TAC ATTACK





It's been a year since my first Angle of Attack, so I'd like to share a glance back over the past twelve months with you. We won't set any records for all-time low mishap rates in FY 88, but I must take my hat off to you and say "Well Done." With the demanding variety and complexity of operational flying, training missions, deployments and other accomplishments that you've handled, it has been a year second to none. You've flown hundreds of thousands of sorties, probably more than anyone else in the Air Force combined, and the small number of mishaps we've experienced is amazing.

Of the flight mishaps we have had, most of them we did to ourselves by doing things that were not smart. I'm talking about honest mistakes that were made, not intentional violations of rules or air discipline.

In order to keep our boss's heart rate down and all of our colonels busy doing their assigned jobs instead of serving as mishap investigation board presidents, each of us needs to be aware and set good examples in leadership and discipline.

To our TAC maintainers, I'd also like to say "Thanks." We've had another great year on the maintenance side of the house. You've continued to improve the maintenance and reliability of our aircraft and your efforts have certainly paid off.

We've not only had a great year in maintaining air-

planes, but also in weapons safety. We've made over a 60 percent improvement in what weapons mishaps cost us this year compared to last year. Our weapons mishap rate was over 30 percent better than the previous year. "Well Done."

In ground safety, we've reduced on-duty injuries significantly and saved the Air Force big bucks that otherwise would have been spent in lost man-days. Our fatalities are down everywhere, except in the area of private motor vehicles. We need a little more emphasis and **your** help there.

In closing, let me share with you some things in life that have made me feel good. Maybe you share some of them:

- Flying good fingertip formation.
- Coming into class in high school and seeing the film projector set up.
- -Getting a bomb on target and on time.
- Being in TAC.
- How about you?

So long until next month, pardner.

Jack Gawelko

JACK GAWELKO, Colonel, USAF Chief of Safety

TAC ATTACK DEPARTMENT OF THE AIR FORCE



features

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TACSP 127-1

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GEN ROBERT D. RUSS COMMANDER



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Colonel David A. Sawyer 602 TAIRCW/CC Davis-Monthan AFB, AZ

Scene. Wing King orientation session with newly arrived pilots.

Cast of Characters:

Col I. Benthere	TFW/CC
Capt	New Guy (Recent H
Jack Fape	Course Graduate)
Capt	New Guy (Recent H
Jim Fafack	Course Graduate)
2 Lt	New Guy (Recent I
U.P. Tee	Course Graduate)

Col Benthere: "Welcome to the Fightin' Fiends, the best danged fighter outfit in the known universe. You are a privileged group of warriors who have passed every test thrown at you so far. Now, your real training starts. We have 60 days to get you mission ready, and, by God, we're going to do it with style. When you complete MQT, you will be declared a mission-ready, certified, ready-togo-to-war fighter pilot!..." (pauses for effect). (Visions of glory

A SKILLED AN HONORABLE PROFESSION

flood the imaginations of the three new arrivals. Fape sees himself leading a MIG sweep force into a furious furball. Fafack is camped at a Fulcrum's six, gunning his adversary's Communist brains out. Tee rolls up on a wing to check his bombs after a perfect pass and sees two huge spans of the biggest bad-guy bridge since Doumer crashing into the muddy river below. The Colonel continues . . .) "Yes, indeed, now is the time to learn. You will be wingmen in the fiercest fighting outfit since Ghengis Khan's horde. Take advantage of your time as a wingman to learn the skills of your trade well ..."

Fape: (His mind starts to wander ... "Yeah, I'll be a wingman for now, but just wait until I'm a flight lead. Why, with my thousand hours of T-38 IP time, I could be a flight lead tomorrow. Shoot, I already know how to bomb, strafe, and hit the dart, and I've led dozens of UPT four-ships. The wingco shouldn't even be grouping me with these other toads. They're the only wingmen here – I'm practically a flight lead already. In three months, I could be in Stan/Eval ... ")

Col Benthere: (Continues to inspire the troops . . .) "Now, I insist the Fightin' Fiends enforce strict air discipline – from start engines to shutdown. Flying is a complicated, dangerous business, and we have to do it right . . . "

Fafack: (Drifts into reverie . . .

GMAN - A SKILLED AND

"Complicated? I've done complicated. I've been a 1 Lt DetCo on a major joint force exercise and controlled a dozen flights of fighters through the toughest hi-threat scenario the exercise planning sadists could scheme up. I wonder if I can talk the ops officer into starting flight lead upgrade right after getting MR? Might have to waive a couple of hours, but I'm that good...")

Col Benthere: (Starts to hit his stride...) "There's no more satisfying or challenging job in the world than being a fighter pilot – especially in the Fightin' Fiends. Take pride in what you do – you are the best of the best!"

Lt U. P. Tee: (Adrenaline kicks into overdrive . . . "Boy-o-boy-oboy! That's me alright! Best of the best. Top of my pilot training class, got me a front line fighter, wowed 'em in LIT and RTU and now here I am in my first real fighter outfit! MQT sounds challenging, but I know I can hack it. Wonder how soon I get to lead flights?")

End of Scene



Have you been there? If you're a new guy, does your leader's soul pound the prison walls of your wingman's body, screaming, "Let me out! Let me show my stuff!" This phenomenon shouldn't surprise any of us. From the moment we all donned our first uniform, we have been trained to be leaders. Take the three guys in our story for example. All have most likely served in leadership positions cadet corps, UPT class officer, etc Fafack and Fape have even been flight leads in nonfighter aircraft. The taxpayers have invested nearly two million dollars* in each of them, just to bring them to this point - ready to start MQT at their fighter unit. Like all their contemporaries, each is a smart, aggressive college graduate with certified good hands. Is it reasonable to expect them to follow lead, obey orders explicitly, and shut up on the radio unless spoken to, tapped by a bogey, or on fire? The short answer is yes, that's exactly what's expected, and for good reason. Flying tactical fighters is a challenging, complicated, and potentially dangerous business that must be learned one step at a time. We all seem to accept that axiom through most of the process (UPT, LIT, RTU, etc.), but I believe there's one step on the staircase we all want to jump over - MR Wingman! It's almost like a stigma - who brags about being a great wingman? The

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only people you like to hear bragging are us old guys – and I don't think the rest of you take us seriously! My purpose in bringing this subject up is twofold – first, to convince you the title "wingman" describes one engaged in an honorable profession – a highly skilled trade; second, to offer you some ideas on how to become the world's best wingman.

*For you stubby pencil types, some _ypical figures are:

	F-4	F-15	F-16		
UPT	397,818	397,818	397,818		
RTU B Course	1,018,272	1,539,523	1,376,355		
TOTAL	1,416,090	1,937,341	1,774,173		

Wingmen: Real Fighter Pilots,

Too! Okay, why should you consider wingman more than just a holding pattern until you get to be a real fighter pilot? First, understand a wingman is every bit a real fighter pilot as a flight lead. A wingman worth the title plays many roles - warrior, protector, confidant, friend, critic, supporter, and potential saviour. He may play many roles, but he has just one purpose - to support his leader, period. Fighters are employed in bunches of two, four, and multiples thereof for two main reasons firepower and mutual support. The leader decides how, when, and

A wingman worth the title plays many roles - warrior, protector, confidant, friend, critic, supporter, and potential saviour. He may play many roles, but he has just one purpose - to support his leader, period!

where the firepower is applied and has the responsibility to make it happen. The wingman's job is to make the leader's job as easy as possible, period again. They are a team, each with specific duties to help the team win. Whether you're a guard, tackle, center, or quarterback, if you make the team, you play in the game and have a stake in its outcome. The better you play, the better chance your team has of winning. In our business, "winning" can take every form from a turkey shoot trophy to target destruction and survival in intense combat. The leader doesn't win alone. He can't. The world's champion flight lead will probably screw something up if he has a sloppy, disinterested wingman. You may not realize this because a good leader doesn't fly with a sorry wingman more than once. He either educates that wingman in a hurry or gets rid of him. Care to guess how that flight lead knows what a quality wingman looks and acts like? Simple - he remembers, because he used to be

one. There is no better way to be a great flight leader than to apprentice as a great wingman. Stick, Search, and Report: So, how do you become the world's greatest wingman? The Brits have a handy memory jogger to describe the wingman's responsibilities - "Stick, Search, and Report." "Stick" with your leader, "Search" the area, and Report" necessary information. "Stick, Search, and Report" is your abbreviated checklist-now, for the Dash One expanded version. Stick with your leader

- 1. Fly superb formation. Be where the leader expects you to be. However, don't devote exclusive attention to this or you'll flunk "search." The best advice on formation I can think of is fly where you can best provide support – lookout, target acquisition, navigation backup, etc.
- 2. Change formations/positions only when directed. This may sound strange coming on the heels of advice to "fly where you

INGMAN - A SKILLED AND

can best provide support." There will be times as a wingman when you think you need to make an undirected formation change. A typical example is on initial when you know it's past time for lead to rock you into close formation. A good wingman will move in and save the leader the embarrassment of pitching out in route, right? WRONG! (The quickest way to learn that particular action is wrong is to move in close, then have the leader vigorously rock his wings to bring you in. That's mid-air city, folks, especially with a fourship.) Unless it's an emergency or a combat break, stay where you are put. There is no better way to support your leader. If the leader puts you in dumb formations - debrief and critique. You may save more than your own life by nurturing better flight leadership.

3. Assume nothing. Have you ever been checking six so well you half-missed, half-caught a wing flash signal? "Oh, oh! Now what?" You say to yourself, "Did I see it or did I not? Will lead bust my chops in the debrief if I don't move now?" Live with your paranoia for a few seconds, and see if he does it again. A good flight lead will assume you were clearing and give you the signal again. If he does bust your chops in the debrief, defend your lookout technique – but, don't be a jerk about it.

Search the Area

- 1. See every bogey. Techniques for lookout are well documented – find them, study them, use them, and talk about them. If you become known as an eagleeyed wingie, you'll never be a wallflower.
- 2. Call out every relevant bogey. Challenge yourself to be the first guy in the flight to acquire the traffic and call it out. Actually calling out bogeys is part of the "report" checklist. The part that applies to "search" is to decide which bogevs are relevant. The wingman who calls out all the traffic quickly becomes a pest. Most of the time you couldn't care less about airliners at three o'clock high. Develop your judgment for which bogevs are relevant by questioning your leader during the debrief. Ask him how you did - he'll appreciate your interest and you'll sharpen your skills as a super wingie.
- 3. Back up lead. Here's where you'll notice your greatest growth as a fighter pilot during your tenure as a wingman. Remember your first tactical formation rides in RTU when it was all you could do to hang on? After just a few more rides, you felt pretty comfortable in your role – you maintained good position, knew where you were **most** of the

time, and had a little time to think about how the flight was going. The better wingman you are, the more time you'll have to back up lead in virtually all his tasks. You old guys are starting to come out of your seats now, aren't you? I can hear you bellowing, "What I want from a wingman is for him to fly good formation, look out for threats, shack the target, and shut up on the radio. What's this back up the leader' crap?" Allow me an explanation, please . . . As flight leads, your goals should be nothing less than perfect formation, lookout, weapons delivery, and radio discipline from your wingman. The wingman's goals should be the same. However, we need to consider how much time needs to be devoted to these tasks during a typical flight. For the new guy, it takes virtually all his time - he has to think hard and work harder to stay in position, clear, turn on the right switches, etc. But, as his proficiency improves, these fundamental tasks become instinctive. Once the wingman reaches a degree of proficiency in "stick, search, and report," he has time on his hands that he can use productively (backing up lead) or unproductively (muttering about lead under his breath, for example). My contention is that the wingman should use that

HONORABLE PROFESSION

time to cross-check navigation, anticipate the next task or several tasks, and be ready for possible problems.

Now this "back up the leader" stuff is risky advice to give you wingmen, because you can screw it up too easily. Don't get caught up in this role to the point you ignore in the least your wingman duties. This is another reason you probably need to spend at least a year as a wingman if you're new to fighters regardless of your previous. FAFAC or FAIP experience. No matter how good you are or how much experience you have in other aircraft types, it takes a while to develop the proficiency and instincts of a super fighter wingman. Incidentally, you don't stop learning wingman skills once you make flight lead. Ask the experienced guys in your unit. They're proud to be wingmen because they're still honing their skills, and they know it's a challenging job.

Report necessary information.

1. Call out every relevant bogey – precisely. This is not redundant advice. Deciding which bogeys merit a call on the radio is a judgment you must make as part of your "search" duties. To make that call with speed and precision requires additional judgment and skills. Demand perfection of yourself when you practice this. Develop mouth and mind coordination while still flying your jet.

- 2. Never miss a radio call. You're not supporting your leader perfectly if it's your fault he has to tell you something twice. If you develop into a good listener as wingman, you'll be better prepared to listen effectively as a flight lead. The best flight leads are great listeners – they don't miss **anything**.
- 3. Make perfect, clear radio calls. Are you understandable on the radio, or are you trying to be so quick or cool it comes out fuzzy? "Quick" is great, but not if only half the transmission comes across the airwaves. Give yourself a little test on every flight – did anyone ever have to ask you to "say again"? If you hear "say again" with any regularity, you're probably the source of the problem. Be forceful, be precise, and pronounce those consonants!
- 4. Make only necessary radio calls. When all fighters had just one radio, it was easy for everyone to understand how important it is to keep radio calls to an absolute minimum. Today, with two and three radios in most of our fighters, the temptation to talk has risen exponentially. Intraflight FM frequencies are especially tempting – just you and the other flight members, nobody else listening. What's

wrong with succumbing to the inspiration of the moment, for example, and exclaiming, "Boy, what a great day for flying!" First, such a remark doesn't contribute anything to the mission. Second, you could miss a vital radio call, e.g., "May Day!" And, third, somebody may answer! "Yeah, reminds me of Korea." "Really? How so?" "Well, we used to . . . ," etc. And the flight's attention is diverted away from the business at hand and the potential for screw up or tragedy has just taken a quantum leap upward. Treat radio #2, #3, etc., as I hope you treat radio #1. Make only absolutely necessary radio calls!

The Payoff

If you develop great wingman "stick, search, and report" prowess as you hone your other fighter pilot skills, you'll always be in demand by flight leads in your unit. You'll also be a better flight leader when the time comes. Meanwhile, we'll all benefit from your performance as a crackerjack wingman. You'll be a better combat pilot; your unit will be more combat ready and, in case you hadn't noticed, great wingmen also don't cause accidents. Sloppy wingmen often do. So the next time someone says you're just a wingman, tell him, "You're wrong, pal. I'm not just a wingman; I'm the world's best wingman and danged proud of it!

ACCIDENTS



MSgt Daniel A. Conrady 836 AD/SEG Davis-Monthan AFB, AZ

any individuals on our TAC bases are getting injured without good reason. The cause of 80% of our mishaps is unsafe acts. Another 18% result from unsafe conditions, leaving the final 2% to other cause factors. While it is the individual's responsibility to perform his or her job in a safe manner and ensure that all unsafe conditions are reported so that they can be corrected, you, as a supervisor, also have a responsibility to your people. Ask yourself the following questions and see how you and your unit stack up in safety awareness and mishap prevention.

When was the last time you, the supervisor, actually performed the tasks that you assign to your people? Have the procedures or equipment changed since then? Do you think that your people are so good that they don't need supervision?

When was the last time you, the supervisor, actually performed the tasks that you assign to your people ?

DON'T JUST HAPPEN

Are their tasks repetitious? Could they be injured while doing them? Have you briefed them on the hazards associated with all of their task/areas, and do they understand the potential consequences if an accident does occur? Have you ever asked your people how they think the next injury within their shop is most likely to occur? Have your people ever brought up safetyrelated questions or comments? If they did, did you solve the problem and answer them properly? Have you ever heard about an accident and said to yourself, "I just knew that would happen one day."

Many of the injuries experienced during our mishaps are minor in nature, and the supervisor simply tells the injured person that they need to be more careful. Is that you? Could the injury have been worse than it was? (True in most cases.) Why just relate the seriousness of the situation to the injured persons? They *probably* won't do it again. Why not pass the "lesson learned" along to the other people in your area or similar shops within your unit? Have you or anyone else briefed them?

Now you're probably saying, "That's bull" and "What about the people that intentionally violated the safety regulations when they knew better?" Did you ever ask one of them why he or she did it the

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Have you made it clear to your people that safety violations will not be tolerated?

wrong way? Have you made it clear to your people that safety violations will not be tolerated and taken administrative action against those who violated the safety standards? Have you only stressed the more obvious performance factors of the mission, and forgotten to tell your folks that the mission was not only unsuccessful if they were injured, but it was also



probably delayed?

What's the bottom line? Mishap reduction is a must. Total mishap prevention is our ultimate goal. If you and I only *react* to injuries *after* the act, we're not preventing anything.

How can we as supervisors ensure that we have a good mishap prevention program? Try following these steps:

1. Don't put your new people to work without giving them the mandatory safety training that's required by AFR 127-2.

2. Make it clear to everyone that safety violations will not be tolerated.

3. Talk to your people and find out if they feel safe while doing their job. Ask them where and how they think the next accident is likely to occur.

4. Don't rely on your shop's past history of never having mishaps. Do spot inspections and get out with your people whenever you get a chance.

Think about it. I know you wouldn't want to be the supervisor of someone killed or permanently disabled, and have to ask yourself, "Could I have prevented it from happening?"



2d Lt Dewey M. Gay, F-16 student pilot, and Maj Joseph Rybicki, Jr., F-16 instructor pilot, 62 TFTS, 56 TTW, MacDill AFB, FL, were flying a BFM mission when the cockpit voice warning and caution lights activated. Calling "knock it off", they turned toward home as they informed their flight leader that they had experienced system B hydraulics failure. En route, Maj Rybicki informed the SOF of his plan to burn down gas, blow the gear down, and stop on the runway using backup brakes.

When the crew slowed the aircraft and pulled the alternate gear release handle, only the right main and nose gear came down. After several unsuccessful attempts to lower the left main gear, they began their approach, planning for an approach-end cable engage-

FLEAGLE SALUTES

ment. Lt Gay flew a flawless approach and landed 1000 feet short of the cable. Despite full flight control inputs, the aircraft rapidly settled on the centerline tank, and the hook failed to engage the cable. Unable to initiate a goaround, they skillfully managed to keep the aircraft on the runway utilizing full rudder and opposite braking. When the aircraft came to a safe stop, the crew shut down the engine and ground egressed.

The timely decision-making and efficient coordination demonstrated by Lt Gay and Maj Rybicki averted the loss of a valuable combat resource and earned them a Fleagle Salute.

Maj Robert W. Fix, 182 TFS, 149 TFG, Kelly AFB, TX, was leading an F-16 two-ship into a low altitude training route when he felt his aircraft jolt suddenly. Unknown to him, the aircraft's engine had ingested a large hawk which shattered the engine nose cone, damaged the compressor blades and caused a massive oil leak through the engine main bearing.

When Maj Fix observed an electronic engine control caution light in the cockpit and took actions to reset it, the cockpit began to fill with smoke. He quickly selected 100 percent oxygen and headed to the nearest suitable airfield. As Maj Fix attempted to clear the cockpit of smoke, he noticed the engine's oil pressure gauge registered near zero. The oil leak was confirmed by his wingman and illumination of the HYDRAULIC/OIL caution light soon followed. Due to the loss of oil, it was now necessary to make a landing as soon as possible without

throttle adjustments since an engine seizure could result. Further complicating the situation, the Equipment Hot Light illuminated, requiring shutdown of navigation and primary altitude instruments so the wingman assumed the lead to a simulated flameout approach.

From 10,000 feet above the airdrome, Maj Fix located the field through the undercast. Although his eyes were still irritated from the smoke and clouds further restricted acquisition of the airport, he was able to safely land his F-16 in a heavyweight configuration. Maj Fix's accurate and expedient handling of this critical emergency resulted in the safe recovery of his aircraft and has earned him a Fleagle Salute.

The 17th Tactical Fighter Squadron recently distinguished itself by conducting sustained operations for 30 days during Coronet Warrior II, a TAC logistics exercise to evaluate the capability of the squadron's War Replacement Spares Kit (WRSK). A realistic schedule was devised for 30 days of nonstop flying in a simulated NATO environment. The first seven days were flown at a demanding surge rate from sunup to sundown. Flying during the remaining 23 days, although not at a surge rate, was equally rigorous with sorties including aerial refueling, low altitude navigation, bombing, strafing, electronic warfare profiles and multiship dissimilar aerial combat. At the completion of the exercise, the 17 TFS had flown 1077 sorties and 1830.9 hours. Most important, they did it without a single flying mishap and have earned themselves a Fleagle Salute.



AIRCREW OF DISTINCTION

econd Lieutenant John M. Sepanski, an F-16 student pilot with only 68 hours in the jet, had successfully made one low approach during recovery from a surface attack tactics sortie when he attempted to lower the landing gear for a full stop landing. He lowered the gear handle but observed gear up indications in the cockpit. With less than 1200 pounds of fuel remaining, he initiated a go-around and declared an inflight emergency. Quickly analyzing the malfunction, he arranged for a chase aircraft and coordinated with the supervisor of flying. The chase aircraft confirmed the cockpit indications, observing all gear up and gear doors closed.

After an unsuccessful attempt to recycle the landing gear handle, Lt Sepanski slowed the aircraft to 180 KIAS and pulled the alternate gear release handle. All three gear doors opened immediately, followed by the two main gear lowering to the down and locked position. The nose landing gear, however, remained up. With the SOF reading the applicable checklist items, Lt Sepanski made several attempts to lower the nose landing gear. With only 500 pounds of fuel remaining, he decided to land from a visual straight-in approach.

After touchdown, Lt Sepanski

held the nose up in a 2-point aerobrake while moving the throttle to the cutoff position and then skillfully eased the nose down until the centerline fuel tank and the nose gear door contacted the runway surface. As he skidded to a stop, the centerline fuel tank erupted in flame. Lt Sepanski ground egressed uninjured, and the fire department quickly extinguished the fire.

Lt Sepanski distinguished himself through timely decisionmaking and outstanding airmanship. His actions prevented the possible loss of a valuable combat aircraft and earned him the TAC Aircrew of Distinction Award.



2d Lt John M. Sepanski 63 TFTS, 56 TTW MacDill AFB, FL



TAC ATTACK



I assumed wrong

A crew of three men was assigned to do phase maintenance on an A-10, including gear retraction as well as the emergency brake and auxiliary landing gear extension checks. After the aircraft had been jacked up, the trio began to perform the emergency brake check with the appropriate job guide. The first crew chief operated the hydraulic mule while the second one sat in the cockpit. The third individual, a hydraulic specialist, stood beside the aircraft to observe the operation.

When crew chief number two entered the cockpit, he assumed, incorrectly, that the canopy jettison safety pin was installed because he saw the streamer resting on the right console. When the crew chief on the ground directed him to pull the emergency brake lever, the second individual pulled the canopy jettison lever by mistake and fired the canopy actuator. The canopy did not jettison because it was already raised; but considerable damage was done to the canopy, the aircraft and the hangar ceiling.

The job guide being used by the phase crew contained specific warnings on the first page of the section for brake system checkout which dealt with the egress system. Instead of reviewing those warnings, the team chief on the ground opened the job guide straight to the subtask to be performed and missed all of that information. Both he and the man in the cockpit failed to ensure that the canopy jettison handle was properly safed.



The individual inside the cockpit said he pulled the wrong lever simply because he wasn't paying attention to what he was doing. The canopy jettison handle was clearly marked and had a warning decal beside it.

Don't just dive into the middle of a checklist or job guide. Take the time to ensure that you've properly reviewed all of the warnings, cautions and other guidelines provided throughout the tech data (many of these items document what others have experienced). When you finally get ready to pull a handle, throw a switch or turn a knob, make sure it's the proper one and don't touch it if you're in doubt. There's a good reason why we mark and label emergency handles like we do. Those markings are a handy reminder that extra caution is necessary to ensure that we don't accidentally pull the wrong one. But, you've got to pay attention to them before the warnings do you any good.

Eagle bite

A fter starting engines, the Eagle driver noticed that both ramps were up, the inlet lights were on, and the hydraulic pressure was low. A Red Ball arrived quickly and the left engine was shut down.

After changing the hydraulic gauge, the specialists opened the door just ahead of the left intake to examine the air inlet controller (AIC). When specialist number one noticed that the circuit breaker for the left AIC was popped, he immediately reset it, causing the left ramp to slam down and strike the open access door. Specialist number two, who was holding the door open, was able to jump out of the way. Unfortunately, the other specialist was struck by the door.

While the specialists in this incident were not badly injured, the story could have ended much differently. There are several ways a ramp can come down even with the engine shut down, and all units have procedures to prevent such an occurrence. In this case, the ramp switch was never placed to emergency which would have locked it up. These folks allowed their sense of urgency to overcome checklist discipline, "esulting in an injury. Cutting corners doesn't deed you to the war. In fact, it usually has the opposite effect.

What you don't see

During engine start, a pilot noticed that his EGT gauge was sticking as the engine accelerated to idle speed. With the engine running normally otherwise, the pilot called maintenance Red Ball to have a new gauge installed.

When the quick-fix truck arrived, one fellow got out of the truck to put the engine inlet screens on. He located the left side screen, gave it a cursory glance and shook it before placing it up to the intake. A supervisor standing nearby noticed a red streamer being sucked into the intake from the just-installed screen. The engine was immediately shut down, and they found a drag chute safety pin and streamer lying in front of the first stage inlet guide vanes. A packing clip and several inches of steel cable were missing, but damage to the compressor sections wasn't.

It defeats the purpose of putting intake screens on if they've got all sorts of goodies lying or stuck inside. Sort of like letting a fox inside the henhouse. The kind of damage that can result warrants an extra thorough look to ensure that nothing but the screen is put in front of the engine.

The purpose of Red Ball maintenance doesn't justify haste and carelessness. The whole idea is to get a problem remedied quickly, but safely, in order to meet scheduled takeoff times, maintain flight integrity and give the aircrew a fully capable aircraft to do the mission. FODing an engine through a misplaced sense of urgency misses the whole idea and usually results in a missed sortie, lost training, a broken aircraft and unnecessary paperwork.





F-5 FREEDOM FIGHTER

Who's in Charge a

Col Charles C. Higgins TAC/DOV

Who's in charge?" Good question. One that we ask, or get asked, numerous times in our daily activities. It is an important question. Virtually every facet of our lives is governed by our responsibility to someone, or our responsibility for someone. "Who's in charge?" In few places is that question more important than dealing with a flight of fighter aircraft. The answer seems obvious: the flight lead.

The never ending discussion over what makes a good flight lead properly began about the time Wilbur and Orville decided to launch their first two airplanes at the same time. If it did not happen before the launch, it would have taken place shortly after landing. We do know it was a subject of discussion during World War I and II. Korea, Vietnam, and continues today. Numerous attributes have been identified that good flight leads need to possess: experience, judgment, skill, maturity, aggressiveness, integrity. The list goes on. One attribute, however, is the key to all the others; a good flight lead has to assume the responsibilGood flight leads need to possess: experience, judgment, skill, maturity, aggressiveness, integrity and the list goes on.

ity for his flight – BE IN CHARGE. If the flight lead is not in charge, all the other attributes can never have an impact on the flight, the mission or the wingmen.

This concept is not new; it is the cornerstone of leadership – to be in charge. It is an attitude, generated by the flight lead and respected by the wingman. In the "old days" it was a relatively easy attitude to establish. Most flight leads had at least a thousand hours of fighter time and combat tours. Aircraft and munitions were not very

It is important to reemphasize here that just being put in charge does not make you a good flight lead.

smart, and wingmen were expected to put the "light on the star" and keep quiet (except for "Mayday, Mayday, Mayday!" or "Lead, you're on fire!"). There was no doubt in anyone's mind that the flight lead was in charge. It is important to reemphasize here that just being put in charge does not make you a good flight lead. Just like being appointed commander does not necessarily make a good commander. Equally important is the realization that a flight lead who is not in complete control can never be a good flight lead.

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The current fighter force is characterized by significant increases in training and technology. Training is more realistic and aircraft and weapons are "smarter." Tactics have been developed to maximize the capabilities of both crews and equipment, and are widely disseminated. With all these improvements, flight lead responsibilities have not been changed a bit; but our experience levels have. As an example, an F-16 pilot fresh from RTU might be able to go to a conventional range and win every quarter from the most experienced flight lead in the squadron simply because he had the best jet. That does not mean the RTU grad is ready to be a flight lead. It takes







time – watching mistakes being made and making your own mistakes to develop the experience to be a good flight lead. Relying totally on technology and not having situational awareness and complete control when the unexpected occurs can start the snowball rolling.

Relying totally on technology and not having situational awareness and complete control when the unexpected occurs can start the snowball rolling.

A number of recent mishaps have occurred as a result of flight leads not being in, or maintaining, complete control of their flights. Why? The answers are not clear-cut, only the results. There are a number of factors that can lead to a breakdown in the flight lead's control.

1. Too much professional courtesy, i.e., assuming the wingman is smart because he has a lot of time in his jet or previous fighter experience and should know what he is doing.

2. Tactics that emphasize independent or separate aircraft maneuvering when those tactics may overload the wingman or the flight lead.

3. Relatively inexperienced flight leads. Lack of confidence to take charge and make a decision based on experience, when a controversial course of action is required.

The above factors are only some examples, and often it is a combina-



ho's in Charge ?

The flight lead has to be completely responsible for the planning and briefing or he cannot execute the mission. tion of factors that leads to a breakdown in control. The critically important point is that when the factors combine to tempt a flight lead to relax his control, the requirement for him to be firmly in charge is the greatest. Leaderless or uncontrolled tactics, intentional or unintentional, do not work; never have, never will.

Strong control forces good flight discipline. The flight lead has to be completely responsible for the planning and briefing or he cannot execute the mission. A flight lead that is in charge breeds good discipline in his wingmen. They know their roles and will perform as the leader directs, and the leader will not accept anything less. During unplanned contingencies, such as in-flight emergencies or weather problems, the flight lead's direct control is critical. We have all seen



the results of flight leads who have failed to exercise that control; it is never pretty.

Fortunately, the majority of our flight leads epitomize the best. They are in charge from the initial planning to the last word in the debrief. When you fly with them, you feel secure, confident, and prepared for any contingency. They are positive, directive, offer guidance, and never hesitate to control the situation. Conversely, they never let the situation control them.

Flight leadership is an awesome responsibility.

Flight leadership is an awesome responsibility. Those charged with it cannot be afraid to accept it, and those who step up and accept it must firmly execute that responsibility. There is no room for a lack of control, guidance or direction. We all have a flight lead we still look back to as an example and try to pattern ourselves after. It is our responsibility to keep that tradition alive and pass it forward to those future flight leads.

Remember, the debriefing is the proper place to answer most of the questions that are generated during the flight. But there is one question we should never have to ask in the fighter business – "Who's in charge?" The answer to that should always be – THE FLIGHT LEAD.

TAC OUTSTANDING ACHIEVEMENT IN SAFETY AWARD

Major Russell L. Thompson has made significant and lasting contributions to his unit's safe mission accomplishment. As an F-16 instructor pilot, chief functional check flight (FCF) pilot and chief of Quality Assurance, he is recognized as an innovative leader who sets the example for both operations and maintenance personnel.

As the only current F-16 pilot assigned to maintenance, Maj Thompson continually bridges the gap between operations and maintenance. He routinely interprets the significance of pilot-reported discrepancies and verifies maintenance corrective action to ensure quality fixes and reduce repeat/recurring writeups. His IP/FCF expertise has been used by the wing supervisor of flying on several occasions to assist in the recovery of disabled aircraft.

Maj Thompson sparked the effort to revise the local maintenance operating instructions concerning impoundments. As part of this comprehensive effort, he streamlined the impoundment requirements list, revised general procedures, and developed a training program for all impoundment officials. This significantly enhanced the response to and repair of impounded F-16 aircraft. He also developed a computer program to track impoundments by cross-referencing aircraft tail numbers, engine serial numbers, FCF

data, reportable safety incidents, and material deficiency reports, thereby improving trend analysis and data retrieval.

While discussing maintenance procedures for emergency power unit monopropellant checks, nosewheel steering and antiskid maintenance, Maj Thompson discovered a training deficiency involving aircraft electricians. As a result, he developed a new program to train electricians in proper troubleshooting and verification techniques.

Maj Thompson manages the training of all wing FCF pilots, and developed a comprehensive briefing package for each FCF sortie. This unique FCF brief enables the FCF pilot to better understand the maintenance history and corrective actions on each aircraft prior to flight. He is currently improving the program by establishing a requirement for a recurring FCF pilot meeting designed to provide a valuable forum for continued training and dissemination of safety information.

Maj Thompson represents an integral facet of the flight safety spirit in the wing. As QA's flight safety representative, he actively



Major Russell L. Thompson 56 TTW MacDill AFB, FL

participates in both the Flight Safety Officer and Maintenance Flight Safety Officer meetings, highlighting specific wing problem areas for all attendees. He has also assisted in numerous aircraft mishap investigations, providing valuable expertise to identify sometimes subtle operations and logistics mishap factors. Due to this recognized expertise, Maj Thompson coordinates on all 56 TTW reportable flight mishaps.

Maj Thompson's unique, lasting contributions to safe mission accomplishment have earned him the TAC Outstanding Achievement in Safety Award.

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TAC ATTACK

INTERESTING ITEMS, MISHAPS WITH MORALS, FOR THE TAC AIRCREWMAN

What is a habit?

A habit is a response that develops when you repeatedly perform any action in the same way such as a preflight or a checklist. After performing the task a number of times, your brain disengages and your body takes over. Often, after doing the task, you can't specifically remember doing each step, but the evidence will show that you did. If you do the tasks correctly (and safely) as you learn the habit, chances are you did them right this time. But would you bet your life on it?

Habits generally come into play when you are distracted, fatigued, or become too familiar with your environment. In other words, when you are not concentrating on the job at hand.



Well then, are habits good or bad? That depends. Habits should never be depended upon as an absolute authority. But if you develop good, safe habits, they may keep you from lousing up a task. If you routinely take shortcuts, you're setting yourself up for a rude awakening. Eventually that habit will take over while you are slightly inattentive; and, if it was unsafe, you'll pay the penalty.

If a repetitive task is interrupted by unusual events, take time to make sure that you're doing the task correctly. Either review what you have accomplished or do it over. Don't take it for granted, think about it. Good habits should not be depended on to keep you out of trouble – but bad habits should never be tolerated.

Night - It can happen. Ready?

Double generator failure – it never happens, right? Certainly not at the most inopportune time – at night in the weather. Wrong. It can and has happened. Would you be ready for it?

An Eagle was midway through a night PAR and had just broken out of the weather when *all* of the lights in the cockpit went out. Both generators had kicked off the line and the emergency generator cycled in, but the pilot didn't have the floodlight or utility turned on. Things grew a bit tense while nearly 20 seconds passed as he tried to find and cycle the generator switches. Finally, one generator did agree to come back to work; and the approach was concluded safely.

What if it had been you? Can you find those few critical switches that are vital in resetting your electrics during total darkness? Try it sometime when you least expect it during your next sim and see how you fare. Maybe you'll decide to turn your utility and/or



floodlights on very dim during your preflight -at least enough to help you find the switches if everything else goes black on a PAR. Make sure your flashlight is where you can readily find it if all else fails. That's called preparing to cope with the unexpected.

What's that in your pocket?

An F-16C pilot who ejected during a recent Class A mishap sustained minor ejection injuries to both lower legs due to impact with the instrument panel. Clearance between the pilot and the panel may be less than three-fourths of an inch in this jet. Any items carried in the g-suit pockets, including checklists, further reduce the available clearance between the lower leg and instrument panel and may result in disabling injuries at ejection. Cockpit space is limited and you need to be careful where you put things. Be especially careful of items you may want to carry in your g-suit pockets.



FLYING ON A BEER BUDGET

Major Jim Johnston 9 AF/SEF Shaw AFB, SC

The four-ship is all briefed up; the scenario firmly entrenched in each player's mind as they sanitize and belly up to the ops desk for tail numbers.

"Oh! They didn't tell you?" the ops clerk exclaims. "Your four-ship has been MNDed (maintenance nondelivered). One and two are still hard broke from yesterday, three is awaiting parts and four still has an electrical problem from the first flight this morning."

For most of the flight members, it's the second time that week they've practice briefed. The wingies are lucky to get eight sorties out of 12 attempts per month and maintenance FMC-PMC (Fully/Partially Mission Capable) rates are hovering around 50%. A dismal picture, but it happened to the TAF (tactical air forces) in the late 1970s. We are faced with a similar possibility as budget cuts begin to take a toll after recent "good" years. We have tactics for high and low threat wars, so it makes sense to have tactics for high and low budgets.

What's the answer? We have tactics for high and low threat wars, so it makes sense to have tactics for high and low budgets. The following apply at all times, but are especially appropriate for flying in the days ahead:

SUPERVISORS

- Make local flying training interesting and challenging.

- Exercise your deployed location "mass gaggle" scenarios locally if they can't be accomplished TDY.

- Avoid "standard" flights.

- Diversify low-level routes.

- Increase and diversify Top Gun competitions.

- Avoid slipping ETICs (estimated time in commission). They're demoralizing and take the edge off a well-briefed mission.

- Be fanatically FOD-conscious (remember, depot funds for F-15, F-16 and A-10 engines have been cut and spares may not be available for those attrited.)

- If your engines don't like ice, be spring-loaded to the cancel position if icing conditions are forecast.

- Keep your aircrews from being trapped between mission accomplishment and insufficient resources.



-DON'T TAKE A BAD JET!

- Don't allow the pressure of needing to fly overrule your good judgment on what constitutes a "safe jet."

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INTERNALISTICS

- Plan each mission to maximize training, not just fill squares (although GCC "squares" are still important).

- Rebrief if takeoff has been excessively delayed.

- If you're going to extremes to get the mission airborne, it may be time to cancel and try it another day.

All the above are appropriate for flying even in the best of fiscal times; however, the obvious has a way of eluding us when pressed to accomplish the mission. The full impact of budget cuts is not known, but it can be anticipated. FIGURE

There are striking similarities between present conditions and what occurred to the TAF in years past. The full impact of budget cuts is not known, but it can be anticipated. Start formulating your flying programs now. If they are eventually needed – great; you're ready to step up to the challenge of flying on a "beer budget."

TAC ATTACK

LOW BUD

FOR THE NEXT AVAILABLE AIRCRAFT

TACTICS



TAC OUTSTANDING ACHIEVEMENT IN SAFETY AWARD

1C Billy R. Fowler had completed end-of-runway inspections (EOR) on several aircraft and returned to the EOR building for a designated rest break. As he watched from the observation window while four transient F-16 aircraft were being inspected prior to takeoff, he noticed a 25-inch piece of asphalt stripping being pulled from the concrete surface by the lead aircraft engine's suction.

Airman Fowler ran from the building directly to the aircraft and costly foreign object damage began signalling the pilot to perform immediate shutdown procedures. After informing the pilot of the situation, he completely removed the rubber stripping from Award. the cracked concrete surface and.

noticing another six-inch strip that had broken loose from the paved surface, promptly removed it to avoid any further mishaps. The EOR crew and Transient Alert personnel then inspected the entire ramp adjacent to the EOR area for more loose materials. When nothing else was found, the four F-16's were cleared to proceed and prepare for takeoff.

Airman Fowler's alertness and dedication to flight safety prevented (FOD) and a potential aircraft mishap. His quick, decisive actions have earned him the TAC Outstanding Achievement in Safety



A1C Billy R. Fowler 1AGS, 1TFW Langlev AFB, VA





I can't wait

A n A-10 had received its end-of-runway (EOR) "last chance" check for any problems that would prevent flight, and the weapons crew was cleared in to begin pulling pins to arm up the gun and practice



bombs. Everything went fine until a weapons specialist found that one of the pin streamers was wedged between a BDU-33 bomb and the BDU adapter. The specialist removed the safety pin from the ejector rack and snatched on the streamer. As he did so, the streamer caught the manual release lever and caused the bomb to fall to the ramp. Because the safety block was still installed, the bomb didn't go off and further damage was avoided.

This is a classic example of one person's mistake causing someone else a problem later on. If the weapons loader who installed the BDU had done it properly, there would have been no problem when the jet got to EOR. It was an obvious error that should have been caught back in the chocks. The second weapons specialist in EOR was wrong in trying to fix the problem with brute force. When you're confronted with a malfunction or improperly installed part, use your head, not your brawn, to fix the problem and get the sortie on its way.

Where did that come from?

A TGM-65 Maverick training missile was being moved to the flight line for loading onto an F-16. The load crew was using an MHU-83 loader to transport the missile from the ready explosives facility to the flight line, but the missile was in a CNU-262/E container with the top removed.

As the driver of the jammer pulled into the parking spot adjacent to the aircraft to be loaded, he drove over a set of aircraft chocks, causing the missile container with the Maverick inside to fall from the loader. The fall caused the missile's guidance and control unit to be damaged, resulting in several thousand dollars of repair costs.

The load crew erred first by transporting the TGM to the flight line without properly securing it inside the container designed for just that purpose. Sort of like buying a dozen eggs at the commissary and transporting them in your cart with the lid open. Then the "unexpected" occurred when the driver ran over that set of chocks. Doesn't it always happen that way, especially when you decide to ignore the T.O.?

CREW CHIEF SAFETY AWARD

Senior Airman Kelley A. Stundon has demonstrated outstanding job knowledge and initiative while performing her duties as an F-16 assistant dedicated crew chief. She has continually shown a professional attitude toward quality aircraft maintenance and a desire to excel at all assigned tasks.

During a recent acceptance inspection on her aircraft, SrA Stundon began to perform an engine bay inspection after the removal of the engine. During the inspection, she found a rippling in the aircraft skin below the aircraft portion of the fuel cell. She immediately requested structural repair personnel to be dispatched to her aircraft in order to determine the severity of the problem. Knowing the aircraft had been involved in a mishap two years before and was just returning from depot maintenance, depot personnel were brought in to determine the severity of the rippling. It was determined that the aircraft was suitable for flight, but the rippling would be checked again after three flights.

When the aircraft was returned for inspection and the engine removed, SrA Stundon discovered the rippling was even worse. After further inspection to determine the cause, she found that the



SrA Kelley A. Stundon 388 AGS, 388 TFW Hill AFB, UT

engine side mount attachment bolts were missing. Through her attention to detail and job knowledge, this defect which affected the structural integrity of the fuel cell was discovered, preventing the possible loss of a valuable combat aircraft. Her exceptional job knowledge and perseverance have earned her the TAC Crew Chief Safety Award.

TAC ATTACK

TAC OUTSTANDING ACHIEVEMENT IN SAFETY AWARD

Sgt Kevin R. Keaton was Dassisting the engine specialist by running the engine on his assigned F-16 aircraft. After a normal start, he proceeded to do an operational checkout of the aircraft's backup fuel control (BUC). Upon transferring to the BUC, it malfunctioned and began dumping too much fuel in the engine, resulting in an explosion in the compressor section, followed by a fire in the exhaust. SSgt Keaton's groundman, A1C Blakley, informed him of the nature of the fire which, coupled with the sound of explosion and the abnormal cockpit readings, prompted SSgt Keaton to use the emergency shutdown procedures and engage the engine starting system in an attempt to "blow" the fire out. After approximately 45 seconds, the fire was put out without using a fire extinguisher.

The thorough aircraft knowledge and quick reactions displayed by SSgt Keaton and A1C Blakley averted potential personnel injury and aircraft damage. Their actions have earned them the TAC Outstanding Achievement in Safety Award.



SSgt Kevin R. Keaton

A1C Chris A. Blakley

347 AGS, 347 TFW Moody AFB, GA

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JUL

LOOKING FOR FLEAGLE ? - WE'RE LOOKING FOR YOUR ARTICLE.

Why haven't you written (an article for TAC ATTACK)? We're looking forward to Dear (Your name), hearing from you. Take your experiences, your insights and put them all together in an The format for sending it to us is up to you. Typed, double-spaced is fine but we'll article for us. If you've got any questions about also take handwritten. whether or not we'd be interested in your ideas, call us at Autovon 574-3658. We'll give your article a friendly reception and make every attempt to use your efforts to make all Sit down and write something for us today. We're waiting to hear from you. of us smarter. Sincerely

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