

TAC ATTACK

MAY 1989



ANGLE OF ATTACK

May is the beginning of the "Great Migration," but I'm not just talking about the normal movement of birds at this time of year. This is also when the great migration of Air Force families begins (PCS). TAC people will experience long periods of driving and unfamiliar areas as well as new driving patterns and local customs. The roads get more crowded during this time of year and temperatures go up (not only outside the vehicle, but also inside those in the vehicle). Have a little consideration for your loved ones and those around you while you're on the road. Our squadrons will increasingly have folks TDY and a lot of people will be away from home base for off-station training (OST). In your flying operations, you need to be aware of the change in your unit's experience level, and the loss of corporate memory about how you've done things successfully in the past.

Of course, May *is* also an important time to be aware of our feathered fellow aviators. Large numbers of birds migrating from their wintering spots to "points north" are airborne, and the birds indigenous to your area are busy having their young born and hunting for food. As always, be aware of the popular watering holes and feeding spots for birds in your area — then steer clear of them *whenever possible*.

Last year during the month of May, both Class A flight mishaps in TAC occurred while the aircrews were away from home during OSTs. Would these mishaps have happened at home? Perhaps, but I don't think so. The mishaps included elements such as poor, inadequate briefings; sloppy planning; and a tendency to relax normal standards of flying discipline (and this is putting it mildly).



When you're out on an OST, you need to be aware that local procedures may vary greatly, local climatology may differ from what you're used to, and *self-discipline* is more important than ever.

I know all of you are working hard to combat the trends we've seen with the mishandling of in-flight emergencies and resultant flight mishaps. Our folks may know the Boldface/critical actions items, but some of them don't seem to fully understand their aircraft systems and the emergencies they may experience. The situational emergency procedures training (SEPT) programs which you have in operation are good, but I'd like to highlight one I've seen that is exceptional. The SEPT program at the 27th Tactical Fighter Wing, Cannon AFB, NM, is outstanding. I recommend you contact them and take a look at how they do emergency procedures training there.

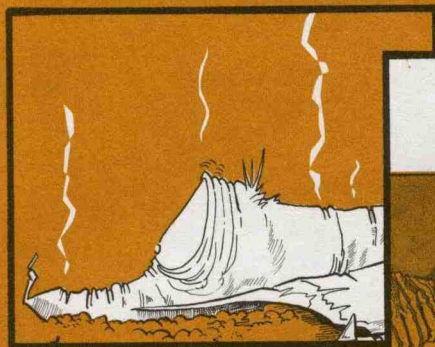
Here's something for you to ponder: "Safety, like money, is not a problem, unless you don't have any."

To all my partners' wives and mothers — Happy Mother's Day.

Jack Gawelko
JACK GAWELKO, Colonel, USAF
Chief of Safety

TAC ATTACK

DEPARTMENT OF THE AIR FORCE



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TACSP 127-1

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TAC ATTACK

MAY 1989

HON. JAMES F. MCGOVERN
ACTING SECRETARY OF
THE AIR FORCE

GEN ROBERT D. RUSS
COMMANDER



COL JACK GAWELKO
CHIEF OF SAFETY

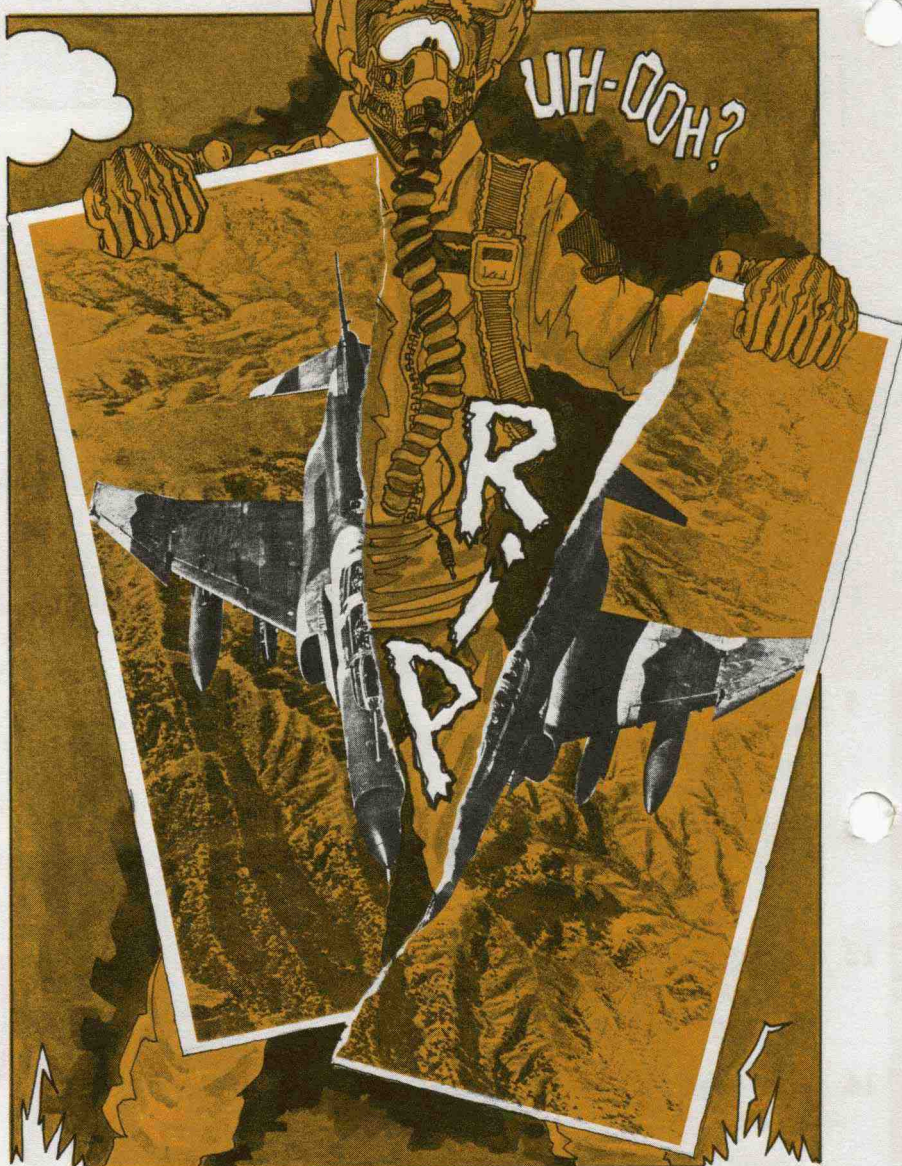
MAJ DON RIGHTMYER
EDITOR

JANET GAINES
EDITORIAL ASSISTANT

STAN HARDISON
ART EDITOR

SSGT DENNIS WALLACE
STAFF ARTIST

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Capt Ken Bachelor
35 TTW/DOV
George AFB, CA

Reading the latest mishap reports, I've seen a disturbing trend in what I call the buffoonery department. Primarily, the problem has been in misanalyzing the situation and then taking inappropriate action based on the misanalysis. While all of these incidents deal with F-4 aircraft, you can adapt the

same lessons to your unit's aircraft type. Here are just a few examples:

A flyer with 2,500 hours of experience had an oil system failure in the #1 engine and got a Bus Tie Open light with no associated generator light(s) on. He misanalyzed the situation and quickly shut down the #2 engine, effectively taking both generators off-line. Unable to hold airspeed (left nozzle failed open), he unsuccessfully tried to

BUFFOONERY AT WORK

light his left afterburner. With no luck there, he restarted the right engine, regained safe flying airspeed, and again shut down his right (good) engine. He went through the whole sequence one more time before jumping in for a short (200 feet down the runway) landing with the pedal shaker sounding off.

When the throttle was brought to idle, the RPM dropped to zero.

The pilot, thinking he had engine failure, then chose to shut down the engine and recovered single engine.

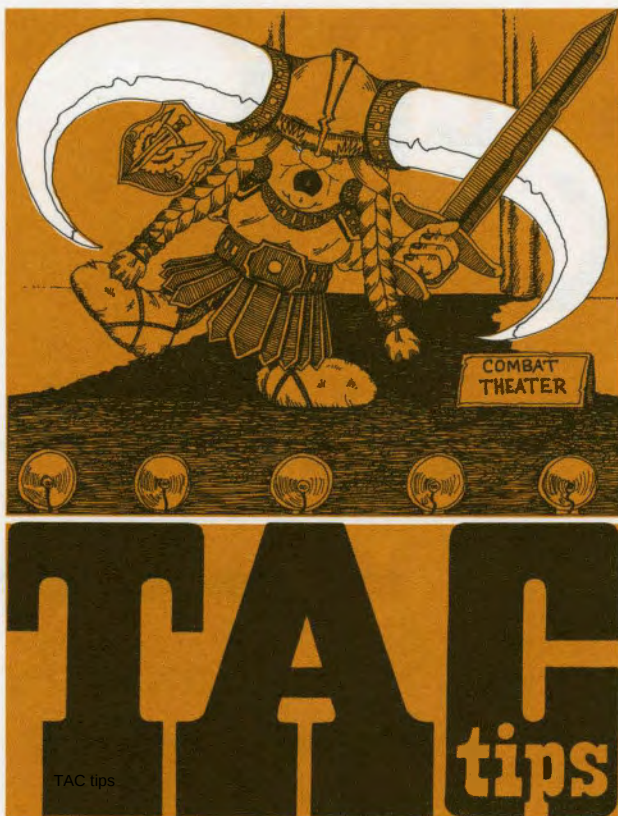
A student aircrew on a syllabus mission was returning to base when they noticed RPM fluctuating in the 10-20 percent range. When the throttle was brought to idle, the RPM dropped to zero. The pilot, thinking he had engine failure, then chose to shut down the engine and recovered single engine. The good news was a successful recovery. The bad news was that he shut down the engine for a simple tachometer generator failure. All other engine indications were normal.

A squadron instructor pilot (IP), flying an intercept mission, noticed his left engine RPM at 22 percent. Bringing his left engine to idle, he noted RPM still at 22 percent, 800 pounds per minute fuel flow, 200 degrees C. EGT, nozzle open and generator still on-line (sounds like tach failure to me). The IP, being the sharp individual he was, quickly decided compressor stall was the culprit and shut down the engine. The result was a restart attempt and subsequent shutdown (same reason), resulting in a single-engine landing. Again, a tach generator failure.

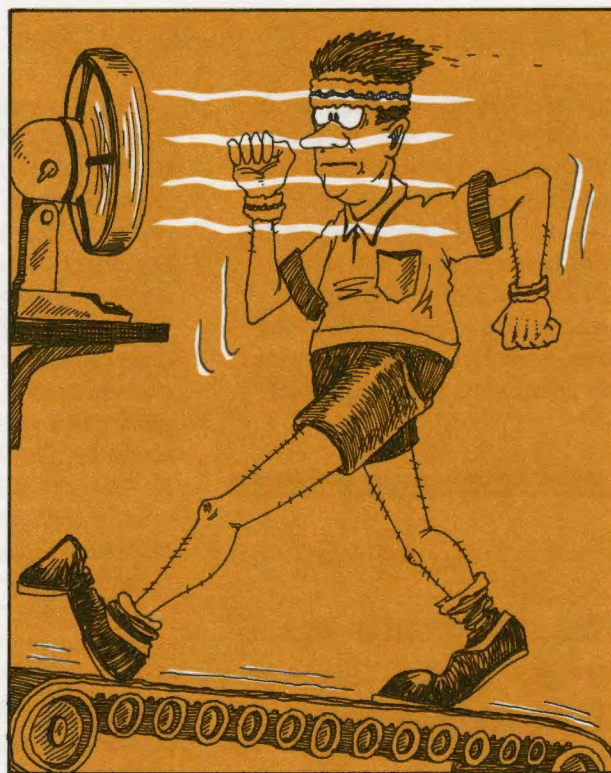
The bottom line is to take the time to analyze the situation properly before jumping to the wrong conclusion and taking the wrong action.

In all three of these incidents, the buffoonery factor was alive and well. In the first one, it could have resulted in a lot more than just severe personal embarrassment. The bottom line is to take the time to analyze the situation properly before jumping to the wrong conclusion and taking the wrong action. None of these situations were Boldface events, i.e., not time critical; so let's not start treating them as such. We may save more than an aircraft.

➤



INTERESTING ITEMS, MISHAPS WITH MORALS, FOR THE TAC AIRCREWMAN



Get it in shape

There are several important reasons why TAC aviators should work continually to ensure they're in good physical condition and their body weight is under control. Besides the obvious Air Force regulations and health reasons for being in shape, there is one that may not be so obvious—your ability to avoid a physiological incident in flight.

A pilot was part of a three-ship OA-37 deployment. About 40 minutes into the flight after level off at flight level 250, the pilot began to have stiffness in his joints (shoulders, elbows and knees). Shortly after that he began uncontrollable coughing, so he selected Emergency and 100 percent on his oxygen regulator. The right seat occupant (crew chief) also selected Emergency/100 percent on his oxygen equipment, even though he didn't experience any adverse physiological symptoms.

The mishap pilot immediately initiated a gradual descent and began to feel much better as he passed 18,000 feet. Once the aircraft was safely

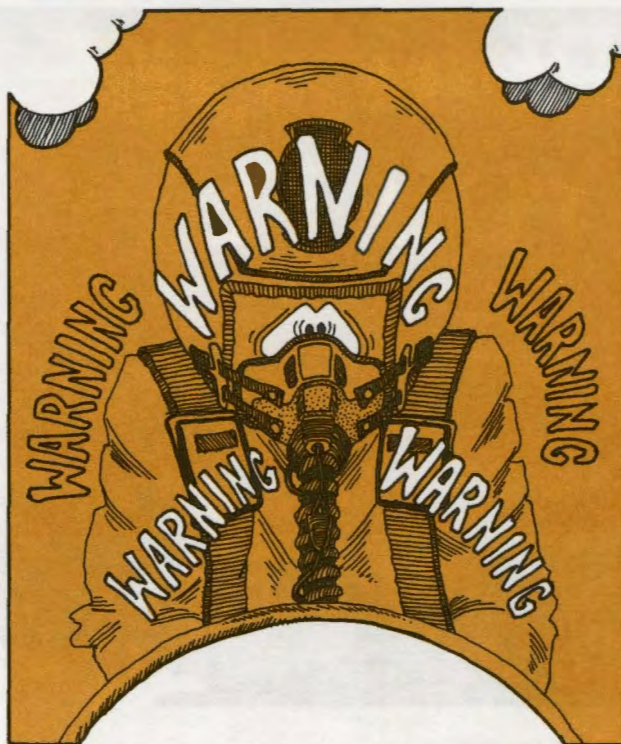
back on the ground, the pilot was examined by a flight surgeon who determined that he had also experienced a similar incident six weeks earlier. One of the strong recommendations given to this fellow was that he lose weight and begin a physical conditioning program.

Take a careful look at your own condition. Would you accept an aircraft for flight that was less than airworthy? Of course not! Why would you try to fly with a personal "airframe" that isn't in just as good a condition? Let's all make sure we get it in shape!

Mixed signals

An Eagle driver recently faced an unusual emergency. Shortly after takeoff, he noticed warning lights for the roll ratio and the rudder limiter. Cycling the roll ratio switch to Emergency only made matters worse. To compound the problem, he noticed that his left engine appeared to be stuck at mil power. He cycled the engine electronic control (EEC), but it didn't have any effect on the engine response. He shut down the engine and made an uneventful landing.

The culprit? A false Mach signal (greater than 1.5 Mach) generated by the left air inlet controller (AIC). The aileron-rudder interconnect (ARI) should disconnect above Mach 1.5 as sensed from other sources. The AIC Mach input is used to verify this signal. When a discrepancy between signals occurred, the roll ratio light came on to indicate improper ARI scheduling. The same problem occurred with the rudder limiter. The engine, sensing it was above 1.4 Mach, was locked by the EEC at mil power, regardless of throttle position. Even though the EEC switch was cycled, normal response could not be attained unless the EEC



had been turned off. The pilot did a good job recovering the jet—to a point. If he had turned the EEC off (next step in the procedure), he would have had both engines available for landing.



TAC Personnel Who Have Made Noteworthy Accomplishments To Unit Effectiveness

Maj Frederick J. Bell 1 TFW Langley AFB, VA	Capt Michael S. Fry 1 TFW Langley AFB, VA	TSgt Brian K. Roberts 318 FIS McChord AFB, WA
Maj Lee V. Stubsten 162 TFG Tuscon, AZ	Capt Kent Laughbaum 23 TFW England AFB, LA	SSgt Mark J. Morton 74 TCS Langley AFB, VA
Capt James L. Bowman 1 TFW Langley AFB, VA	Capt Ronald Olson 23 TFW England AFB, LA	Sgt Michael J. Rizzo 49 TFW Holloman AFB, NM
	TSgt John M. Ford 73 TCS Myrtle Beach AFB, SC	SrA Jeffrey A. Austin 4 TFW Seymour Johnson AFB, NC

PLAY LIKE YOU FLY



Lt Col Kit Alverson
507 TAIRCW/DO
Shaw AFB SC

Scenario: A two-ship low-level nav mission. First leg, known route and terrain. Second leg, new route and terrain. Third leg, old as the hills. I'm number one with a wingman truly as competent. The plan is to attack this route with aggressiveness, determination, and realism. So that my wingman can show how good he is, I decide to let him lead the second leg. For this particular mission, we determine fighting wing would be the best formation.

Brief, start, taxi, and en route were perfect. We were ready to go for it as the first leg approached. Having been over the first leg several times, I felt very comfortable. I was doing an excellent job of terrain following and maneuvering to avoid potential threats. My wingman was doing an excellent job keeping in

position. As we approached the second leg, the terrain flattened out and we could relax a little before changing leads. The lead is changed and I'm determined to be the best wingman ever seen. As we go into the new route, it becomes obvious that this is going to be one tough leg. The terrain is rough and the potential for getting off course or lost is high. I decide to close in tighter, with the thought that I can maintain better position.

I LOOK BEYOND LEAD TO SEE WHY HE TURNED.

I SEE WHY, TRY TO TURN, BUT OVERSHOOT HIS PATH AND HIT THE VERY PERMANENT VERTICAL OBSTACLE.

Suddenly, I notice that I'm too close to lead with some overtake.

At the same time, lead makes a hard jink to the left to avoid a vertical obstacle. I look beyond lead to see why he turned. I see why, try to turn, but overshoot his path and hit the very permanent vertical obstacle. What was the vertical obstacle? Nothing more than a 12-inch diameter pine tree. Now, you're asking, what happened? Damage to equipment was nil. Damage to me was a broken collar bone.

Confused? Probably, but let me finish. Take the story above, analyze it, and find where I erred. Now, put yourself on a set of skis with a close friend and go through the scenario. If I were flying, I surely wouldn't put myself in a situation I couldn't get out of. I guess the bottom line is: If you're a darn good fighter pilot, play like you fly. If I had used the same principles while skiing as I use while flying, I would be in less pain (more ego than physical) and not have lost a month of something I really love—FLYING. ➤



AIRCREW OF DISTINCTION

As Maj William P. Robinson led a flight of four A-7Ds for recovery at the completion of their mission, his aircraft suddenly experienced severe compressor stalls. At the same time, his wingman reported sparks shooting out of the aircraft's exhaust. The stalls were accompanied by a rapid rise in TOT and, at 490 knots and 2,000 feet above the ground (AGL), he immediately started a climb and reduced engine power to idle. Leveling at approximately 13,000 feet MSL and 200 knots, Maj Robinson attempted to advance the throttle. At about 70 percent power, the stalls recurred and the TOT went above 800 degrees with the RPM decaying as the throttle was advanced. He again reduced the throttle to idle in an effort to control the TOT.

During this time Maj Robinson was descending in order to maintain an airspeed of about 230 knots and he had deployed the ram air turbine (RAT). With the throttle in idle, the TOT stayed at about 400 degrees, but stalls and TOT rise occurred as the

throttle was advanced to about 70 percent. Maj Robinson then went to idle again and selected manual fuel; but at about 70 percent, the stalls recurred, the TOT rose and the RPM started to decay.

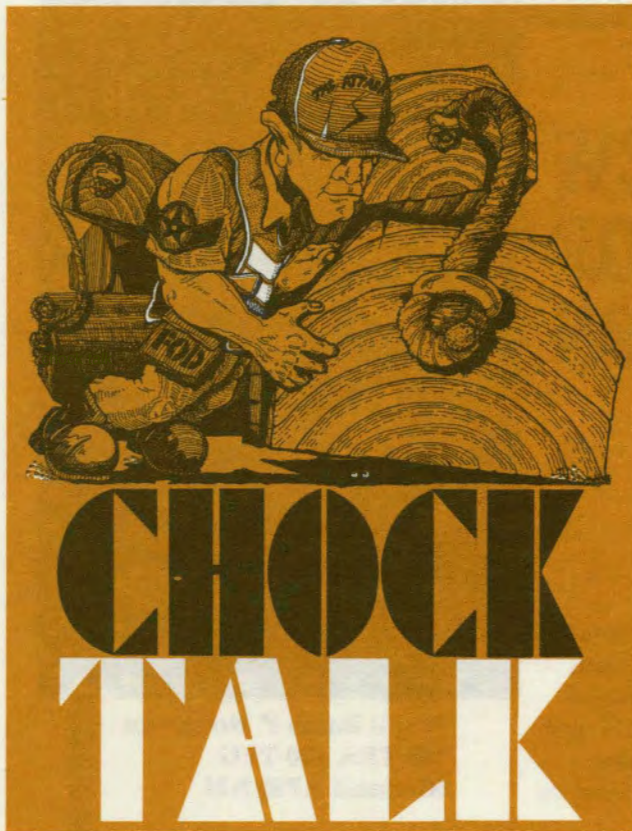
As he approached 3,500 feet AGL with the airspeed now at 170 knots, the pilot began to prepare for ejection. As a last ditch effort, he briefly shut down the engine and attempted an airstart. Idle indications were the same as before, but this time he was able to advance the power without experiencing further stalls. The power was advanced to 80 percent and the aircraft accelerated to 200 knots in level flight. The throttle was not touched again until short final on a precautionary landing pattern. After landing, bird remains were found inside the engine.

Maj Robinson's outstanding airmanship and extraordinary poise under the most stressful of circumstances resulted in the successful recovery of a valuable aircraft resource, earning him the TAC Aircrew of Distinction Award.



Maj William P. Robinson
188 TFS, 150 TFG
Kirtland AFB, NM





Incidents and Incidentals with a Maintenance Slant

—Whenever the vehicle is parked near buildings, crosswalks or where pedestrians may be found, always get out and check before backing up.

—Ask for help whenever clearances are tight or whenever backing up for a considerable distance.

—(Courtesy ATC)

What's your backing-up plan?

Backing up a vehicle is a problem. Blind spots make it hard for you to see, and the number and location of blind spots vary depending on the type vehicle and the load being carried.

Mirrors help; but, no matter how well equipped the vehicle is with mirrors, there are still blind spots that can cause a problem if the driver doesn't use a reliable person to help guide his backing operation.

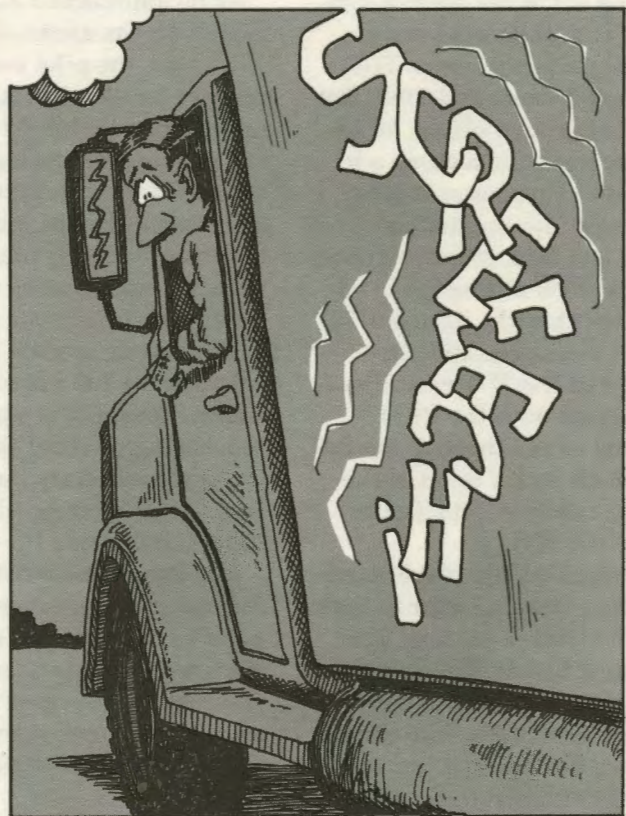
When you back up, plan ahead—

—Avoid backing up whenever possible. Plan the route in advance to eliminate the necessity to back up.

—Never back up around a corner.

—Use spotters to help guide the backing operations.

—Don't back up immediately after stopping. Someone may have been following you in a blind spot, especially if you're driving a truck, bus or van.



When you need a wire

An F-15 Eagle pilot could not get one of his engines to respond to throttle inputs, and the engine nozzles remained closed while he was airborne. He immediately declared an emergency and returned to base without any further problems.

Maintenance technicians found the 13th stage bleed air line detached at the augmentor fuel pump inlet. The line was disconnected because the coupling clamp wasn't properly seated during installation or was improperly torqued. The safety wire securing the nut on the mishap clamp was also discovered misinstalled and broken. One piece of safety wire had been used for both the nut and clamp, instead of the two pieces required by the T.O. Inspection of other engines revealed instances of improper safety wiring, resulting in broken wires or wires that would not support the clamp.

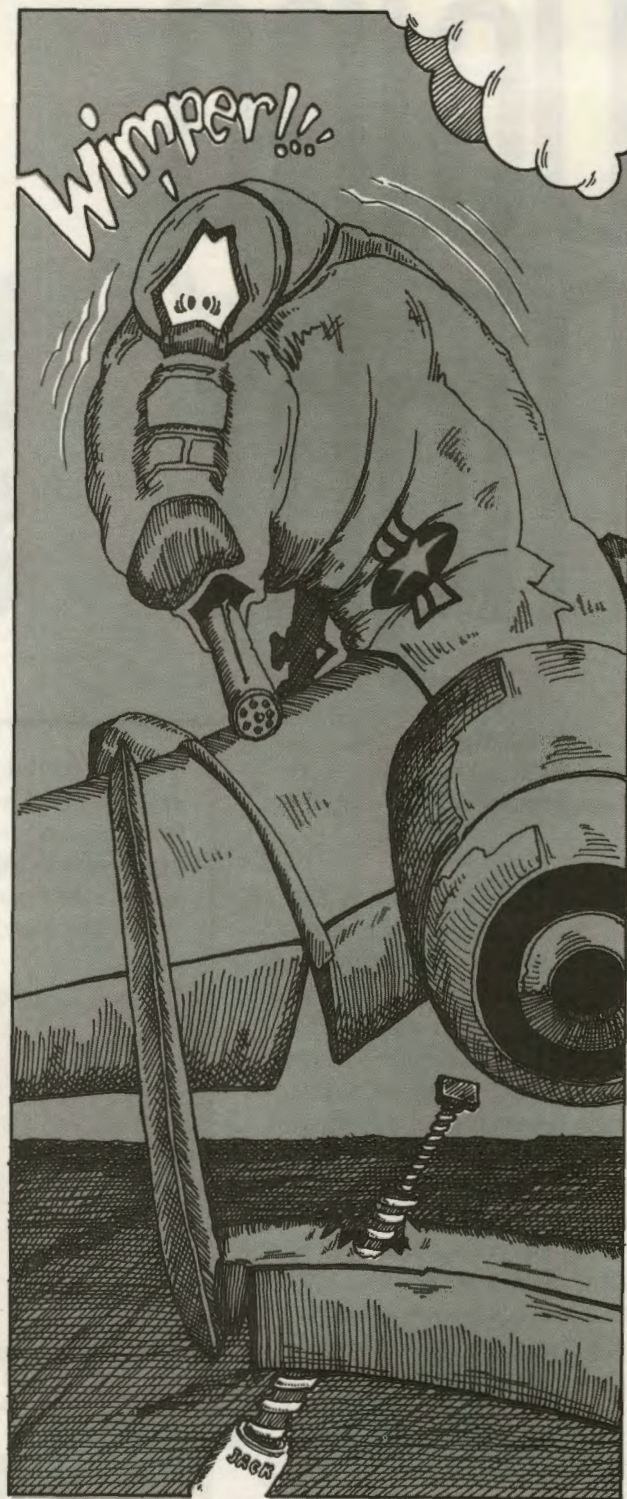
Obviously, installing aircraft components and safety wiring as prescribed by the tech order is vital. Not performing maintenance tasks as they should be can result in an in-flight emergency or even the loss of valuable aircraft and aircrews.

Ask yourself why FIRST

A maintenance crew had been directed to install an auxiliary power unit (APU) in an A-10 aircraft. In order to ease positioning of an APU stand during the installation process, the aft aircraft jack had been removed and pushed back directly under the left elevator. The work crew was unaware that gun components had been removed from the aircraft, shifting the normally expected center of gravity.

When the APU installation was completed, one of the maintenance specialists removed the APU stand. A few seconds later, the aircraft's weight change from the addition of the APU caused the tail to rotate downward about a foot before it came to rest on the jack tripod and the APU stand. The left elevator required replacement due to a six-inch hole punched through it by the jack screw, and an APU fuel line and support bracket were bent.

Before you think about moving a jack or other airframe support on an aircraft under



maintenance, stop and ask yourself why it was put there. There's bound to be a good reason and you need to be aware of it.

Doing it the Right Way

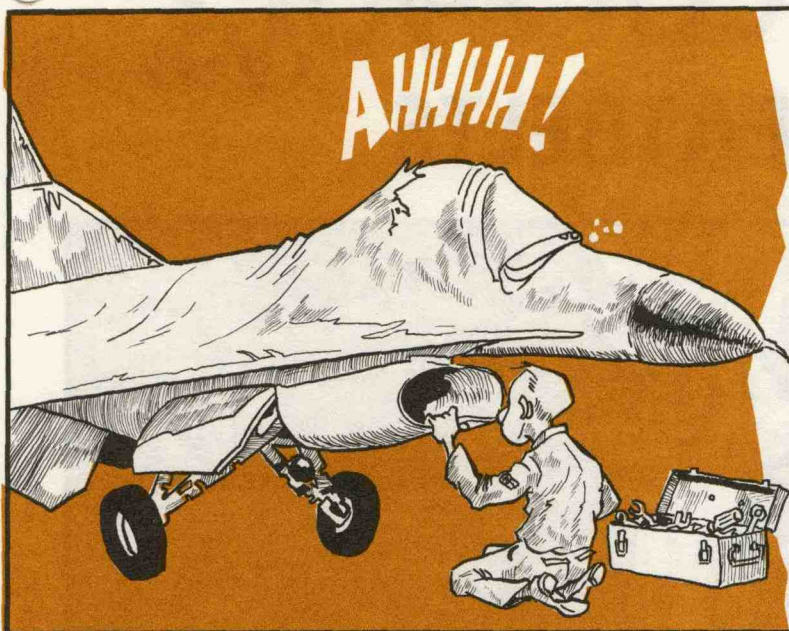
Col Terry Markle
TAC/SEF
Langley AFB, VA

As Chief of Flight Safety at TAC, one of my monthly duties is to review submissions for Aircrew of Distinction and select one for an award. This month that selection was a very difficult one—four nominations, each deserving an award, and each an example of the professionalism and expertise demonstrated daily by TAC aircrews. We in the safety business spend a lot of time emphasizing the bad and not nearly enough emphasizing the good. Several times a day, the coordinated efforts of SOFs, flight leads, pilots, WSOs, and maintainers keep the little incidents from becoming headliners. Here are some recent nominees that were not selected for the Aircrew of Distinction, but who are representative of the high quality people in TAC:

An F-16 pilot at 400 feet and 480 knots hit a turkey vulture. Coordinating with the SOF, he proceeded to high key for an SFO (simulated flameout) landing. When the nose gear wouldn't

come down, he used the emergency system and landed successfully. Sounds easy, right? It wasn't that long ago that TAC had an aircraft destroyed from an even simpler mishap.





A crew chief launching an F-16 noticed that the engine nozzle was closing slower than normal. Anticipating a problem, he had the pilot shut down the engine, and, subsequently, discovered several broken and disconnected actuators on the nozzle assembly.

In everyday activities, it is our exceptional people who are making the difference. There just isn't enough paper to feature all of them, yet they all deserve recognition. These are the people responsible for TAC's low mishap rates, and YOU are one of those people.

Not every mishap can be pre-

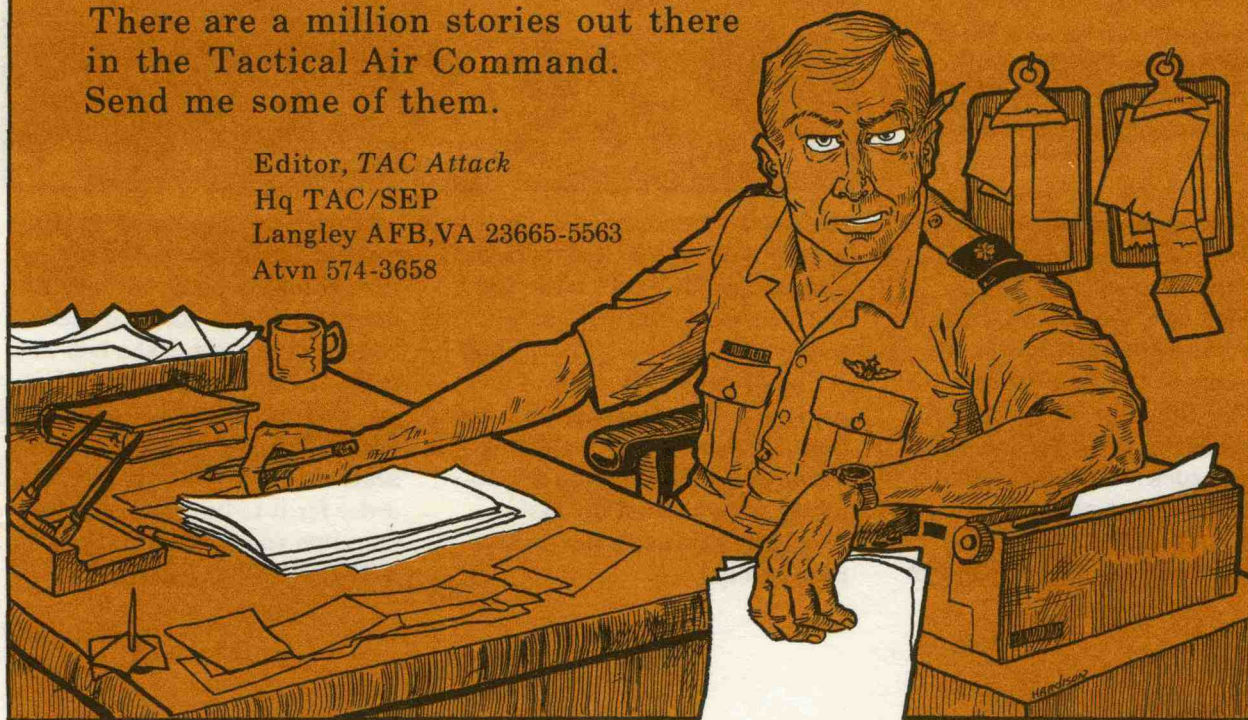
vented by simply doing your job properly every time. Sometimes hazardous situations are beyond your ability to correct. Those items must be identified to the appropriate supervisory level to correct the situation, and one of the vehicles to accomplish this is the hazard report. This form should be available on your unit

safety bulletin board or from your ground safety representative.

People make the difference in TAC, and you keep us flying by doing your job right the first time every time. Keep up the good work. See you on the flight line.

There are a million stories out there in the Tactical Air Command. Send me some of them.

Editor, TAC Attack
Hq TAC/SEP
Langley AFB, VA 23665-5563
Attn 574-3658



REAR-END COLLISIONS, TREES AND SEATBELTS

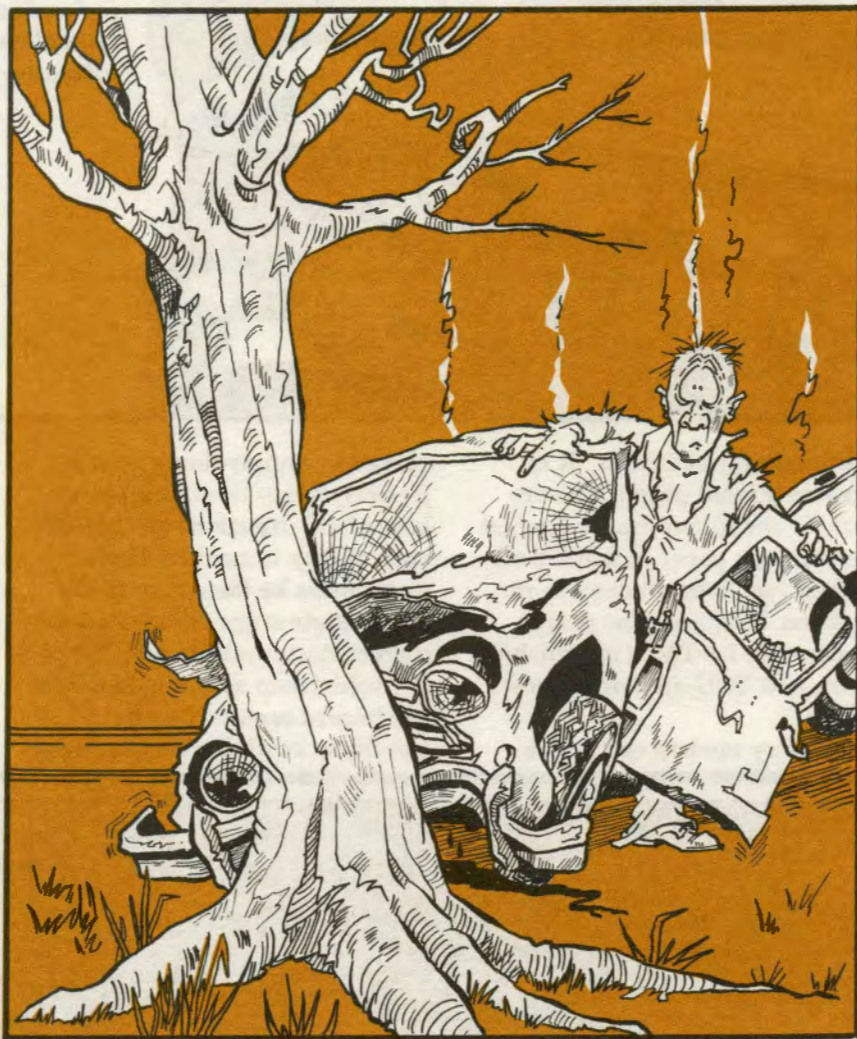
Maj Jim Johnston
9 AF/SEF
Shaw AFB, SC

This article is for those of you that still have not made the "CLICK" of a seatbelt an unconscious act. Seatbelts save lives and their use has to be a deep-rooted habit pattern prior to the unforeseen happening—an accident.

One day last February, I was driving an Air Force U-drive vehicle near Gresham, South Carolina. The mini-pickup was fairly new, equipped with head restraints and a very tight, grabby seatbelt I was constantly trying to loosen to a more comfortable position, but the belt kept constricting every five minutes.

There were very few vehicles on the road, no one ahead or behind for the past five miles, until I caught a flash of blue in the rearview mirror of a '68 LTD trying to pass. The driver didn't gauge his pass correctly, hitting my pickup in the rear, sending me off the roadway, and into a tree at 55 mph. I remember my head being pinned against the headrest at initial impact and then the trees getting bigger, followed by the quickest stop my body had ever experienced. My thoughts in the four seconds between being rear-ended and hitting the tree were: "Get control of this truck . . . I'm going to hit a tree . . . This is not good . . . BAM!!!"

After shaking off the effects of



the quick stop, I realized my grabby seat belt was connected; and, except for a sore neck and belt bruises, I was alive and unhurt. The belt kept me firmly in the driver's seat without any vehicle/body contact through impact. I'm convinced the head restraints kept the whiplash injuries minimal and my head from going through the pickup rear window.

I live today because of an uncomfortable seatbelt and my long-standing habit pattern of using them. My onetime successful flight test of the belt has made me a vocal advocate of its use with my friends and loved ones. Remember, you have to use your seatbelt every time you drive in order for it to be of any use the one time you may need it most—**YOUR NEXT ACCIDENT.** ➤



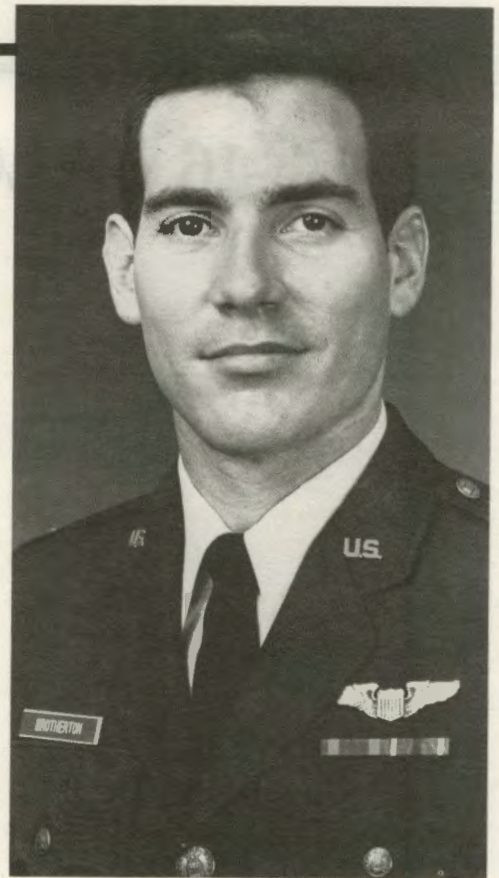
AIRCREW OF DISTINCTION

First Lieutenant Peter Brotherton was on the first hot strafe pass of an A-10 flight lead upgrade sortie when he heard a loud bang from the front of the aircraft and the gun ceased firing. He immediately called "knock it off" and began a normal recovery as he turned toward the prebriefed rendezvous point. During flight rejoin, another flight member noticed that the mishap aircraft's gun bay door was lodged open, covering the nose gear door. The damage had been caused by a catastrophic gun failure which resulted in an explosion in the gun bay.

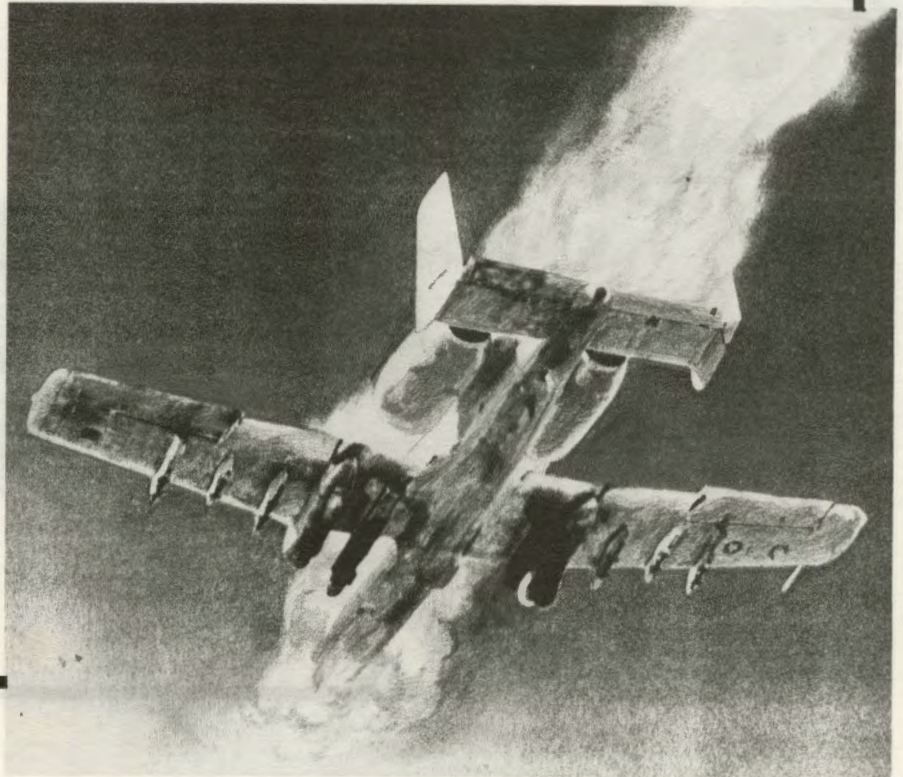
Anticipating problems in lowering the nose gear, Lt Brotherton and other flight members coordinated with A-10 technical representatives and unit flying supervisors to attempt nose gear lowering. All their efforts were unsuccessful, so the appropriate information was passed to Lt Brotherton; and he was given the option of landing the aircraft or making a controlled ejection. He chose to at-

tempt the gear-up landing. Setting up for a five mile straight-in, he flawlessly accomplished the first intentional gear-up landing in an A-10.

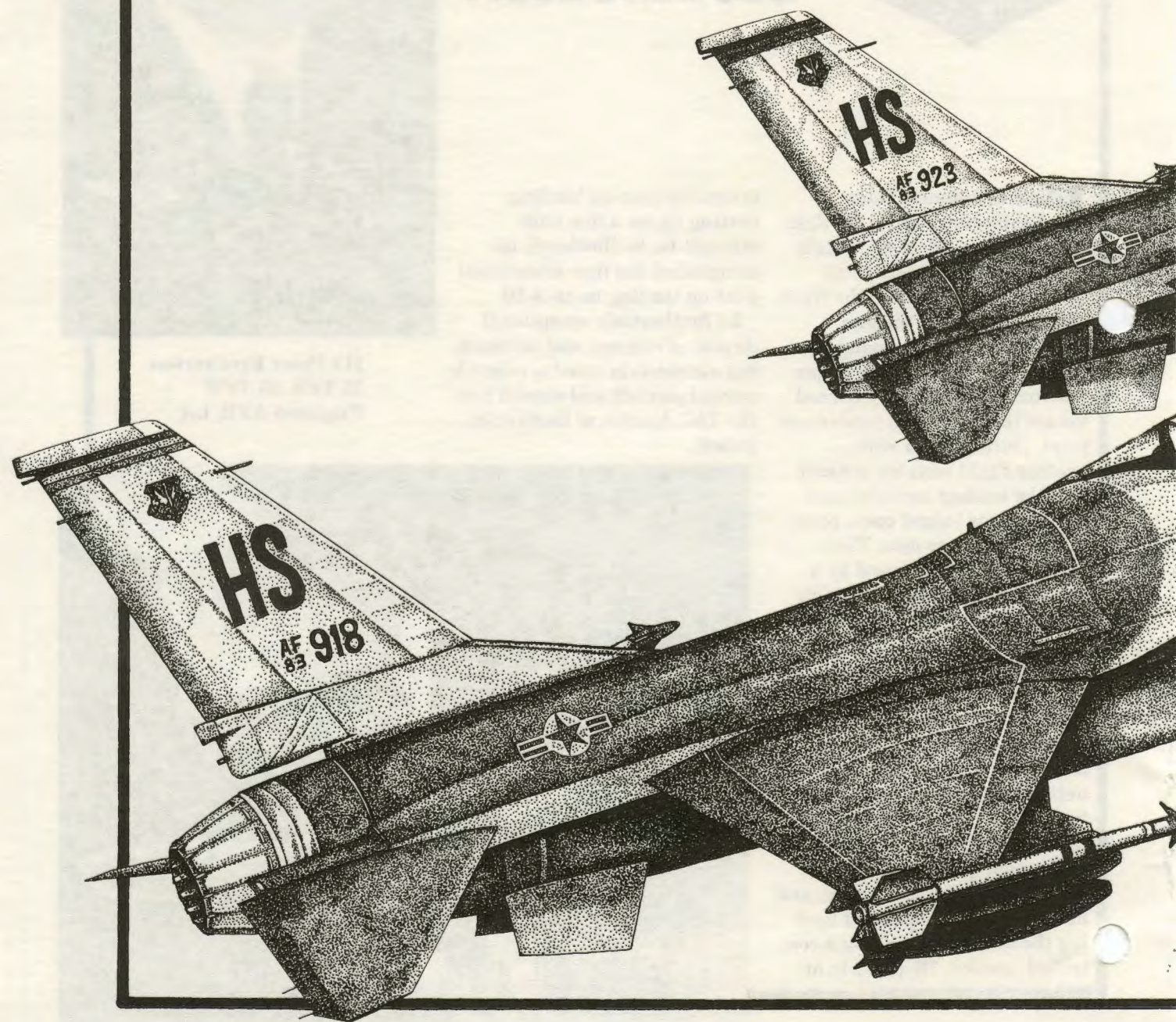
Lt Brotherton's exceptional display of courage and outstanding airmanship saved a valuable combat aircraft and earned him the TAC Aircrew of Distinction Award.



1Lt Peter Brotherton
75 TFS, 23 TFW
England AFB, LA



F-16 FALCON





SHIP OF



SSgt Steven J. Schultz
24 COMPW/SE
Howard AFB, PN

Safe boating involves more than having personal flotation devices (PFDs) at hand and staying in the channel. That point was really driven home to three of us recently when we almost (choose your phrase): (a) bought the farm; (b) visited Davy Jones' locker; (c) took the deep six; or (d) made the final PCS. I want you to know from the outset that I was watching the depth finder so we wouldn't run aground and that absolves me of all (will you at least go for *some*?) responsibility. Also, *I'm* writing this because my two shipmates are too embarrassed to come forward by name.

The three of us—Sparrow (that's me), Buckwheat and Sparky—set out late one afternoon (early evening, actually) in an 18-foot vessel, *Shamu*, jointly owned by Buckwheat and Sparky. We were certain that we were all set for a couple of hours of hooking and retrieving the croaker and trout purported to have been just off the Norfolk channel. "Croaker as big as small boys and trout takin' numbers to get on your hook," reported one old salt. We were anxious to haul those lunkers in. But, of course, safety comes first. We left our beer at home, but did take our PFDs, an official Boy Scout first

FOOLS

We were tossed around for a short while before deciding it might be smart to forego the big fish and settle for the smaller "keepers" in the shallow, less volatile water.

aid kit (good for microscopic cuts, snake bites and the nastiest case of poison ivy), depth finder, paddles and a case *Shamu's* engine went kaput) and Buckwheat's hand held lantern (actually a big flashlight) for after dark navigation – just in case. We intended to be in long before it got dark. Aye, we were three men of the sea (or at least the Norfolk channel).

We left the marina and motored smartly toward the spot where salt-water angler hall of fame status awaited all of us. I remember thinking that Sparky was a mighty skipper because I had seen (paraphrasing Carl Sagan) literally billions and billions of crab pot buoys and he had managed to power our mighty vessel around all of them.

When we got to the spot where all of the action was supposed to be happening, it was happening, all right; not the desired fishing action, but the tidal action. We were tossed around for a short while before deciding it might be smart to forego the big fish and settle for the smaller "keepers" in

the shallow, less volatile water. The water was smoother there, but we weren't experiencing quite the luck we'd been promised. We caught many croakers, but none worth keeping. I will admit that I had several minutes of thrilling anticipation struggling with what was surely a 3-4 pound trout. It turned out to be a huge skate (similar to a sea ray, but still a garbage fish).

Things began to pick up around 2000 when we began catching respectable croakers. Sunset was at 1931 that night, but we decided to stay out a bit longer to clean out this sweet spot. Only a fisherperson can understand the exhilarating and narcotic feeling that overtakes you when you've hit a good run of fish. It's overpowering and often overrides your better

Only a fisherperson can understand the exhilarating and narcotic feeling that overtakes you when you've hit a good run of fish.

sense. Besides, we were three safety professionals (by trade) and, therefore, knew that the "safety god" would watch over us. It always happens to somebody else far away, right? The dive-bombing sea gull that scored a direct hit on *Shamu* was probably actually the clue bird, but we only cussed him.

Six good-sized croakers and 40

minutes later we were off, heading into the eternal abyss of darkness toward the marina and the cleaning tables. Sparky did such a fine job on the way out that we let him play skipper on the way in. Buckwheat sat in the bow of our walk-through vessel with his lantern searching for crab pot buoys (the steel crab pots will do a number on the hull and prop if hit). And, as I've already written, I was watching the depth finder because it was low tide. While underway, it took me only 50 or 60 tries at various button combinations before I got the depth finder light to come on (thank you, safety god).

The trip to the marina was unremarkable. As we entered the inlet, I remember marveling at Sparky's skippering abilities. I'd seen not one crab pot buoy on the way in (thanks again, safety god). That exaltation lasted about 30 seconds because I suddenly realized just how dark it was. There was no way Sparky could have steered *Shamu* so far away from the crab pots. We simply hadn't seen them and had been lucky not to hit one! Still, each of us felt relieved to be out of the shipping lane and into the safety of the inlet with only one mile to go to the marina.

Sparky and I both saw a very bright, elevated light ahead of us and we wondered to ourselves what it was. I dismissed it as a light from the shore. Buckwheat turned and said something indiscernible as we continued to head toward the light. Suddenly, Buckwheat turned



SHIP OF FOOLS

and calmly said, "Sparky, there's a boat in front of you. Come hard to port." (Sparky and Buckwheat were recent graduates of the Coast Guard Safe Boating course and were anxious to try out their new lingo.)

We were close enough now for Sparky and I to see the looming flat box hull of a gravel barge coming straight for us (and only 50 feet away)! The bright light we'd seen was the pilot house spotlight on the tugboat pushing the 100-foot long barge. Sparky assessed the situation with amazing speed and, remembering the

We were close enough now for Sparky and I to see the looming flat box hull of a gravel barge coming straight for us.

golden boating rule (in an emergency situation, always go to the right), ran the throttle forward and turned the rudder hard to starboard. *Shamu* responded (a big thanks, safety god!) and we pulled out of the path of the killer barge.

The tugboat's captain came over the PA system and said something (never mind what – it wasn't nice).

We made it back to the marina and three shaken sailors went home. At least one of us (me) had a couple of drinks to calm his nerves.

Every safety story has some sort of moral, some lesson learned. There are several to this one:

1. Never exceed your (or your machine's) ability. None of us had ever taken a boat out after dark. We had no business being on the water that late, especially without a proper spotlight.

2. Never let your guard down in an unfamiliar situation. Accepting Lesson 1, Sparky and I shouldn't have felt relieved to be in the inlet. We backed off our attention and our inquisitiveness. Thankfully, Buckwheat didn't or you'd be reading this from the obituaries.

3. Don't let your excitement outstrip your common sense. We almost died for six lousy croakers. They would have been there the next day. (I don't even eat the slimy puppies!)

4. Always obey safe navigational rules. If you are wondering what they are, contact your nearest Coast Guard or Coast Guard Auxiliary representative. Better yet, attend a Coast Guard or Power Squadron Course. The knowledge gained could save a life. ➤



SPRING HAS COME AROUND ONCE MORE,
TH' GRASS AND TREES ARE GREEN.



TH' FLOWERS BLOOMING IN TH' PARK,
ARE TH' PRETTIEST I'VE EVER SEEN.



TH' SUN IS WARM
ON HEAD AND NECK,
BUT TH' BREEZE IS
FAR FROM PLEASING.



IT BLOWS TH' POLLEN
UP MY NOSE,
AND BRINGS ON
ENDLESS SNEEZING.



I'VE GIVEN THIS A LOT OF THOUGHT,
BUT TH' PROBLEM JUS' GROWS AND GROWS.



SO THINK ABOUT THIS A LITTLE WHILE,
'CAUSE I GOTTA GO BLOW MY NOSE.

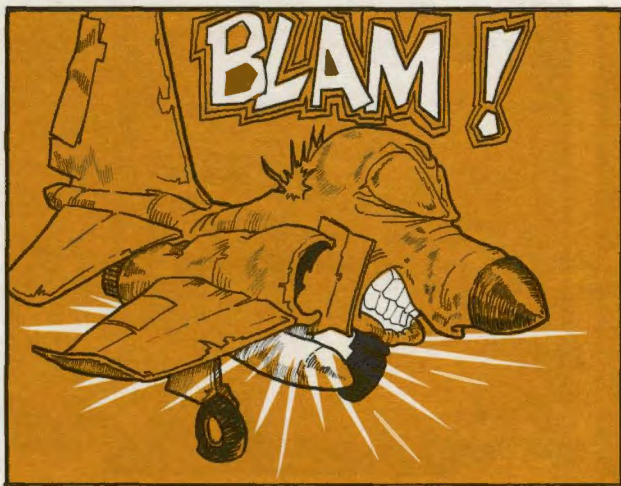




WEAPONS WORDS

Complacency: It's waiting for you

During a local employment exercise, a weapons load crew was dispatched to perform jettison checks on several F-4 aircraft. They began doing the first checks on aircraft number 500, but, when their work was interrupted, they moved to



another jet to do similar checks. When the crew was told that the first aircraft was again ready for them, they returned to what they thought was old 500. In fact, the expeditor had dropped them off at an entirely different jet.

The load crew considered the task routine and unchallenging, so they didn't bother to use the headsets and communications cord. They also didn't check the maintenance forms or tail number before they started to work and proceeded with the jettison check where they had previously left off. When the emergency stores jettison switch was depressed during the check, the centerline cartridges fired. Fortunately, the tank didn't fall off because the mechanical half of the safety pin was installed.

How did this incident occur? The crew allowed complacency and their sense of urgency to get the job done (due to impending thunderstorms) to override their common sense and the prescribed maintenance techniques they had been taught. As a result, the crew failed to follow the required technical data and were working on an aircraft that was armed.

When you think the task at hand, no matter how great or small, is not a challenge or beneath your great talents, *watch out*. Complacency, and probably a resulting mishap, is getting ready to bite you.

Wrenched off

The combat sortie had gone just as planned. There were plenty of MiGs airborne and the F-16 Falcon driver was anxious for his chance to bag a couple. Unexpectedly, during a 4G, 470 knot left turn, the AIM-9M missile and launcher mounted on the left wing of the jet suddenly fell off. This pilot's hunting day was over as he was forced to return to base with a damaged aircraft.

This didn't actually occur in combat, but it certainly could have. Following a full painting of the aircraft, AIM-9 launchers had been installed on stations 1 and 9, along with two wing weapons pylons and a centerline pylon. When the main-

tenance crew performed the first functional check on the missile launchers, they found that the left launcher was bad. Two members of the crew proceeded to another aircraft to perform pylon functional checks, while the third member of the crew went to get another launcher.

The number one man installed the mishap launcher by screwing the inner bolt tight and the other two snug; then a functional check of the launcher was performed and checked good. The installation process was not done correctly and a required check of the self-locking feature on the attachment bolts was not accomplished according to

the appropriate job guide. While the team chief and number three man cleaned up the AGE equipment, the number two man was supposed to torque the launcher bolts. When asked later, he wasn't sure he had done that job.

The improper maintenance techniques used by this crew were further compounded by their failure to document the removal, installation, and completion of functional checks on the missile launchers. There was no indication in the aircraft forms that any of the tasks had been accomplished. The familiar phrase seems appropriate: "A job worth doing is worth doing right."



TAC OUTSTANDING ACHIEVEMENT IN SAFETY AWARD

Sgt James D. Turner was in the process of launching an F-16 aircraft for a training mission when he noticed an Army AH-64 Apache helicopter in the traffic pattern over the main runway. Sgt Turner observed a loose panel flapping against the helicopter near the tail rotor. He immediately notified the F-16 pilot, and asked him to inform the control tower by radio of this problem. The information was relayed to the Apache pilot who immediately landed uneventfully.

An inspection of the helicopter by Army maintenance and safety

personnel revealed that fasteners for the panel had worked loose, allowing the panel to flap since it was only being held in place by the hinge. Three additional helicopters were inspected for loose panels, and it was discovered that each one had loose fasteners.

Sgt Turner's keen observation of his surroundings and his quick positive actions to remedy an obvious problem prevented a costly mishap and injury to personnel in the helicopter's flight path, earning him the TAC Outstanding Achievement in Safety Award.



SSgt James D. Turner
169 CAMS, 169 TFG
McEntire ANGB, SC

"There I Was..."

AND YOU MAY BE, TOO

Maj Don Rightmyer
Editor, *TAC Attack*

We continually receive comments from *TAC Attack* readers about how well they like what we call "There I Was" stories. Those are stories sent to

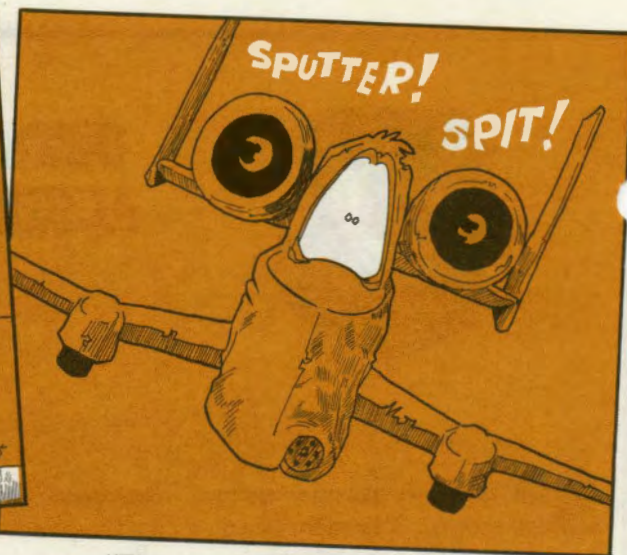
us by folks just like you from around TAC—crew chiefs, aircrews, maintenance specialists, supply folks, etc.—who have shared a valuable experience which they've had (and frequently survived) in order to make the rest of us more aware. It's no

wonder that these articles are well received because they put into clear, personal details some of the many safety principles that we've all heard about.

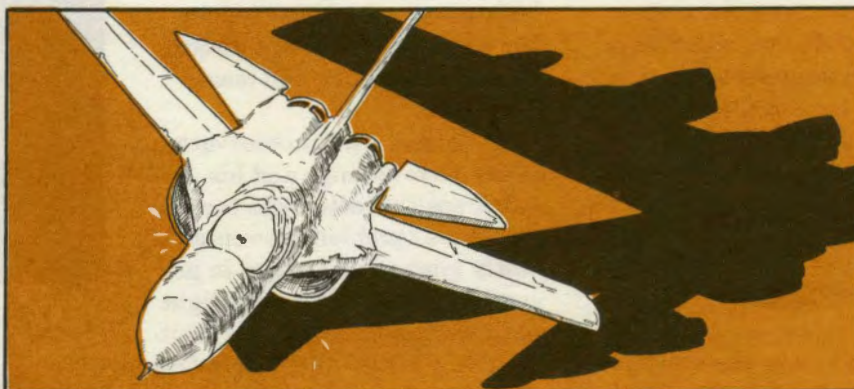
Here's just a few of the great "There I Was"... articles we've published.



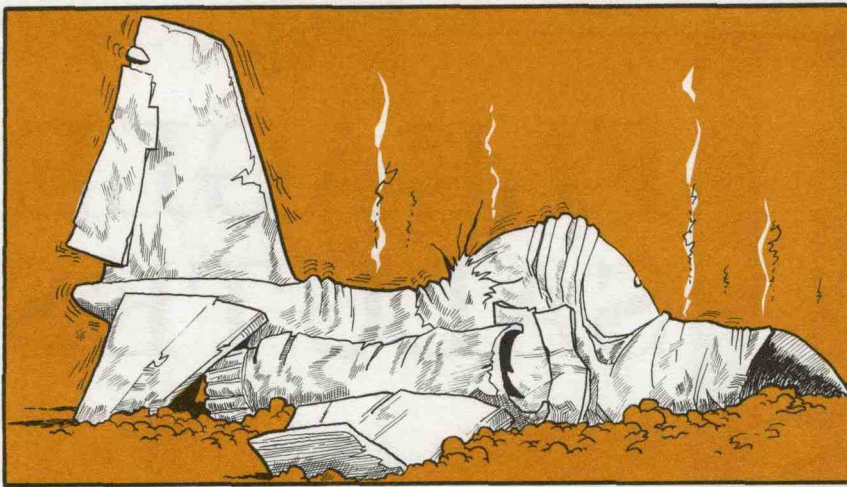
— "Be Aware: Don't Let FOD Take You By Surprise"
— A crew chief prevents massive F-16 engine damage by being alert to large chunks of parking ramp pulling up.



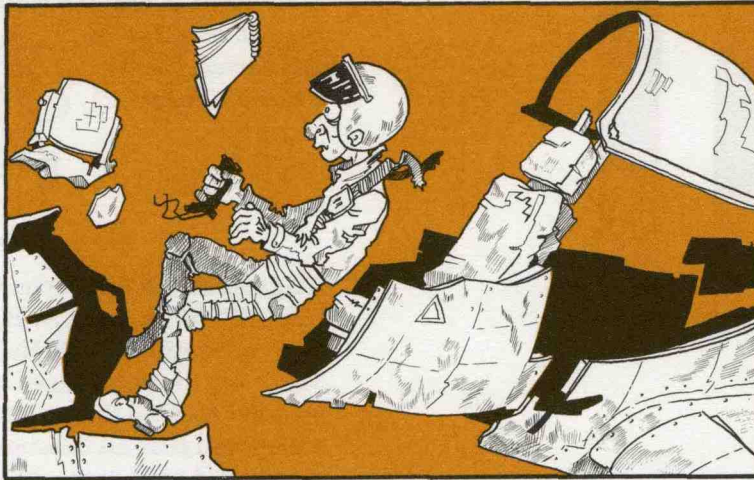
— "Flameout" - An A-10 pilot shares his experience of a double-engine flameout.



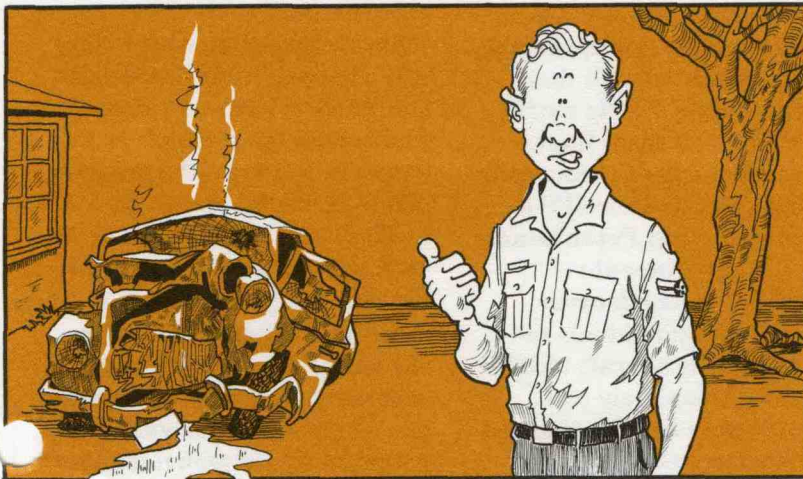
— "Close Call in the Dark" - An F-111 and a B-52, both completely within prescribed limits for night low-level flying, nearly have a midair.



— “One in a Million” - An F-4 instructor pilot and a weapon systems officer nearly land gear-up due to a distraction from their normal habit pattern.



— “When It’s Time to Go” - An F-16 pilot shares his ejection decision when his jet was disintegrating around him.



— “I’m A Believer” - A young airman tells about *the experience* that confirmed his faith in wearing seatbelts.

That’s just a small sample of some of the “There I Was” accounts that people have shared and that we’ve been able to pass on to you. Unfortunately, we never get enough of these kinds of articles. You’ve seen our reminder with the crusty editor staring out of the page at you saying “There are a million stories out there in the Tactical Air Command. Send me some of them.” I’m that editor, and I really mean it. Send me your story about an experience you’ve had on or off the job which can help us all to work and play smarter.

If you’ve really pulled a good one and are willing to ‘fess up and put your name to it—Great! If you’d rather, we’ll be glad to print your story by “Anonymous.” That’s OK too—just so the rest of us can benefit from your hard-learned lessons.

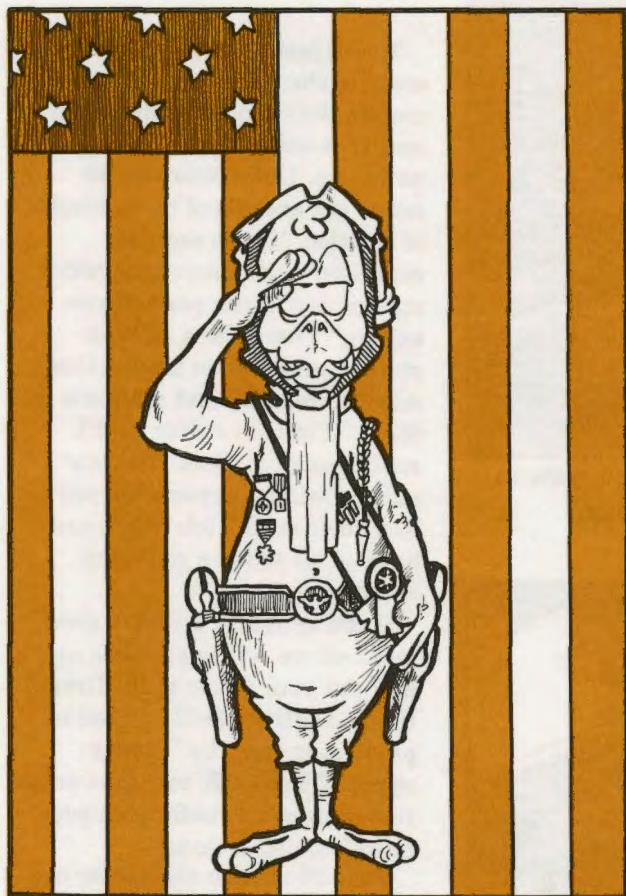
That ad we run asking for articles includes our address and phone number, but here it is again for your handy reference:

Editor, TAC Attack
HQ TAC/SEP
Langley AFB, VA
23665-5563

Autovon 574-3658

There’s nothing I like better than checking the mail and finding an article (or two or three) there, so don’t disappoint me.

As a member of TAC, *TAC Attack* is your magazine. Make it even more yours by letting us print your “There I Was.” Even better, when your article hits the streets, we’ll send you a Fleagle T-shirt. Come on, sit down today and share your experiences with the rest of us. As the title says, “There I Was” and if we **don’t** share our experiences with each other, **“there you may be, too.”**



FLEAGLE SALUTES

work displayed by this group prevented the loss of a valuable combat resource and earned them a Fleagle Salute.



Sgts Charles Harrison and Randy Stewart, 325 AGS, 325 TTW, Tyndall AFB, FL, were working an F-15 engine start for an afternoon sortie when the jet fuel starter (JFS) exploded and caught fire. Sgt Harrison was struck by metal fragments from the JFS, and he instructed the pilot to shut down the aircraft and egress. Sgt Stewart and **TSgt George Hawk** each grabbed fire extinguishers and proceeded through dense smoke to attempt to put out the fire. When the pilot had safely exited the jet, Sgt Harrison joined in the effort to extinguish the flames, but fire erupted from the

JFS a second time and fuel spilled from the JFS exhaust. **SSgt David Horn** and **SrA Ricky Masicott**, crew chiefs on a nearby aircraft, saw the explosion and responded with their fire extinguisher to help battle the fire. After all three fire extinguishers had been exhausted, fire erupted around the JFS a third time; so **SSgt Peter Lenoir** and **SrA Kent Vincent** responded with a fourth extinguisher. These individuals remained with the aircraft until the fire was completely contained and base fire fighting personnel had arrived. The quick response and outstanding team-

TSgt Kenneth M. Coyle, 405 CRS, 405 TTW, Luke AFB, AZ, was calibrating a 1065 tire inflator kit which belonged to another tactical fighter unit. He discovered that an improper repair had been made on the kit, creating a potentially major safety hazard. The wrong type of quick disconnect fitting had been attached to the hose that connects the inflator kit to the tire. The type fitting used was one which restricts air flow. This could cause the pressure in the tire to be less than the pressure gauge indicated. In addition, the quick disconnect fitting was attached to the hose using a number four fitting on a number three hose. Under the pressure, the end of the 12-foot hose could separate and result in a dangerous whipping action with high potential for personnel injury or damage to aircraft. Sgt Coyle im-

TAC'S OUTSTANDING AIRMEN

mediately removed the unit from service and contacted the wing owning it for further follow-up in their maintenance operation. Sgt Coyle's professional attention to detail has earned him a Fleagle Salute.



Capt Paul E. Hattendorf, 309 TFS, 31 TFW, Homestead AFB, FL, was leading a four-ship of F-16s at 400 feet and 480 knots on a low level when his aircraft was struck by a large turkey vulture. He immediately began an emergency climb while analyzing his situation. Perceiving a loss of thrust with the generator and several other system failure lights illuminated in the cockpit, Capt Hattendorf tried unsuccessfully to reset the main generator, while a visual check by his wingman revealed no observable damage.

Focusing on the safe recovery of his aircraft, Capt Hattendorf proceeded to intercept the final approach course for a straight-in simulated flameout approach. When he attempted to configure

for landing, however, the nose landing gear failed to extend. He discontinued the straight-in and proceeded to high key over the field, preparing to use the alternate gear extension on downwind of the SFO pattern. The alternate extension was successful, and Capt Hattendorf accomplished a smooth approach and landing. His superior airmanship and prompt, accurate response to several simultaneous emergencies saved a valuable combat aircraft and earned him a Fleagle Salute.

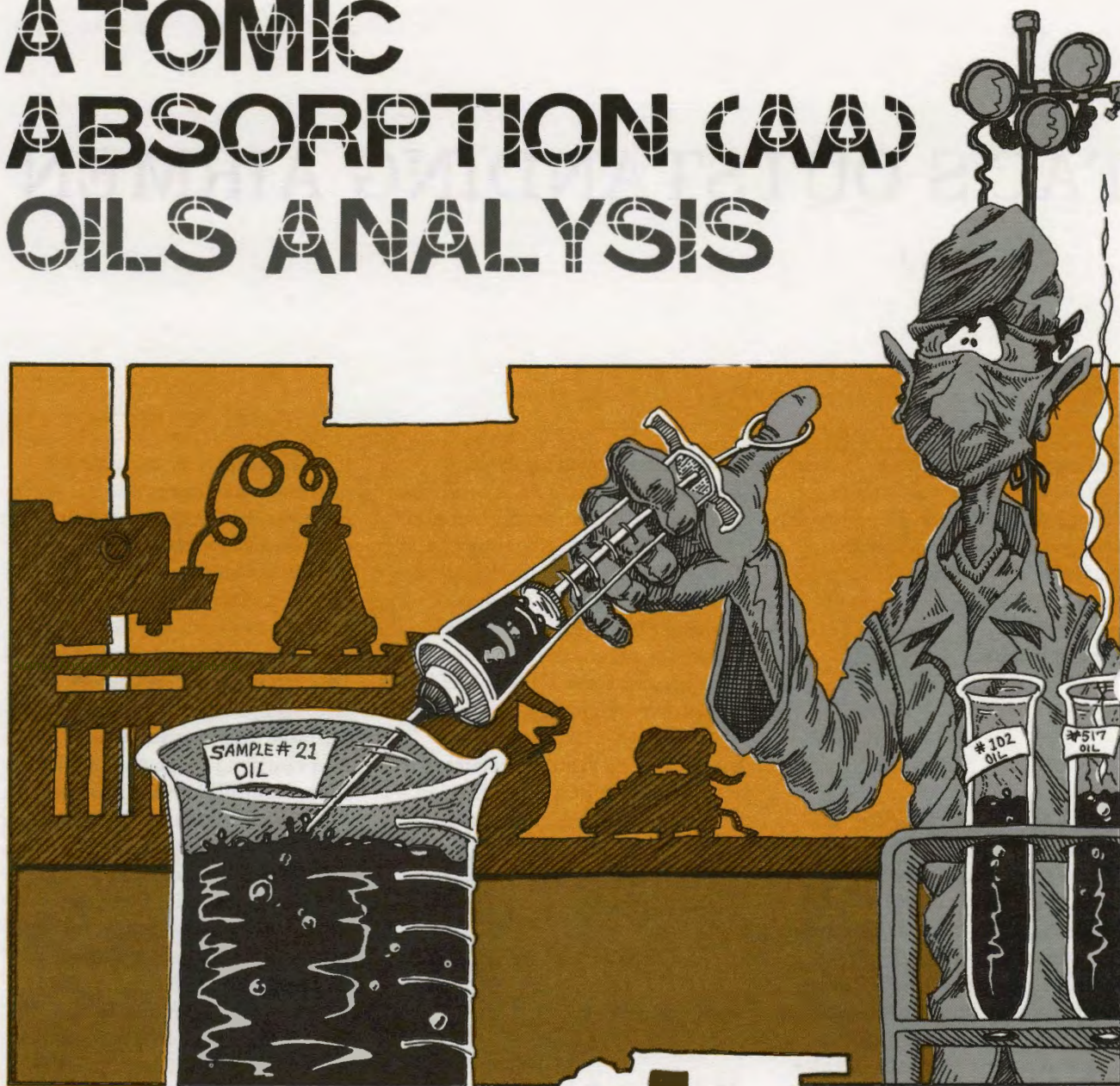


Maj Robert R. Sarnoski, 4450 TG, Nellis AFB, NV, was flying a two-seat A-7K as chase on an uneventful two-ship local area checkout mission until the return to base for overhead pattern work. After putting the gear handle down, Maj Sarnoski noticed that he didn't have a "nose gear down" indication. He confirmed the unsafe indication with the other pilot in the formation and accomplished all check-

list procedures in making several attempts to recycle the landing gear. Emergency gear extension was attempted, but the nose gear remained locked in the up position. After exhausting all discussions with the A-7 technical representative, a nose gear up landing was determined necessary. This required landing without an approach end cable and shutting down the engine upon landing, with a 10-knot crosswind which further complicated the situation. Maj Sarnoski flew a straight-in approach, executed a flawless minimum sink rate landing, and expertly held the nose up while he shut down the engine. He then lowered the nose to the runway and coasted to a safe stop about 5,500 feet down the runway, resulting in only limited structural damage to the airframe and no foreign object damage to the engine. Maj Sarnoski's outstanding airmanship resulted in the safe recovery of a valuable aircraft and earned him a Fleagle Salute.



ATOMIC ABSORPTION (AA) OILS ANALYSIS



TSgt Victor N. Cruz
114 TFTS/MAFN
Klamath Falls, OR

Many users of atomic absorption oil analysis for aircraft sampling will be the first to admit that oil sample preparation prior to analysis is a long and delicate process. As we become more familiar with

We all know the different oil viscosity ranges and how they each have their own syringe draw rate, but what we do not know, unless we experience it or read about it, is what fuel will do to oil when the two mix.

When compared against another engine, the rate of oil drain was tremendous.

The good engine drain time for a pint container was approximately one minute; the suspected oil drain time was 15 seconds.

equipment and procedures, some of us start looking for quicker sample results which will enable the aircraft to make its next flight. In looking for these quicker shortcuts, we employ automatic diluters, vortex machines, quick sample deliveries, etc.

A lot of AA labs still employ manual push/pull-type syringes which are as good as some automatic products like the self-refilling syringe. The big difference between the two, besides the present adjustment, is the oil sample *draw rate*. We all know the different oil viscosity ranges and how they each have their own syringe draw rate, but what we do not know, unless we experience it or read about it, is what fuel will do to oil when the two mix. That's right, it THINS IT OUT; and unless you have full scale laboratory equipment to perform proper tests, fuel contamination will probably go undetected. Here is where the self-refilling syringe comes into play. This syringe could be another tool for AA oil analysis labs to employ in everyday use.

Here is the scenario: During

sample preparation, an alternate lab technician noticed that the oil sample he was working with had an abnormal draw rate; the same rate experienced when cleaning the syringe with xylene or any other type of diluting solution. His first thought was that he had a bad draw so he repeated the procedure with the same results. With that in mind, he continued with analysis of all samples. After completion of analysis of samples and nothing

oil out of the suspected engine and noticed that it was draining very quickly. When compared against another engine, the rate of oil drain was tremendous. The good engine drain time for a pint container was approximately one minute; the suspected oil drain time was 15 seconds. During the test, the pungent odor of JP-4 fuel was present on the suspect oil. This gave more verification to the technician's theory of possible fuel contamination.



being detected on any of them, he did a little research on the suspect sample and asked for a resample. Using the same procedure, he found that the second sample had the same draw rate as the first one. Without full scale laboratory equipment to perform contamination tests, he asked for assistance from the engine shop.

The engine shop drained some

The engine was removed from service; and the main fuel oil and afterburner fuel coolers were replaced. The engine was returned to service with no other problems being noticed. Oil analysis did not actually find the fuel problem, but paying attention to little details was the start of an investigation that saved a lot of time, troubleshooting and perhaps an aircraft mishap. ➤



TAC OUTSTANDING ACHIEVEMENT IN SAFETY AWARD

While performing an F-16 thru-flight inspection, SrA Kevin Brogan heard an unusual clicking sound while he was inspecting the engine fan blades. At the time, the flight line was full of ongoing maintenance and aircraft launching activity, thus making discovery of this malfunction especially remarkable. Airman Brogan immediately informed his supervisor and an engine expert, but neither were able to hear the clicking sound. On Airman Brogan's word, the engine was removed and taken to the engine shop for teardown and inspection. During this examination, it was discovered that a wrenching tab had broken loose on the first stage compressor rotor disk which secures

the fan blade to the disk. Had this defect not been detected, an almost certain catastrophic engine failure would have occurred.

Airman Brogan's task concentration, attention to detail, and positive maintenance actions saved a valuable combat resource and earned him the TAC Outstanding Achievement in Safety Award.



**SrA Kevin Brogan
56 AGS, 56 TTW
MacDill AFB, FL**



PASS IT ALONG...



nine people are waiting



TAC TALLY

Total			TAC			ANG			AFR		
MAR	THRU MAR		MAR	THRU MAR		MAR	THRU MAR		MAR	THRU MAR	
	FY 89	FY 88		FY 89	FY 88		FY 89	FY 88		FY 89	FY 88
2	12	16	1	8	11	1	4	3	0	0	2
0	3	10	0	1	7	0	2	2	0	0	1
3/0	9/2	8/0	2/0	5/0	6/0	1/0	4/2	2/0	0/0	0/0	0/0
0/0	0/0	0/3	0/0	0/0	0/2	0/0	0/0	0/1	0/0	0/0	0/0

- CLASS A MISHAPS
- AIRCREW FATALITIES
- IN THE ENVELOPE EJECTIONS
- OUT OF ENVELOPE EJECTIONS

• (SUCCESSFUL/UNSUCCESSFUL)

TAC'S TOP 5 thru MAR 1989

1st AF		9th AF		12th AF	
CLASS A MISHAP-FREE MONTHS		CLASS A MISHAP-FREE MONTHS		CLASS A MISHAP-FREE MONTHS	
103	318 FIS	73	33 TFW	42	35 TTW
50	325 TTW	46	507 TAIRCW	36	474 TFW
38	57 FIS	21	1 TFW	28	37 TFW
17	48 FIS	17	4 TFW	24	49 TFW
		13	347 TFW	18	24 COMPW

ANG		AFR		DRUs	
CLASS A MISHAP-FREE MONTHS		CLASS A MISHAP-FREE MONTHS		CLASS A MISHAP-FREE MONTHS	
220	110 TASG	103	482 TFW	20	USAFTAWC
195	138 TFG	93	924 TFG	12	USAFTFWC
177	177 FIG	81	906 TFG	6	28 AD
172	114 TFG	55	507 TFG		
136	155 TRG	42	917 TFW		

CLASS A MISHAP COMPARISON RATE

CUMMULATIVE RATE BASED ON ACCIDENTS PER 100,000 HOURS FLYING TIME

TAC	FY 89	1.7	2.7	3.0	3.2	2.6	2.5						
	FY 88	6.4	3.4	3.0	2.7	2.6	3.3	3.0	3.1	3.3	3.2	3.0	3.4
ANG	FY 89	0.0	0.0	1.5	2.3	2.8	3.2						
	FY 88	0.0	0.0	0.0	0.0	0.9	2.2	2.5	2.7	2.9	3.0	3.5	3.2
AFR	FY 89	0.0	0.0	0.0	0.0	0.0	0.0						
	FY 88	0.0	10.6	7.7	5.9	9.5	7.9	6.7	5.8	7.5	6.8	6.0	5.5
Total	FY 89	1.2	1.8	2.5	2.8	2.5	2.5						
	FY 88	4.3	2.9	2.4	2.2	2.5	3.2	3.1	3.1	3.4	3.3	3.3	3.5
MONTH		OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP

