TACA ttack

APRIL 1991

ANGLE OF ATTACK

A hen a person retires, they normally take the time to reflect on the past, sharing the lessons learned and the things that they've done right and wrong. As I hang up my G-suit for the last time, I'll refrain from doing that here, and hopefully avoid putting any of you to sleep. Instead, what I think we should reflect on is the future -- what we have to look forward to and how we can prepare for those challenges which lie ahead. Those of us in TAC and Americans all across the US are looking forward to the return of our military personnel who performed in such a phenomenal manner during Operation DESERT STORM. The numerous yellow ribbons and American flags which sprouted up across the nation over the past months are two of the many ways our nation displayed its support for our troops. As the number of flags and ribbons continues to increase, our nation, towns, and individual families are preparing homecoming events to salute our returning members. But only a few Americans outside of our command can grasp and really appreciate the level of effort TAC and TACgained men and women put forth in helping to free Kuwait. The record level of success achieved, the demanding aircraft sortie rates, the sustained mission effectiveness, and the pinpoint destruction accomplished would seem almost unbelievable to many. However, I think that everyone of you, with the training that you received in your specialty, knew you were as well prepared and trained as anyone has ever been. You believed that you could do it, and you made it happen.

As we celebrate the success of DESERT STORM and the return of our warriors, I would like to leave you with a word of caution. We need to remember that it was discipline, leadership, and realistic training which



have carried us this far; and now that the war is over, let us not lay them casually aside. For history shows that we have more losses on the ground, in the air, and on the water during peacetime than during combat. Those of you returning from the Middle East must remember how that success was achieved and work to ensure that we continue to "do it right" back here in the states.

To those of you whom I've met, thanks for enriching my life. To those of you I have yet to meet, hopefully our paths will cross in the future. To all of you, be proud of who you are and keep my Air Force great.

Goodbye and Godspeed, Pardner.

Jack Gawelko JACK GAWELKO, Colonel, USAF Chief of Safety



DEPARTMENT OF THE AIR FORCE



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be construed as incriminating under Article 31 of the UCMJ. Photos and artwork are
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WHEN DO GOOD MEN DIE?

Lt Col Tom Dean
Former Ops Officer 614 TFS
"Lucky Devils — Return With
Honor"

was stunned when I heard about the flying mishaps which occurred during Operation DESERT SHIELD, I had recently returned from a deployed location; and those noncombat losses seemed not only tragic, but in many instances, preventable. Now with Operation DESERT STORM underway, the importance of preventing losses - especially noncombat losses - is even more important. If we get the bombs on target but then come back and land gear up, we aren't just causing a continuation sortie to be canceled from tomorrow's training schedule; but rather, we're canceling a combat sortie from tonight's frag and at no cost to our opponent. For those aircrews flying in the Middle East or those preparing to go fly there, I would like to challenge you to consider how we can reduce our training and noncombat losses.

How and why do good men who are capable of making split-second decisions find themselves the subject of a mishap investigation? Is it a lack of guidance or discipline? In some cases, it is, but not all. Let's take a look at three areas related to flying in the Arabian Peninsula and see if we can determine what we can do to limit our chances of being involved in a mishap.

WHAT COULD CAUSE A GOOD MAN TO FLY A GOOD JET INTO THE GROUND?

An air of confidence in our profession is required, but an air of invincibility is foolish if not fatal.

Given that no reasonable man would want to fly a good jet into the ground, then why does it happen? Did he have the feeling "it can't happen to me"? Did he think "I'm good, they weren't"? An air of confidence in our profession is required, but an air of invincibility is foolish if not fatal. Our training is the best in the world. but what are the noncombat unique flying challenges presented by the Central Saudi Arabian desert? It's a huge desert with virtually no vertical development. While I was there, the visibility was limited from 3,000 to 7.000 meters on most of the days during September and October. Yes, we had flown in the desert before, but our previous habit patterns were based on a desert with big hills and mountains we used as indicators of our height

above the ground. There simply aren't any in central Saudi. Depth perception (or lack of it) is a real player. How often had you heard, "Hey on day one, I'm going to get low and fast"? But what wasn't factored in were the new habit patterns required to fly low in that environment with its limited visibility and depth perception clues.

WHAT MITIGATING FACTORS WERE THERE?

First and foremost, there was the overall intensity of the DESERT SHIELD operation. Good men were faced with a complex threat scenario. This threat elicited a perception that to survive it was necessary to simultaneously check the radar, fire a missile, check six, stay in formation, use the RWR, get the pod on and off at the right time, work chaff and flares as well as navigate on the desert floor with no real good update points in many areas; and, oh, by the way, get bombs on target.

Secondly, units were practicing tactics tailored to the environment there. The threats in Kuwait and Iraq were formidable. There weren't any "20 second rocks" or areas of direct or indirect terrain masking to hide behind. Consequently, tactics were being developed and practiced to boldly defeat the SA-6 and SA-8 as well as standard AAA and hand held IR SAMs. With this complex threat environment came the perception

that attack profiles that would best provide a standoff or specific attack axis would enhance survivability. At Red/Green Flag, we were used to face-to-face coordination with other units. Here everything was done by STU-III. It worked fine, but we all know that principle was validated once again as well as the requirement for a good telephone briefing guide.

TASK PRIORITIZATION IS JUST AS IMPORTANT IN WAR AS IT IS IN PEACETIME. didn't work too well. The old "100 ways to skin a cat" concept really boils down to only one or two acceptable ways in actual combat, and those ways must be based on the KISS principle. If we can become task saturated in peacetime, why don't we expect task

Obviously, flying the aircraft is job one. Okay that was easy; now sit down and define the rest of your priorities in combat. Simple? Well, most guys don't think that combat priorities will be different from peacetime. Except that over there your life is on the line.



there are always gray areas from a phone call that don't get recognized till step time and then it's too late. Being fighter pilots, we say we can hack it; but in our hearts, we recognize that this gray area knocks a little bit off our 100 per cent confidence level. Predictably, as our confidence level goes down, so does our performance level. Consequently, the KISS

Obviously, flying the aircraft is job one. Okay that was easy; now sit down and define the rest of your priorities in combat. Simple? Well, most guys don't think that combat priorities will be different from peacetime. Except that once you realize over there that your life is on the line, the concept of doing it the flight lead's way today, but my way tomorrow

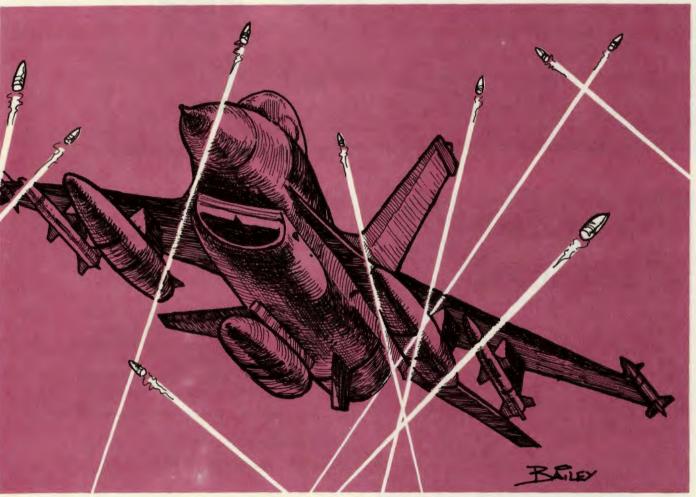
saturation to be a factor in combat? Have we ignored the possibility of task saturation in hopes that we will become supermen in combat? Have dreams of killing Migs clouded our judgment to the point that we haven't thought out the entire mission? Why do we so often fail to remember that the great aces of the past faced and wrote about this same dilemma of

wartime task prioritization?

When we break good habit patterns, we introduce new variables into an already learned task. These variables then increase our potential for an error in the tasks. How many times have we rushed to a spare, tried to hurry, only to good habit patterns? By not breaking the chain that binds us in this business — discipline. Discipline is the foundation of habit patterns. Habit patterns are linked to task accomplishment. Tasks are linked to combat skills required to do the mission. Discipline is the

uation flight briefing is: "The objective of today's training is to build habit patterns that instinctively lead us to . . ."

The key to preventing mishaps is in our own personal awareness. The awareness to say, "I know I'm task saturated — time out



realize we forgot something in the before taxi check because we broke our normal habit pattern while we were rushing? Some breaks in our habit patterns can be rectified easily; but when we break habit patterns close to the ground at high speed, we may not have the margin of safety required.

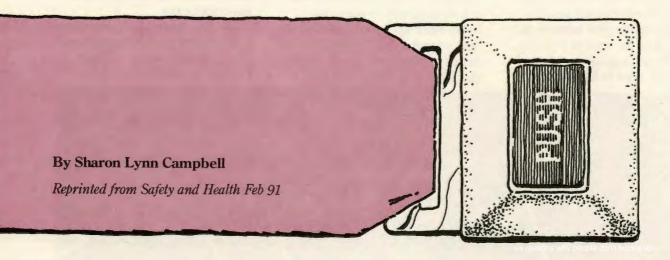
How do we keep from breaking

reason why we demand so much from ourselves and each other on every flight. Checking in crisply on the radio won't kill any Migs, but it will instill discipline. When I have good habit patterns, I can build the skills required to adapt to the dynamic requirements of the combat arena. One of the most effective word pictures a flight lead or IP can use during a contin-

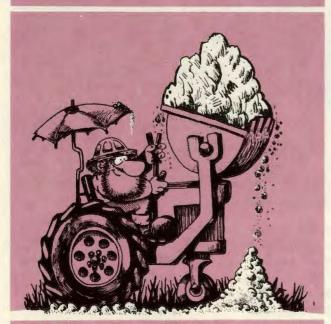
while I catch back up lead." The awareness to say, "No, I won't take a short cut when I'm scrambling to the spare — I'll stick with my established habit patterns."

When do good men die? When we unknowingly lose awareness of our own personal capabilities, or when we break good habit patterns designed to keep us alive.

SIX REASONS WHY PEOPLE



DOWN TO EARTH



AND YOUR FAMILY HERE ON THE GROUND

Y our spouse's face is perfectly still as the tears run silently down, dripping on the sleeve of your favorite jacket.

Your son stands in your driveway, basketball in hand, looking up at the hoop you installed together just last weekend. But he can't bring himself to throw the ball.

Upstairs, your daughter tries to get ready for school. She strokes the family dog that waits patiently by the stairs and listens for the familiar footsteps he will never hear again.

Not far away, your parents cling to the last gift you gave them, as if holding onto it would bring you back.

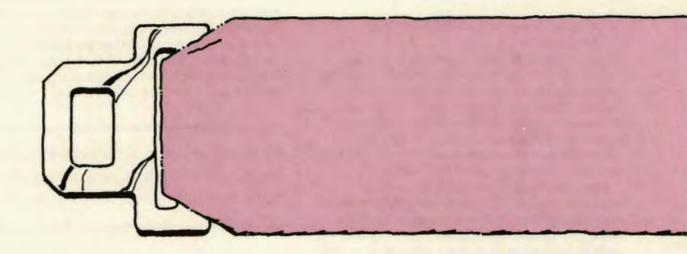
The tragedy is that this toll could be cut by thousands each year at no cost whatsoever.

At the office, your co-workers quietly exit from your boss's office. One takes the folders from the "in" box on your desk while another starts gathering the photos and keepsakes from your bulletin board.

It didn't have to happen. And if you let yourself imagine the unimaginable for a few minutes, perhaps it never will.

More than 100 people are killed on our highways every day. That's 39,000 fatalities in a year and more

DON'T BUCKLE UP



than 150,000 grieving spouses, parents, friends, children and pets. Thirty-nine thousand people leaving gaps in their co-workers' lives. Thirty-nine thousand people no longer there to support churches, synagogues, Kiwanis, Rotary, Masons, Eastern Star and countless other worthy organizations. Each death cuts a swath of grief through dozens and sometimes hundreds of lives. The tragedy is that this toll could be cut by thousands each year at no cost whatsoever.

If all drivers and passengers would buckle their safety belts, thousands of them would be going home to the enthusiastic greetings of their loved ones. They might be shaken up, bruised or possibly seriously injured, but they would still be going home. Why do so many people choose not to use their safety belts? Largely because of the following six common reasons.

1 Safety belts are uncomfortable.

At one time, safety belts were anchored to the vehicle floor, where they had you firmly in place. Today, however, the new belts are designed to let you move about freely until a collision occurs. They then go to work to save your life.

The next time you get into your car, stop and imagine the unimaginable. Even if your car has a safety belt that is a bit uncomfortable, use it anyway until you replace it with a more comfortable one. Remember, a safety belt is a lot more comfortable than a hospital traction bed.

2 I'm only going to the grocery store.

Many people feel that you only need safety belts on long trips or when driving on the highways. And a lot of people have been dead wrong about this. The fact is more than 80 percent of crashes occur at speeds less than 40 mph, and 70 percent occur within 25 miles of home. People who chose not to wear their safety belts have been killed at speeds of less than 12 mph. Some people drive faster than that in parking lots!

3 A safety belt will prevent me from being thrown clear of the accident.

That's exactly what you want it to do. Your chances of being killed are 25 times greater if you're thrown out of your car.

Imagine the unimaginable again. Mentally take that trip—the one you might take when you don't buckle up. Imagine the collision. First, you're thrown forward and sharp pieces of glass cut and shred your face and hands as you go through the windshield. You sail out over the front of your car, moving forward almost as fast as the car was traveling when the collision occurred. Perhaps you hit a tree headfirst. Or a road sign. Or another car. Or maybe you fly through the air and then fall facedown along the roadway, scraping your skin as you land on the rough asphalt. When you finally come to a halt, there may be an out-of-control car, such as your own, heading straight for your defenseless body.

Maybe you'll be lucky. Perhaps there will be bushes to cushion the fall—but don't count on it. Fasten that safety belt and stay in the safest place during a collision—your car. The steel protects your fragile flesh and bones.

4 A safety belt may trap me in a burning or submerged car.

Of all the situations that may arise in a collision, these are the two rarest. Only one-half of 1 percent of all collisions result in fire or submergence. You probably think they are far more common because their rarity makes them newsworthy. As a result, these scenes get plenty of media coverage. Also, action television shows capitalize on scenes involving burning or submerged cars to excite viewers.

Even if you're confronted with one of these situations, you'll still want your safety belt fastened. Why? Imagine that collision scene again. By being inside your car and unrestrained by a safety belt, you could be battered about during a collision. You could hit your arm against the dashboard and get a compound fracture, be thrown sideways and dislocate your right hip because your leg got stuck, and smash your head into a window—leaving you dazed or unconscious. If this happens, how will you get out of the car before it burns or you drown? You're better off strapped in place with minor injuries so that you can escape.

5 Safety belts aren't really that effective anyway. Buckling up does not guarantee your survival, but it sure increases your odds. Out of 39,000 casualties, about half of the people could have been saved if they had used their safety belts. Fully half of the serious injuries incurred in collisions could have been prevented by the use of safety belts. Furthermore, safety belts are so effective that all 50 states in the United States and all 10 provinces in Canada have mandatory child restraint usage laws. In addition, 36 states and the District of Columbia, as well as all 10 provinces in Canada, have passed adult safety belt laws.

6 It's my life—and I can risk it if I choose! This is perhaps the most dangerous reason of all in a freedom-loving country. If you were the only one who suffered because you didn't buckle up, I'd agree with you wholeheartedly. I like my freedom, too. However, the truth is, you are not the only one who pays for unnecessary deaths. Imagine that the unimaginable has happened to you. Who pays?

Your death affects taxpayers who pay to have your

mangled remains removed. Taxpayers could also pay to support your grieving family for a while—or perhaps for decades. Your death affects your employer, who experiences a personal loss and is left shorthanded. You have to be replaced, which is costly. And your replacement must be trained, which is even more expensive. Guess who pays for that? Your company's customers, who then pay higher prices for their purchases. Your lodge, club, church, synagogue or other organization suffers the loss of a valuable member and contributor to their causes.

Most importantly, your decision not to buckle up will affect your family in ways they may never fully recover from.

Your decision not to buckle up also affects everyone else involved in the fatal collision. Let's imagine that unimaginable scene again and see how.

If you were driving and were restrained by your safety belt, you might have retained control of the car and avoided running down a middle-aged woman, a lawyer and mother of three who was thrown out of her car into your path (no, she wasn't buckled in, either). If you were a passenger and hadn't been thrown into the steering wheel, breaking both it and the driver's hand, the driver might have been able to keep the car from slamming into the bridge abutment, killing his wife and children. If you had buckled up as a backseat passenger, you wouldn't have sailed over the seat and broken your best friend's neck en route through the front windshield.

Most importantly, your decision not to buckle up will affect your family in ways they may never fully recover from. The basketball hoop may never be used again. Your parents' grief may turn their lives into a dull gray burden. Your daughter's pain may keep her from ever living fully for fear of losing a loved one again. Your spouse might live with an aching void that will never be filled. The dog will never again express that special "You're home!" greeting with wild jumps and loud, happy barks.

Safety belts save lives. Use yours and make sure everyone riding in your car does, too. And before you turn that ignition key, stop to imagine that unimaginable scene just for a second. The life you save may be your own.

Aircrew of Distinction

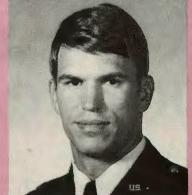
problem. Lt Clayton referred to



Capt Steven V. Segond 312 TFTS Luke AFB AZ

ieutenant Jeffrey Clayton, B-Course Student, and Captain Steven V. Segond, his Instructor Pilot, were flying an F-16B as number 2 in a flight of two F-16's, during a B-course air-to-ground training mission from Luke AFB. The low level tactical navigation and weapons delivery went as briefed until Lt Clayton descended to 500 ft AGL and began the runin for a 20 degree pop-up attack. While monitoring the attack's progress, Capt Segond was alerted by a faint, oily smoke odor. He checked the engine instruments and discovered the oil pressure at only 12 psi with the throttle in military power, when a minimum of 30 psi should have been present. Analyzing the situation, Capt Segond took control of the aircraft and immediately began a climb while turning towards Gila Bend AFAF, an emergency airfield 20 miles away. He called a "knockit-off" and informed lead of the

the emergency checklist regarding low/zero oil pressure, flameout pattern and approach, and controlled ejection, while maintaining a visual lookout for other aircraft and Gila Bend AFAF. The emergency airfield was NOTAMed for all aircrews to avoid by 5 NM due to parachute jumpers. Realizing the possible conflict and recognizing the serious nature of their emergency oil pressure now zero — Capt Segond changed channels to Gila Bend tower to give them as much warning as possible of their possible impending flameout approach. While approaching overhead the airfield, Capt Segond and Lt Clayton discussed pattern parameters, what to expect if the engine seized, and when the change of control would take place so that Lt Clayton could land the aircraft. The throttle was retarded to idle when the landing was assured, and a flawless pattern was flown resulting in a landing approximately 2,400 ft down the runway. With a higher landing speed and the runway being shorter than the one normally used. Capt Segond lowered the tail hook and called "cable, cable, cable," and directed an engagement when he perceived the aircraft would not be stopped



Lt Jeffery Clayton 312 TFTS Luke AFB AZ

prior to crossing the departure end cable. A successful engagement occurred at approximately 30 knots. With emergency crews on hand, the engine was shut down. Later analysis of the aircraft confirmed that no oil remained in the engine. Worse yet, the number five main bearing carbon seal, its retaining nut, and the bearing had catastrophically failed; this condition would have caused the engine to seize within the next few minutes. The early recognition of a severe engine problem, coupled with the accurate and timely actions of Capt Segond and Lt Clayton. effected the safe recovery of their aircraft before the engine could seize. Their superior airmanship and excellent crew coordination during a critical phase of flight saved a valuable combat aircraft and earned them the TAC Aircrew of Distinction Award.

Loss of Situational Awareness

or What You Don't Know CAN Hurt You!

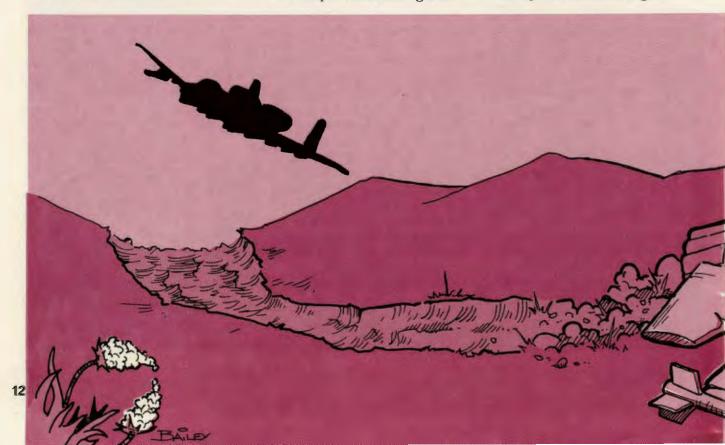
Col Smoky Greene 355 TTW/CV Davis-Monthan AFB AZ

FLY, FIGHT AND WIN!
THAT'S THE MISSION OF
THE UNITED STATES AIR
FORCE, AND DON'T YOU
EVER FORGET IT! We never
forget the words, but sometimes
we omit performing one of the
most important actions - FLYING. Yes, sometimes aircrews

forget to fly the jet and, on occasion, meet with disaster. More often, a visit to the laundry and a new "war story" or "bar tale" is the result.

There are multiple reasons why aircrews forget to fly the jet, but the majority fall into the category of attention problems. These are usually grouped under the term "loss of situational awareness." For example: While looking back

to watch number 2's pass on the target, lead flew into the ground. Another example: Approaching the merge, lead fired at the opponent, considered him "dead" and turned across the opponent's flight path to engage another aircraft - midair. Another example: While attempting to evade the bandit, lead attempted a high AOA rudder roll at slow airspeed and departed controlled flight.



In these examples, there is a common thread, attention or a failure to pay attention to the right thing at the right time. In the first example, lead failed to fly the aircraft, i.e., did not pay attention to where he was in relation to the ground, a condition variably known as "misorientation" or unrecognized spatial disorientation. In the second example, lead failed to "see and avoid," i.e., forgot, did not pay attention to clearing his flight path to avoid the first opponent. In the third, lead's attention was wholly occupied with evading the bandit to the point that he no longer was aware of "flying" his jet. Attention, then, is the capstone of situational awareness and deserves some serious discussion.

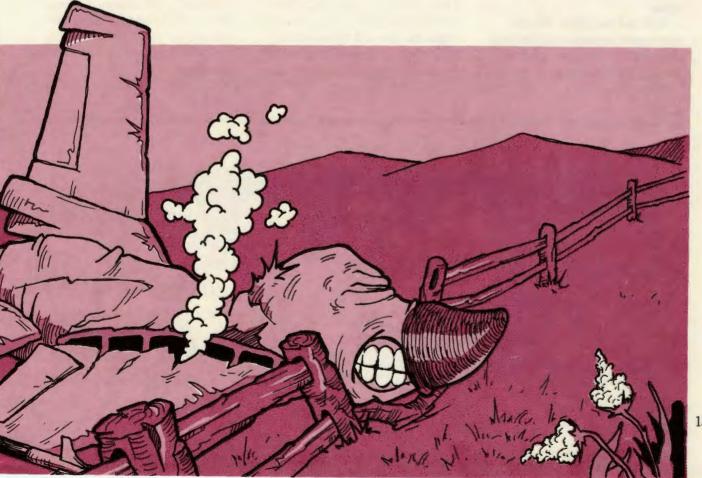
Attention is defined in Webster's as "close or careful observation or heed; mental concentration." Synonyms listed include: consciousness, awareness and knowing. As the conscious mind is a serial processor of information (one thing at a time), attention may be thought of as a series of channelizations of attention over a period of time. The information gained through this series of channelizations is used to build awareness of the environment, the things within it and our relationship to both; in other words, situational awareness. How, then, is situational awareness lost?

As we are used to saving, tactical flying occurs within a highly dynamic environment. As we focus attention on one aspect, the rest of the environment undergoes change. If we spend too much time on one aspect, the environment may change so radically that we lose awareness of the "real" situation without realizing it.

How, then, do we maintain situational awareness?

There is no "magic" for maintaining situational awareness. It is a matter of devoting an appropriate amount of attention to each aspect of our environment in proper priority and, correspondingly, allocating our attention within the time available. Priority of importance and time allocated is relative to the circumstances and how rapidly the environment is changing. This is the management science of maintaining situational awareness. But, if this is a science, how do we account for the number of operator error mishaps involving problems of attention and subsequent loss of awareness of at least one very important part of the situation?

In reality, maintaining situational awareness is a "mushy" science. What makes it "mushy" is



that deciding the priorities for your attention is a subjective or judgmental call. In addition, once priorities are established, the amount of time you spend focusing your attention on any aspect is very difficult to measure.

Priority judgment is so difficult because it depends so much on your own experiences and training and on your "mindset" and level of motivation at any given point in time. Time management is even more difficult as our "sense" of time passage in a dynamic environment is so poor. We may be able to judge time passage pretty well when that is all we have to think about; but when our attention must be distributed among many activities, it is easy to lose "time sense." In other words, it is very easy to focus attention for too long on the wrong thing at the wrong time. The question, then, is what, if anything, can be done to improve attention management and time sense?

Skill and discipline. We can only begin to address the problem of loss of SA through skill development in performance of in-flight duties. For this, long hours of practice, supervised and unsupervised, are required. What is needed to make these skills work on a properly integrated basis is a disciplined approach to management of the various tasks and subtasks involved in bringing a modern weapon system to bear. At the heart of this approach is learning to properly divide the time available for accomplishment of multiple or complex task sequences. The largest shares of time must go to the most important or highest priority tasks.

Where the breakdown in this allocation of time occurs is in misprioritization of tasks. This may result from distraction by an outside event not related to the task at hand, such as a loud noise, or it could come about through a motivational change in priorities, such as a powerful desire to defeat an opponent. Whatever the reason, it must be managed through a tightly disciplined approach. Crews must be sufficiently disciplined to recognize distractions for what they are and to apportion the correct amount of time to their recognition and management in

the proper sequence of events. Crews and supervisors must be able to recognize motivational changes in themselves and others and exercise adequate control of excesses. Crews must be sufficiently disciplined to recognize developing dangerous situations and be skilled in methods to gain time for coping.

These are only a few of the aspects of the role of discipline in task management; but the bottom line is that the ultimate responsibility for controlling tasks, time allocation and the resultant maintenance of SA rests solely with the individual.

Summarizing, situational awareness is a dynamic process which requires constant reallocation of attention to the right priorities. Currently, we practice this as either an art "it happens" or a science "make it happen." Which method do you use? Remember, an attention lapse of only a few seconds can result in disaster. "Things" CAN happen that you are not aware of and CAN reach out and hurt you! Don't let them reach out and touch you or your wingman!



Outstanding Individual Pafety Achievement Award

taff Sergeant Leo J. Jackson, II. 116th Consolidated Aircraft Maintenance Squadron. 116th Tactical Fighter Wing, Dobbins AFB GA, was tasked to perform a routine preflight inspection of an F-15. While inspecting the aft fuselage area. he noticed dirty streaks around several of the large bolts in the aircraft's horizontal stabilator. The inspection of these bolts was not required by the preflight checklist, but he determined a closer look was in order. Although none of the bolt heads were protruding above the aircraft's skin surface, Sgt Jackson's experience told him the dirty streaks could be an early sign of loose hardware. He refused to just wipe them off, but elected instead to seek additional assistance from the experts in the sheet metal shop. With their help. Sgt Jackson determined that those were the main attachment bolts for the horizontal stabilator and as he had suspected, they were loose. Sgt Jackson immediately summoned Quality Assurance for additional guidance. In turn, the F-15 Depot Maintenance Facility at Warner Robins AFB GA was

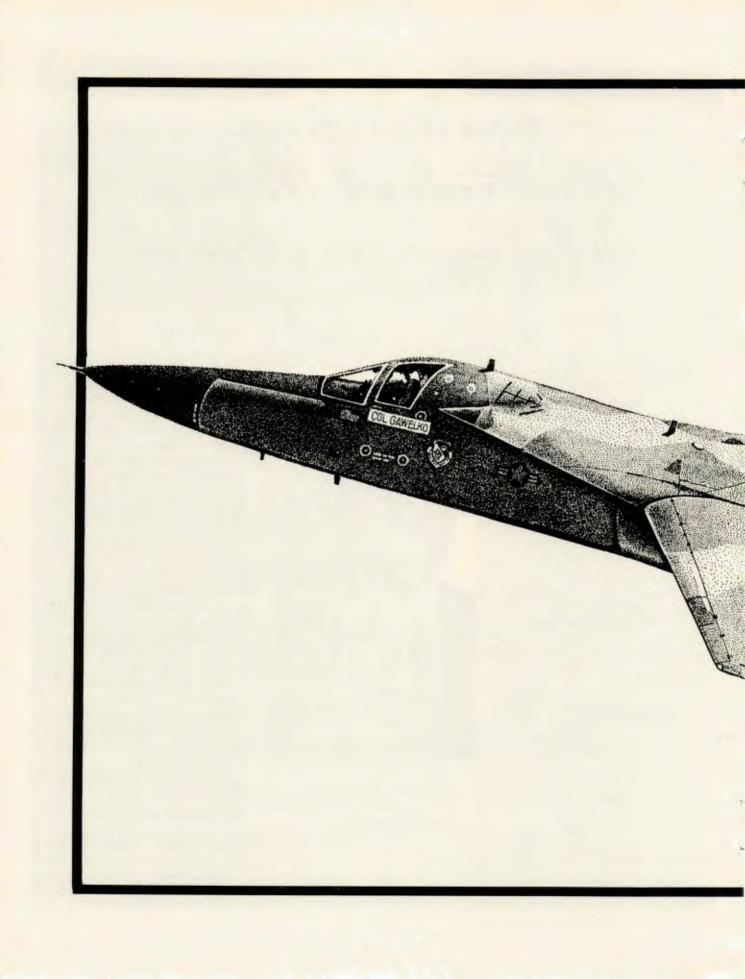


SSgt Leo J. Jackson, II 116 CAMS, 116 TFW Dobbins AFB GA

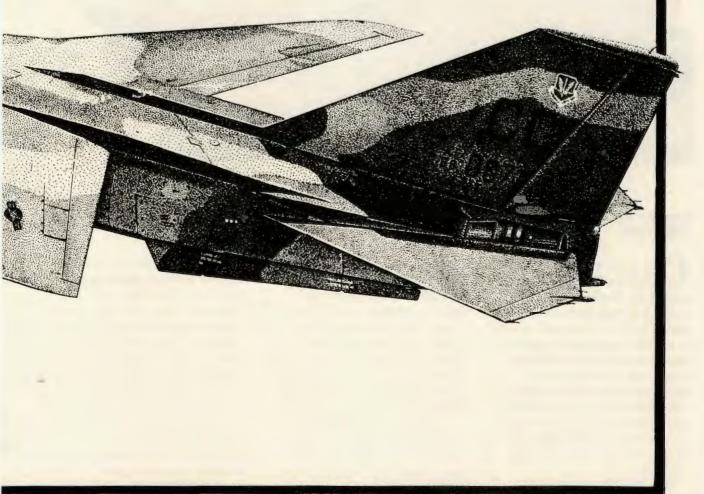
notified of the problem. Depot's final recommendation was to perform a onetime inspection of all assigned aircraft, re-torque any loose bolts, and paint slippage marks on each bolt.

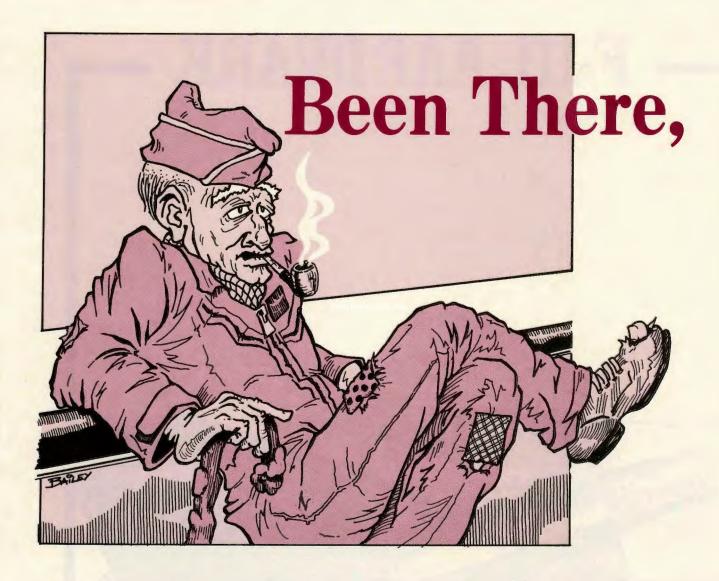
The recommended onetime inspection revealed that several other of the unit's aircraft also had the same problem of loose stabilator bolts. If this discrepancy had continued undetected, the aircraft would have eventually lost part of the horizontal stabilator. Depending on the flight control inputs and flight profile at the time of failure, this could have resulted in the loss of one or more F-15s with the possible loss of their pilots.

Sgt Jackson's self-initiative and determination to ensure the aircraft was ready for flight led to his discovery of this potential hazard which impacted the entire F-15 community. His demonstrated ability to recognize and quickly solve problems, such as this, makes him an outstanding contributor to "smart mission accomplishment" within TAC and earned him the TAC Outstanding Individual Safety Achievement Award.



F-111 AARDVARK





Capt Ed Brownstein TAC/ISEF

ne of the most universal qualities of a fighter pilot is motivation. Each of us is highly motivated to succeed and to be the best. This trait has served us well in the past, pushing us to achieve more and more. But, could this same trait contribute to our undoing? Excessive motivation can sometimes cloud our thinking and push us to bite off more than we can chew. It's been identified as contributing in far too many mishaps.

One of the most common examples of this phenomenon is

the ever-famous case of "get-homeitis." What else would cause one to attempt to fly 3 hours on 2 hours, 55 minutes worth of fuel? Could it be the thoughts about Mama and Junior that cause an otherwise sane pilot to launch for home even in weather that would have canceled the entire morning launches back at the home drone?

A simple cross-country offers a chance for many of us to really "shine." How many times have you phoned the folks to tell them you'll be home for the weekend? When you do, are your parents

waiting for you at the field? Do you fly the same overhead pattern as you would without the audience? There could be nothing worse than becoming a mishap statistic in full view of your loved ones, but it's happened and sadly to more than one family.

One of our young Hog drivers coordinated with his parents to overfly their home. The pilot proceeded to put on an unauthorized air display, violating altitude minimums, and performing maneuvers which he was not trained to do.

Done That

Unfortunately, his parents got more of a show than they or the pilot bargained for. The investigation concluded that an "excessive motivation to succeed" contributed to this error.

For us mud-movers, how many of us change the way we do business for a Turkey Shoot? When we know the scores are going to be posted on a bulletin board in the squadron hallway. who wouldn't try extra hard on the range? Everyone is going to try their best to be Top Gun. Trying harder isn't the problem. Trying new stuff and/or pressing is! If it wasn't safe or tactically sound for day-to-day ops, what makes it such a good idea now for the weapons competition? There are smart ways to go about winning; and just as you suspected, there are also some dumb ways.

The smart way is to make every trip to the range a counter for the various ways you'll drop/ employ during combat. Use good. safe parameters and master them! The dumb way is to crank out new parameters, going as low as you can stand it just to decrease that slant range. First of all, you would probably frag yourself in real life. Secondly, you've left vourself no margin for error in a maneuver with parameters you don't regularly practice. Besides, how wise is it to resort to brand new parameters when it comes time for show?

What about the inevitable bad pass? Well, for some of you it might not be inevitable; but for us mere mortals, it happens every now and then. On a normal day, it's no sweat; take it through dry and wire your parameters on the next pass. But what about when there's more than just a quarter on the line? Do we press when we know we shouldn't? Do we accept being a little steeper than we would like? Some have and they came back to tell us how stupid it was. Unfortunately, we never got the chance to hear the stories from some of the others.

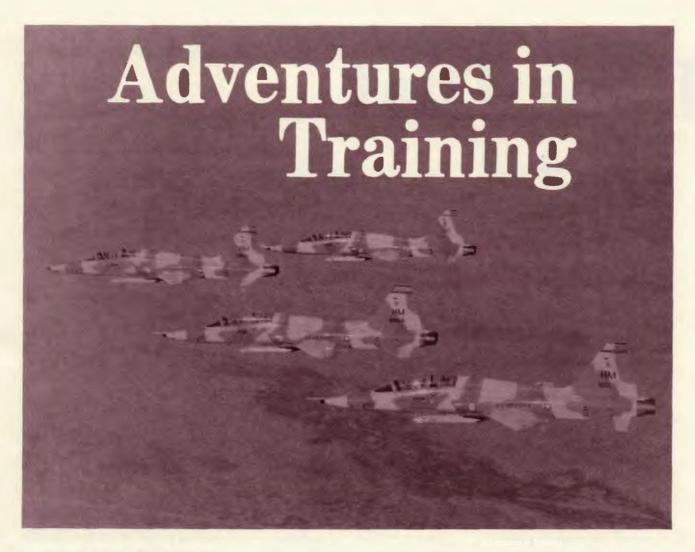
Another common area where the motivation to succeed is higher than normal is checkrides. Fortunately, this is one example that doesn't usually give us too many flight safety problems. On a checkride we're quick to call a Knock-It-Off at the first indication of stretching the minimums. We want to impress the examiner with how we can make the right decisions and obey the regs. An old saying comes to mind at this point: "a checkride should be just like any normal ride."

The potential areas where we can fall victim to our own motivational mistakes are innumerable. You might be trying to live up to a reputation of the squadron "hot stick," or trying to fill that last 51-50 weapons square at the end of the half. It might be something as simple as trying to land on your fini-flight when you know your wife and kids are down there watching you.

What can you as a supervisor do to help eliminate this kind of mishap potential? Plenty! Flight leads, flight commanders,

squadron commanders, etc., can ensure the competition rules reward sound tactical flying rather than rewarding pressing just to get the blue bomb closer to the circle. Simply being aware of the potential on certain sorties can go a long way towards avoidance. Leaders can't avoid all such situations, nor would they want to do so. However, maybe a little chat explaining their expectations of professionalism on those special sorties might be in order. Sometimes the aircrews who are selected for a particular mission might not be a match made in heaven. When that occurs, you may need to modify the scheduler's optimum mix of training requirements to better reflect your own gut feel.

High levels of motivation have served us well in the past, but it's not something we can let run unchecked. When the pulse rate starts climbing and we imagine we will soon hear the crowds cheering, it's time to slow down and think about what we're contemplating doing. Is it smart, i.e., tactically sound? Remember, a superior pilot is the one who stays out of trouble by using his superior judgment to avoid situations which might require the use of his superior skill.



Capt Sam Huffstetler 434 TFTS Holloman AFB NM

We're the bandit at 17,000 feet on the outbound leg of a neutral BFM setup. As I call "flight's on," my student pulls down and left into the other fighter. As the designated bandit, we stay in our block and are supposed to only turn in enough to take away the fighter's horizontal offset.

The other stud, seeing his first high aspect pass where the bandit isn't very limited, buffoons it. He gets fast and winds up more or less level and to the outside of our turn. My front seater, not well versed in the finer points of gathering lead turning room, does what he does best . . . he goes pure.

I lost sight of the other aircraft for a couple of seconds as we continued to close. By the time the hair on the back of my neck began to rise, my student started to say "uh" a lot and more or less quit flying the jet. I took the aircraft as the other aircraft loomed into sight at our 12, 180 out and close — very close. As I roll inverted

and pull for all I'm worth, I see the other jet pull up to pass by on our left. We passed so close that I heard his jet rumble by, a feat in the AT-38. The miss was worth the over-G I picked up.

So what could I have done to prevent this? Because of situations such as this, a few IPisms have become etched in my mind. Let me share a few of these common sense points that may help us prevent something unhealthy from happening to us in the training world. As for the operational

types, it may make sense too. The way I figure it, every flight lead is a "de facto" instructor by virtue of his position. If you lead, shouldn't your wingman be learning something positive during the sortie?

First, we need to evaluate Joe Wingman for who he really is. Every swinging IP can look at a grade book . . . what really gives you the big picture, though, is a talk with the IP who flew the last sortie(s) with him. Quite often grade books take on a somewhat truncated version of the high and low points (mostly low), and the big picture isn't annotated.

What is the guy's experience level? UPT inputs require different techniques over TX pilots; and if we aren't tailoring the mission to allow for this, we aren't optimizing the training? What kind of habit patterns does this guy have? Even after a year or two away from flying, some will still persist.

Second, we should always go from general to specific in the briefing and challenge the student with as much as we think he can handle well. But be sure to give him the big picture of what we want him to do, then get into the more subtle "how-to" aspects of the mission.

The way I figure it, every flight lead is a "de facto" instructor by virtue of his position.

Let's assume that we're going to brief low altitude intercepts. Give a quick and dirty overview, i.e., "In order to get the bombs on target, we want to visually acquire and turn to defeat the bandits and, meanwhile, not hit the ground or each other . . ." There . . . no muss, no fuss, and it sets the stage for a step-by-step discussion on how to do it.

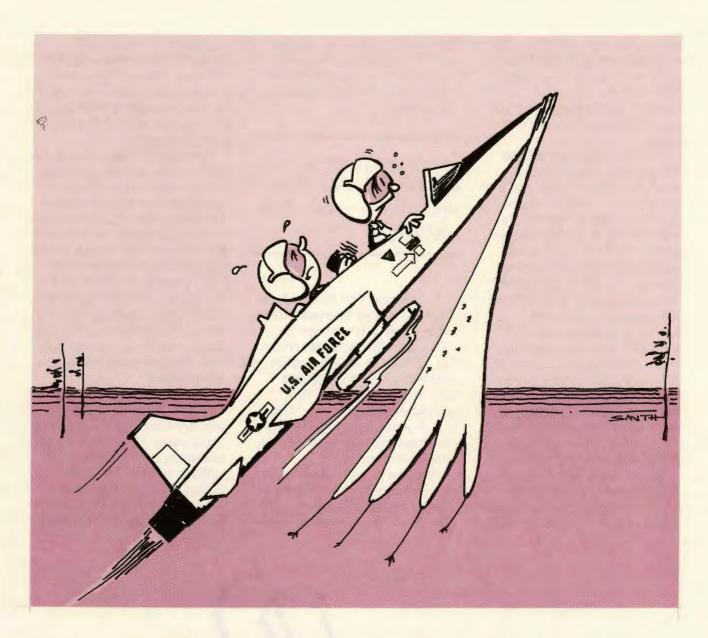
Now, list the parts of the operation as basically as possible for a brand new task. Back in Pysc 101, they taught the primacy of learning theory — a person will remember those items taught to him first. Think of it this way — if your wingman goes brain dead halfway through the flight due to task saturation, what do you want him to remember?

Now that the basics are laid out, give him the various techniques you feel that he can understand and incorporate into his mission. The finer points of radar sorting a mass gaggle doesn't cut it on the first intercept ride. Keep it simple, though, because they probably aren't going to remember it all at first anyway. I'm **not** saying that you shouldn't challenge the wingman at the appropriate time, just that you need to keep in mind his level of expertise and task saturation potential.

Okay, another illustration . . . war story. My student had only seen dry strafe, not the real thing. We're talkin' 7.62mm of hot lead, exiting the barrel at a somewhat sublight velocity. Due to the limited abilities of the gun, you have to drive in to 2,400 feet slant range before shooting. That really



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doesn't leave a lot of room for lounging around after the shot, as you could guess. I demo'd the first pass, sounding my best "brruupp" on the intercom to indicate where I would have fired. Now it was my front seater's turn.

What a pass! The ground track was right on, dive angle good, and the shot came just a nano late. He even stopped firing just before the foul line . . . so did his brain cells. He just kept looking at the rag . . . and looking. Did you know that the F-4 drag chute has

24 panels sewn together with white thread? I hurriedly took the jet and recovered on the heavy buffet to miss the rag by a few scant feet. Dang . . . more worry lines etched into my face.

Wait a minute, here . . . I briefed this guy in excruciating detail on how to do a strafe pass. Wonder if he listened to anything I said? A good brief is so much wasted effort if the lights are turned out.

The third major point for our mission is a simple question:

"How is the brief being received?" Again, the following points may make our job easier.

Say "standard" if it is. How many times have you suffered through a drawn out mission brief that covers the printed standards? Treat number 2 as a professional, say the "s-word" when applicable, then move on.

Are there questions? Often, those briefs with no questions at the end lead to poor missions. Either the wingman wasn't listening, didn't fully grasp what you said, or he's too intimidated to ask. Remember that for whatever the reason, lieutenants ask fewer questions than captains. What is the complexity level of the questions? You'll know soon enough if you can challenge the wingman with more difficult plans or tasks.

How about that informal feed-back? Check out his body language, i.e., is he frowning or is his face blank? Is he taking notes or just not looking at you? Most importantly, look at his eyes. A good IP will know if the message got through to the student by the look in his eyes. Remember, sharp is good, glassy is bad. Closed is very bad....

Okay, on to the flight. If there is a syllabus, the building block approach is already built in. So do it by the book; and if it appears as if the Desired Learning Objectives (DLOs) are not going to be attained, knock it off (KIO). If the flight is early on in a phase, we should KIO early to get the basics down first. More advanced sorties can be continued to see how the student can cope with the unexpected. In either case, we should have already determined how long the specific engagement should last and what the probable outcome is.

Point four is another question. How far do you let your wingman go? I'm a firm believer that somebody must make mistakes in order to learn. But what if you "just can't stand it any more?" Prior to DLO achievement, some IPs will say that they will not take the jet or call the KIO unless something dangerous is happening. That's an automatic bust in many syllabi and, to me, not smart. Why not KIO early before the dangerous part comes knocking on your door? In most cases, vou as the IP know when the situation is becoming unraveled; why



not stop the process earlier and avoid a costly mistake? I'll bet that the learning points remain just as valid.

How much control do you have, anyway? If you're in the same jet, you can let things go a tad longer, since you can take the jet if the front seater doesn't get real smart, real soon. But if you're in another jet, fixing the problem will take: A) more time, B) more communication, or C) all of the above. So again, the question remains: How long do I let this thing go on? You need to answer it prior to step and then reevaluate it in the air.

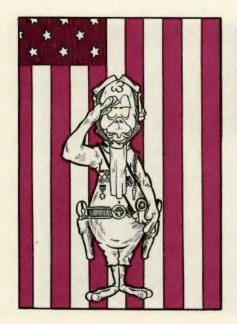
The final point is the debrief. What's the use if the gloves don't come off? Is the debrief a time to teach and learn or is it a time to hammer the members of your flight? Both techniques may have merit, given different scenarios. But let's face it, these wingmen are going to be right beside us if we go into combat, so why not train them via critical but fair debriefs? Don't just focus on the negatives; if something was done very well, then we should say so.

As an IP or flight lead, if we aren't asking for feedback on our

performance, why not? Once we make flight lead or line IP status, people usually won't give us much feedback unless we open ourselves up for it. It can be humbling, but a wise man once said that you can never learn while talking.

What did I learn from my two experiences? First, never underestimate one's ability to make an honest mistake; and second, always have a way out. That's not a negative attitude. Rather, it's realistic and may enable us to see and react to a bad situation a couple of nanos earlier. I should have anticipated that sitting through a high aspect pass for the first time would have been saturating. If I had. I would have been on top of the closure problem earlier. As for the strafe pass, I brief the possibility of target fixation with a lot more conviction now.

Okay, that's it — the bottom line is this. Our student or wingman's success or failure is largely dependent on our capabilities as a leader and teacher and not just his abilities. Are we giving them the training they need to develop into the skilled warriors our nation depends on?



FLEAGLE

TAC'S OUTSTANDING AIRMEN

Staff Sergeant Ronald E. Zermeno of the 836th Security Police Squadron, Davis- Monthan AFB AZ, took the leash as the new NCOIC of the Security Police Working Dog Kennels in December 1989. Less than one vear later, he had turned the operation around from being a necessary but unwanted orphan into a model leadership success story. He is an outstanding example of placing the right person in the job and giving them the ownership along with the responsibility of the job. As the new kennel master, he quickly identified several major safety deficiencies and other operational areas where improvements would vield increased productivity and improved moral. From tripping hazards caused by the uneven walkways to dry rotting dog houses with numerous protruding nails, disrepair was lurking and pride in the unit suffered accordingly. The chain link fence which surrounded the kennel had uneven areas which encouraged the dogs to explore the outside world, but at the cost of being

torn by the rusty teeth of the fence. The obstacles in the training area presented more of a challenge to both the dogs and handlers than the regulations intended. The rotting jumps, walls, and other props had numerous missing and/or protruding nails and screws which made them unstable and dangerous to the handlers and their working dogs. It would take a lot more than a new coat paint to correct this situation, and budgeting constraints precluded any near term contracting solution.

But Sgt Zermeno was now responsible, and he had the mentality that it was his kennel. Did that pride of "ownership" make a significant difference? As an NCO once remarked to a similar question, "When's the last time you washed a rental car?" Sgt Zermeno initiated and assisted in completing the self-help projects which constructed new dog quarters and a new obstacle course. Both of those projects were highlighted by a recent HQ TAC Unit

Effectiveness Inspection as "highly noteworthy" and directly contributed to the "Excellent" rating earned by the military working dog section.

Sgt Zermeno was also the driving force behind a completely new kennel facility which was completed in August 1990. The new kennel eliminated the chain link fence hazards, and all remaining dry rot and nail hazards from the immediate area. He designed and implemented a new single direction walk system which easily solved a previous problem of different dog teams rounding a building corner and meeting head on and causing possible dog fights — especially between newly recruited K-9s. His simple low tech system of painting arrows indicating the direction of travel in the training area had immediate positive results.

Improving the facilities was only one step Sgt Zermeno took to improve both the pride and effectiveness of the handlers and their working dogs. He made significant contributions to the

SALUTES -

training of members and their working dogs in the delicate task of detecting explosives. Yes, they train the way they plan to fight live dynamite and other explosives are used on a routine basis. To correct the safety and training flaws he discovered, he developed an outstanding explosive training continuity book. It detailed the numerous types of explosives used along with the associated hazards and, most importantly, the proper safety measures to use to prevent a mishap. He developed a user friendly checklist to cover the safe and proper handling of the various explosives. His continuity book was so effective and practical that it was taken back to HQ TAC to serve as a model for other units.

Sgt Zermeno continues to serve as an excellent role model of a professional who follows the regulations or, if they are inappropriate, changes them rather than taking the easy but wrong approach of selectively ignoring certain requirements. Many of the unit's older explosive training aids were becoming unstable, but could not be replaced. The regulation specified a 40 percent mixture of dynamite which was no longer readily available through commercial sources. Rather than continuing to use the existing older training

aids or "bending the rules a little" and ordering the next closest mixture, he elected to work the problem with HQ TAC and AFOSP to change the regulation. Through his efforts, AFR 50-41, Munitions Allowance for Individual Training and Training Organizations, was updated to allow the procurement and use of the readily available 50 percent mixture of dynamite. He not only solved the problem for the unit at Davis-Monthan, but for every other similar unit in the Air Force.

Sgt Zermeno is recognized by the TAC and AFOSP staffs as the expert in his field. His ceaseless efforts to make his kennel turn out the best Military Working Dog teams in the Air Force have also succeeded in making his training area one of the safest and has earned him a **Fleagle Salute**.

generator 50 yards away. The generator, connected to a 55-gallon drum of IP-8 fuel, was being transported on the flatbed of an Air Force 1 1/2-ton truck driven by a TDY airman. As the truck approached, Sgt Jones velled for the airman to stop the truck. He then ran approximately 15 yards to the stopped vehicle, grabbed a fire extinguisher, and put out the fire burning at the bottom of the smoke generator. The quick and timely actions of Sgt Jones prevented the potential destruction and/or loss of the \$60,000 smoke generator, an Air Force 1 1/2-ton truck, and the life of a fellow worker. Sgt Jones' attention to detail and demonstrated actions have earned him a Fleagle Salute.

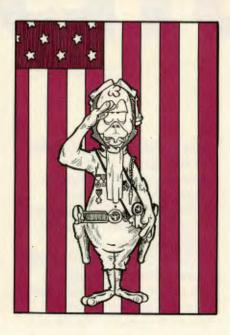
During the Initial Operational Test and Evaluation (IOT&E) of the smoke generator conducted on Eglin AFB FL Reservation Site, Technical Sergeant Michael A. Jones, 4443th Test and Evaluation Group/LGMA, Eglin AFB FL, noticed fire emitting from a

Master Sergeant David C.
Dence, Supply Readiness Section, 354th Tactical Fighter Wing, Myrtle Beach AFB SC, has performed as Chief, Motorcycle Instructor for the wing for over two years and has been the only active instructor for the past six months. Since his tenure as instructor, he has completely implemented all facets of the Motorcycle Safety Foundation's

FLEAGLE SALUTES

requirements which has greatly enhanced safe motorcycle operations at Myrtle Beach AFB. These efforts involved many hours of onand off-duty time to train the 200 riders who have completed the course. As a direct result of his involvement in the mishap prevention effort, motorcycle related mishaps have been reduced over 50 percent. Student critiques of his instruction have all been favorable and indicate professionalism beyond compare. There is no doubt that the efforts of Sgt Dence have been instrumental in saving the lives of his fellow riders and have earned him a Fleagle Salute.

Staff Sergeants Victor Caudillo, Jr., and William P. Robinson, and Senior Airman Lee A. Hedge of the 405th Aircraft Generation Squadron, 405th Tactical Training Wing, Luke AFB AZ, were troubleshooting a PC2 hydraulic circuit B fault light on an F-15 aircraft. Sgts Robinson and Caudillo applied electric and hydraulic power to the aircraft as Amn Hedge positioned himself to check for possible hydraulic leaks. No leaks were visible, so Sgt Caudillo checked the B circuit button to reset it. Immediately after resetting the button, he noticed an electrical fire on a wire bundle in



the PC2 system bay. Amn Hedge. who was nearby, verified there was a fire. Sgt Caudillo extended the fire extinguisher hose as Sgt Robinson shut down the electrical and hydraulic power units. Amn Hedge charged the fire extinguisher and flagged down an expeditor truck to call the fire department. Sgt Robinson, at the same time, went to the other expediter truck to notify the fire department. Sgt Caudillo extinguished the fire. Through the bravery and professionalism of these individuals, potential loss of life and extensive damage to an aircraft were prevented. The quick and decisive response by these three individuals minimized damage to the aircraft, which was repaired and ready to fly in less than 12 hours, and earned them a Fleagle Salute.

Sergeant Dale R. Patterson, 67th Aircraft Generation Squadron, 67th Tactical Reconnaissance Wing, Bergstrom AFB TX, was running the engines on an RF-4C aircraft when ground personnel notified him hydraulic fluid was leaking from the left aileron. After the engine was shut down, Sgt Patterson removed the left aileron access panel (102L) and found the aileron power control cylinder leaking beyond limits. He briefed the next shift of his findings and left instructions to replace the leaking power control cylinder. The next morning when reviewing the aircraft forms prior to a functional check flight, he noticed a write-up stating a nut plate was missing from panel 102L. He remembered all nut plates were intact on the aircraft when the panel was removed and suspected one was broken off during installation of the panel. He again removed the panel and found the missing nut plate under the three position bellcrank for the lateral flight controls. The actions of Sgt Patterson in analyzing a serious condition and taking immediate measures to correct it prevented a possible flight control malfunction. Sgt Patterson's professionalism earned him a Fleagle Salute.

















RETURN TO BASICS

SMSgt Arnold J. Byrd HQ TAC/ISEW

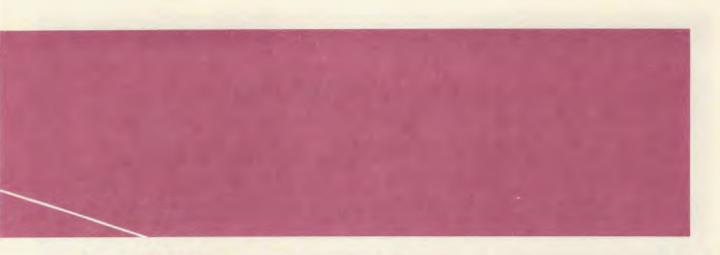
munitions handling crew was downloading and storing CBU-52 munitions from a 40-foot trailer. The crew was working in the rain and was 8 hours into the 12-hour shift. The crew chief left the work site to observe an operation at a different location. Shortly after the crew chief departed, the load crew member acting as the forklift spotter took a break from the rain in the crew vehicle. Undaunted by his lack of support, the forklift operator decided to continue downloading the munitions without the aid of a spotter. He proceeded to align the forklift tines to pick up four munition containers (two double stacks). As the forklift tines went through the first double stack, they struck the second stack pushing it toward the edge of the trailer. The operator backed out, realigned the tines, moved forward and again struck the second stack, pushing the munitions closer toward the

trailer's edge. On the third attempt to align the tines, the second stack was again struck and was pushed off the trailer and fell to the ground. Fortunately in this incident, injury to personnel or damage to equipment didn't occur. Past mishaps caused by not using spotters have resulted in considerable material damage/loss, personal injuries and associated costs. An analysis of this mishap draws the following questions to mind. Why were

Was the crew chief assigned more jobs than he could supervise?

the normal procedures for a munitions handling operation not followed? Was the crew chief assigned

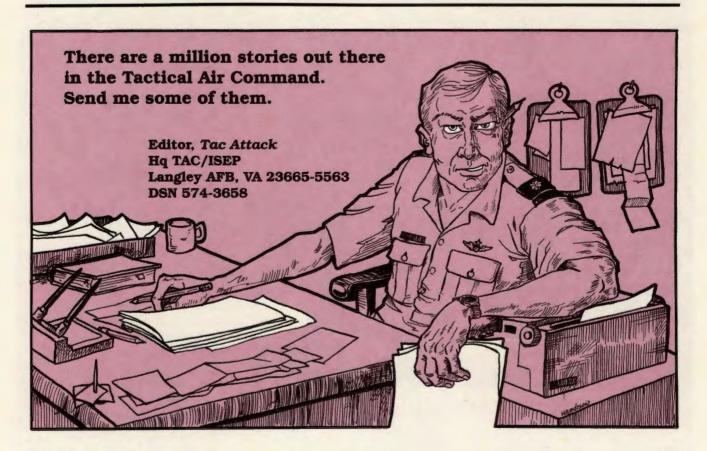
28 April 1991



more jobs than he could supervise? Did the rain contribute to not using standard procedures? Did the forklift operator feel that completing the mission "now" dictated noncompliance with safety principles? Was there a feeling by the crew that "it can't happen on my shift"? Are safety principles and discipline conveniently ignored when supervisors leave the work area? Although many more questions could be

raised, the answers all have a common thread.

The primary remedy for the prevention of most munitions handling mishaps is still a "RETURN TO BASICS!" That is an adherence to those standards or procedures that were evaluated, were time tested, and have been published in technical orders, checklists or operational instructions.



TAC ATTACK 29

Outstanding Individual Safety Achievement Award

aster Sergeant Edward E. Canterbury, 2d Combat Communications Group, Patrick AFB FL, was chosen to work a perplexing problem which was threatening to remove all the AN/ TSQ-111 Communications Nodal Control Element (CNCE) vans from service. These vans serve as the communication hub for the other communication vans which are networked through it. Somewhat smaller than the ocean shipping container which it resembles, it is often seen providing communications support to exercises and real world contingencies such as DESERT STORM. This van or box is often seen in an operational location without wheels, since the wheels are part of an XM-832 mobilizer kit which can and is often removed before the van starts operating. The mobilizer kit effectively attaches a set of road wheels at the front and rear of the van making it into a road transportable trailer.

A series of unsolved, but similar mishaps occurred where the mobilizers separated from the communications van during mobilization or transportation operations. A design deficiency with the van itself was strongly suspected, but even the depot was unable to pinpoint a specific fault area. In the most recent incident, a van completely separated from the mobilizer during mobilization,

and the 12,800 pound van fell 9 inches to the ground. The potential for grave personnel and monetary losses, especially during convoy or airlift, was evident. In an attempt to isolate the problem, Headquarters Air Force Communications Command directed special inspections on all CNCE vans, even to include verification that no counterfeit bolts of the type used to attached the mobilizer to the van had gotten into the support inventory. It was believed the problem was widespread enough to warrant removing all these vans from service, and that course of action was being considered. As an additional complication, this situation coincided with the beginning of Operation DESERT SHIELD.



MSgt Edward E. Canterbury 2 CCGP/LGQ Patrick AFB FL

Working to solve what the experts had previously been unable to discover, Sgt Canterbury began his task. After analyzing the existing inspection guidance, he expanded his search to related areas. Going on the premise that the CNCE van was nothing more than an S-280 shelter with CNCE gear inside it, he began conducting research and inspecting three additional mobile communications facilities which were also moved by the same type mobilizers. He established his own meticulous testing procedures including a control module. His initiative succeeded in isolating the problem not to be a material deficiency as originally suspected, but to a procedural error in the method the mobilizer was attached to the vans. Once he isolated the procedural cause, he next developed the procedures to prevent a recurrence of the problem, and just in time for the vans to be deployed in support of DESERT SHIELD/STORM.

Sgt Canterbury's keen observation and unique problem solving ability enabled him to discover not only the problem, but a simple and cost effective solution. His accomplishments directly supported our communication requirements for Operation DESERT SHIELD/STORM and earned him the TAC Outstanding Individual Safety Achievement Award.



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

T	TC	AL					
FEB	THRU FEB						
LES	FY91	FY90					
3	11	B					
0	5	6					
0/0	7/1	4/0					
0/0	0/0	1/1					

	ГАС	
FEB	THRU	FEB
LD	FY91	
3	7	6
0	2	2
0/0	4/0	4/0
0/0	0/0	1/1

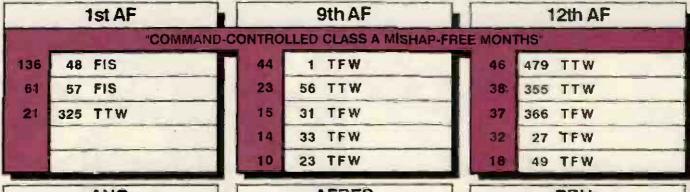
F	N	à					
FEB	THRU	THRU FEB					
LEB	FY91	FY90					
0	4						
0	3	2					
0/0	3/1	0/0					
0/0	0/0	0/0					

AFR						
FEB	R THRU F					
LU	FY91	FY90				
0	0	1				
0	0	2				
0/0	0/0	0/0				
0/0	0/0	0/0				

CLASS A MISHAP COMPARISON

												-,	
TAC	FY91	0.0	0.0	0.7	2.0	2.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TAC	FY90	1.8	2.8	2.7	3.0	2.4	2.7	2.8	. 2.9	2.8	2.7	2.8	3.2
ANIC	FY91	4.2	2.1	1.4	4.3	3.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ANG	FY90	0.0	0.0	1.6	1.2	0.9	0.8	1.3	2.2	2.4	2.2	2.0	2.2
٨٥٥	FY91	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
AFR	FY90	20.4	11.2	8.2	5.9	4.7	7.7	6.4	5.5	4.8	4.4	4.0	3.6
TOTAL	FY91	1.2	0.6	0.9	2.5	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	FY90	2.4	2,5	2.7	2.6	2.1	2.4	2.6	2.9	2.8	2.7	2.6	3.0
MONT	Н	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP

TAC'S TOP 5 thru FEB 1991



	ANG	and the same	AFRES		DRUs			
	"COMN	MAND-CONTRO	LLED CLASS A MISHA	AP-FREE MON	THS"			
457	119 FIG	155	301 TFW	173	552 AWACW			
433	147 FIG	118	482 TFW	64	28 AD			
237	110 TASG	115	924 TFG	43	USAFTAWC			
217	177 FIG	103	906 TFG	35	USAFTFWC			
217	138 TFG	78	507 TFG					

DESERVICES

THIS PAGE IS DEDICATED TO OUR TROOPS IN OPERATION DESERT STORM

(Reprinted from the Desert Defender, a newspaper supporting Operation Desert Sform)







