

# TAC ATTACK



SEPTEMBER 1989

FLY OUT, EJECT,  
OR DIE ...Pg. 4

HARDISCH



# ANGLE OF ATTACK

**I** want to say congratulations and wish continued success to some members of our community who are helping to make "Safety" synonymous with "Smart Mission Accomplishment." First, Col Dan McCabe, former 12th Air Force Chief of Safety and now the new Commander of the 41st Electronic Counter Measures Squadron (EC-130H "Compass Call"), Davis-Monthan AFB. Second, Col Bob Burke, former 9th Air Force Chief of Flight Safety and now the new Commander of the 6th Airborne Command and Control Squadron (EC-135) here at Langley AFB. And finally, to the new Lt Cols Dennis Day and Mo Sonner, and Lt Cols selectees, Majors Bill Barber, and Hap Tucker, who work for me here in the HQ TAC Office of Safety. General Russ' emphasis on putting quality people into the safety positions has helped to dismantle the "Safety Bureaucracy" and transform it into an important team player in accomplishing the TAC mission.

Every training sortie we fly contributes, in part, to the accomplishment of that mission. But what about the easy sortie? We've all had 'em. The one we've flown for the past two years, and there is not much to it. We just dig through the desk and find one of our old maps. We have briefed this it seems a hundred times before—does anyone have any questions? Not much to do, let's think of some way not to be bored. Sound familiar? Sound like complacency? We recently lost one pilot, tested out two other ejection seats, and lost two frontline fighters during two different aircraft mishaps for this exact reason. The aircrew thought the mission was too easy. So they shorted themselves on the briefing,



or they ignored the rule of 12 hours between bottle and throttle (AFR 60-1 TAC, Sup 1 (ch 3), para 7-9c(2)), or took other short cuts. Why? Because they thought it was no big deal on such an easy sortie. No sortie is ever too easy. If we plan to strap on our jet and don't think we need to be at our professional best, then it's time to sit down and re-examine our flying styles—**NOW** rather than after a mishap.

In August, I talked with you in this column about dive recoveries and gave you some food for thought. Well, if you now want to get your hands on some great practical pointers to add to your bag of tricks, you'll want to turn to page four and read Lt Col Dennis Day's (F-16 and F-117A driver) article, "Fly Out, Eject, or Die."

I want to say goodbye to an outstanding Air Force professional and former wing commander of mine. Lieutenant General Buford D. Lary, The Inspector General, OSAF, is retiring and will be missed by the Air Force.

Happy Labor Day, pardner.

*Jack Gawelko*  
**JACK GAWELKO, Colonel, USAF**  
**Chief of Safety**

# TAC ATTACK

DEPARTMENT OF THE AIR FORCE



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### TAC SP 127-1

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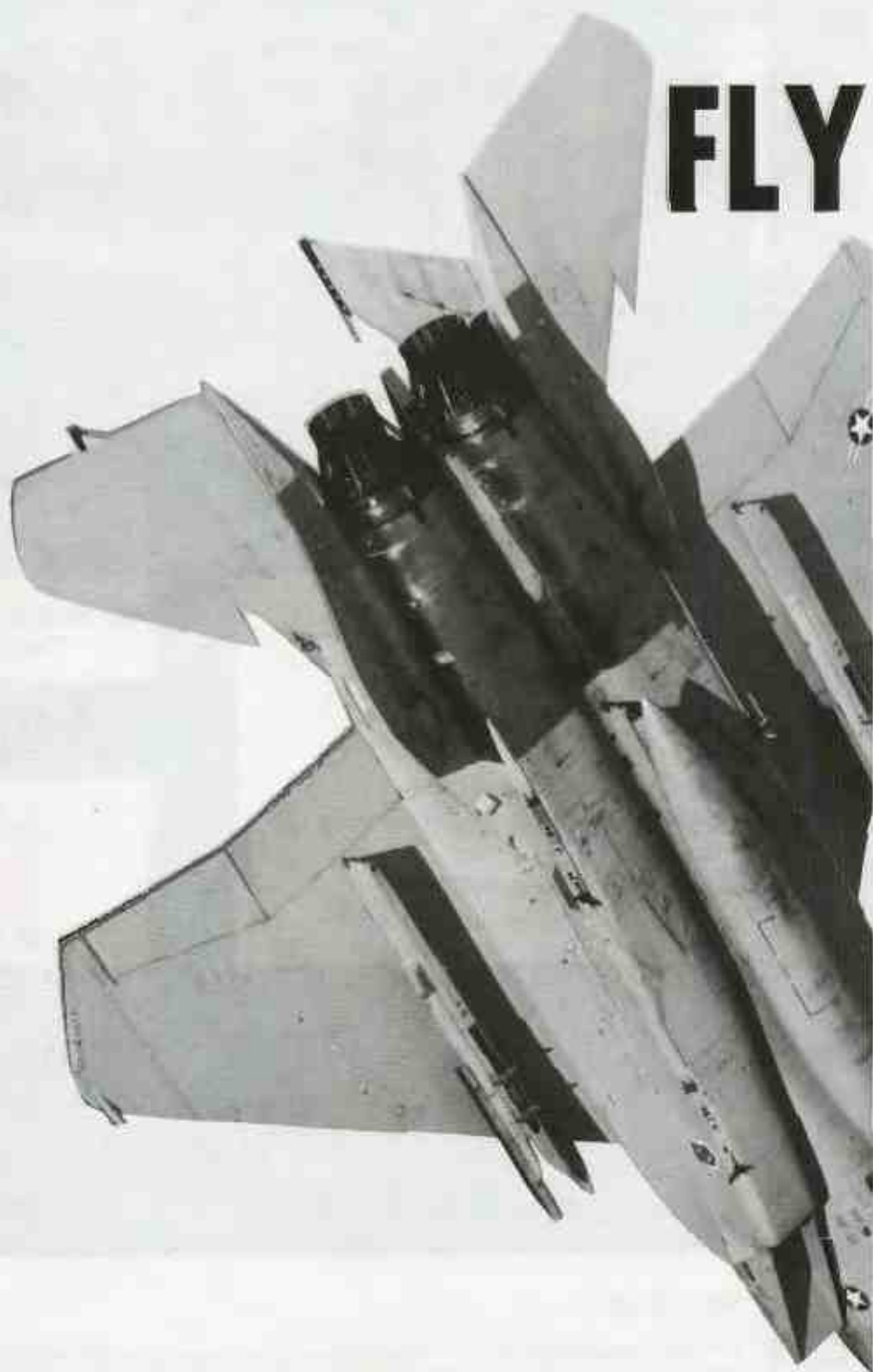
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# OUT, EJECT, OR DIE

## (THE GOOD, THE BAD, THE UGLY)

**Lt Col D. Day**  
**HQ TAC/SEF**

**A**t one time or another, most of us fighter types have found ourselves with the nose pointed at mother earth, thinking "this is a little steeper than I'd like to be—this close to the ground." Through skill, cunning, and superior airmanship, however, we managed to recover the jet. We may have only scared ourselves a bit, or if we were on the range (for the dirt beaters), gotten a foul. In some cases, a bent jet was the result of our "aggressive move to get the nose up." In the worst cases, the operator paid a price way too high for his inattention. I say inattention because, for whatever the reason, he allowed the jet to get into "a position from which he could not/did not recover."

Ask an operator how much room he needs to recover his jet from a high-speed dive and he'll tell you, "It depends." Sound familiar? Of

course, he's right. (Ever known a fighter pilot to be wrong? Just ask him.) It does depend. It depends on all the "variables." How steep are you? How fast are you going downhill? How hard do you pull on the pole during the recovery? How heavy is the jet? Are you over the ranges at Nellis on a hot day, or are you over the North Atlantic hunting Soviet Bears on a cold day in February?

To address altitude loss during high-speed dive recoveries for every TAC fighter would require too many pages and more graphs and charts than you or I care to look at. (Not to mention more

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**To address altitude loss during high-speed dive recoveries for every TAC fighter would require too many pages and more graphs and charts than you or I care to look at.**

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words than I have brain bytes.) What I hope is to ask the right questions which will cause you to get out the old Dash One and review the "charts" for your jet. From the charts, you should get a "feel" for what you need for altitude and airspeed to recover your jet when the windscreen is full of terra firma. What I also want to do is give you some food for thought concerning techniques for "gettin' the nose up." (What techniques? Just pull on the pole you say!) Well, let's look and see.

For whatever the reason, you put/allow yourself to get into a steep dive. Suddenly, the clue bird perks up and you are faced with an "anxiety producing situation." What's the first thing you do? Analyze the situation? You bet! Check your altitude and dive angle. Which of the two is the most important? Altitude transfers into time to work the recovery. Sixty degrees nose down is a whole lot more time critical if you're at 4500' AGL than it is at 8500' AGL. Dive angle determines how serious a situation you are in. An F-4E





# FLY OUT, EJECT, OR DIE

starting a recovery from forty-five degrees nose down at 350 KTS/4500' AGL will lose 2700', while the same aircraft starting the recovery at sixty degrees will lose 3800'. Given enough altitude and time, you can recover from even the most serious attitudes.

Let's not forget about airspeed either. If you're so slow that you've got to use altitude to accelerate, you could be a hurtin' dude. Start a recovery at too slow an airspeed and you could put the jet out of control for good. If you're going down hill bumping the Mach, you may not have enough room to recover no matter what you do. Checking airspeed should also provide you with an idea concerning "G availability." You guys in the F-16 are probably going to be on the limiter anyway; but for you fellows in the F-15, F-4, F-111, AT-38, A-10, etc., where there is no limiter to help prevent over-G, structural failure is a real possibility if you have the airspeed.

Now you know your altitude, airspeed and dive angle. You also have an idea of how hard you can

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**If you're so slow that you've got to use altitude to accelerate, you could be a hurtin' dude.**

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pull on the pole. Now what do you do? You "gotta decide" — can you recover the jet or should you step over the side? I'm not going to spend the next five pages talking about the decision to eject. Just keep in mind that you are backing the decision with your life. If there is any doubt in your mind, take the silk elevator down.

Starting the recovery should be easy; you just pull, right? Wrong! Keep in mind what you're trying

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**Just keep in mind that you are backing the decision with your life. If there is any doubt in your mind, take the silk elevator down.**

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to do. You want to avoid the ground, but you don't want to rip the wings off the jet doing it. (Rip them puppies off, the liftees go away and you end up with the same results, a smokin' hole.) What do you want to do first? Get the aircraft wings aligned with the horizon. You can start your pull while doing this, but watch the asymmetrical G's. Bank angle is going to increase your altitude loss during the recovery. You might as well get everything you can going for you. Once you get "the lift vector" 180 degrees out from "God's

G," you're ready to pull.

How hard do you pull? As hard as you can is not always the right answer. Like I said earlier, "rippin' the wings off" doesn't do anybody any good. Pull too hard, with enough airspeed, and you can really do some damage both to the jet and yourself. Pull until 1) you reach the G limit, or 2) the aircraft begins to "talk to you." Reaching the G limit is easy in the F-16, you're "on the limiter." The A-10, F-15, F-4, etc., require a more attentive approach. Don't spend all your time looking at the G-meter, but be sure and bring it into your crosscheck. If you're slow speed, you may be able to get only two or three G's in the pull. The dif-



ference in stick travel to achieve best recovery vice reaching stall AOA may be hard to judge, even for Steve Canyon. In this case, put your fighter pilot skills to work and pay attention to what the airplane is trying to tell you. When you start getting those max performance cues, it may be time to ease up on the stick a little. If you're the kind of guy that makes a habit of snatching the stick, those cues probably aren't going to be there.

Know everything there is to know about dive recoveries now, right? Maybe, maybe not. What do you do with the throttle and speedbrakes? Learned that in UPT in the block on unusual attitude recoveries, right? Maybe,

maybe not. Your 50,000 pound Eagle jet is going downhill at 325 KTS, 40 degrees nose low, 2000' AGL. Do you go idle and boards? Yes, No, Maybe? The Dive Recovery-Emergency Pull-Out chart in the F-15 Dash-1 recommends you immediately select full AB, retract the speedbrakes and, at the same time, apply full aft stick or 10 G's up to wing rock. Your initial reaction may have been to select idle power and extend the speedbrakes; unfortunately, your initial reaction could cost your life. If you're not an Eagle driver, check your Dash-1 and see what it says.

Know everything there is to know about dive recoveries now?

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**When you start that six-to-seven G recovery, don't forget to prep your body for the G's.**

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One more thing to consider. When you start that six-to-seven G recovery, don't forget to prep your body for the G's. Keep in mind that G onset is a critical factor to your G tolerance. Although the adrenalin will be flowing, you still need to do a proper straining maneuver when you begin your recovery.

Now, picture yourself in the following situation: You've been giving it your best shot, but the bandit has gotten to your six, driven you out of altitude and ideas, and the clue bird jumps out of the map case squawking "You're steep and low." You look around and see:

Altitude 5000' AGL Dive Angle 60 Degrees nose low Airspeed 220 Knots
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Can you recover your jet? What if the airspeed is 450 instead of 220 knots? What if the dive angle is 70 degrees instead of 60? Play with the numbers a bit and you may be surprised by the results. Got a SIM ride coming up soon? Why not try out a few of those combinations you just came up with? ➤







WAKE UP,  
COMMON  
SENSE

MSgt Sherwood L. Emerton  
9 AF/SEW  
Shaw AFB, SC



**A**ll the technical orders, operating instructions, and supervisors in the world will not prevent mishaps if an individual is missing one essential element in his character makeup. Unfortunately, they didn't issue it at basic training because they couldn't. You can't buy it retail or wholesale, and your buddy can't let you borrow it. This essential element is nothing more than common sense. Following are some examples where this essential element could have prevented a mishap.

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An airman was probing BDUs from a "SUSPECT PILE" for "LIVE CHARGES." (Wake up, common sense.) Every time a BDU was removed, the pile

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**Every time a BDU was removed, the pile would SHIFT.**

**The airman removed one, probed it and took it to a different pile to be demilitarized.**

**As he turned around and took a step towards the suspect pile, he was met by the blast of a BDU which had shifted and functioned.**

demilitarized. As he turned around and took a step towards the suspect pile, he was met by the blast of a BDU which had shifted and functioned. He missed his wake up call. If I'm dealing with suspect munitions, my awareness level is going to increase. If I'm working with a pile of munitions that shifts when I remove one, I'm going to treat the pile like a house of cards I'm trying to dismantle. Take one at a time, from the top, and be very careful that the pile doesn't shift.

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Another individual was PACKING (common sense alert!!) smokeless black gun powder into a .357 casing which was to be used to ignite a rocket. He was using his FINGER to PACK the POWDER into the casing. (COMMON SENSE-WHERE ARE YOU?) Friction caused the powder to ignite. The results were less than good. The two operative words in this mishap are "PACKING" and "FINGER." Many of us reload equipment, but the package doesn't include "packing fingers." This mishap goes into the category of "should have used the right tool for the job."

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Numerous times in the past two years, people have pushed different types of munitions off MHU-110 trailers because they failed to put the rail extenders on the trailer. (MOI requirements - common sense = mishap.) In one instance, a person put only one extender out. His common sense tank was only half full. Pretty much the same result as if his tank had been stone empty. You can never excuse a short cut, or omission of a

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**You can never excuse a short cut or omission of a step in a T.O. or O.I. regardless of how insufficient the procedures may seem.**

**Admittedly, you may think there are some steps you can omit and get the job done (99 times out of a 100).**

**It's that one time that will get someone hurt or killed or destroy some valuable equipment.**

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step in a T.O. or O.I. regardless of how insufficient the procedures may seem. Admittedly, you may think there are some steps you can omit and get the job done (99 times out of a 100). It's that one time that will get someone hurt or killed, or destroy some valuable equipment. I realize that hindsight is 20/20, and that reading a mishap report is not the same as being on the scene. This article is intended to point out that we as supervisors, coworkers, and individuals need to be aware of our surroundings and situations. After we review the regs and MOIs, we need to take time and see if what we're doing will pass the common sense test. If the answer is yes, press on. If the answer is no, go back to the beginning and find out why.

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would SHIFT. (WAKE UP, COMMON SENSE!!) The airman removed one, probed it and took it to a different pile to be



# The Dangers of War Souvenir Munitions



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Some of the old Civil War cannon balls, for example, have a hollow cavity filled with black powder that is extremely hazardous around sources of heat or sparks.

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**Mr. Jimmy F. Campbell**  
1 AF/SEW  
Langley AFB VA

**Y**ou know, some munitions are really attractive. They have bright yellow or brown

bands around them; some are painted light green, black or gray; and there's all that pretty yellow or red writing on them. It's almost as if they were asking to be picked up, admired and displayed as souvenirs. Don't let their beauty deceive you. Inside lurks real danger.

Many munitions items have, unfortunately, made their way from American battlefields, both here and abroad, into the attics, basements and old trunks of our homes. Others have been retrieved by unauthorized entry onto military firing ranges, and eventually became paperweights, or were mounted on wall plaques and desk nameplates.

These munitions can pose a real hazard to those who have them as well as to innocent neighbors and bystanders. Many still have a potential for arming and explosion. In fact, some have. Some of the old Civil War cannon balls, for example, have a hollow cavity filled with black powder that is extremely hazardous around sources of heat or sparks. Regardless of how such objects get into the hands of people, military or civilian, it is very important that they be collected and destroyed.

Remember, in nature some of the most brightly colored creatures are the most deadly. This certainly holds true with munitions in the hands of the unauthorized and uninformed. If you have a question about the subject, contact an explosive ordnance disposal (EOD) detachment or weapons safety officer. If you have an old war souvenir, ensure that it gets turned in to the EOD folks who know how to safely dispose of it. ➤





# TAC AIRCREW OF DISTINCTION



**Captain William S. Clarke**  
333 TFFTS, 355 TTW  
Davis-Monthan AFB, AZ

**C**aptain William S. Clarke was in the latter portion of the overhead traffic pattern final turn when his A-10 aircraft experienced a sudden and unexpected flameout of the number two engine. At the time of engine failure, his aircraft was only 400 feet above the ground in a descending right turn with 45 degrees of bank. When the engine first failed, Capt Clarke noted a sharp yawing and rolling moment to the right, further increasing his bank angle. Capt Clarke immediately rolled wings level, applied full left rudder to counter the differential thrust resulting from the failed engine, advanced both throttles to maximum power, and retracted the speed brakes. While attempting to accelerate to single engine climb speed and recognizing that the aircraft was not in a safe position to land, Capt Clarke skillfully executed a single-engine go-around.

Through precise use of rudder and by maintaining optimum climb rate, Capt Clarke was able to maneuver his aircraft away from the ground and populated areas. He informed all appropriate agencies of his intentions

and executed a flawless single-engine approach and landing. Through his superior flying skill and prompt reaction to a serious in-flight emergency, he avoided what could have easily been a Class A aircraft mishap.

Captain Clarke's expert flying and superb execution of emer-

gency procedures prevented a potential loss of life, saved a valuable combat aircraft, and earned him the TAC Aircrew of Distinction.



TAC ATTACK









## WEAPONS WORDS

### Make an assumption? - Wrong!

**A** weapons load crew was dispatched to perform a functional check on an A-10. Crew member one dearmed the left side of the aircraft and he *assumed* crew member three had dearmed the right side. Crew member one then got into the cockpit to operate the switches as required. By way of the aircraft intercom system, crew member one asked crew member three if station eight had been dearmed. He did not hear an answer, so he *assumed* the job had been completed. Well, it hadn't. When the weapons release button was depressed twice, two ARD-863 cartridges fired.

Using the technical data and following appropriate checklists can take many forms depending

on the specific task and number of people involved. In this incident, the two crew members not coordinating with each other was the same as not using the checklist at all. *Making an assumption* in the maintenance and operations areas is always likely to get you into trouble.

### Don't get in a rush

**Y**ou've heard it before, and it's true. Haste does make waste. During preparation for the integrated combat turnaround, the weapons load crew had prepositioned two missiles from the trailer. The bomblift driver positioned the lift in order to move a third missile.

The Raytheon adapter did not align properly, so the crew chief directed him to lower the bomblift table and back up for realignment. The driver proceeded to back up slowly while lowering the bomblift table. Due to the table not being low



enough while backing away, the adapter caught on the missile wave guide antenna, pulling the front of the missile off the trailer. The missile radome was shattered, and the guidance and control section had to go back to the depot for repair.

It may only be a few "silly millimeters" that makes the difference, but that can make all the difference in the world.



# TAC GROUND SAFETY AWARD OF THE QUARTER



**I**n August 1988, Staff Sergeant Richard J. Querry was appointed as the 426th Aircraft Maintenance Unit (AMU) safety monitor. He took this extra duty seriously and set out aggressively to improve safety awareness throughout the unit. Sgt Querry's primary goal was to help increase mission accomplishment through revitalizing the AMU's deteriorated safety program. He started out by developing a master safety book to better communicate current safety topics and lessons learned from safety inspections. Additionally, it provided a streamlined method of managing and documenting safety inspections and briefings. He then guided the completion of five section safety books. His creativity turned a comprehensive safety bulletin board from a square filler into a real billboard—where important safety concerns were not only posted, but also read by the 180 people of the unit.

During December, he organized and conducted an intensive AMU safety awareness campaign, which consisted of four handouts, four briefings and a video display. His efforts helped to not only raise the interest in how to work smarter, but also

how to play smarter. This directly contributed to accomplishing the mission and also obtaining a perfect safety record during the busy holiday period.

Sgt Querry's safety concerns are not limited to his immediate work area. As the Captain of his community's block watch, he organized two block watch surveillance teams and conducted a monthly bicycle safety course.

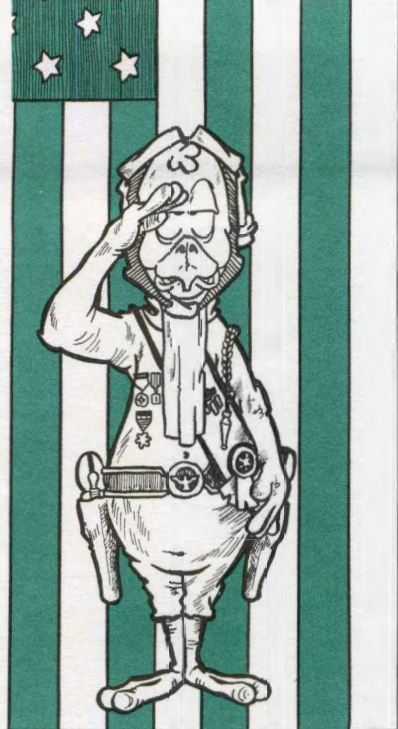
His influence in the local community promotes a lasting positive image of the United States Air Force.

Sgt Querry's contributions to the unit's mission accomplishment, safety awareness, and to his local community's safety concerns have produced positive results and have earned him the TAC Ground Safety Award of the Quarter.



**Staff Sergeant Richard J. Querry**  
405 AGS, 405 TTW,  
Luke AFB, AZ





# FLEAGLE SALUTES

**SSgt James D. Webb, A1C John W. Hagen and Amn Todd M. Moore, 27 AGS, 27 TFW, Cannon AFB, NM,** were credited with saving not only a \$1 million engine and a \$33 million aircraft, but also the lives of two crew members. An F-111D aircraft was scheduled to fly a routine mission, but shortly after engine start, the aircraft developed a flight control problem. The left engine was shut down to enable specialists to perform quick-fix maintenance on the malfunctioning system. Sgt Webb arrived at the aircraft to relieve the acting crew chief. The specialist finished repair of the flight control problem and the pilot was cleared to run up the right engine to facilitate restarting the left one. The Turbine Inlet Temperature of the left engine entered the acceptable range and the pilot initiated a normal start. After 20 seconds, the aircrew declared a hung start on the left engine and shut it down. Sgt Webb, Amn Moore, and Amn Hagen simultaneously observed smoke pouring from

the left tail pipe. Sgt Webb immediately notified the aircrew and went to check for fire. In the same instant, Amn Moore and Hagen, who were standing fire guards for the launch, brought a 150 lb fire extinguisher to the aft of the aircraft. "You're on fire" was the exclamation to the crew from Sgt Webb, as all three individuals saw flames shooting from the afterburner section of the engine. Sgt Webb quickly unwound the extinguisher hose as Amn Moore activated the extinguisher. Amn Hagen and Sgt Webb directed the Halon onto the fire and extinguished it in seconds. Amn Hagen remained to ensure the fire was completely out. When the fire department arrived, they found the situation well in hand. Mr. Roy Valdez, Assistant Fire Chief, praised the successful efforts of these three quick thinking individuals. Their timely actions prevented an extremely dangerous situation from becoming a disaster and earned them a Fleagle Salute.

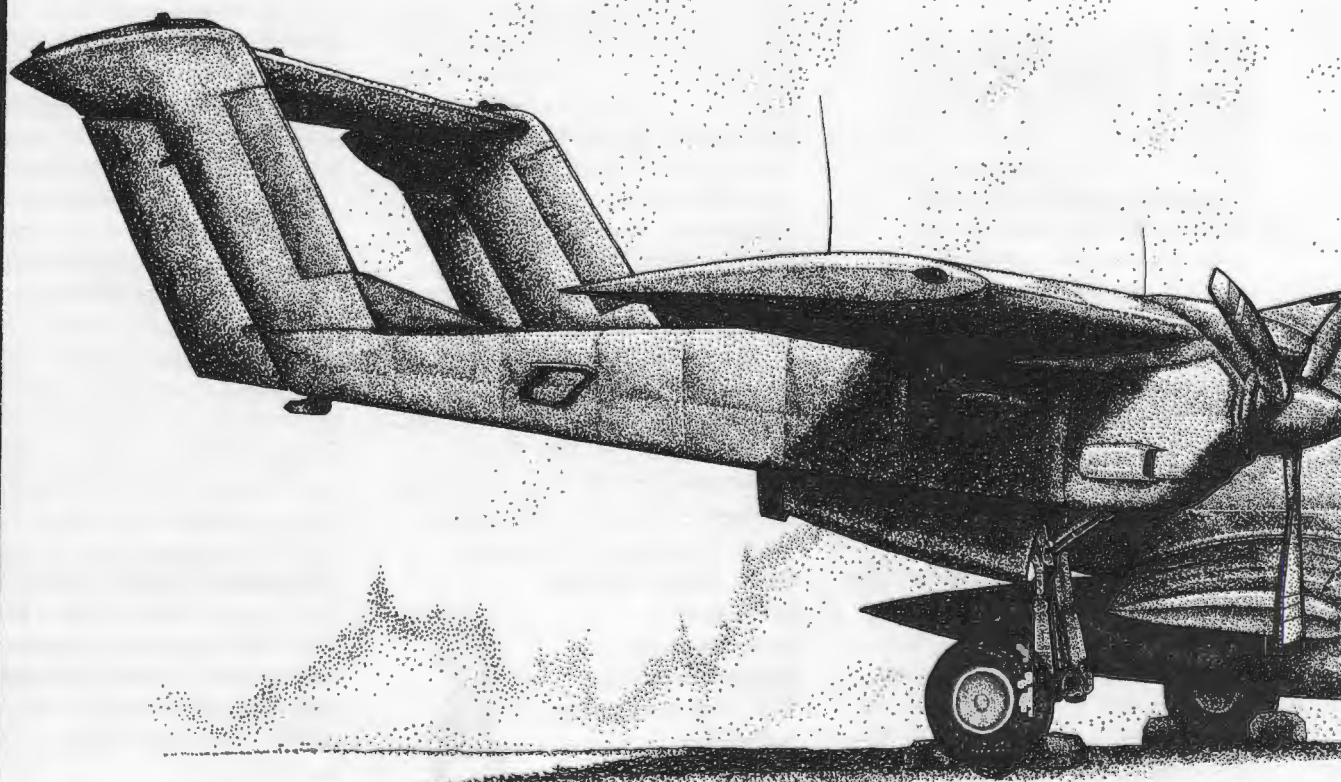


**1Lt Mark J. Lindhorst, 16 TRS, 363 TFW, Shaw AFB, SC,** made vast improvements to the 16 TRS safety program which reduced reportable on-duty mishaps to

zero! He developed and implemented an in-depth Job Safety Training Guide for the Photographic Processing and Interpretation Facility and a Mobility Safety Checklist. His superior spot-inspection program concentrates on identifying unsafe act and conditions and eliminating them before they can impact mission accomplishment. He also developed a mishap analysis chart used to highlight areas which need additional attention. He was requested to share this management tool with other unit representatives during the Quarterly Safety Meetings. He also developed an innovative method of ensuring that required personnel attended needed training such as the Supervisors' Safety Training and the Motorcycle Safety Course. His efforts were recognized during the last two Wing inspections with an "Excellent" rating in 1988 and an "Outstanding" rating for 1989. During those inspections, not a single hazard was noted by experienced Ground Safety personnel. The hard work and extensive hours invested by Lt Lindhorst have paid off in mission accomplishment and mishap prevention—earning him a Fleagle Salute.

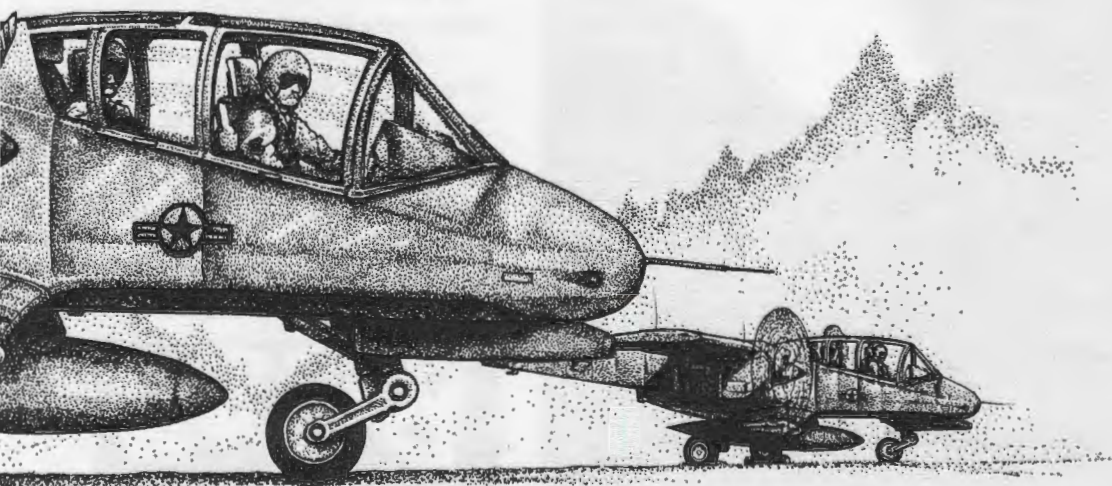








# OV-10 BRONCO





# NOTICE TO AIRMEN

(NOTAM)

Maj Hap Tucker  
Editor, *TAC Attack*

If you haven't seen the new NOTAM format, or if you have a question or two about it, then strap on your imagination and chart your destiny in the following epoch. You determine how the story ends by the choices you make. Most paragraphs end with one or more choices. Pick one and follow thru—you know, pay your nickel and take your chances.

**STEP 1:** First, decide which player you want to be:

- a. Capt Flight Lead — a senior Capt, four-ship flight lead, with a thousand hours in the jet — **now go to STEP 2.**
- b. Lt I.R. Wingman — a Lt with 150 hours in the jet — **now go to STEP 2.**
- c. Field Grader and above flyer — **please go to STEP 9;**





unofficial research indicates you probably just want the bottom line.

d. Nonflyer — this article won't mean much to you without a little more background info. The NOTAMs are similar to the automobile traffic reports you hear on the radio while you are headed home. But rather than telling drivers which traffic lanes are closed and where the traffic is backed up, they tell aircrews which runways have been closed, or other similar conditions about various airports and restricted airspace. Instead of being broadcast on the local AM station, they are printed out and posted down at the Base Operations (Base Ops) building. Armed with that wisdom, you can now pick another player and challenge fate or go to page 12 and read "Fleagle."

**STEP 2:** If you haven't gone cross-country in the last couple of months, you may not have noticed that the old NOTAM format you learned and used for the past 10 years has been modified. The Air Force Central NOTAM Facility (55 folks, working 24-hour shifts, complete with grease boards) was recently replaced by the new automated FAA-DOD NOTAM System. Why? To provide more timely and accurate information and to save the taxpayers about \$1 million per year (that's a lot of JP-4). The long range plan is to put computer terminals in the squadrons and Base Ops, so you can check the NOTAMS and later the weather also. The first terminals are programmed to be installed at McGuire and Griffiss in the spring of 1990. If



you are already up to speed on the new NOTAM format, feel free to skip the rest of this article and go read "Fleagle" on page 12. If you decide to put off learning about the new format for as long as possible — **Lead, go to STEP 3 and Wingman, you're cleared off to STEP 4.** Or, if you decide to learn more about the new format, but not right away — **go to STEP 5.** Or, if you decide you want to learn more about the new format right away — **go to STEP 9.**

**STEP 3:** As a flight lead, you can (not necessarily should) put off learning about the NOTAM system almost indefinitely — but you must remember to always task one of the wingmen to get and brief the NOTAMs. You must never go cross-country anywhere single-ship — unless you have a WSO (Weapons System Officer) whom you could also ask to check the NOTAMs. Remember to never fly as a wingman (you might get tasked to check the NOTAMs). If you



decide to only fly as a lead, **go to STEP 6.** If you decide to volunteer for the rated sup, or a staff job, to keep from having to learn the new system — **go to STEP 7.** If you decide to learn about the NOTAM system, but not right away — **go to STEP 5.** If you decide to bite the bullet and learn about the new NOTAM system ASAP — **go to STEP 9.**

**STEP 4:** As a wingman your choices are somewhat limited. You must either upgrade ASAP to flight lead (**go to STEP 3**); or decide to put it off a little longer (**go to STEP 5**); or volunteer for the rated sup/staff job (**go to STEP 7**); or decide to learn more about the new system now (**go to STEP 9**).

**STEP 5:** Both the Flight Lead and the Wingman can put it off for a while, simply by staying in the local flying area. Base Ops forwards the applicable NOTAMs to your squadron which, in turn, displays them in





# NOTICE TO AIRMEN (NOTAM)

plain English, usually near the scheduling board. Because this NOTAM system is still new, it will be upgraded and refined as people who use it provide helpful suggestions on how to make it



better. You can wait until everyone else understands it and all their suggestions have been incorporated into the system. If you elect to stay here, contact your squadron scheduler and ensure they don't schedule you for any cross-countries or deployments and **go to STEP 6**. If you decide the local area is starting to get a little old and you want to go cross-country, then **go to STEP 8**.

**STEP 6.** You've been pretty successful in dodging any questions concerning the new NOTAM system, and you feel good about your skill and cunning. But it's Monday, O-dark-thirty and you are pulling into



the squadron parking lot. Not a star in sight and the light drizzle is cold to your face. You are scheduled to fly in the dawn patrol, but you are already guessing it will be a weather hold or weather cancel. You enter the squadron glancing at the scheduling board which looks like someone has been playing TIC-TAC-TOE. There are more "Xs," circles, and spaghetti lines than even an expert scheduler could decipher. What! They've scheduled you for a no-notice instrument check ride with Maj Stan Eval. No it isn't comforting to hear the scheduler say, "You are in the zone, so it's a counter, and you know you won't have to take a check ride next month." Your velocity and altitude are zero, but at least the briefing was slipped and won't start for another hour. If you decide to pull out your bag of tricks and fake it — you know,

relying on your, otherwise, outstanding professionalism and superior airmanship (hot air in this case) to pull you through — **go to STEP 8**. Or if you decide that suddenly you feel motivated to take a look at this new NOTAM format — especially for the fields Maj S. Eval wants you to fly to — **go to STEP 9**.

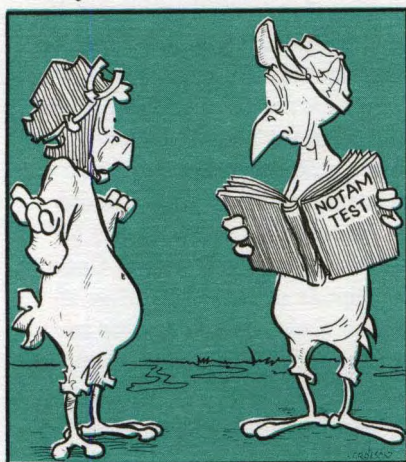
**STEP 7.** Well, if you are going to have to shuffle paperwork, it might as well be behind a desk rather than at Base Ops. So you



throw in the towel and call MPC (Military Personnel Center). Rated sup/staff tour. . . well, MPC says it will be really tough, but there is one opening. The USAF Instrument Flight Center needs a highly motivated volunteer with flight experience. One of their operating locations has an opening. Let's see, the primary duty will be working with the FAA to facilitate automation of a new NOTAM system! **Go to STEP 9**.



**STEP 8** You are on the flight schedule and you need to get the NOTAMs at the various alternate, divert, and destination airfields. You could ask some other member of the flight to check the NOTAMs, or just ask the Base Ops personnel to explain what you don't understand, or



call the different bases and ask them to read you their NOTAMs (you can always use the I'm planning a covert mission in my F-117A stealth fighter and I can't go to Base Ops or it will blow my cover) — **for any of those choices go to STEP 2**, which will keep you entertained for hours, but won't help you learn much about the NOTAM system. Or if you decide now is a good time to learn how to read those new fangled NOTAMs, go to **STEP 9**.

**STEP 9.** You've decided to find out what, if any, tricks there are to reading the new NOTAM format. You stroll down to Base Ops to check out the NOTAMs for

your home airpatch (after all, you know what they are and it should help you to decipher any cosmic code that is being used to hide the information from the enemy).

First thing you notice is there are **no longer** two boards — one with the Military NOTAMs and the other with the Civilian NOTAMs. A quick glance at the remaining NOTAM board reveals that the Military and Civilian NOTAMs are now combined (that should confuse any enemy pilots who formerly just had to pick up a copy of the old Military NOTAM list and instantly know the NOTAMs for all the military bases — now they have to look for the code word "AFB" following the base's name!).

Second, you notice that the information is still grouped by states, but that each individual listing starts with a strange unique four letter code. Closer examination reveals it is the ICAO (International Civil Aviation Organization) four letter identifier for each location, but fortunately the plain language name immediately follows it. You ask the Base Ops guy how long it's been listed that way. He replies, "The last 26 months." You nod knowingly and wonder has it really been that long since you last went cross-country?

Third, you notice the airports are listed alphabetically under a geographic location (state or country) by ICAO identifier, rather than by the name of the

airfield. For the continental U.S., the alphabetical list of identifiers and an alphabetical list of names are pretty close to the same, but you may need to look one or two names either side of where you thought the name would appear before you find it listed. However, for some countries, it "ain't even close." For example, with Canada, CYXU is London which is followed by CYXX which is Abbotsford which is followed by CYYB which is North Bay which is followed by CYYQ which is Churchill, etc.!

Fourth, you notice that the military bases all use the new format while many of the civilian NOTAMs do not use the new format. The Base Ops' rep tells you that the future plans call for all the NOTAMs to eventually use the new format, but that the civilian NOTAMs are not currently required to comply with the format.

Fifth, you should be sure to zerox a copy of the attached "FLEAGLE NOTAM DECODER" and take it with you! The new format is broken down into fields A, B, C, D, E, F, and G.

Field A) is most often the ICAO identifier and the name of the airfield. For Special NOTAMs, it will be the name of the Flight Information Region (Center name), the Warning area, Restricted area, Military Operating Area, or the agency responsible for the NOTAM. Note: the letter "A" is not printed, so you don't need to look





# NOTICE TO AIRMEN (NOTAM)

for it.

Field B) is the Start date/time that the NOTAM becomes effective — either WIE (With Immediate Effect) or MMDDHHMM (month, day, hour, minute

07221300; all times are Zulu).

Field C) is the End date/time when the NOTAM/condition is forecast to end. Displayed either as UFN (Until Further Notice) or MMDDHHMM.

Field D) is, therefore, often not needed and is not printed. It gives the Time Schedule that the NOTAM is occurring hhmm/hhmm (hour, minute), and sometimes will also list days or dates for clarity. This is used for events such as the approach radar not operating daily from 0500 to 1300 or a restricted area active 1400/2200, Monday - Friday.

Field E) is the text of the NOTAM and also includes the Q-Code. The Q-Code (also called NOTAM Code) is a five letter Code group which always starts with the letter "Q." This Q-Code causes pilots the most problems — don't let it! You don't need to memorize the Q-Codes, and you don't need to look them up on pages F-15 thru F-22 of the DOD Flight Information Handbook (a small paperback with not much of a plot, located at Base Ops, briefing rooms, and your jet). Why don't you need to memorize or look them up? First, because the Q-Code serves no useful purpose to the aircrew! Presently, it is only there because of a problem which occurred in the software formulation (computer stuff), and future plans call for its removal. Secondly, because immediately following the Q-Code is the Clear Text of what the Code means. (Actually, it isn't always very clear, but looking up

the five letter Q-Code gives you the exact same abbreviations, so it doesn't help you to look up the Q-Code anyway.) If you don't understand the abbreviations (PPR, PAR, NOT AVBL), then pages F-2 thru F-14 of the Flight Information Handbook can help you. It has an easy to use list of abbreviations which are used in the NOTAMs. If you are short on time, ask the Base Ops folks — they know many of the abbreviations without having to look them up. Remember, those are the same abbreviations the old system used, so don't let the Q-Code throw you off. The Q-Code can appear at the beginning of the "E" field, or after some initial remarks which are often added for clarity.

Field F) is the Lower Airspace Limit of the NOTAM and will not appear unless the NOTAM needs to include altitude information for NOTAMs on Navigation Warnings/Airspace Reservations.

Field G) is the Upper Airspace Limit applicable to Field "F."

Armed with this knowledge (or carrying the attached "FLEAGLE NOTAM DECODER"), you are prepared for any deployment or contingency operation (instrument check! Good luck and check ~~NOTAMs~~ six.

(Comments/suggestions about the new NOTAM format should be sent to USAF Instrument Flight Center/NM, Randolph AFB, Texas, AV 487-5071.)





# Fleagle NOTAM Decoder

VIRGINIA

KLFI LANGLEY AFB

ICAO Identifier

Airfield name

Field "A" but the "A" is not printed

Field "B" — Start date/time — Month Day Hour Minute or WIE — With Immediate Effect

Field "C" — End date/time or UFN — Until Further Notice

Field "D" — Specified period(s) of activity (often not used)

Field "E" — Text of NOTAM

Clarifying remarks

B) 07261100 C) 080311200 D) 1700/1800 E) BAK 12 APCH END 08 QMHAU

Ignore Q-Code

Q-Code translation

RWY ARST GEAR NOT AVBL

Abbreviations are listed on page F-2 of FLIP Flight Information Book

Special Notices (deal with Centers and Special Use Airspace):

ALBUQUERQUE ARTCC

Center name

FHA R2303A ACTV 1300-2330 DLY EFF 241300-292330

Many civilian NOTAMS do not follow the format

Field "A" — Name of restricted area, warning area, or MOA

R4501F B) 05301200 C) 05010100 D) 1500/2200 DLY

Ignore Q-Code

Field "F" — Lower airspace limit

E) QRRCA RESTRICTED AREA ACT F) SFC G) FL 320

Q-Code translation

Field "G" — Upper airspace limit  
FL (Flight Level),  
MSL, or AGL





# TAC OUTSTANDING ACHIEVEMENT IN SAFETY AWARD

**S**taff Sergeant David Cruz, 31 CRS, 31 TFW, Aircrew Egress Systems Technician, epitomizes the TAC professional approach. He draws from his extensive experience on the F-16 aircraft aircrew escape system to not only accomplish his daily work, but to instill in the newly assigned personnel the need to work and fly smart.

A prime example of Sgt Cruz's thoroughness and safety consciousness occurred recently when he was performing a special inspection on the egress system on an F-16A aircraft. During the inspection, his attention to detail led to the discovery of a broken detonation transfer line. If this discrepancy had gone undetected, the integrity and reliability of the life support system would have been questionable.

Because of his in-depth knowledge of the F-16 aircraft Aces II ejection seat, Sgt Cruz was chosen to assist in the investigation of a recent aircraft mishap. During the investigation, he discovered an abnormality with the JAU-8 Initiator Ballistic Line. Even though the ejection was successful, he initiated a material deficiency report on the item to ensure future system reliability.

As the Weapons Safety NCO

for the Component Repair Squadron, Sgt Cruz has performed flawlessly. He has dedicated many hours in rewriting the explosive lesson plan, and developing a test to ensure personnel have a firm understanding of how to deal with the various explosive items. His success in this area was reflected during the last annual Wing Weapons Safety Inspection where he was praised for his practical "how to" program.

Sgt Cruz's primary goal is to accomplish the mission in an effective manner. His thorough briefings on mishap prevention, mishap messages, and pamphlets such as *TAC Attack and TIG Brief*, emphasize how safety

contributes to smart mission accomplishment. His diligent commitment has not only contributed to his work area, but has helped to instill a safety awareness of "working smart" when they are performing daily maintenance. This has directly contributed to the wing's 100% successful seat ejection rate and zero egress explosive mishaps during the past year.

Professionalism, safety awareness, and quality maintenance are his hallmark. His efforts have increased the unit's mission readiness, mission accomplishment and safety awareness, and earned him the TAC Outstanding Achievement in Safety Award.



**SSgt David Cruz**  
31 CRS, 31 TFW  
Homestead AFB, FL



# TAC OUTSTANDING ACHIEVEMENT IN SAFETY AWARD



**S**ergeant Arthur P. Webb's aggressive commitment to safety was demonstrated while he was deployed to Brunswick Airport, Georgia, as an Aerospace Ground Equipment (AGE) mechanic in support of exercise Coronet Stroke 89. After completing his shift one evening at the radar equipment site, he walked to the cantonment area where he was looking forward to a well deserved night's sleep. Upon approaching the canton-

ment area in darkness, he heard the MEP-5 mobile generator begin to power down. The generator was being used to provide tent lighting and other "creature comforts" for tent occupants. Sgt Webb quickly stabilized the generator, but realized something else was wrong because he smelled something burning. He suspected an overheated power cable and immediately began to check the cables to each tent. His inspection turned up no faulty



**Sgt Arthur P. Webb**  
**74 TCS, 507 TAIRCW**  
**Langley AFB, VA**

cable, but he still smelled a strong burning odor and continued to search intently. His diligence quickly proved successful as he sighted a smoldering flap on the roof of a tent. The flap had blown against the chimney of a tent heater and was catching on fire. Without hesitation, Sgt Webb gave a verbal alarm and rapidly evacuated 15 of his coworkers from the tent. Using canteens of water, he quickly extinguished the fire and prevented further damage to the tent.

His alertness, quick reaction, and perseverance saved his coworkers from injury and demonstrated his concern for accomplishing the mission safely. His efforts earned him the TAC Outstanding Achievement in Safety Award.

# NOT A TOY AND



**Stan Hardison**  
**TAC Attack**

**A**ll had walked away but one nine-year-old boy named James, who just stood looking at the new grave. It had been a simple funeral, lots of flowers, many relatives and close friends. But none had been closer than the young boy who now stood alone, trying to figure out how a thing like this had happened. How was a nine-year-old suppose to feel after he shot and killed his best friend?

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**How was a nine-year old  
suppose to feel after he  
shot and killed his best  
friend ?**

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James Campbell was an average boy. Most of his marks in school were from good to fair and he loved baseball. He lived with his mother and father and two sisters, one three years older and the other two years younger than him. The older one, Betty, had discovered boys, makeup, and believed in a different hair-style each day. James and his younger sister, Shirley, thought she was silly most of the time and never missed a chance to pick on her about it.



# ALWAYS LOADED

Mr. Campbell, the father, owned a small painting company. A lot of hard work over the past ten years had built a very successful business for the Campbell family. It was only during the last several years that the father had worked himself into a position to enjoy some leisure time each week, time to pursue a hobby.

The Campbell family lived on the outskirts of a medium size town, complete with good schools, churches and a few very good restaurants. Not far away, there were many square miles of farm land, great for bird hunting. In the fall, the doves and quail would feed on the remains of the cornfields after the annual harvest. Most of the town's men and a few of the women could be found almost every day, during the bird hunting season in the freshly cut fields, doing their best to bag their limit of the hard-to-hit fowl. There were two topics of conversation during this special time of the year, the shotgun and the bird dog. Some of the town's people could not afford more than one gun, and there were still others with big collections which they liked to show off in beautiful hand-rubbed wood and glass-fronted gun cabinets. It was usually the big collector that set the pace for the style of gun and breed of dog best for the area.

Over the past several years, deer hunting had once again become popular in the area. It had all but died out some years before due to poor management of the public hunting grounds. But some good planning and strict laws had built the local herds up, so they could be safely hunted again.

Being the outdoor type, it was only natural for Mr. Campbell to join his friends in the sport of hunting. Like most of the other town's people seeking advice on the subject, Mr. Campbell sought out one of the town's recognized authorities to find out what type of gun he should purchase. Now to single out a person as a local expert on any given subject is one of the highest compliments you can give him. Most of the time, their advice is sound and can be trusted.

Mr. Campbell soon found that he was more interested in hunting deer than birds. There was something about the

woods that appealed to him more than the open fields and the fast flying birds. Learning to track and read the signs left by this quiet moving animal seemed like more of a challenge than waiting for the birds to come to the open fields.

With this in mind, he was advised to buy a medium priced, 12-gauge automatic shotgun. It was a simple, lightweight weapon with a 28-inch barrel. Easy to clean and, when needed, wouldn't cost a hunting sack full of twenties to repair.

Campbell and a few close friends could be found almost any day during deer season stalking the miles of deep woods west of the small town. If they were lucky enough to bag a nice healthy buck, it was shared by all. The rack, or antlers, always went to the person responsible for the kill. This would hang on a wall somewhere for all to see, and the details of the kill would be retold to anyone who dared to ask about it.

It was cold and getting colder when Campbell and his party returned from the woods on this winter afternoon. Their luck hadn't been too good; seeing only one deer that was too far away to shoot. Plenty of signs were found but, aside from the single sighting, nothing panned out.

"Want to try again in a few days?"

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**Now to single out a person as a local expert on any given subject is one of the highest compliments you can give him.**

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# NOT A TOY AND ALWAYS LOADED

"Suits me. I know there are deer out there, but I believe they've learned to hide from us," one of Campbell's hunting friends said with a smile.

"Well, they've gotta come out sometime; they've gotta eat," Campbell replied.

"See you later," his friends called out as they drove away, leaving him and his hunting

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**There are few things that can get and hold a young boy's attention like a weapon can.**

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gear in his front yard.

The noise of the departing vehicle brought James and one of his friends, who lived in the next block, to the front of the house. They were a little disappointed when they learned of the day's luck. But then they realized that you can't be expected to bring home meat every time you go out. Sooner or later this would take the sport out of it and it might even turn into work.

The three entered the house and Mr. Campbell propped his shotgun in the corner of the den. After he washed and warmed up, he planned to clean the weapon and put it away.

There are few things that can get and hold a young boy's atten-

tion like a weapon can. Action movies, TV, G.I. Joes and Rambos can take some of the credit for this. Today's heroes are measured by the number of far-out weapons hanging from their bodies. Weapons that never seem to run out of ammunition or jam. All in the service of our country against an enemy that represents all that is bad. So it's no surprise that an unguarded weapon of any kind got the undivided attention of two nine-year-old boys.

"Does your Dad care if you touch his gun?"

"Naw, he knows I know how to use it," James bragged to his friend.

"When do you think our Dads will let us go hunting with them?" the boys discussed as they moved within arm's reach of the weapon.

"Any day now," James replied, still boasting and fighting back the urge to pick up the shotgun and really impress his friend.

"Do you think you could hit a deer, James?"

"Sure, it can't be all that hard. A deer is big, how could you miss?"

The two boys were now squatted beside the gun, and two sets of young eyes were covering every inch of the polished metal and wood.

"How heavy do you think it is?"

"I don't know, but I bet I can pick it up."

"Bet you can't."

That was the final push James

needed. He had been challenged and it was very important to a boy his age to be tough and never back down.

Before he knew what was happening, his hands were on the gun. The metal was still very cold from the long day spent in the winter woods. This was the first thing he noticed as he slowly lifted the weapon from its propped position in the corner of the den. It was heavier than he thought it would be, but he couldn't let this bother him now. He had to show every sign of

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**Before he knew what was happening, his hands were on the gun.**

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knowing what he was doing. The most important thing was to impress his friend.

James had the weapon balanced across his arms now and he didn't notice the weight as much. Now it was time to make a few cool moves. What would one of his movie or TV heroes do? What if the bad guys were just outside, ready to storm the place and it was up to him to hold them off?

James rushed to the den window and pointing the gun toward the outside, he started mouthing sounds of a fast shooting automatic weapon. He had convinced himself that he was holding a harmless toy and this



was only a game; one he and his friends had played many times before. But James' friend was not as quick getting used to the fact that James was holding and playing with a real gun.

"James, do you know if that gun is loaded or not?"

"Of course it's not loaded. Do you think my Dad would leave a gun standing in the corner like that if it wasn't empty?"

"But, you really can't tell . . . maybe you should put it back now. And I don't think your Dad would like you playing with it like that."

"Oh, it's clear to me now.

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**"Of course it's not loaded.  
Do you think my Dad  
would leave a gun standing  
in the corner like that if  
it wasn't empty?"**

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You're a spy from the other side. You were trying to trick me into giving up my weapon." It was still a game to James as he looked back over his shoulder and gave a command to his imaginary troops.



TAC ATTACK

"Keep fighting men, I'm going to deal with this spy."

James whirled around pointing the shotgun at this friend.

The explosion seemed to shake the whole house. James dropped the gun just in time to see his father rush through the door and stop stone still when he saw what had happened. As the smoke cleared, James saw his friend crumpled against the den wall. It looked like the whole room was spattered with blood. At that moment, his older sister and mother rushed into the room. His sister screamed and passed out. Mr. Campbell still hadn't moved. He just stood with a wild unbelieving look on his face and stared at the young boy on the floor. The smell of gun powder still lingered in the room.

"Dad . . . it was loaded . . . Dad I didn't know, I couldn't tell . . . Oh, my God, Dad, I didn't mean . . . Dad, help me . . ."

When his father didn't move or respond in any way, James rushed past him and grabbed his mother who was standing in shock a few steps behind her husband. When James touched her, she snapped back to reality and the two held each other and started crying.

Mr. Campbell moved slowly toward the young boy slumped on the floor. As he dropped to his knees in front of his son's lifelong friend, he could tell that all signs of life were gone. But in his shaken and confused state, he knew he had to do something. After a few moments, he leaned





# NOT A TOY AND ALWAYS LOADED

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Mr. Campbell moved slowly toward the young boy slumped on the floor.

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over and picked the young boy up and laid him gently on a nearby den sofa. He could tell now that he had taken a full load of buckshot point blank in the chest.

Betty, the older sister, had come to and made her way to the nearest chair, still not believing what had happened. James and his mother still held each other and cried.

"I swear to you I thought I took all the shells out of the gun before I left the woods," he spoke for the first time, his voice crack-

ing, making him force each word.

"I thought the gun was empty."

You've heard the ending to a story like this many times. For those of you who have never experienced an incident such as this, may not think of the lifelong effects it has on all involved. These things *do* happen, people are killed every year with the so-called "empty gun." For your sake and those around, do your best to keep in mind the most important rule of all, "A gun is not a toy and it's always loaded." ➤







# TAC TALLY

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

Total			TAC			ANG			AFR		
JUL	THRU JUL		JUL	THRU JUL		JUL	THRU JUL		JUL	THRU JUL	
	FY 89	FY 88		FY 89	FY 88		FY 89	FY 88		FY 89	FY 88
3	22	28	1	14	18	2	8	7	0	0	3
0	6	15	0	4	11	0	2	3	0	0	1
5/0	19/5	19/0	1/0	9/3	13/0	4/0	10/2	5/0	0/0	0/0	1/0
0/0	1/1	0/5	0/0	1/1	0/4	0/0	0/0	0/1	0/0	0/0	0/0

• (SUCCESSFUL/UNSUCCESSFUL)

## TAC'S TOP 5 thru JUL 1989

1st AF		9th AF		12th AF	
CLASS A MISHAP-FREE MONTHS		CLASS A MISHAP-FREE MONTHS		CLASS A MISHAP-FREE MONTHS	
107	318 FIS	50	507 TAIRCW	40	474 TFW
42	57 FIS	25	1 TFW	32	37 TFW
21	48 FIS	21	4 TFW	28	49 TFW
2	325 TTW	17	347 TFW	22	24 COMPW
		8	354 TFW	19	355 TTW

ANG		AFR		DRUs	
CLASS A MISHAP-FREE MONTHS		CLASS A MISHAP-FREE MONTHS		CLASS A MISHAP-FREE MONTHS	
224	110 TASG	107	482 TFW	154	552 AWACW
199	138 TFG	97	924 TFG	24	USAFTAWC
181	177 FIG	85	906 TFG	16	USAFTFWC
176	114 TFG	59	507 TFG	10	28 AD
140	155 TRG	46	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	2.4	2.3	2.9	2.6	2.3		
	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	3.1	3.2	2.8	3.0	3.6		
	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	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	2.4	2.7	2.5	2.6		
	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



