general knowledge of his aircraft. The only difference is, like any other manager, he has more work to do than he can do himself, so he goes to the systems specialists for help in getting it accomplished. If you don't believe me, the next time you walk out to your trusty steed just ask, "Hey Chief, how's your jet?" (Or your buff or your props or whatever turns you on.) You'd be surprised what he can tell you. As a matter of fact, that's the subject of this rambling — communication.

Back in the "good old days" when squadron commanders ran mini-wings (TACM 66-31), all the airplanes, all the maintenance troops, all the crew chiefs, and all the jocks were in the same organization. Everybody knew everybody else and everybody worked on and flew the same 18 or 20 airplanes. Before you went

TALK TO EACH OTHER?

out to fly you could check the squadron "dog book" and discover what the other guys in the squadron had been griping about. A lot of the entries were probably your own. When you got to the airplane you were met by a guy you knew fairly well and there was an immediate rapport established. Along with the rapport went a good flow of information.

Today things are different. With all the airplanes and the crew chiefs belonging to OMSq, you could fly for an entire year and never climb into the same airplane or work the same crew chief twice. Nobody knows anybody and there's a good chance that nobody is saying much to anybody either. This lack of information flow can, and often does, lead to surprises and who needs those when you're hurling yourself at the ground.

Why is information flow valuable? What kind of information is needed? Let's look at it from both sides.

As an aircrew member it is obvious that any information about systems that have recently been malfunctioning is important. If repeated writeups have been occurring on the last several flights, you certainly want to know about it. Since most aircraft forms are cleared at the beginning of the day, this information is not going to be available to you unless you ask. Certain systems are more important on some missions than they are on others. What's going to determine mission success today and how have those systems been performing on recent flights? If you're boring holes on a VFR day this may not be too important but if your mission includes a tanker rendezvous, range work and some low level navigation, you're going to need almost everything on board. If the bird has been having heading problems lately, you might profit by being alert to that possibility.

What we've talked about up to now involves safe, effective mission accomplishment. Now let's talk about motivation.

That crew chief you're talking to has already put in several hours of hard work before he sees you come striding across the ramp. (So have you, but you're motivated already or you wouldn't be willing to put in those hours of boredom just to get a crack at those moments of stark terror.) In most fighter units, at least, he never gets the chance to fly with you or to really see what you do with this piece of machinery that takes up eight to ten hours of his day. All it takes from you is a few minutes to pull out a map, show him where you're going and what you're going to do. Lots of people took the time to do this in SEA but when you were going Downtown, it pumped up your own ego a bit. The same philosophy applies here. He has an interest in your mission and if you take the time to discuss it with him, he's going to understand better how that writeup you're going to make later affected your flight. Chances are he'll work harder to make sure it gets fixed too.

Now, one parting shot. If you have taken some of this to heart and you're really interested in some motivational psychology, the next time you find yourself leaning on the ops desk with nothing to do, wander out to the flight line and observe an aircraft preflight or a basic postflight. You'll find out how much trouble it is to make an FOD inspection or how uncomfortable it gets crawling up the tailpipe for a postflight hot section check. Not only will you instill some pride of workmanship by really showing an interest in what goes on out there, I'll bet if you ask a few questions, you'll learn something. Information is beginning to flow both ways and that sounds like a pretty good definition of communication. ➤

CHOCK TALK

*...incidents and incidentals
with a maintenance slant.*

PLYS AND PLY RATINGS

Quick! How many plys in a tire? An F-4 tire, for example. How can you find out? Tech data? No. Is it molded on the casing? No, that's just ply rating. Give up? Here's how you find out! You cut the tire in half and count the plys — or — you read messages. That's how we found out, and we think it's worth passing on.

An F-4 at an overseas base recently landed with locked brakes and flat-spotted a main landing gear tire. The brake released before the tire blew, so the landing roll was uneventful. An inspection of the tire in the dearming area revealed that there were eight layers of cord showing below the red cord ply. The aircraft was shut down and towed to the revetment area for normal servicing and a tire change.

Approximately 30 minutes later, while the crew chief was jacking the aircraft, the tire blew. Fortunately the crew chief wasn't injured, but he did require several applications of hand steadier and a change of clothing.

When they cut the tire open later, they found 12 plys in the 24 ply rated tire. There were two plys above the red, the red itself, and nine plys below the red. Since this tire had worn through all but one of the plys, that meant that the one ply left was trying to hold 270 psi. Once again we ask — how many plys are there in YOUR bird's tire? A serious hazard report was submitted on the ply problem, and it's being looked at.

This information was extracted from a serious hazard report, and is being staffed by the Air Force Inspection and Safety Center.

CREATIVITY

This modern sculpture in glass was on display in one of our barracks not too long ago. The artist who created it used an exceptionally unusual technique. His tools were: five cans of beer, four inches of water, a piece of macadam, two bare feet, and his right arm.

He drank the five cans of beer, slipped on the water-covered macadam surface, and jammed his right arm through the glass panel beside the latrine door.

Surgery repaired the severe lacerations.



RAGS

Shortly after engine start, an alert C-130 loadmaster noticed that the wheel well area inside the cargo compartment seemed excessively hot. He notified the aircraft commander who promptly shut down the engines.

Maintenance discovered that the air conditioner cooling turbine was damaged and a hole had been burned in the turbine casing. They found LARGE WADS of cloth in the air conditioner unit.

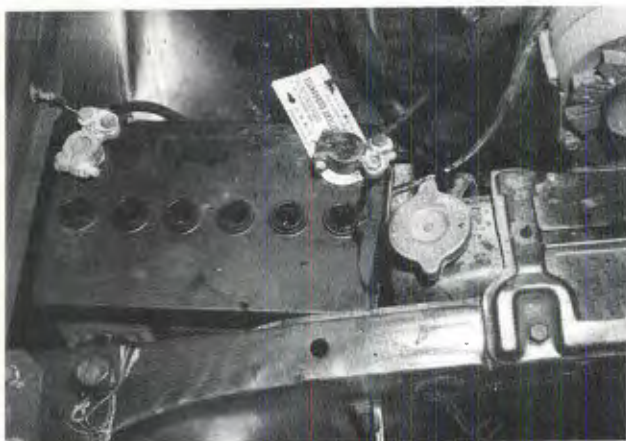
Additional trouble-shooting turned up the reasons. Contract maintenance had removed the duct for normal maintenance and had placed a rag over the open part to protect against FOD and weather. Air Force maintenance replaced the duct but did not remove the rag.

The FOD-preventer became FOD.

GROUNDING

It seems obvious to just about anyone who has ever messed around with electrical gadgets that you don't short out wires, cross wires, or short out the terminals. If you do, you'll get shocked. Sparks will fly, and if the shock is strong enough, you will too. Yet how many people really stop and think when they're working on their car battery that it too is an "electrical gadget." We'd be willing to bet that a lot of people don't.

Case in point. An airman was cleaning his battery and cables prior to leaving on a trip. He cleaned the terminal poles and started to replace the cables. His mistake was in using a box end wrench that was all metal and long enough to touch both terminals at the same time.



The sparks flew, the battery exploded, and the wrench hit him in the eye. Fortunately he wasn't permanently injured.

He didn't mean to be unsafe, he was just careless. Grounding across terminals, even in a car battery, can be serious business!

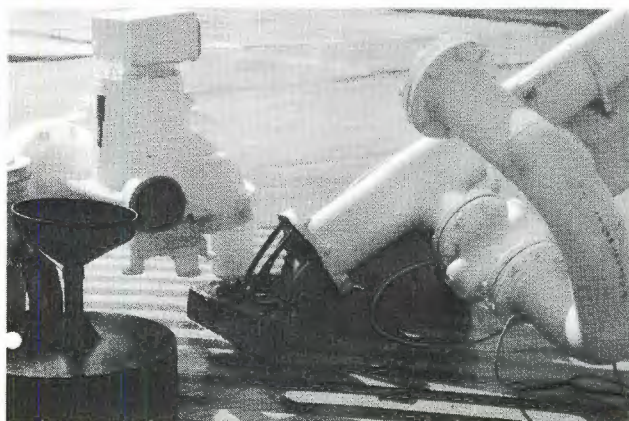
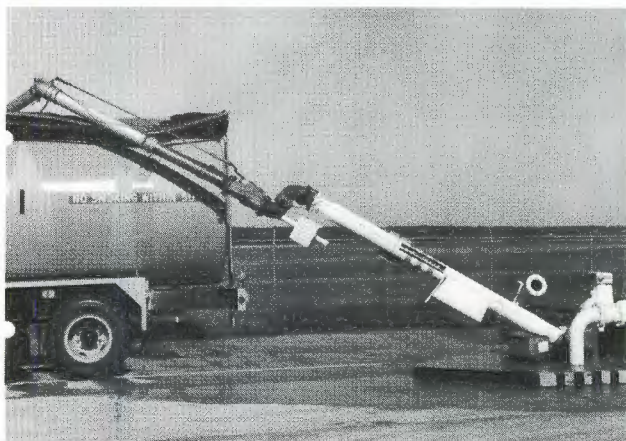
HURRY, HURRY

The photos accompanying this blurb demonstrate what getting in too much of a hurry can do for you.

With the troop's supervisor TDY, the entire POL operation fell upon the young airman's shoulders. And what a job was facing him. He had to look forward to refueling several R-2 units, receiving three tanker trucks of fuel, do liquid oxygen work, and accomplish all the attendant paperwork. Admittedly a very tough day was ahead.

While he was refueling the first R-2 unit a fuel transport arrived for unloading. He got the transport driver started into the unloading process then decided to take a full R-2 unit back to the aircraft parking ramp and pick up an empty one. He hopped into the cab and began to move away from the fillstand when — crunch! He had forgotten to disconnect the fillstand downspout from the refueler. Major damage to the fillstand and minor damage to the truck resulted.

The words of the ground safety director say it all. "This is an example of trying to do too many things at the same time. We should all remember there isn't any job so important or duty so urgent that we cannot take the time to perform it safely."



SPO COR

A-7D ENGINE PROBLEMS

by Maj Bob Lawler

I will attempt to bring you up to date on the problems and corrective actions concerning the TF-41A-1.

There are eight areas of concern, all with corrective action completed or in progress. The following is a brief summary:

1. PROBLEM: Failures of HP compressor discs

CORRECTIVE ACTION: Redesign compressor discs to provide 12,000 hour disc life. Available for installation in engines overhauled after July 1973. An improved anti-corrosion material is being tested and hopefully will be available in November 1973 for installation [Emergency Change Proposal (ECP)F-0604].

2. PROBLEM: Center bearing scavenge oil tube failure (Goodland, Kansas incident).

CORRECTIVE ACTION: Kits have been developed and tested to clamp tubes which will reduce vibratory stress. Kits were sent to SEA in June 1973 and all other A-7Ds should have been retrofitted by now (TCTO 2J-TF41-569).

3. PROBLEM: Oil system contamination.

CORRECTIVE ACTION: An ECP has been developed which provides better filtration, a pop-out indicator, cockpit warning light, and a filter by-pass. Kits available November 1973 for field retrofit (ECP F-0589). Additionally, engineering evaluation is underway to improve oil tank scupper design to prevent contaminants from entering oil system during servicing (availability unknown).

4. PROBLEM: Oil pressure fluctuation (relating to oil system contamination).

CORRECTIVE ACTION: An engineering evaluation is underway to determine how fluctuation relates to oil temperature and aircraft altitude (availability unknown).

5. PROBLEM: Oil pressure step change.

CORRECTIVE ACTION: An engineering evaluation is in progress to evaluate the oil pressure regulating valve guide.

6. PROBLEM: HP bearing support failures. Number 6 bearing labyrinth air seal (Denver accident).

CORRECTIVE ACTIONS:

- a. ECP F-0611 modifies design by seal cutback and pitch change, cutback of bearing housing, and increased seal clearances. This mod applies to those engines in overhaul and new production engines.

- b. ECP F-0532 provides increased clamping of the flex bearing support housing. Kits should be available November 1973 at the rate of 59 per month.

- c. ECP F-0606 is an improved honeycomb labyrinth seal. There is a high priority evaluation presently underway; availability is unknown.

- d. ECP F-0637 is considered to be the ultimate fix. This is a one-piece HP bearing support housing designed to improve stability in the support area. High priority has been established for this ECP and evaluation is underway. Availability date has not been determined.

7. PROBLEM: Oil consumption.

CORRECTIVE ACTIONS:

- a. Improved bearing sealant is currently being

NER



incorporated during overhaul and in production engines.

b. An engineering evaluation is underway for a new metal "O" ring gasket for sealing the HP thrust bearing sump. Availability unknown.

c. Procedures for oil consumption checks are being reevaluated.

8. PROBLEM: Oil quality.

CORRECTIVE ACTION: The oil (MIL-L-7808) used in the TF-41 engine is being reevaluated to determine adequacy. Being considered for use is MIL-L-23699, which is presently used in the Navy A-7E.

Briefly, gang, that's it. Believe me, the TF-41 engine is getting a lot of high level attention. Often the last guy to find out what's being done is the jock who's letting it all hang out. When all else fails, the ejection seat is there to expedite your safe recovery. Unfortunately, in a recent A-7D accident, the pilot was killed because the ejection seat cables were improperly installed. As a result, an interim urgent action TCTO 1A-7D-737, dated 26 June 1973, has been completed, which required a fleetwide inspection of the A-7D ejection seat. It's a good seat; don't wait too long to use it after all else has failed.

INSTANT ACCIDENT INVESTIGATOR

by Major Burt Miller

Immediately after an aircraft accident, especially one with no survivors, every aviator apparently becomes an immediate and expert accident investigator. His level of expertise and readiness to proclaim the obvious cause

depends on his own experience and interpretation of the reported sequence of events and related circumstances. Sometimes his initial findings agree with those of the formal accident board. More often, his initial solution isn't quite in line with the published analysis, findings, and recommendations as published by Norton. So — No Biggie! Being a sharp TAC aircrewman, he still gains from his unofficial and distantly removed membership on that board. The events, circumstances, and cause factors as he interpreted or visualized them may well keep him — or get him — out of a similar disastrous situation. The discussions that were generated over the bar (coffee or other) between him and his squadron mates or supervisors as a result of the progress report, safety briefings, and final findings could be dang helpful some time in the future.

Like the man says, let's play the game. The following facts are from the preliminary report of a recent TAC F-4 accident. You will soon know as much as the board members and the Commander TAC did on Day One. Take into account your experience and the facts as you understand them and kick it around. Jot down your findings and recommendations. In a couple of months, your safety people will brief you on the final board findings. See how close you come. More important — see how much you learned by participating in this investigation. Remember it!

Subject aircraft was number two in a two ship element on a night tactical air-to-ground mission. After four 30 degree deliveries using LOGs, and two 15 degree passes using the O-2 FAC's airborne flares, the lead aircraft

SPO CORNER

pulled off for a briefed training rejoin and RTB. As lead passed 4000 feet, he observed number two overshooting an estimated 1000 feet behind and 500 feet below his aircraft. Shortly, two asked lead for his heading and if he were still in a right turn. Lead acknowledged. One second later, lead observed a bright flash at his six o'clock. Neither crewmember attempted ejection.

OK, gang, while you are coming up with your findings and recommendations think about what you can do in your own unit to prevent a similar happening.

THE INVESTIGATION OF CREW FATAL ACCIDENTS

Lt Col Lou Kenison

Difficult yes! Impossible no!

It's an unfortunate fact of life that in military flying there have been and will be crew fatal accidents. Fatalities are tragic and are doubly so if the true cause of the accident is not found and corrective action taken before another aircraft is lost. Cause factor analysis indicates that aircraft accident board findings may have been erroneous in as many as 30 percent of TAC crew fatal accidents.

The approach to investigation of these accidents should usually be different than that used for investigations where a crewmember survives. Since our scarce multimillion dollar aircraft are not (for the most part) equipped with flight recorders, we tend to rely heavily on the statements of surviving crewmembers for clues as to where to concentrate the investigative effort. When no crewmembers survive, the percentage of crew factor findings increase, sometimes as much as the previously mentioned 30 percent.

We suspect one of the reasons these statistics increase is the hopeless feeling experienced by many accident boards when faced with a difficult investigation. With no place to look, they guess — then, in the report, they may unconsciously emphasize evidence that supports the guess.

Our purpose here is to suggest one approach to the investigation of crew fatal accidents. It is general in nature and undoubtedly could be enlarged upon — but it will work if you have nothing better. Start this way.

First and foremost, always remember something went wrong!! Aircraft are not built to crash nor are pilots trained to intentionally destroy themselves. When analyzing any part, system, or procedure, you will be told time and time again that it cannot fail — BECAUSE it is not supposed to, or is built with this or that safeguard — DON'T BELIEVE IT. Something did go wrong.

For example, if you know for a fact that an aircraft performed a specified maneuver in a specified period of time and only maximum deflection of the stabilizer in excess of design rate will produce that maneuver, you'd better start looking for ways the stabilizer can be moved in excess of design rate. Or, if a starter disintegrates in flight from overspeed and it can only be driven to destruction from the engine or from a starter cartridge, it doesn't matter whether the starter clutch is foolproof or the last chance crew personally checked the starter breech empty before takeoff; one or the other happened!

As far as investigative procedure goes, attempt to isolate as many facts as possible pertaining to time/altitudes and airspeeds. If the aircraft was on an instrument approach, try to reconstruct the flight path from known times and positions on the approach tapes. If there are witnesses, triangulation will frequently give a valuable clue as to flight path being flown. Don't forget to analyze all information from flight instruments/known gross weights, known performance capabilities, as well as impact parameters that may be trapped in aircraft gyros and air data computers. When you have all the numbers available, put them on a blackboard so that the entire accident board has a chance to analyze the possible cause factors.

About this time you will have to decide if the crew knew a crash was inevitable. If there are no radio calls or ejection attempts, you may be able to show numerically that the aircraft was actually placed in a position by the pilot where it had to impact the ground. This has happened in at least two TAC accidents where telemetry and motion picture documentation proved the aircraft was too steep/too slow and too low to recover after ordnance was released. Yet, in both cases malfunction of the flight control system was considered as a possible cause.

If there were distress calls or an attempted ejection, there is a good chance an aircraft malfunction is involved. If so, the malfunction may have given advance warning on a preceding flight. Check aircraft writeups. Talk to the pilots and see if listed corrective actions really fixed the aircraft problem. For instance, frequent tire changes may indicate sluggish flight controls causing firmer than normal landings. While you are checking recent maintenance history, don't neglect long term aircraft accidents and incident history available from the Air Force Inspection and Safety Center, both by type aircraft and for your specific aircraft tail number. Last, but not least, don't blame the pilot just because he wasn't the strongest in the unit or because he failed his last check ride or is inexperienced. It just may be his only fault was failing to recognize or correct a serious aircraft malfunction in time.



LET'S HEAR IT FOR THE SUPERVISOR!

by **Capt John N. P. Reisbick**
Chief, Explosives Safety Branch
Hq TAC/SE, Langley AFB, VA.

If you're a reader of incident or accident reports, I'm sure it must seem to you that the whole Air Force is out to get the supervisor, so let's set the record straight. I say let's hear it for the true supervisor. He's the guy who knows the job, knows his people, recognizes his assets and liabilities, and acts accordingly. Take a good look at him.

The true professional is easily recognized. He is the guy who learned the job the hard way, by doing it. He worked on that aircraft, loaded those munitions, lived with the tech data — probably helped to improve it all. He knows how the work is supposed to be accomplished — from experience and knowledge. He uses his tech data because to do so means a job done right — the first time.

The professional supervisor also knows his people — the guys in his shop or office or on his loadcrew. He knows their abilities and limitations, their strengths and weaknesses. He is

intimately familiar with their training and qualifications because that's also part of his job. He applies the "whole man" concept in his supervision because he recognizes his work force is made up of people who have normal people problems which can affect their performance.

In addition to knowledge of job and awareness of work force, the true supervisor fully recognizes his assets and liabilities. He is ahead of the power curve, and doesn't get caught napping. He knows the condition of handling equipment, the training status of loadcrews, and the qualification schedule for egress technicians. Good management enables him to schedule the work force to meet the mission — without cutting corners — and still allow for leaves, passes,

schooling and other demands on the time of his people. Additional duties and training commitments are worked into his shop schedule because they are part of the job.

And finally, with all the knowledge and experience at his disposal, the professional supervisor has one other drawing card. He knows how to apply it! Even a casual observer can note the state of supervision in any shop or work area. Tell-tale signs of housekeeping: appearance and orderliness; condition of tools and equipment; use or non-use of tech data; appearance or lack of discipline; attitude of the personnel. The list goes on and on.

How about it, Mr. Supervisor, how do you line up? Do you recognize yourself here? ➤

TAC			WEAPONS MISHAPS			ANG		
JUN 73	THRU JUNE		EXPLOSIVE	JUN 73	THRU JUNE			
	1973	1972			1973	1972		
13	90	40	TOTAL	7	28	16		
7	29	10	Personnel	5	18	10		
4	45	19	Materiel	2	9	6		
2	16	11	Other	0	1	0		
1	10	6	MISSILE					
1	2	2	NUCLEAR					

METRIC

by 1Lt Charles H. Vaughn
180th Tac Ftr Gp, Ohio ANG
Swanton, Ohio



progress report

In concert with the National Policy to convert the U.S. to the Metric System by 1980, researchers at the M. J. Mouse Flight Instrument Corporation have released this progress report on the MJ-10 Metric Heading Indicator and MJ-11 Metric Altimeter.

The MJ-10 Metric Heading Indicator (Fig. 1) will consist of 100 degrees; with each new degree equal to 3.6 old degrees. Zero degrees will indicate Metric Magnetic North and 50 degrees Metric Magnetic South. Reciprocals will be computed by adding or subtracting 50 degrees from selected headings, thereby eliminating "the old 180 degree ambiguity error."

The MJ-11 Metric Altimeter (not shown for reasons of industrial security) consists of 7 pointers and 3 roller drum readouts. Under this new system, each 100 feet of old altitude will be equal to 30.48 meters or 3,048 centimeters. It is then evident that each 100-feet of altitude is broken up into many more parts (meters and centimeters) and accuracy will be about 30 times greater than the "old feet system." Thence: "VFR operations will be conducted up to, but not including 5,486 meters, 40 centimeters or FL 5,486.4 (the old FL 180). Eastbound traffic will fly at odd meters and even centimeters, and westbound traffic will fly at even meters and odd centimeters."

IFR flights conducted above FL 5,486.4 but below FL 8,834.7 (the old FL 290) will fly at even metric flight levels with 609.6 meters of altitude separation if the metric heading is between 50 and 100 degrees.

If the metric heading is between 0 and 50 degrees, the flight will be conducted at odd metric flight levels, with 609.6 meter separation, commencing at FL 5,791.2. Flights conducted above FL 8,834.7 will have 1,218.2 meters of altitude separation starting with FL 9,448.8 for



FIG 1

metric headings of 50 to 100 degrees and FL 8,834.7 for metric headings of 0 to 50 degrees.

The only problem thus far encountered with the new altimeter is the size; presently 3 and one-half feet in diameter and weighing 375 pounds. Researchers, however, are confident that with recent technology, the size of the instrument can be reduced 5 to 10 percent. ➤

In case you like this article, INTERCEPTOR tells us they'll be running it this fall.

LETTERS

TO THE EDITOR

THE F-109 DEBATE CLUB

Will the REAL F-109 please stand up, or better still, perform a vertical takeoff?

My congratulations to Mark Sublette of Shalimar, Florida (reference the June issue) because I really think he's got it!

Using his information, I was able to recheck my own sources (the Bell D-188A was referenced in an index, whereas F-109 was not), and I quote the following from the Royal Air Force FLYING REVIEW magazine (a fairly definitive source for historical aviation information), Vol. XIV, No. 9, the June 1959 edition, page 22:

"USA: The Bell D-188A VTOL supersonic fighter, powered by eight General Electric J85 lightweight turbojets, has now been designated F-109 and is to be developed by the Bell and Convair companies under a joint programme (sic). Now in the mock-up stage, the F-109 was originally sponsored by both the USAF and the US Navy, but it now seems probable that the latter service will discontinue its support of the project in the near future. The F-109 is intended for speeds of the order of Mach 2.0, and will be capable of operating from confined spaces."

Enclosed you will find xerox copies of a three-view drawing, [not shown. Ed.] a short article concerning the operating "statistics" of the D-188A, and photos of the mock-up/artist's impression of the D-188A and the real VJ-101 XI. The copies of the photos are probably unusable, but the three-view and the in-flight artist's impression could probably be "doctored" by

Hardison for use if you ever decide to write a "finish" on this controversy! Keep this information to use as you wish (I will not need it returned). It all comes from later editions of the RAF FLYING REVIEW magazine than the quote above, i.e., 1961/62 and 1963.

I certainly cannot be sure that this information will end the argument you started, but it sure has been interesting!

That's about it I guess, and I promise I won't bother you guys again — at least for a while. Cheers!

Captain Henry R. Kramer, USAF
Fort Hood, Texas

TAC ATTACK is pleased to announce that you are now the Founder and Charter Member of the F/XF-109 Debate Club!

Unfortunately, Hardison threatened us with the "Wrath of Fleagle" if we slid another F-109 onto his drawing board. Thanks for the info. Ed.

• • •

REUNION

3rd TAC FIGHTER WING REUNION

The 1973 reunion will be held September 14-16 in Kansas City, Mo. Transient aircraft facilities will be available at Richards-Gebaur AFB. Contact Lt Col Jack Doub, AFB, 181st TFG (ANG), Hulman Field, Indiana 47803.

TAC TALLY

MAJOR ACCIDENT RATE COMPARISON

	TAC		ANG		AFRes	
	1973	1972	1973	1972	1973	1972
JAN	5.0	0.0	8.5	0	14.9	0
FEB	5.1	0.8	8.6	0	6.7	0
MAR	5.1	1.6	6.8	6.3	4.1	0
APR	4.2	2.8	5.0	8.1	3.2	0
MAY	4.3	4.0	4.7	6.3	2.5	0
JUN	4.9	4.8	5.2	5.1	1.6	0
JUL						
AUG						
SEP						
OCT						
NOV						
DEC						

AIRCRAFT ACCIDENTS

UNITS

	THRU JUNE					THRU JUNE			
	1973		1972			1973		1972	
	ACDTS	RATE	ACDTS	RATE		ACDTS	RATE	ACDTS	RATE
9AF	6	4.5	3	2.4	12AF	8	4.5	10	5.0
1 TFW	1	6.6	1	5.5	67 TRW	0	0	0	0
4 TFW	0	0	0	0	35 TFW	0	0	1	6.3
23 TFW	1	10.1	0	0	49 TFW	0	0	2	9.5
31 TFW	0	0	1	7.8	58 TFTW	1	3.3	2	6.7
33 TFW	0	0	0	0	27 TFW	2	16.6	1	9.1
68 TASG	0	0	0	0	71 TASG	0	0	0	0
316 TAW	0	0	0	0	313 TAW	0	0	0	0
317 TAW	0	0	0	0	314 TAW	0	0	0	0
354 TFW	3	12.3	1	8.5	355 TFW	1	6.4	0	0
363 TRW	1	6.2	0	0	366 TFW	0	0	1	15.5
					474 TFW	4	25.9	2	11.8
					463 TAW	0	0	0	0
					23 TFW	0	0	1	9.8

TAC SPECIAL UNITS

1 SOW	1	6.0	1	3.7	4410 SOTG	0	0	2	12.5
2 ADG	0	0	0	0	4485 TS	0	0	0	0
57 FWW	1	8.5	1	10.7	4500 ABW	1	9.5	0	0
ADS	1	-	1	-	OTHER	0	0	2	0

TAC		
JUN 73	THRU JUNE	
	1973	1972

5	24	28
5	18	20
3	12	29
4	16	20

5	17	21
4	11	13
80.0%	64.7%	61.9%

SUMMARY

TOTAL ACCIDENTS
MAJOR
AIRCREW FATALITIES
AIRCRAFT DESTROYED

TOTAL EJECTIONS
SUCCESSFUL EJECTIONS
PERCENT SUCCESSFUL

ANG		
JUN 73	THRU JUNE	
	1973	1972

2	12	10
2	8	7
0	1	1
2	6	6

2	7	5
2	6	5
100%	85.7%	100%

FLEAGLE

by HARDISON

