

TAC ATTACK

JANUARY 1990



ANGLE OF ATTACK

ALL RIGHT! SIERRA HOTEL! Congratulations to all of you who helped make Fiscal Year (FY) 1989 the safest year in the history of TAC. We had the lowest aircrew fatality rate and the lowest aircraft loss rate we have ever had. It also was the best year for both the weapons and ground safety disciplines. The credit for this outstanding accomplishment belongs to you folks out in the field. Your leadership, caring, and performance made it happen!

But how can we improve our performance even more for FY 1990? One area which is often overlooked, comes to mind — nutrition — specifically balanced, nutritional, low cholesterol meals. The cost of implementing changes to this area would be minimal, and it has broad applicability — from the office worker to the pilot straining to maintain a “tally-ho” while pulling max Gs in his fighter. But how do I motivate myself and others to eat such “so called” healthy meals on a regular basis? Simple methods often provide the best results. Such as, asking your spouse to help you accomplish this goal. Many folks will eat whatever is prepared — so share with your dinner “pardner” your desire to go light on the fried stuff and heavy on the healthier foods. Ask them to remind you to take a sandwich and apple to work (that’s a lot healthier than just a coke and candy bar). As a commander or planner, be sure to include the time and means for the troops to eat during exercises or real world contingencies. Don’t have the crew chief or aircrew working 12 hours out at the live weapons load area with no means to



get any food. Schedule transportation for meals or issue box lunches as appropriate. Encourage your “chow hall” and clubs to offer healthy alternatives to the old standards (which have turned out to be not so healthy) of bacon and eggs or greaseburger and fries. We could all use a little bit better performance from our bodies, and we can get that performance if we routinely fuel them with the proper octane foods.

January routinely brings the “real” winter weather to most of our TAC bases. How will that affect you? Have you thought about the changes that must occur in your normal routine — more clothes, longer preflights, slicker ramps, etc.? Or, do you act as though nothing has changed?

A quick note on a subject we hope to expand in the coming months. If we know our airplanes, how to fix them, fly them, and support them — why do we keep having mishaps? The individual who sends in the best answer to that question before 20 Mar 90 will receive a personalized Fleagle sketch of the subject of their choice.

Have a great month, pardner.

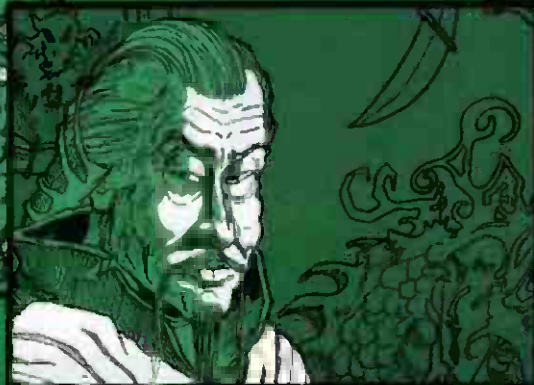
Jack Gawelko
JACK GAWELKO, Colonel, USAF
Chief of Safety

TAC ATTACK

DEPARTMENT OF THE AIR FORCE



18.



4.



8.

Features

4. A WALL OF EAGLES

A fighter pilot's guide to the art of war.

8. JUST A SIMPLE INSTALLATION

Could reading technical data, maintaining situational awareness, and using the proper safety equipment prevent a mishap?

11. BEWARE OF UNINTENTIONAL SIDE-STICK CONTROLLER INTERFERENCE

Can a back seat passenger really fly the F-16 with his knee?

18. THREE RULES FOR HAVING A MISHAP

The most prevalent causes for mishaps.

19. INDEX 1989

A summary of the *TAC ATTACK* magazine for 1989.

Departments

10,14. AIRCREW OF DISTINCTION

12,21. AWARDS

16. IN THE CENTER

30. LETTERS TO THE EDITOR

31. TAC TALLY

TAC SP 127-1

TAC Attack is not directive in nature. Recommendations are intended to comply with existing directives. Opinions expressed are those of the authors and not necessarily the positions of TAC or USAF. Mishap information does not identify the persons, places or units involved and may not be construed as incriminating under Article 31 of the UCMJ. Photos and artwork are representative and not necessarily of the people or equipment involved.

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TAC ATTACK

JANUARY 1990



Wall of Eagles

HON. DONALD B. RICE
*SECRETARY OF
THE AIR FORCE*

GEN ROBERT D. RUSS
COMMANDER



COL JACK GAWELKO
CHIEF OF SAFETY

MAJ "HAP" TUCKER
EDITOR

JANET GAINES
EDITORIAL ASSISTANT

STAN HARDISON
ART EDITOR

SSGT DENNIS WALLACE
STAFF ARTIST

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A WALL OF



EAGLES

Capt Richard G. McSpadden
49 TFW
Holloman AFB NM

The leader of armies is the arbiter of the peoples fate; the man on whom it depends whether the nation shall be in peace or in peril. Thus wrote the master Sun Tzu on the importance of leadership in his book "The Art of War" over 2500 years ago. Tzu was a philosopher who lived in China around 500 B.C., and wrote the book on warfare "The Art of War" which so impressed his king, he immediately appointed Tzu General of all armies. Tzu is widely recognized as one of the most successful generals in history. His book is required reading in many military hierarchies throughout the world, including the Soviet Union. Famous military minds throughout history, including Napoleon and Mao Tse Tung, have followed the teachings of Tzu and considered his book "the bible" on warfare.

Obviously, warfare has changed in ways Sun Tzu couldn't imagine; but it is amazing how much the principles he formed on planning, tactics, and leadership over 2500 years ago still apply. While reading "The Art of War," I kept wondering how history's greatest master of war-

fare, who fought when aerial combat was throwing rocks out of trees, would fare leading a wall of F-15 Eagles on a pre-strike sweep.

Capt Tzu would spend a great amount of time in mission preparation. This would include day-to-day maintenance of his knowledge, as well as specific mission study. He would be the squadron expert on the Eagle and the threat.

"If you know the enemy, and know yourself, you need not fear the result of 100 battles. If you know yourself, but not the enemy, for every victory gained, you will also suffer a defeat."

He would be tight with the Squadron Intelligence Officer,

because he believed intelligence to be a fundamental necessity to victory. His pre-mission planning would be done with the intelligence officer providing assistance. "What enables the good General to strike and conquer and achieve things, beyond the reach of the ordinary man, is foreknowledge." And foreknowledge can only be obtained through dedicated intelligence.

After gathering his intelligence, he would use the spirit of enterprise to develop a plan which was simple, deceptive, and specific. Simple, so it was easy to follow and could be adhered to in the chaos and unexpected adversity of war. Deceptive, because he believed





A WALL OF EAGLES

deception to be another fundamental necessity. "All warfare is based on deception," he wrote. "Attack him where he is unprepared; appear where you are not expected." Specific, because of his belief in having a reason to fight, and everyone knowing their exact responsibilities. Tzu believed you should not choose a fight unless you had a reason and stood to gain, specifically, from victory. He considered men and equipment too valuable to squander on reckless confrontations.

Captain Tzu would walk in the brief, and there would be no doubt who was in charge. He would realize that as the leader his attitude and the manner in which he briefed the plan were as important as the plan itself. Barring any significant changes from Intelligence, he would not tolerate any new ideas or second-guessing in the briefing. He believed "vacillation and fussiness" to be the surest means of sapping the confidence of any army.

In the air, Sun Tzu would be a hammer; a tough flight lead intolerant of sloppiness, even in the "mundane" parts of the flight. He believed "Soldiers must be treated, in the first instance, with humanity; but kept under control by means of iron discipline."

Capt Tzu would arrive at the push point a few minutes early to assess the environment. He

believed in the value of timing and rhythm and hated to be rushed into battle.

His decision to push would be based on two simple principles:

- 1) Is his flight ready to engage?
- 2) Can he engage with an advantage?

If the answer to either of these was negative, he simply wouldn't push. The victorious strategist only seeks battle after the victory has been won. To Sun Tzu, execution would be the easy part; because, if he planned properly, the enemy would be deceived, confused, and unprepared for the attack. The rest is simply unleashing warriors and allowing them to fight like they've been trained. According to Tzu, the enemy will provide the opportunity to defeat him and a smart leader simply recognizes and capitalizes on that opportunity.

Capt Tzu would not be so naive to think he would always fight with an advantage. He would recognize that sometimes the

enemy will surprise him, or that in some instances (castle defense) he must fight when he would rather run. The keys to emerging from such desperate situations are resorting to superior stratagem and fighting with desperation. Even in desperate situations, Tzu would look for the enemy to provide him an opportunity to escape. "If in the midst of difficulties," he wrote, "we are always ready to seize an advantage, we may extricate ourselves from misfortune." Tzu considered any leader worthless if he could not fight his way out of an adverse situation.

Back to the mission. As the four-ship pushed and chose commits, Capt Tzu would have speed; he would certainly be over Mach 1. He would isolate the threat, and in attacking be aggressive, but not reckless. Speed would be consistent with his principle of "swift in onset, prompt in decision"; keep him



from “lingering in dangerous positions”; and help his element of surprise. Isolating the threat would allow him to keep an avenue for escape, protect one of his flanks, and prevent his being surrounded by the enemy. Finally, he believed aggressiveness to be an essential element in the heart of any warrior. He would certainly agree with the adage that in treating soldiers, “curb them, but don’t break their spirit.” Sun Tzu wrote, “the impact of an army, should be like a grindstone dashed against an egg.”

As the mission progressed, I would not expect to see Sun Tzu turn at the merge, except for self-protection. . . . back to the “lingering in dangerous positions” principle. He would know that the advantages of his great machine slowly erode as a merge progresses into a “furball.” He might turn up to 180 degrees for a kill if he had a wingman for support, a strong belief that there were no trailers and a good belly check. The lack of any of these would fall under his category of recklessness and provide the enemy an opportunity to defeat him.

Capt Tzu would begin an egress as soon as he accomplished his mission objective, or started to feel the situation degrading. He would penetrate enemy territory only as deep as necessary to accomplish the mission and avoid SAM and AAA sights, unless he needed to engage in them. His number one

priority during egress would be to get his four-ship out of hostile territory quickly.

Tzu’s debrief would be a learning experience for all. As a four-ship flight leader always looking for new tactics, I would attend any of his debriefs I could. They would be direct and uncensored, heavy in praise, when appropriate, but harsh and unabridged in scorn, when necessary. He would not allow egos or sensitivities to obstruct his objective assessment of performance.

If the mission failed, he would attribute it to planning, briefing, or execution. A failure due to planning could be traced either to the intelligence officer for providing bad information, or the flight lead for misinterpreting information or formulating bad tactics. He would know the briefing was at fault if any of his wingmen did not understand exactly what was expected of them.

Execution could be faulted if the planning resulted in sound tactics, the wingmen knew their responsibilities, but simply did not accomplish them. If this were the case, Tzu would be quick to let them feel his displeasure, tell them exactly where they erred, and how to correct. Paradoxically, he would be more lenient with these individuals than with Intelligence or the leader. Mistakes by leaders and Intelligence Officers are intolerable because they cause the destruction of entire

forces; whereas mistakes by individual warriors cause their own deaths, or that of a few.

The value of strong leadership is a consistent theme throughout “The Art of War.” Sun Tzu held his leaders accountable for their performance and did not tolerate incompetence. He believed there were five dangerous faults in a leader which lead to “ruinous conduct.” These five faults, according to Tzu should be a “subject of meditation.”

1. Recklessness – Leads to defeat.
2. Cowardice – Leads to capture.
3. Delicacy of Honor – Causes cowardice and oversensitivity.
4. A Hasty Temper – Causes recklessness.
5. Inordinate Concern for His Men – Causes more suffering in the long run.

Sun Tzu was, perhaps, the greatest master of warfare in history. Though he fought over 2500 years ago, his principles can and should be applied to modern warfare. No matter how advanced warfare becomes, and whatever the arena in which we fight, we must always remember the basic principles of warfare tested through time. The principles Tzu established in planning, tactics, and leadership provide a strong foundation. When the knowledge from Red Flags, tactics evaluations, aerial history, and experience are added to this foundation, the result is success in the art of air superiority. ➤

JUST A simple



Maj Don Rightmyer
16 AF
Torrejon AB, Spain

Like any maintenance job around the flight line, it started out with the assignment of a task; gathering up the necessary equipment, safety gear and technical materials, and starting in. Fortunately, it was only the installation of a glass cover for my home fireplace. No problem, or so I thought. The end result of my final labors was much wasted time, a potential loss of hearing and two severely lacerated fingers.

READ THE TECH DATA:

My first failing was that I didn't read the ample tech order that came with the fireplace cover. It clearly spelled out *how* and *where* the

fireplace cover was to be installed, but I didn't read it in detail. As a result, I had visions of massive drilling into the brick masonry in order to secure it. No, when I read the provided instructions, it showed clearly that there were two simple clamps (included) needed to secure the glass fixture to the fireplace.

OK, so I didn't get started off just right! Things will go better from here. Right? I climbed into the fireplace with all the appropriate safety equipment properly installed. I didn't look into a nearby mirror, but I'm sure I looked like an alien life form — ear protectors, heavy leather gloves, eye protection

It clearly spelled out how and where the fireplace cover was to be installed, but I didn't read it in detail.

As a result, I had visions of massive drilling into the brick masonry in order to secure it.

installation

goggles and jeans to protect my body while contorting inside the fireplace itself (never used, therefore, clean).

Well, my first surprise came when I tried to open the damper for the first time. Clever house contractor, the damper was cemented shut from some sloppy masonry work. Again, no problem; I'll just get the largest hammer I can find in my tool chest and whang that thing open.

MAINTAIN SITUATIONAL AWARENESS: The three-pound handle to the damper appeared to be in the way of my hammer strokes, so I cleverly reached up where the handle fastened, smoothly pulled the pin out that connected it, and calmly watched as the **three-pound** damper handle whanged me in the leg. **OUCH!!** About that time, mental alarms started to go off in my head that things were not going exactly as I had planned.

WEAR PROPER SAFETY EQUIPMENT: After nursing my leg, I proceeded to really give it to that stubborn damper with my trusty \$2.85 hammer. **WHAM! WHAM! WHAM!**

Then, for some reason, I decided that the hearing protectors were uncomfortable and restricting my ability to move around inside the fireplace. So, I took them off and continued to beat away at the stubborn damper that was still pretty well cemented shut, but seeming to give way gradually to my

onslaught.

The heavy work gloves I'd been wearing seemed to restrict my work efforts as well, so I took them off to give myself more working freedom. Shortly after that, I slipped on one of my hammer strokes, and the middle two fingers of my left hand went full force against the knife-like point where the damper handle had previously attached, quickly cutting both fingers nearly to the bone at the second knuckle.

What's going on here? After nursing my wounded fingers, allowing my ears to stop ringing and stretching my sore calf muscles, I finally managed to get the stubborn damper open and operating properly, as well as my fireplace enclosure securely installed and ready for use.

Basking in the glow of my eventual success with the fireplace cover, I asked myself what had gone wrong with this whole operation. There I was, at that time an Air Force safety magazine editor, with several self-inflicted wounds as a result of performing a simple home task. I had often sat back in my editorial "ivory tower" and wondered about folks out in the field who had experienced a mishap or safety incident in their work place or home. More than once the thought had come to my mind about how anyone could be so stupid to do some of the things I had read about.

Well, maybe some of them had done some stupid things like I just had. Maybe the truth was that we are all susceptible to doing stupid things if we don't follow some very basic rules that we've heard over and over again:

— **READ THE TECHNICAL DATA**

— **MAINTAIN SITUATIONAL AWARENESS**

— **USE THE PROPER SAFETY EQUIPMENT AND TOOLS**

In my experience, the end results of my failure to follow those basic rules and use my head were only minor compared to what many folks have suffered. But, none of my misfortune had to happen. I could have done the job in minimum time and safely if I had simply kept the principles above always in mind.

While this may be a cute story that hopefully gave you a few chuckles, the same sort of things happen everyday on the flight line, in the support areas and offices, and in the home places around TAC. The lesson is — it can happen to you. You too can be guilty of doing some "stupid things." Armed with that knowledge about yourself and the proper tools to do whatever job you've been assigned, you can get it completed successfully if you keep your head focused on the task at hand. Don't let my experience, or one like it, happen to you. ➤



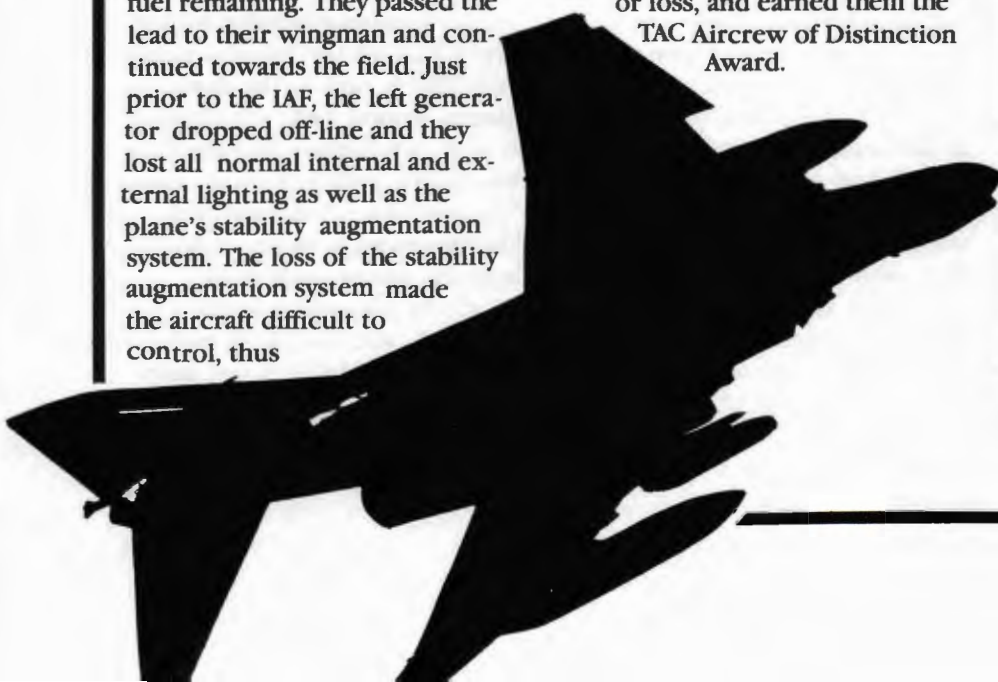
TAC AIRCREW OF DISTINCTION

On 17 August 1989, Captain Phillip P. Taber, pilot, and Captain Steven P. DeMarzio, electronic warfare officer, with the 563d Tactical Fighter Squadron were number three of a four-ship F-4G night intercept and air refueling mission. Following the intercept mission and while en route to the tanker, Capt Taber noticed a bus tie open light and master caution light. Capt Taber and Capt DeMarzio decided to terminate the mission and return home. En route to the field, the right generator dropped off-line leaving the crew with no navigation aids and no way to monitor their fuel status due to a frozen fuel gauge. They hacked their clock and estimated 40 minutes of fuel remaining. They passed the lead to their wingman and continued towards the field. Just prior to the IAF, the left generator dropped off-line and they lost all normal internal and external lighting as well as the plane's stability augmentation system. The loss of the stability augmentation system made the aircraft difficult to control, thus

adding to a rapidly deteriorating situation. Capt Taber and Capt DeMarzio continued to fly towards home base and elected to configure the aircraft while battery power was still available to the gear indicators, which allowed the crew to verify the position of the landing gear. Using a hand held flashlight for illumination, they successfully monitored their instruments and made an approach-end barrier engagement at night with no navigation aids, aircraft lighting, or stability augmentation. The outstanding airmanship, decisive actions, crew coordination, and systems knowledge displayed by Capt Taber and Capt DeMarzio saved a valuable USAF aircraft from serious damage or loss, and earned them the TAC Aircrew of Distinction Award.



**Captain Phillip P. Taber
Captain Steven P. DeMarzio
563 TFS, 831 AD
George AFB CA**



D. G. (Donald) Gwynne, Jr.
Aerospace Safety

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Beware of Unintentional Side-Stick Interference

If your F-16 suddenly enters an "uncommanded" right roll, the problem is not necessarily a flight control malfunction. Instead, you may be experiencing unintentional interference with your side-stick controller (stick) — especially if you're flying a B or D model aircraft and have an occupant in the back seat. Several recent F-16 incidents have pointed out a need to reemphasize the potential for such interference.

The probability of knee/leg interference increases when the passenger has his feet on the floor, as opposed to riding with them on the rudder pedals. When the feet are on the floor, the elevated knees can more easily contact the stick, causing an unintentional right roll.

Other possible causes of such interference are bulky equipment (or bulky passengers) and leg movements induced by g-suit inflation. (The latter was recently reported by an F-16A pilot, so no one is immune!)

Two things can be done to minimize unintentional interference:

1. The "dash one" says, "Adjust rudder pedals so that legs are flat on the seat cushion to prevent leg from hitting stick." As we have seen, however, a problem can arise when a passenger rides with his feet on the floor. This information should be considered by the pilot in command when briefing passengers or other pilots on what to do with their hands and feet during flight. This is not to say that passengers should be briefed to ride with their feet on the



pedals, nor is it to say they should be briefed to ride with their feet on the floor. It is simply to point out the necessity to advise caution not to interfere with the stick, and to point out that the danger of interference is increased when passengers ride with feet on the floor.

2. B and D model aircraft have a flight control take-command function, via the paddle switch, that can allow override of unintentional control inputs. The take-command function was primarily designed to allow instructor pilots to override incorrect control inputs made by students, and to resolve a "transfer of controls" problem that resulted from introduction of the F-16's fly-by-wire flight control system. Flight controls in conventional two-seat aircraft are mechanically interconnected. When one pilot moves the controls, the other one can feel it in his controls. While this is a time-honored method of transfer-

ring controls from one pilot to the other, it doesn't work with the F-16's fly-by-wire flight control system which is characterized by limited displacement stick and rudder pedals. In this system, simultaneous inputs to the fore and aft sticks or rudder pedals are added together and the flight control surfaces are positioned accordingly.

The take-command function allows lock-out of any undesired input from the other cockpit — including inadvertent controller interference — provided that the STICK CONTROL switch is properly positioned prior to flight. The pilot in command should use the paddle switch to take control (i.e., lock out the other station) if interference is suspected — even if the occupant of the other cockpit insists he has not touched the stick. Such interference can easily go unnoticed by the guilty party, especially when caused by an inflating g-suit. ➤



TAC OUTSTANDING ACHIEVEMENT IN SAFETY AWARD

Outstanding Achievement in Safety Award

Technical Sergeant Dwight J. Newton, 116th Consolidated Aircraft Maintenance Squadron, 116th Tactical Fighter Wing, Dobbins AFB, Georgia, was in the process of performing an operational check of an F-15 UHF radio system when he noticed inlet door covers on top of a taxiing F-15. Unable to attract the attention of the crew chief or the taxiing pilot, Sgt Newton utilized the aircraft UHF radio to inform

maintenance control of the hazard. Maintenance control then contacted ground personnel to stop the aircraft and remove the covers. Sgt Newton's keen observation and knowledge of aircraft operations and his positive actions to utilize available equipment prevented a potentially costly mishap and possible foreign object damage, and earned him the TAC Outstanding Achievement in Safety Award.



TSgt Dwight J. Newton
116 CAMS, 116 TFW
Dobbins AFB, GA





TAC OUTSTANDING ACHIEVEMENT IN SAFETY AWARD



SSgt James M. Hocutt
4 AGS, 4 TFW
Seymour Johnson AFB, NC

While deployed to our Checkered Flag base in Denmark, Staff Sergeant Mark Hocutt discovered a fuel leak on the equipment cooling package during a cursory inspection on aircraft 1092. Sgt Hocutt noticed what he thought was fluid streaming down the nose strut. After looking further, he discovered that it was coming from the overboard bleed assembly for the equipment package heat exchanger. He called this to the attention of his supervisor, and the aircraft was grounded. Teardown of the

equipment cooling package revealed the hot air check valve to the fuselage fuel cells had failed allowing expanded fuel to flow through the failed valve to the cooling assembly. The valves in the package were half full of JP-4. Had this condition been overlooked, or missed by a less experienced individual, there could have been considerable damage to the aircraft and possible loss of life. Sgt Hocutt's concern for safety and his prompt actions have earned him the TAC Outstanding Achievement in Safety Award.





TAC AIRCREW OF DISTINCTION

On 21 September 1989, Captain Kenneth A. Murphy of the 63d Tactical Fighter Training Squadron was leading a B course student on a 1V1 F-16 syllabus BFM training mission. While setting up for a simulated minimum fuel recovery approximately 75 nautical miles west of MacDill AFB over the Gulf of Mexico at 11,500 feet MSL, 250 knots and idle power, Capt Murphy was alerted by an "engine lube low" fault indicator that the aircraft was experiencing an oil problem. He informed his wingman, a solo student, advanced the throttle to military power, and started a climb. At military power, the aircraft produced only 85% normal engine power due to a failed nozzle actuator caused by the oil malfunction. Because of the nozzle problem, he was only able to climb at 3 degrees nose high and 250 knots. Thirty seconds later, Capt Murphy observed the oil pressure gauge fluctuating, then drop to zero. When the flight lead of another flight offered assistance, Capt Murphy relayed his situation and asked him to inform the supervisor of flying (SOF). After reviewing all appropriate checklists and formulating a game plan, Capt Murphy declared an emergency with Miami Center, then called the SOF and relayed his intentions. As Capt Murphy leveled off at 22,000 feet

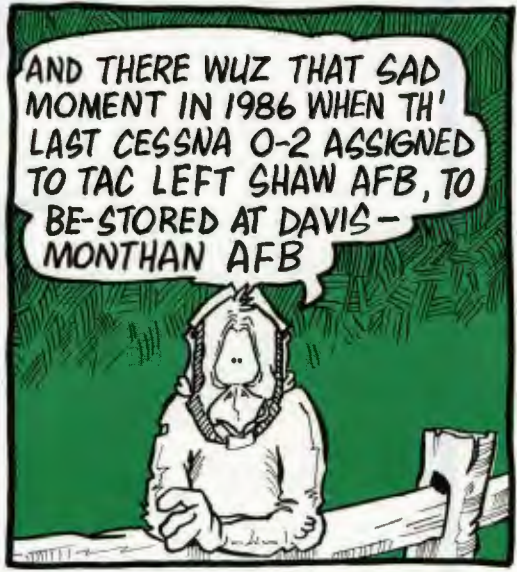
MSL and 250 knots, 40 NM from the nearest suitable airfield, his wingman informed him that his aircraft was trailing smoke from the engine. Capt Murphy, noticing a slight burning odor in the cockpit, selected 100 percent oxygen, and rechecked all engine instruments. At 30 NM from Tampa International Airport, the engine began to run rough and finally seized. Seeing the engine RPM drop to zero and engine temperature rise out of limits, he shut the throttle and fuel master switch off and began a 240 knot power-off descent while completing the remaining checklist items for a flameout approach. Upon reaching a one-to-one glide-to-altitude ratio of 15,000 feet MSL and 15 NM from Tampa International Airport, Capt Murphy coordinated a straight-in flameout opposite direction approach to the 8,300' secondary runway (the 10,000' primary runway was closed for maintenance). Approaching 5 NM and landing assured, Capt Murphy checked for enough hydrazine fuel to operate his emergency power unit for the remainder of the flight and placed his landing gear down. He completed a 90 degree turn to align his aircraft with the runway, rolled out on final at 800' AGL with 190 knots, and landed 1,000 feet down the runway at 165 knots. He successfully slowed the

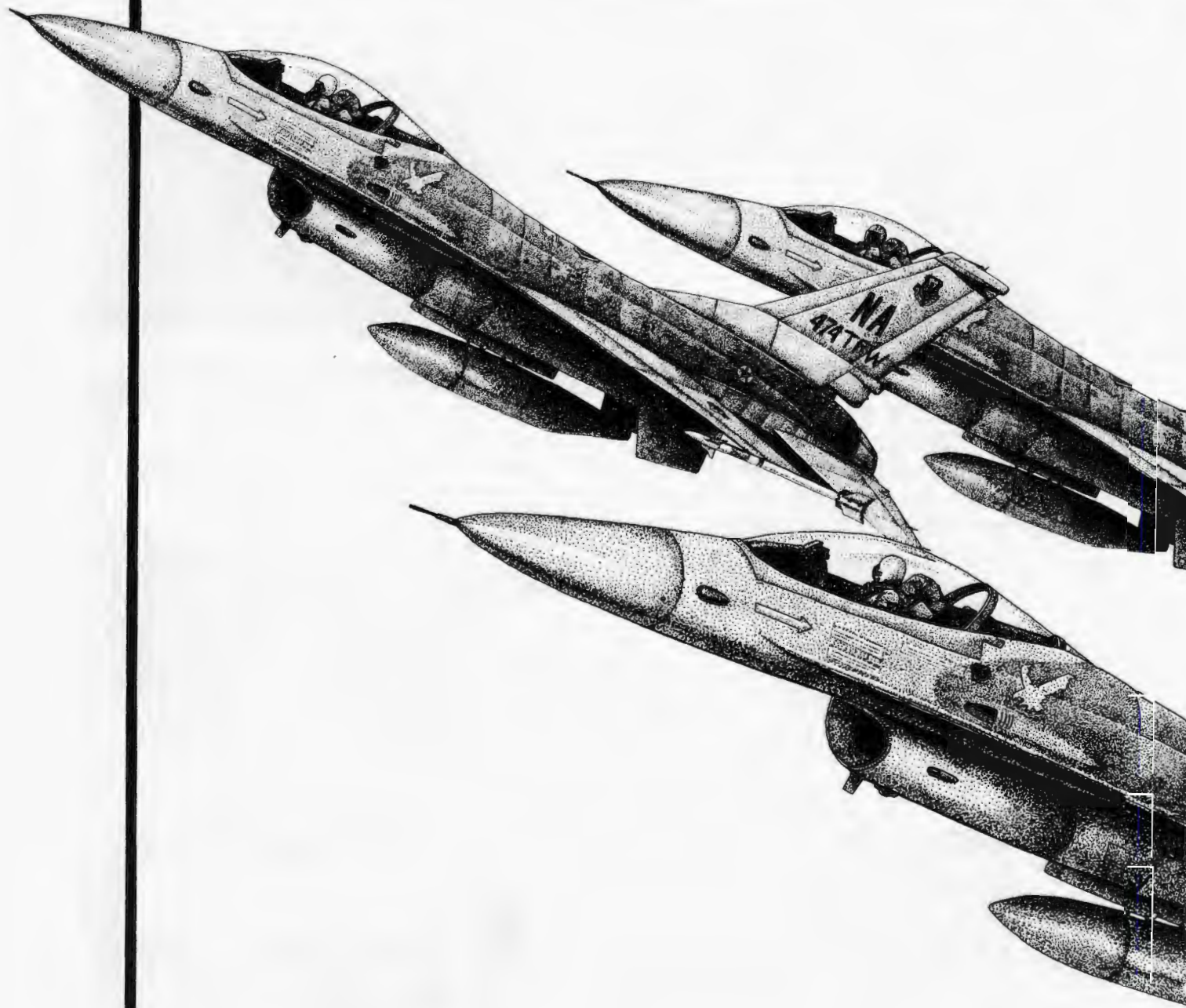


Captain Kenneth A. Murphy
63 TFTS, 56 TTW
MacDill AFB FL

aircraft enough to roll clear of the runway and stopped his aircraft on a taxiway which prevented the closure of the only active runway at Tampa International Airport.

Capt Murphy's prompt, timely actions resulted in a flawless recovery under difficult conditions. His continuous contact with his wingman and supervisor of flying, coupled with his preparedness in completing appropriate checklists, kept him alert for any associated contingencies. Capt Murphy obviously saved a valuable aircraft and averted what certainly would have been a catastrophic accident if the aircraft had crashed in such a densely populated area. Civilian airport officials declared him a hero for his calm demeanor and expert flying abilities under tremendous pressure. Capt Murphy's outstanding airmanship has earned him the TAC Aircrew of Distinction Award.





F-16 FALCONS

474 TACTICAL FIGHTER WING

14 NOV 1980 - 30 SEP 1989



Three Rules for

Maj Don Rightmyer
16 AF/WSC
Torrejon AB, Spain

What causes mishaps — in the air and on the ground? That question has certainly come to my mind repeatedly as I've read through countless mishap reports. There never seems to be any shortage of mishaps, yet we haven't figured out any new ways to crash airplanes, damage equipment, or injure people. Since there aren't any new causes of mishaps, you would think we could pinpoint the causes, correct them and then go about our business without any further hassles. Right?

Sounds good, but you and I know that we continue to have more than enough mishaps. So, the question remains — **WHY?** I think one answer was contained in a small, rather unimpressive-looking sign that I once saw in a small candle factory. The sign's message seemed to summarize three of the most important and most prevalent causes for the mishaps experienced throughout TAC. The plaque stated simply:

I didn't know.
I didn't see.
I didn't think.

Think about it for a moment. Have you ever had a mishap or accident in your workplace or at home that could be attributed to one of those underlying causes?

January, 1990



having a Mishap

Probably.

I didn't know. This cause of mishaps is one of the primary reasons for what we call "briefings" in the military. You and I need to continually pass along important information to our fellow team members, whether they're crew chiefs, flyers, security police, or whomever. We need to do it in the clearest and most concise way possible, hence the word "brief-ing." If you're the one passing along such "words of wisdom," then you need to make sure that a transfer of information takes place, whether it's in the form of a verbal briefing, written notes passed along to the next shift, or something in a more permanent format such as a unit or workshop notebook.

If you're on the receiving end for vital operating information, it's just as much your responsibility to make sure you've got everything you need to do your assigned tasks for the day. Before you get buried up to your ankles in the proverbial "alligators," make sure you've got the BIG PICTURE of what's going on first. Then you can be sure you're operating with all the information you need and can keep your priorities straight.

Another area where we can ensure that "I didn't know" doesn't sneak up and bite us is to have all of the necessary training and technical preparation to do the assigned task. If you're a maintenance troop, make sure you've got the necessary training qualifications

to do the job assigned. Don't allow someone to send you out on a job you're not qualified to complete. Help your supervisors out by ensuring that they know you're not qualified and then do what you need to in order to get the required training. If you're an aircrew member, make sure you're current/qualified to perform the events called for on today's missions. Don't leave it up to your flight/element leader to figure that out for you.

No matter what your areas of responsibility are, make sure you understand THE PLAN before you launch out of your workshop to do some work or onto the flight line for a sortie. You can save yourself some unnecessary embarrassment by not having to call back on the radio later to request some information that you should have availed yourself of in the first place.

I didn't see. The eye is one of the most marvelous information sensors that we've got at our disposal. Sure, sometimes our eyes can fool us, but generally they can provide an amazing wealth of information if we'll just put them to work. Using our eyes and "seeing things" is one of the greatest ways to help us prevent mishaps. There have been untold numbers of ground, flight and weapons mishaps mentioned in the pages of *TAC Attack* over the years that were caused primarily due to the fact that someone didn't "see" everything that was important in the working area around them.

For example, in one "Weapons Word," some munitions maintenance folks were working on air-to-air missiles, but failed to notice how some wires and cables nearby conflicted with





THREE RULES FOR HAVING A MISHAP

their work site. The result — an air-to-air missile pulled off onto the floor and damaged.

On several other occasions, we've had aircrews both in TAC and other commands who apparently didn't "see" power carts, missile trailers, and even people when they prepared to taxi their aircraft. The result — all of the above items and more sent flying across the smooth surface of the flight line and aircraft shelter areas. Ouch!!

Obviously, there are a lot more things involved in our not "seeing" something, one of the most important being —

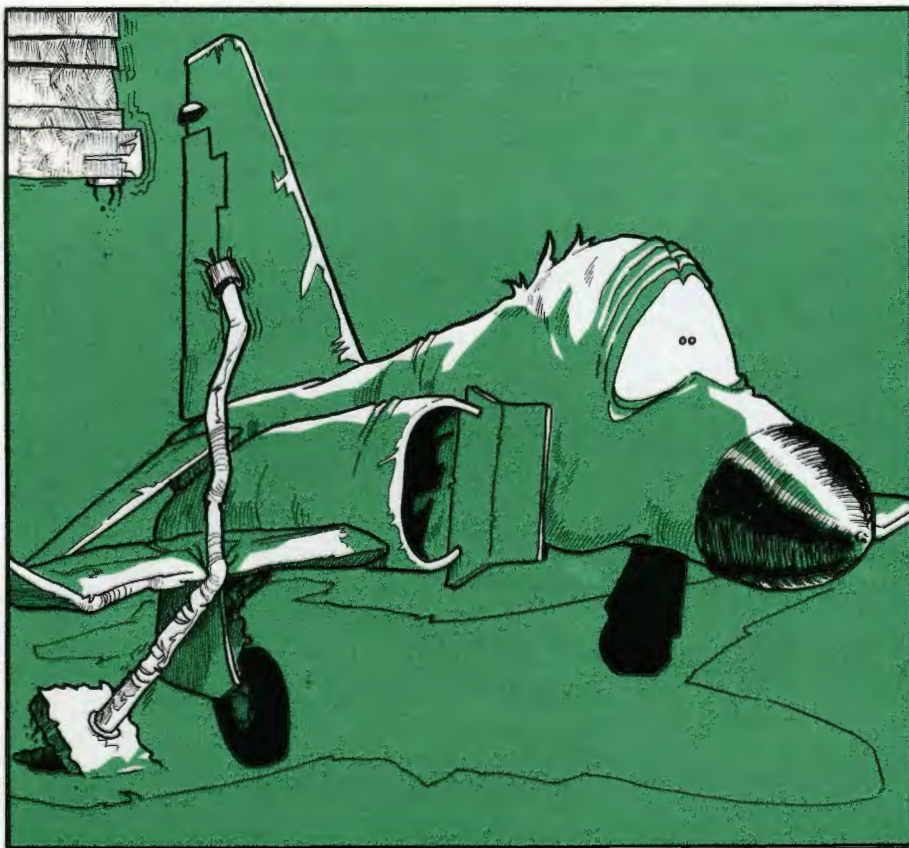
I didn't think. When all else fails (and frequently it does), "using the old head for something besides a hat rack" can save us from ourselves and ultimately prevent that mishap which otherwise might occur. That's sometimes the thing which causes us not to "see" — we're simply not using our head.

One vital question that should be ever present in our minds throughout the day is "what if?" **What if** I don't do this or that? How will that affect the end result? **What if** I don't pass along this piece of information? How will that affect the next

person who comes along to work on this aircraft or this piece of equipment? **What if** this and what if that.... It never hurts to at least think over briefly what the consequences of your actions, or inactions, are likely to be.

One way to prevent yourself from ever having to say "**I didn't think**" is to use the common sense test. No matter what you're about to do or are in the middle of completing, ask yourself "does this make sense?" If the answer is yes, then hopefully you're on the right track and everything is going well. If, however, the answer is no, that should be a red warning light for you to stop and ask yourself what's going on. Maybe one of the other mishap causes is at play and you "don't know" or "didn't see" something vitally important to what you're doing at the time. If what you're doing fails the common sense test, there better be a good justification for it, or you need to take another direction — immediately.

There are other reasons for the cause of mishaps, but if you can eliminate the big three — "I didn't know," "I didn't see," "I didn't think" — you're well on your way to an enviable mishap-free record in your unit and a much more efficient working environment. I don't know about you, but I wouldn't like having to explain why I caused a mishap. I'd much rather avoid the entire problem in the first place — wouldn't you?



TAC OUTSTANDING ACHIEVEMENT IN SAFETY AWARD



On the morning of 4 August 1989, Staff Sergeant Andrew Pires and Technical Sergeant Bernhard Krueger were running the engines on an A-10A assigned to the 333d Aircraft Maintenance Unit. Sgt Pires was in the cockpit while Sgt Krueger was monitoring the ground operations. During the run-ups, Sgt Pires became increasingly uneasy about the vibrations he felt through the cockpit seat. Coordinating with Sgt Krueger and being aware that the number two engine had successfully passed a vibration run the previous night, he decided to shut down the engine. Reviewing the forms confirmed again the successful vibration run, experiencing a hit of 3.2 mils on a 4.0 tolerance scale. The decision was made to investigate the vibration. A cursory inspection of the number two engine revealed carbon particles visible in the exhaust tube. Sgt Pires and Sgt Krueger suspected a damaged number six bearing carbon seal which would require a C-sump change. A borescope was conducted to inspect the internal sections. Although a first stage tur-



**Staff Sergeant
Andrew C. Pires**

**355 AGS, 355 TTW
Davis-Monthan AFB AZ**



**Technical Sergeant
Bernhard Krueger**

bine nozzle was found slightly separated from the liner, the nozzle was within limits and the remaining borescope went without incident. Upon removal of the C-sump cover, Sgt Pires found a bolt lying in the bottom of the cover which is normally used on bearing housings. Further disassembly revealed two bolts completely missing from the number six bearing housing with the remaining bolts only hand tightened. Since the second mission bolt could not be accounted for, the decision was made to change the engine to permit a more extensive inspection and to return the aircraft to flying status without delay. Had the loose number six bearing housing gone undetected, catastrophic engine failure and a possible loss of life/and or aircraft might have occurred. Sgt Pires and Sgt Krueger, both experienced jet engine mechanics, again exhibited

the "maintenance with a conscience" ethic, so vital to the maintenance community by going beyond expectations and technical order requirements. These efforts not only saved valuable Air Force resources, but have earned Sgt Pires and Sgt Krueger the TAC Outstanding Achievement in Safety Award.





TAC OUTSTANDING ACHIEVEMENT IN SAFETY AWARD

In September 1989, an F-100-PW-100/220 F-15 engine was removed for a massive oil leak. When the engine arrived at the 33d Consolidated Repair Squadron, JEIM shop, Technical Sergeant Jose A. Vazquez's thorough inspection of the engine revealed that a defective clamp had chafed through the air/oil cooler line causing the massive oil leak. His further inspection of all engines within the shop revealed that one other engine had a similar problem. Sgt Vazquez recommended that a one-time inspection be performed on all engines assigned to the 33d Tactical Fighter Wing. As a result of the one-time inspection, two more defective engines were discovered. Sgt Vazquez's discoveries alerted 9 AF and TAC for the need of a one-time inspection of all F-100-PW-100/220 engines, which was accomplished by a Time Compliance Technical Order (TCTO).

Sgt Vazquez's dedication played a major role in mishap prevention. He didn't just treat the symptom by repairing a single chafed oil line, but rather took the extra effort to determine that the same root problem existed in many other F-15 engines also. His awareness and attention to detail resulted in preserving valuable mission essential assets and have earned him the TAC Outstanding Achievement in Safety Award.



Technical Sergeant Jose A. Vazquez
33 CRS, 33 TFW
Eglin AFB FL

INDEX

1989

Editor's comment:

This is the first TAC Attack index since Dec 1975. It includes special categories such as Flight Safety Officer Tips, Editor's Choice (recommended articles), and RTU Tips along with the expected A-7 thru Weather categories. The next time you are looking for an illustration or you want to compare notes on how some other folks have attacked a similar problem, take a look in the index and let it help you locate those stories.

TITLE	ISSUE	PAGE	TITLE	ISSUE	PAGE
A-7					
A-7 Jet Blast Pushes Line Truck 40 Feet	Feb 89	7	TER and Bombs Jettisoned/Lock Ring Loose	Jan 89	21
A-7K Lands With Nose Gear Up and Locked	May 89	27	Water Intrusion Plug FODs A-10/Follow. . .	Jul 89	11
Art, Center, A-7 Corsair In-flight	Aug 89	16			
Art, Center, A-7 In the Weather	Jul 89	1	C-130		
Bird FODs A-7 Engine/Max RPM Available 70%	May 89	9	Crew Coordination Saves Aircraft: EC-130H	Jan 89	28
Ice Build-up Prevents A-7 Gear Retraction	Jan 89	8	Ice FODs C-130 During Ground Engine Run	Feb 89	7
Lightning Strikes A-7 Pilot!	Jul 89	15	Number 3 and 4 Engines Quit on EC-130	Jan 89	13
Switch Error Dropping High Drag MK-82	Jun 89	13			
A-10					
A-10 Engine Fails During Turn to Final	Sep 89	11	F-4		
A-10 Flight Controls in Manual Reversion	Oct 89	24	Art, Center, F-4G 37 TFW	Oct 89	16
A-10 Leading Edge Delaminated/Flt Control	Apr 89	24	Art, Cover, Ground Crews in Chem Gear F-4	Mar 89	1
A-10 Post Engine Shutdown Fire	Oct 89	30	Bolt FODs F-4 Engine	Oct 89	9
A-10 Tail Rotates Down and Strikes Jack	May 89	11	Complacency: F-4 Tank Carts Fired	May 89	22
Art, Cover, A-10 In-Flight	Oct 89	1	Crew Chief Blown Over By Jet Blast/Give . . .	Oct 89	9
Beware of Airborne Icing/Rime Ice on A-10	Jul 89	6	Crew Coordination — A Team Effort	Nov/Dec 89	4
Bombing Range Gets Crowded/A-4s Violated	Apr 89	26	F-4 Utility Hydraulics/Emerg Brake Failure	Nov/Dec 89	13
Canopy Pins Crew Chief To A-10 Rail	Apr 89	12	F-4D Left Engine Failure/PC-2 Failure	Nov/Dec 89	7
Don't Make Assumptions with Weapons	Sep 89	13	Local Steps Added to T.O./Fire Egress Sys	Apr 89	13
Ear Protectors Left in Intake FOD A-10	Apr 89	13	Mis-analyzing the Situation/Buffoonery	May 89	4
First Intentional A-10 Gear Up Landing	May 89	15	RF-4 Lost External Wing Tank	Apr 89	24
Hypoxia/A-10 Gauge Reads Ok, But No Oxygen	Jan 89	8	Recent Lightning Strikes F-4 and F-15	Mar 89	8
Ice Missed During Preflight FODs A-10	Feb 89	28			
Improper Maintenance Causes A-10 FOD	Mar 89	14	F-15		
Switches Set Wrong . . . Starts A-10	Jan 89	12	Art, Center, 1 TFW, F-15 Landing	Apr 89	16
			Art, Cover, F-15 Climbing	Feb 89	1

TITLE	ISSUE	PAGE	TITLE	ISSUE	PAGE
Art, Cover, F-15 and Pilot on the Ramp	May 89	1	OV-10 Engine Shut Down After Low Approach	Feb 89	11
Art, Cover, F-15 in Steep Dive	Sep 89	1			
Crew Coordination — A Team Effort	Nov/Dec 89	4	AIRCRAFT OTHER		
F-15 Air Inlet Controller Fails/EEC Quits	May 89	7	AT-38B Flight Control Malfunction/Ejection	Jan 89	12
F-15 Crew Chief's Attention to Detail	Aug 89	30	AT-38B Landing With Stuck Throttles	Apr 89	11
F-15 Engine Start/Jet Fuel Starter Fire	May 89	26	Art, Center, F-89J Scorpion In-flight	Jan 89	16
F-15 Flight Lead Saves Disoriented Wingman	Jun 89	7	Art, Center, OA-37 Dragonfly	Jul 89	16
F-15 Hinge Pin/Dropped Object	Jun 89	8	Art, Center, P-51D	Nov/Dec 89	16
F-15 Loses Brakes/Ground Crew Stops Acft	Jan 89	30	Art, Cover, F-84 Formation Flight	Jan 89	1
F-15 Pylon Cartridges Fired — Unsafe	Apr 89	29	Automatic Car Seat Belts/WW-II P-51	Nov/Dec 89	14
F-15 Safety Wire Not Installed IAW T.O.	May 89	11	There I Was/Low Level Visual Misperception	Aug 89	4
Integrated Combat Turn	Jul 89	24			
Recent Lightning Strikes F-4 and F-15	Mar 89	8			
Spatial Disorientation/F-15 Pulls Out 420'	Apr 89	4			
			AIRCREW		
F-16			20 MM Ammunition — Big Bullet Souvenir	Jun 89	28
Art, Center, 31 TTW F-16s In-flight	May 89	16	A-10 Engine Fails During Turn to Final	Sep 89	11
Art, Center, F-16 Airborne	Feb 89	16	A-10 Leading Edge Delaminated/Flt Control	Apr 89	24
Art, Cover, 347 TFW, F-16 in Climb	Jun 89	1	A-10 Post Engine Shutdown Fire	Oct 89	30
Crew Chief Chocks Runaway F-16	Apr 89	24	A-7 Jet Blast Pushes Line Truck 40 Feet	Feb 89	7
Don't Place Anything on the Inlet/FOD F-16	Apr 89	6	A-7K Lands With Nose Gear Up and Locked	May 89	27
F-16 Bird Strike/Emergency Gear Extension	May 89	27	AT-38B Flight Control Malfunction/Ejection	Jan 89	12
F-16 Driver Experienced G-LOC/Are You . . .	Jul 89	6	AT-38B Landing With Stuck Throttles	Apr 89	11
F-16 Egress Technicians Find Corrosion	Jun 89	29	Aircraft Lightning and Static Discharge	Oct 89	18
F-16 Engine Vortex Digs Hole in Ramp	Feb 89	12	Arresting Gear: Using a Valuable TAC Asset	Apr 89	8
F-16 Exhaust Blows FOD into Adjacent F-16	Oct 89	8	Automatic Car Seat Belts/WW-II P-51	Nov/Dec 89	14
F-16 Flameout Landing	Oct 89	12	Beware of Airborne Icing/Rime Ice on A-10	Jul 89	6
F-16 Landing with Right Main Gear Unlocked	Jul 89	23	Bird FODs A-7 Engine/Max RPM Available 70%	May 89	9
F-16 Left Flap Failed/Controllability	Aug 89	30	Bombing Range Gets Crowded/A-4s Violated	Apr 89	26
F-16 Missile Launcher Departs Aircraft	May 89	22	Class A Mishap — Pilot's 72 Hour History	Jul 89	12
F-16 Pilot Dispenses Flares in the EOR	Jul 89	7	Cockpit Paint Fumes Cause Aircrew to Abort	Aug 89	13
F-16 Pilot Shoots Night Flameout Approach	Aug 89	11	Crew Chief Blown Over By Jet Blast/Give . . .	Oct 89	9
How to Handle Compound Emergencies	Jul 89	4	Crew Chief Extinguishes F-111D Engine Fire	Sep 89	15
IFE F-16 Pilot Forgot to Safe Chaff/Flares	Mar 89	8	Crew Coordination — A Team Effort	Nov/Dec 89	4
Old Habit Pattern Causes F-16 Switch Error	Aug 89	27	Crew Coordination Saves Aircraft: EC-130H	Jan 89	28
Pilot Lands F-16 After Lightning Strike	Mar 89	7	Crew/Flight Coordination: Four Basic Rules	Feb 89	4
Pilot Switch Error Jettisons Flare	Aug 89	26	Don't Place Anything on the Inlet/FOD F-16	Apr 89	6
Pliers FOD F-16 Engine/Dark — No Light	Jul 89	11	EOR Crew Member's Headset FODs Engine	Oct 89	8
			Ear Protectors Left in Intake FOD A-10	Apr 89	13
F-111			F-15 Flight Lead Saves Disoriented Wingman	Jun 89	7
Art, Center, F-111 In the Chocks	Jun 89	16	F-15 Loses Brakes/Ground Crew Stops Acft	Jan 89	30
Art, Cover, 366 TFW F-111 on the Ramp	Apr 89	1	F-15s Almost Collide On 8000 ft Runway	Apr 89	7
Crew Chief Extinguishes F-111D Engine Fire	Sep 89	15	F-16 Bird Strike/Emergency Gear Extension	May 89	27
Crew Coordination — A Team Effort	Nov/Dec 89	4	F-16 Driver Experienced G-LOC/Are You . . .	Jul 89	6
Failure to Follow T.O. Causes Lost Finger	Jan 89	14	F-16 Engine Vortex Digs Hole in Ramp	Feb 89	12
			F-16 Exhaust Blows FOD into Adjacent F-16	Oct 89	8
OV-10			F-16 Flameout Landing	Oct 89	12
Art, Center, OV-10 Bronco on the Ramp	Sep 89	16	F-16 Landing with Right Main Gear Unlocked	Jul 89	23
Attention to Detail Solves Brake Problem	Aug 89	30	F-16 Left Flap Failed/Controllability	Aug 89	30
OV-10 Right Main Gear Unsafe	Nov/Dec 89	26	F-16 Pilot Dispenses Flares in the EOR	Jul 89	7
			F-16 Pilot Shoots Night Flameout Approach	Aug 89	11
			F-4 Utility Hydraulics/Emerg Brake Failure	Nov/Dec 89	13
			Flying Safety, The Maintainer The Pilot	Apr 89	18
			Flying in Winter: A Brisk Experience	Jan 89	4
			Heat Stress	Jun 89	10
			High Speed Dive Recovery; Fly Out . . .	Sep 89	4
			How to Handle Compound Emergencies	Jul 89	4

Hung Bomb/You Never Know When It Will Go	Aug 89	26
Hydroplaning: Those Embarrassing Moments	Jun 89	18
Hypoxia/A-10 Gauge Reads Ok, But No Oxygen	Jan 89	8
IFE F-16 Pilot Forgot to Safe Chaff/Flares	Mar 89	8
Ice Build-up Prevents A-7 Gear Retraction	Jan 89	8
Ice FODs C-130 During Ground Engine Run	Feb 89	7
Ice Missed During Preflight FODs A-10	Feb 89	28
Lightning Strikes A-7 Pilot!	Jul 89	15
Mis-analyzing the Situation/Buffoonery	May 89	4
Notice to Airmen - How to Read the NOTAMS	Sep 89	18
OV-10 Right Main Gear Unsafe	Nov/Dec 89	26
Physical Training/What the Aircrew Needs	Aug 89	18
Physiological Incident/Need for Exercise	May 89	6
Pilot Lands F-16 After Lightning Strike	Mar 89	7
Pumping Iron: What, Me Lift Weights?	Nov/Dec 89	22
Ready, Set, Go: On Deployment	Feb 89	18
Recent Lightning Strikes F-4 and F-15	Mar 89	8
Runways Which the WX Observer Can't See	Jun 89	12
Self Medication/Air Abort for Sinus Block	Apr 89	6
Skiing/Play Like You Fly	May 89	8
Spatial Disorientation/F-15 Pulls Out 420'	Apr 89	4
Summer Flying Tips	Jun 89	4
Switch Error Dropping High Drag MK-82	Jun 89	13
TAC Aircrews and Maintainers Do it Right	May 89	12
TAC and TAC-Gained Flight Units' Losses FY 89	Nov/Dec 89	28
TER and Bombs Jettisoned/Lock Ring Loose	Jan 89	21
The Dangers of War Souvenir Munitions	Sep 89	10
The Man Behind Fleagle	Nov/Dec 89	8
There I Was . . . /Writing for TAC ATTACK	May 89	24
There I Was/Low Level Visual Misperception	Aug 89	4
Your Priorities/Aircraft Knowledge	Aug 89	14

Art, Cover, A-7 In the Weather	Jul 89	1
Art, Cover, A-10 In-Flight	Oct 89	1
Art, Cover, F-4 and Crews in Chem Gear	Mar 89	1
Art, Cover, F-15 Climbing	Feb 89	1
Art, Cover, F-15 Diving	Sep 89	1
Art, Cover, F-15 and Pilot on the Ramp	May 89	1
Art, Cover, F-16, 347 TFW, in Climb	Jun 89	1
Art, Cover, F-84 Formation Flight	Jan 89	1
Art, Cover, F-105 on the Ramp	Aug 89	1
Art, Cover, F-111, 366 TFW, on the Ramp	Apr 89	1
Art, Cover, Workers Around Christmas Tree	Nov/Dec 89	1

AUTOMOBILE

\$6500 Oil Change/Foot Slips at Auto Hobby	Jun 89	24
A Fatal Mistake: Misplaced Shoulder Strap	Jan 89	25
Automatic Car Seat Belts/WW-II P-51	Nov/Dec 89	14
Automobile Tire Care	Mar 89	22
Backing Up A Van - What's Your Plan?	May 89	10
Driver Dozed Off/Failed to Use Seat Belts	Mar 89	28
Driving at Sunrise and Sunset	Oct 89	26
Driving: Your Attitude Makes Difference	Jan 89	22
How to Avoid "Rear-enders" Auto Accidents	Jan 89	26
Human Error vs Human Stupidity	Apr 89	29
Night Driving Techniques	Aug 89	10
Pay Close Attention While Driving	Mar 89	18
Seat Belt Saves Major	May 89	14
Seat Belts — There I Was	Oct 89	10
Seat Belts: I'm A Believer	Feb 89	10
Stuck Accelerator/High Speed Fiasco	Jun 89	14

BEST ARTICLES/EDITOR'S CHOICE

Aircraft Lightning and Static Discharge	Oct 89	18
Automatic Car Seat Belts/WW-II P-51	Nov/Dec 89	14
Care Enough to Get Involved	Oct 89	14
Don't Place Anything on the Inlet/FOD F-16	Apr 89	6
F-15 Flight Lead Saves Disoriented Wingman	Jun 89	7
F-15s Almost Collide On 8000 ft Runway	Apr 89	7
F-16 Driver Experienced G-LOC/Are You . . .	Jul 89	6
Gun Safety — Not a Toy and Always Loaded	Sep 89	26
Heat Stress	Jun 89	10
High Speed Dive Recovery; Fly Out . . .	Sep 89	4
How to Handle Compound Emergencies	Jul 89	4
Human Error vs Human Stupidity	Apr 89	29
Integrated Combat Turn	Jul 89	24
Physical Training/What the Aircrew Needs	Aug 89	18
Pliers FOD F-16 Engine/Dark — No Light	Jul 89	11
Spatial Disorientation/F-15 Pulls Out 420'	Apr 89	4
Taking Care of Your People/You-Me-and-Them	Jul 89	8
The Man Behind Fleagle	Nov/Dec 89	8
There I Was/Low Level Visual Misperception	Aug 89	4

AIR-TO-GROUND

A-10 Leading Edge Delaminated/Flt Control	Apr 89	24
Bombing Range Gets Crowded/A-4s Violated	Apr 89	26
Hung Bomb/You Never Know When It Will Go	Aug 89	26
Old Habit Pattern Causes F-16 Switch Error	Aug 89	27

ART CENTER

Art, Center, A-7 Corsair In-flight	Aug 89	16
Art, Center, F-4G, 37 TFW, Lightning	Oct 89	16
Art, Center, F-15, 1 TFW, Landing	Apr 89	16
Art, Center, F-16 In-flight	Feb 89	16
Art, Center, F-16s, 31 TFW In-flight	May 89	16
Art, Center, F-89J In-flight	Jan 89	16
Art, Center, F-105 On the Ramp	Mar 89	16
Art, Center, F-111 In the Chocks	Jun 89	16
Art, Center, OA-37 Dragonfly	Jul 89	16
Art, Center, OV-10 Bronco on the Ramp	Sep 89	16
Art, Center, P-51 Mustangs In-flight	Nov/Dec 89	16

ART-COVER

BIRD STRIKES

TAC ATTACK

TITLE	ISSUE	PAGE	TITLE	ISSUE	PAGE
Bird FODs A-7 Engine/Max RPM Available 70%	May 89	9			
F-16 Bird Strike/Emergency Gear Extension	May 89	27			
How to Handle Compound Emergencies	Jul 89	4			
BOATING			FIRE		
Ship of Fools/I Learned About Boating . . .	May 89	18	A-10 Post Engine Shutdown Fire	Oct 89	30
			Contact the Supervisor/Fuel Tank Explodes	Jun 89	8
			Crew Chief Extinguishes F-111D Engine Fire	Sep 89	15
			Preventing and Surviving a Home Fire	Jul 89	18
CHILDREN					
Blasting Caps are Dangerous	Jul 89	30			
Children and Swimming Pools/Real Life . . .	Oct 89	7			
Halloween Safety/Mass Launch at Sundown	Oct 89	4			
Ways to Fall-Proof Your Home	Feb 89	24			
CONTROLLABILITY/FLIGHT CONTROLS			FLIGHT SAFETY OFFICER TIPS		
A-10 Flight Controls in Manual Reversion	Oct 89	24	27th TFW Situational Emergency Procedures	May 89	2
F-16 Left Flap Failed/Controllability	Aug 89	30	405 TTW Physical Conditioning Program	Jun 89	2
			A-10 Leading Edge Delaminated/Flt Control	Apr 89	24
			Aircraft Lightning and Static Discharge	Oct 89	18
			Arresting Gear: Using a Valuable TAC Asset	Apr 89	8
			Beware of Airborne Icing/Rime Ice on A-10	Jul 89	6
			Bombing Range Gets Crowded/A-4s Violated	Apr 89	26
			Class A Mishap — Pilot's 72 Hour History	Jul 89	12
			Crew/Flight Coordination: Four Basic Rules	Feb 89	4
			Don't Place Anything on the Inlet/FOD F-16	Apr 89	6
			Ear Protectors Left in Intake FOD A-10	Apr 89	13
			F-15 Flight Lead Saves Disoriented Wingman	Jun 89	7
			F-15s Almost Collide On 8000 ft Runway	Apr 89	7
			F-16 Bird Strike/Emergency Gear Extension	May 89	27
			F-16 Driver Experienced G-LOC/Are You . . .	Jul 89	6
			F-16 Engine Vortex Digs Hole in Ramp	Feb 89	12
			Flight Safety Officer Sets the Standard	Sep 89	15
			Flight Safety Officer's Excellent Program	Mar 89	9
			Flying Safety Survey for Squadron Use	Mar 89	10
			Flying in Winter: A Brisk Experience	Jan 89	4
			Heat Stress	Jun 89	10
			High Speed Dive Recovery;Fly Out . . .	Sep 89	4
			How to Handle Compound Emergencies	Jul 89	4
			Hydroplaning: Those Embarrassing Moments	Jun 89	18
			Hypoxia/A-10 Gauge Reads OK, But No Oxygen	Jan 89	8
			IFE F-16 Pilot Forgot to Safe Chaff/Flares	Mar 89	8
			Ice Build-up Prevents A-7 Gear Retraction	Jan 89	8
			Ice Missed During Preflight FODs A-10	Feb 89	28
			Lightning Strikes A-7 Pilot!	Jul 89	15
			Mis-analyzing the Situation/Buffoonery	May 89	4
			Notice to Airmen - How to Read the NOTAMS	Sep 89	18
			Old Habit Pattern Causes F-16 Switch Error	Aug 89	27
			Outstanding Flight Safety Officer	Oct 89	22
			Physical Training/What the Aircrew Needs	Aug 89	18
			Physiological Incident/Need for Exercise	May 89	6
			Pilot Switch Error Jettisons Flare	Aug 89	26
			Pumping Iron: What, Me Lift Weights?	Nov/Dec 89	22
			Ready, Set, Go: On Deployment	Feb 89	18
			Runways Which the WX Observer Can't See	Jun 89	12
			Self Medication/Air Abort for Sinus Block	Apr 89	6
			Spatial Disorientation/F-15 Pulls Out 420'	Apr 89	4
			Summer Flying Tips	Jun 89	4
			Supervisor's Attitude/It's Not My Job!	Oct 89	25
			TAC Aircrews and Maintainers Do it Right	May 89	12
			TAC and TAC-Gained Flight Units' Losses		
			FY 89	Nov/Dec 89	26
			TER and Bombs Jettisoned/Lock Ring Loose	Jan 89	21
			Tactical Safety/Mission Accomplishment	Mar 89	4
			There I Was . . . /Writing for TAC ATTACK	May 89	24
DIVE RECOVERY					
A-10 Leading Edge Delaminated/Flt Control	Apr 89	24			
Art, Cover, F-15 in Steep Dive	Sep 89	1			
High Speed Dive Recovery;Fly Out . . .	Sep 89	4			
DOWN TO EARTH					
Ways to Fall-Proof Your Home	Feb 89	24			
DROPPED OBJECTS					
F-15 Hinge Pin/Dropped Object	Jun 89	8			
F-16 Missile Launcher Departs Aircraft	May 89	22			
Hung Bomb/You Never Know When It Will Go	Aug 89	26			
Old Habit Pattern Causes F-16 Switch Error	Aug 89	27			
SSgt Alerts Ops of Dropped Object on Rwy	Apr 89	30			
ENGINE FAILURE					
A-10 Engine Fails During Turn to Final	Sep 89	11			
Crew Coordination Saves Aircraft: EC-130H	Jan 89	28			
F-16 Flameout Landing	Oct 89	12			
F-16 Pilot Shoots Night Flameout Approach	Aug 89	11			
F-4D Left Engine Failure/PC-2 Failure	Nov/Dec 89	7			
Number 3 and 4 Engines Quit on EC-130	Jan 89	13			
OV-10 Engine Shut Down After Low Approach	Feb 89	11			
EXERCISES AND DEPLOYMENTS					
Bombing Range Gets Crowded/A-4s Violated	Apr 89	26			
F-15s Almost Collide On 8000 ft Runway	Apr 89	7			
Integrated Combat Turn	Jul 89	24			
Pliers FOD F-16 Engine/Dark — No Light	Jul 89	11			
Pressure Complacency Fired Cartridges	Aug 89	28			
Ready, Set, Go: On Deployment	Feb 89	18			
Sgt Puts Out Tent Fire During Exercise	Sep 89	25			
Water Intrusion Plug FODs A-10/Follow . . .	Jul 89	11			

TITLE	ISSUE	PAGE	TITLE	ISSUE	PAGE
There I Was/Low Level Visual Misperception	Aug 89	4	Gun Safety — Not a Toy and Always Loaded	Sep 89	26
Your Priorities/Aircraft Knowledge	Aug 89	14	Halloween Safety/Mass Launch at Sundown	Oct 89	4
FLIGHT SURGEON TIPS			Heat Stress	Jun 89	10
Heat Stress	Jun 89	10	Human Error vs Human Stupidity	Apr 89	29
Lightning Strikes A-7 Pilot!	Jul 89	15	Lawn Mower Throws FOD	Oct 89	26
Physical Training/What the Aircrew Needs	Aug 89	18	Model Rocketry/Gunpowder Explodes	Jun 89	24
Physiological Incident/Need for Exercise	May 89	6	Nine Mishaps Where Fingers Were Lost	Mar 89	15
Self Medication/Air Abort for Sinus Block	Apr 89	6	Oh, My Aching Back — How to Avoid One	Aug 89	12
There I Was . . . /Writing for TAC ATTACK	May 89	24	Preventing and Surviving a Home Fire	Jul 89	18
FOD			Seat Belt Saves Major	May 89	14
Bolt FODs F-4 Engine	Oct 89	9	Seat Belts — There I Was	Oct 89	10
Crew Chief Hears Problem, Prevents FOD	May 89	30	Seat Belts: I'm A Believer	Feb 89	10
Deteriorated Nutplate Causes AT-38 FOD	Aug 89	12	Skiing/Play Like You Fly	May 89	8
Don't Place Anything on the Inlet/FOD F-16	Apr 89	6	Snake Bites — Facts and Fiction	Oct 89	21
EOR Crew Member's Headset FODs Engine	Oct 89	8	Stuck Accelerator/High Speed Fiasco	Jun 89	14
Ear Protectors Left in Intake FOD A-10	Apr 89	13	TAC Losses on the Ground FY 89	Nov/Dec 89	23
F-15 Intake Inspection - FOD/Overlooked . . .	Jul 89	11	Three Types of Workers Who Need Attention	Apr 89	22
F-16 Engine Vortex Digs Hole in Ramp	Feb 89	12	Ways to Fall-Proof Your Home	Feb 89	24
F-16 Exhaust Blows FOD into Adjacent F-16	Oct 89	8	GUNS		
Ice Missed During Preflight FODs A-10	Feb 89	28	Common Sense Can Prevent a Mishap	Sep 89	8
Improper Maintenance Causes A-10 FOD	Mar 89	14	Gun Safety — Not a Toy and Always Loaded	Sep 89	26
Mechanic Placed Nut on Engine Screen/FOD	Mar 89	15	Model Rocketry/Gunpowder Explodes	Jun 89	24
Pliers FOD F-16 Engine/Dark — No Light	Jul 89	11	HABIT PATTERNS		
Poor Supervision + Not Qualified = FOD	Jun 89	9	F-16 Driver Experienced G-LOC/Are You . . .	Jul 89	6
SSgt Alerts Ops of Dropped Object on Rwy	Apr 89	30	Old Habit Pattern Causes F-16 Switch Error	Aug 89	27
Velcro on Ammunition Doors Reduces FOD	Jun 89	25	Old Habit Pattern Contributes to Damage	Aug 89	7
Water Intrusion Plug FODs A-10/Follow . . .	Jul 89	11	JET BLAST		
FUNNY PHOTOS			A-7 Jet Blast Pushes Line Truck 40 Feet	Feb 89	7
Funny Photos	Oct 89	28	Crew Chief Blown Over By Jet Blast/Give . . .	Oct 89	9
Funny "Fotos"	Mar 89	20	F-16 Exhaust Blows FOD into Adjacent F-16	Oct 89	8
G-LOC: G INDUCED LOSS OF CONSCIOUSNESS			LIGHTNING		
F-16 Driver Experienced G-LOC/Are You . . .	Jul 89	6	Aircraft Lightning and Static Discharge	Oct 89	18
High Speed Dive Recovery/Fly Out . . .	Sep 89	4	Art, Center, A-7 In the Weather	Jul 89	1
Physical Training/What the Aircrew Needs	Aug 89	18	Art, Center, F-4G 37 TFW	Oct 89	16
GROUND SAFETY			Lightning Strikes A-7 Pilot!	Jul 89	15
\$6500 Oil Change/Foot Slips at Auto Hobby	Jun 89	24	Pilot Lands F-16 After Lightning Strike	Mar 89	7
A Fatal Mistake: Misplaced Shoulder Strap	Jan 89	25	Recent Lightning Strikes F-4 and F-15	Mar 89	8
Automatic Car Seat Belts/WW-II P-51	Nov/Dec 89	14	MAINTENANCE		
Bicycle Safety	Aug 89	22	20 MM Ammunition — Big Bullet Souvenir	Jun 89	28
Blasting Caps are Dangerous	Jul 89	30	A-10 Post Engine Shutdown Fire	Oct 89	30
Campfire Causes Wet Rock to Explode	Jun 89	22	A-10 Tail Rotates Down and Strikes Jack	May 89	11
Children and Swimming Pools/Real Life . . .	Oct 89	7	A-7 Jet Blast Pushes Line Truck 40 Feet	Feb 89	7
Do You Care? Goggles Prevented Eye Loss	Jan 89	25	Alert Airman Spots Dangling Missile	Apr 89	25
Don't Jog in Traffic/It's a Matter of . . .	Jul 89	22	Art, Cover, Ground Crews in Chem Gear F-4	Mar 89	1
Driving at Sunrise and Sunset	Oct 89	26	Attention to Detail Solves Brake Problem	Aug 89	30
Driving: Your Attitude Makes Difference	Jan 89	22	Backing Up A Van - What's Your Plan?	May 89	10
Face Shields Do Not Adequately Protect Eye	Apr 89	22	Barrier Crew Clears Runway in Record Time	Mar 89	25
Failure to Use Precautions/Woodworking	Jun 89	25	Bolt FODs F-4 Engine	Oct 89	9
TAC ATTACK			Canopy Pins Crew Chief To A-10 Rail	Apr 89	12

TITLE	ISSUE	PAGE	TITLE	ISSUE	PAGE
Cockpit Paint Fumes Cause Aircrew to Abort	Aug 89	13	AIM-7 Radome Shattered Against the Ground	Sep 89	13
Compacency: F-4 Tank Carts Fired	May 89	22	Art, Cover, Ground Crews in Chem Gear F-4	Mar 89	1
Contact the Supervisor/Fuel Tank Explodes	Jun 89	8	Missile Container Slips off Icy Forks	Apr 89	28
Crew Chief Blown Over By Jet Blast/Give . . .	Oct 89	9	Stop and Look Around/Hoist Hits AIM-9	Jul 89	28
Crew Chief Chocks Runaway F-16	Apr 89	24			
Crew Chief Extinguishes F-111D Engine Fire	Sep 89	15	MOTORCYCLE		
Crew Chief Hears Problem, Prevents FOD	May 89	30	Care Enough to Get Involved	Oct 89	14
Crew Chief Spots Loose Panel on Helicopter	May 89	23			
Defective OT-37 Parachute Opening Device	Jan 89	12	OPERATIONS		
Deteriorated Nutplate Causes AT-38 FOD	Aug 89	12	AT-38B Landing With Stuck Throttles	Apr 89	11
Don't Place Anything on the Inlet/FOD F-16	Apr 89	6	Arresting Gear: Using a Valuable TAC Asset	Apr 89	8
EOR Crew Member's Headset FODs Engine	Oct 89	8	Explosives Site Planning: How and Why	Jan 89	18
Ear Protectors Left in Intake FOD A-10	Apr 89	13	F-15s Almost Collide On 8000 ft Runway	Apr 89	7
Experience Versus Tech Data	Feb 89	8	High Speed Dive Recovery; Fly Out . . .	Sep 89	4
F-15 Crew Chief's Attention to Detail	Aug 89	30	Hydroplaning: Those Embarrassing Moments	Jun 89	18
F-15 Engine Start/Jet Fuel Starter Fire	May 89	26	Your Priorities/Aircraft Knowledge	Aug 89	14
F-15 Hinge Pin/Dropped Object	Jun 89	8			
F-15 Intake Inspection - FOD/Overlooked . . .	Jul 89	11	OTHER		
F-15 Load Crew Member Slips/AIM-9 Damaged	Aug 89	7	Care Enough to Get Involved	Oct 89	14
F-15 Loses Brakes/Ground Crew Stops Acft	Jan 89	30	The Law — Why Do We Often Fail to Keep It	Apr 89	14
F-15 Safety Wire Not Installed LAW T.O.	May 89	11	The Man Behind Fleagle	Nov/Dec 89	8
F-16 Egress Technicians Find Corrosion	Jun 89	29	There I Was . . . /Writing for TAC ATTACK	May 89	24
F-16 Engine Vortex Digs Hole in Ramp	Feb 89	12	Tips for Writing Articles for TAC ATTACK	Aug 89	8
F-16 Exhaust Blows FOD into Adjacent F-16	Oct 89	8			
F-16 Missile Launcher Departs Aircraft	May 89	22	PHYSICAL TRAINING AND EXERCISE		
F-4 Utility Hydraulics/Emerg Brake Failure	Nov/Dec 89	13	405 TTW Physical Conditioning Program	Jun 89	2
Face Shields Do Not Adequately Protect Eye	Apr 89	22	Physiological Incident/Need for Exercise	May 89	6
Failure to Follow T.O. Causes Lost Finger	Jan 89	14	Pumping Iron: What, Me Lift Weights?	Nov/Dec 89	22
Flying Safety, The Maintainer The Pilot	Apr 89	18			
Follow the Tech Order? How Long . . .	Jan 89	10	PHYSIOLOGICAL INCIDENTS		
Ice FODs C-130 During Ground Engine Run	Feb 89	7	F-15 Flight Lead Saves Disoriented Wingman	Jun 89	7
Imbalanced Load Damages MK23 Rocket Motor	Mar 89	27	F-16 Driver Experienced G-LOC/Are You . . .	Jul 89	6
Improper Maintenance Causes A-10 FOD	Mar 89	14	Hypoxia/A-10 Gauge Reads OK, But No Oxygen	Jan 89	8
Improper Repair of 1065 Tire Inflator	May 89	26	Lightning Strikes A-7 Pilot!	Jul 89	15
Local Steps Added to T.O./Fire Egress Sys	Apr 89	13	Physical Training/What the Aircrew Needs	Aug 89	18
Mechanic Placed Nut on Engine Screen/FOD	Mar 89	15	Physiological Incident/Need for Exercise	May 89	6
Missile Container Slips off Icy Forks	Apr 89	28	Self Medication/Air Abort for Sinus Block	Apr 89	6
Nine Mishaps Where Fingers Were Lost	Mar 89	15	Spatial Disorientation/F-15 Pulls Out 420'	Apr 89	4
Oil Analysis Discovers JP-4 in Engine Oil	May 89	28			
Pliers FOD F-16 Engine/Dark — No Light	Jul 89	11	POSTERS		
Poor Supervision + Not Qualified = FOD	Jun 89	9	Seat Belt Poster: Go That Extra Inch and . . .	Mar 89	29
SSgt Alerts Ops of Dropped Object on Rwy	Apr 89	30			
Sgt Discovers Asbestos Brake On MHU-141	Nov/Dec 89	12	RTU TIPS		
Stop and Look Around/Hoist Hits AIM-9	Jul 89	28	Aircraft Lightning and Static Discharge	Oct 89	18
Supervisor's Attitude/It's Not My Job!	Oct 89	25	Care Enough to Get Involved	Oct 89	14
Switches Set Wrong . . . Starts A-10	Jan 89	12	Crew Chief Blown Over By Jet Blast/Give . . .	Oct 89	9
TAC Aircrews and Maintainers Do it Right	May 89	12	Crew Coordination — A Team Effort	Nov/Dec 89	4
TSgt Finds R-9 Refueler Chafing Problem	Mar 89	30	Don't Place Anything on the Inlet/FOD F-16	Apr 89	6
The Book — Examples of Why We Follow TOs	Aug 89	24	Ear Protectors Left in Intake FOD A-10	Apr 89	13
There I Was . . . /Writing for TAC ATTACK	May 89	24	F-16 Driver Experienced G-LOC/Are You . . .	Jul 89	6
Three Types of Workers Who Need Attention	Apr 89	22	F-16 Exhaust Blows FOD into Adjacent F-16	Oct 89	8
Unqualified Supervisor Stabs Ammunition	Mar 89	26			
Water Intrusion Plug FODs A-10/Follow . . .	Jul 89	11			
Wet AIM-9 Guidance Unit Slips from Hand	Jan 89	21			

MISSILES

TITLE	ISSUE	PAGE	TITLE	ISSUE	PAGE
Old Habit Pattern Causes F-16 Switch Error	Aug 89	27	WEAPONS		
Self Medication/Air Abort for Sinus Block	Apr 89	6	20 MM Ammunition — Big Bullet Souvenir	Jun 89	28
SAFETY OFFICER TIPS			A-10 Tail Rotates Down and Strikes Jack	May 89	11
20 MM Ammunition — Big Bullet Souvenir	Jun 89	28	AIM-7 Radome Shattered Against the Ground	Sep 89	13
Care Enough to Get Involved	Oct 89	14	Art, Cover, Ground Crews in Chem Gear F-4	Mar 89	1
Explosives Site Planning: How and Why	Jan 89	18	Backing Up A Van - What's Your Plan?	May 89	10
F-15 Loses Brakes/Ground Crew Stops Acft	Jan 89	30	Common Sense Can Prevent a Mishap	Sep 89	8
Human Error vs Human Stupidity	Apr 89	29	Complacency: F-4 Tank Carts Fired	May 89	22
Oh, My Aching Back — How to Avoid One	Aug 89	12	Don't Make Assumptions with Weapons	Sep 89	13
Pliers FOD F-16 Engine/Dark — No Light	Jul 89	11	Explosives Site Planning: How and Why	Jan 89	18
Supervisor's Attitude/It's Not My Job!	Oct 89	25	F-15 Load Crew Member Slips/AIM-9 Damaged	Aug 89	7
Taking Care of Your People/You-Me-and-Them	Jul 89	8	F-15 Pylon Cartridges Fired — Unsafe	Apr 89	29
There I Was . . . /Writing for TAC ATTACK	May 89	24	Follow the Tech Order? How Long . . .	Jan 89	10
Water Intrusion Plug FODs A-10/Follow . . .	Jul 89	11	Hung Bomb/You Never Know When It Will Go	Aug 89	26
SPATIAL DISORIENTATION			Imbalanced Load Damages MK23 Rocket Motor	Mar 89	27
F-15 Flight Lead Saves Disoriented Wingman	Jun 89	7	Integrated Combat Turn	Jul 89	24
Spatial Disorientation/F-15 Pulls Out 420'	Apr 89	4	Local Steps Added to T.O./Fire Egress Sys	Apr 89	13
SUPERVISOR			Missile Container Slips off Icy Forks	Apr 89	28
27th TFW Situational Emergency Procedures	May 89	2	Nine Mishaps Where Fingers Were Lost	Mar 89	15
Care Enough to Get Involved	Oct 89	14	Old Habit Pattern Contributes to Damage	Aug 89	7
Contact the Supervisor/Fuel Tank Explodes	Jun 89	8	Pressure Complacency Fired Cartridges	Aug 89	28
Do You Care? Goggles Prevented Eye Loss	Jan 89	25	Stop and Look Around/Hoist Hits AIM-9	Jul 89	28
Experience Versus Tech Data	Feb 89	8	Supervisor's Attitude/It's Not My Job!	Oct 89	25
Explosives Site Planning: How and Why	Jan 89	18	TER and Bombs Jettisoned/Lock Ring Loose	Jan 89	21
Flying Safety Survey for Squadron Use	Mar 89	10	The Book — Examples of Why We Follow TOs	Aug 89	24
Follow the Tech Order? How Long . . .	Jan 89	10	The Dangers of War Souvenir Munitions	Sep 89	10
Heat Stress	Jun 89	10	The Right Attitude About Weapons Safety	Feb 89	26
Human Error vs Human Stupidity	Apr 89	29	Unqualified Supervisor Stabs Ammunition	Mar 89	26
Local Steps Added to T.O./Fire Egress Sys	Apr 89	13	Velcro on Ammunition Doors Reduces FOD	Jun 89	25
Physiological Incident/Need for Exercise	May 89	6	Weapons Crew Drives Over BDU-33 Fins	Jun 89	26
Poor Supervision + Not Qualified = FOD	Jun 89	9	Wet AIM-9 Guidance Unit Slips from Hand	Jan 89	21
Pumping Iron: What, Me Lift Weights?	Nov/Dec 89	22	When in Doubt, Submit/Dull Sword Reporting	Oct 89	23
Supervisor's Attitude/It's Not My Job!	Oct 89	25	Where Are We/Load Crew Damages AIM-7	Jul 89	28
TAC Losses on the Ground FY 89	Nov/Dec 89	23	WEATHER		
TAC and TAC-Gained Flight Units' Losses FY 89	Nov/Dec 89	28	Aircraft Lightning and Static Discharge	Oct 89	18
Tactical Safety/Mission Accomplishment	Mar 89	4	Art, Center, A-7 In the Weather	Jul 89	1
Taking Care of Your People/You-Me-and-Them	Jul 89	8	Art, Center, F-4G 37 TFW	Oct 89	16
The Right Attitude About Weapons Safety	Feb 89	26	Beware of Airborne Icing/Rime Ice on A-10	Jul 89	6
Three Types of Workers Who Need Attention	Apr 89	22	F-15 Flight Lead Saves Disoriented Wingman	Jun 89	7
SWITCH ERRORS			Flying in Winter: A Brisk Experience	Jan 89	4
F-16 Pilot Dispenses Flares in the EOR	Jul 89	7	Heat Stress	Jun 89	10
IFE F-16 Pilot Forgot to Safe Chaff/Flares	Mar 89	8	Hydroplaning: Those Embarrassing Moments	Jun 89	18
Old Habit Pattern Causes F-16 Switch Error	Aug 89	27	Ice Build-up Prevents A-7 Gear Retraction	Jan 89	8
Pilot Switch Error Jettisons Flare	Aug 89	26	Ice FODs C-130 During Ground Engine Run	Feb 89	7
Switch Error Dropping High Drag MK-82	Jun 89	13	Ice Missed During Preflight FODs A-10	Feb 89	28
Switches Set Wrong . . . Starts A-10	Jan 89	12	Lightning Strikes A-7 Pilot!	Jul 89	15
TAC ATTACK			Pilot Lands F-16 After Lightning Strike	Mar 89	7
			Recent Lightning Strikes F-4 and F-15	Mar 89	8
			Runways Which the WX Observer Can't See	Jun 89	12
			Spatial Disorientation/F-15 Pulls Out 420'	Apr 89	4
			WRITING FOR TAC ATTACK TIPS		
			There I Was . . . /Writing for TAC ATTACK	May 89	24

Letters

Dear Reader,

Help! As the new Editor of *TAC Attack*, I have discovered three problems which I need your help in solving. The first request is we need feedback! How can we make *TAC Attack* more meaningful and useful to you the reader? What type of articles would you like to see more of or less of? Has anything you read in *TAC Attack* helped save your neck?

The second and easiest is we need current pictures of your jets, operations, locations, etc. When I looked for details for the October centerfold art, the latest F-4G picture I could locate in our files was from 1978. I had to borrow an aircrew's going away picture off his office wall to get the current markings for last month's 37 TFW sketch. A quick scan through the other office folders revealed that most of the pictures of planes, equipment, and people are from 1978 and earlier. This makes it very difficult to provide art which depicts the current configurations and markings of TAC units, and it leads to a lot of pre-1978 scenes on the cover and centerfold. Please, don't take an unauthorized camera with you in the cockpit of a TAC aircraft! It has already been ops checked

that at the price of one-or-more airplanes being lost, the pictures are too costly (in addition to being against AFR 60-16, TAC Sup 1 (C2), Atch 1). If you have shots of the aircraft flying (taken from the ground or authorized airborne photography), we would welcome them. However, shots of your wing and squadron aircraft parked on the ramp which show the current unit markings and/or configurations will give our artists the good intel they need. If the photo is copyrighted, no problem — but please let us know by whom, so we can get permission before we try to use it. Yes, we will gladly accept photos of other commands' and nations' aircraft and operations. Please annotate **lightly** on the back of all pictures the date/squadron/wing/base and location if other than your base. Black and white photos are best for printing in the magazine, but color shots are just as useful to our artists. Any unclassified remarks you can include on the normal wartime and peacetime configuration/missions will help us to better paint your unit in the appropriate light.

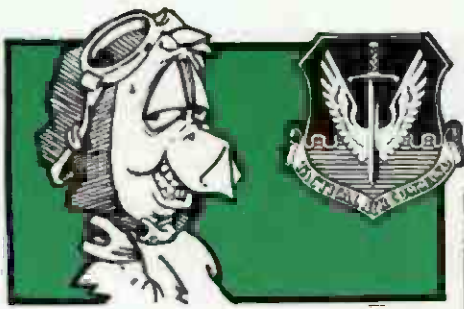
The final request for help is "we need articles from the field." I don't want *TAC Attack*

to consist primarily of articles written by the HQ TAC safety office. Not that those folks don't write good articles, for they certainly have in the past. But, they cannot capture the action nearly as powerfully as a person who is actually there when the event takes place. So the next time you see a drama unfolding, take a few moments afterwards and jot down what you saw and felt. Handwritten articles are fine; and if you use some type of background material (newspaper article, etc.), please include a copy of that along with your story. Anonymous inputs are welcome; but for other articles, please include a phone number so we can let you know we received your letter and so we can quickly contact you for any needed clarification.

So fire off those comments, photos, and/or suggestions to:

Maj Hap Tucker, Editor, *TAC Attack*, HQ TAC/SEP, Langley AFB, VA 23665-5563 or call AV 574-3658.

Thanks,
ED



TAC TALLY

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

• (SUCCESSFUL/UNSUCCESSFUL)

Total			TAC			ANG			AFR		
NOV	THRU NOV		NOV	THRU NOV		NOV	THRU NOV		NOV	THRU NOV	
	FY 90	FY 89		FY 90	FY 89		FY 90	FY 89		FY 90	FY 89
2	4	3	2	3	3	0	0	0	0	1	0
0	3	1	0	1	1	0	0	0	0	2	0
2/0	2/0	1/0	2/0	2/0	1/0	0/0	0/0	0/0	0/0	0/0	0/0
0/0	1/1	0/0	0/0	1/1	0/0	0/0	0/0	0/0	0/0	0/0	0/0

TAC'S TOP 5 thru NOV 1989

1st AF		9th AF		12th AF	
CLASS A MISHAP-FREE MONTHS		CLASS A MISHAP-FREE MONTHS		CLASS A MISHAP-FREE MONTHS	
111	318 FIS	54	507 TAIRCW	26	24 COMPW
46	57 FIS	29	1 TFW	23	355 TTW
25	48 FIS	25	4 TFW	22	366 TFW
6	325 TTW	21	347 TFW	20	405 TTW
		12	354 TFW	14	388 TFW

ANG		AFR		DRUs	
CLASS A MISHAP-FREE MONTHS		CLASS A MISHAP-FREE MONTHS		CLASS A MISHAP-FREE MONTHS	
228	110 TASG	111	482 TFW	158	552 AWACW
203	138 TFG	101	924 TFG	28	USAFTAWC
185	177 FIG	89	906 TFG	14	28 AD
180	114 TFG	63	507 TFG		
144	155 TRG	50	917 TFW		

CLASS A MISHAP COMPARISON RATE

(CUMULATIVE RATE BASED ON ACCIDENTS PER 100,000 HOURS FLYING TIME)

TAC	FY 89	1.7	2.7	3.0	3.2	2.6	2.4	2.3	2.9	2.6	2.5	2.6	2.4
	FY 90	1.8	2.8										
ANG	FY 89	0.0	0.0	1.5	2.3	2.8	3.1	3.2	2.8	3.0	3.6	3.2	3.3
	FY 90	0.0	0.0										
AFR	FY 89	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	FY 90	20.4	10.4										
Total	FY 89	1.2	1.8	2.5	2.8	2.5	2.5	2.4	2.7	2.5	2.6	2.6	2.5
	FY 90	2.3	2.4										
MONTH		OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP

