

THE COMBAT EDGE

NOVEMBER 1992



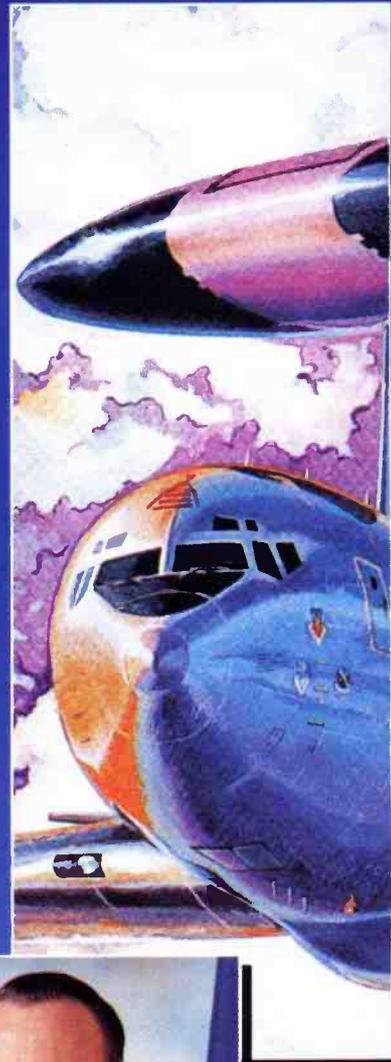
Boyle '92



THE COMBAT EDGE

Air Combat Command
Safety Magazine

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ABOUT THE COVER

The Lockheed F-117A Stealth Fighter is the first operational aircraft to exploit low observable stealth technology. During Operation DESERT SHIELD/STORM the Saudis bestowed on the aircraft the nickname: "Shabah," or "Ghost."

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ACCent on Safety



Even in a culture imbued with quality and embracing continuous improvement, we sometimes fall short of our goals. Such is the case with our mishap prevention efforts in relation to Flight and Ground Class A mishaps for FY 92. In weapons safety, however, we experienced a 4 percent reduction in Class A, B and C mishaps.

Our established flight safety goal for 1992 was to foster a culture of safety by maintaining the ACC and ACC-gained overall aircraft mishap rate below 2.0 and the ACC and ACC-gained command-controlled rate below 1.5. We failed to meet our goal in either category.

In ACC, we experienced 16 Class A mishaps, 10 of which were command-controlled, for an overall rate of 2.5 and a command-controlled rate of 1.6.

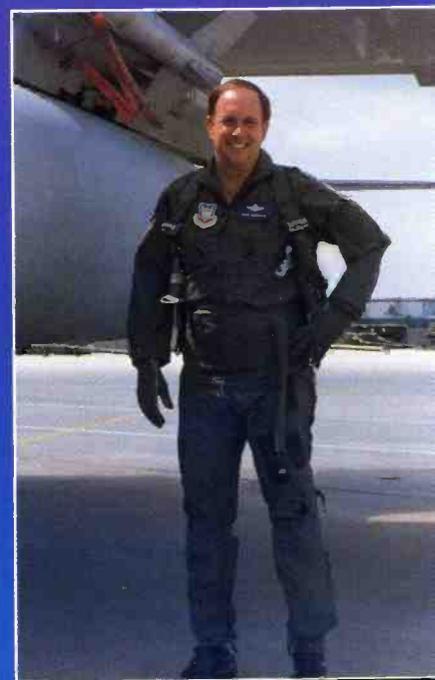
Our projected statistics for ACC-gained units also reflect an increase over last fiscal year. ACC-gained Air National Guard units experienced 12 Class A mishaps; 7 were command-controlled, which yields an overall rate of 4.9 and a command-controlled rate of 2.9. ACC-gained Air Force Reserve units had 4 Class A mishaps; 3 were command-controlled, for an overall rate of 7.8 and a command-controlled rate of 5.8.

When we aggregate the ACC and ACC-gained losses, we find that we had 32 Class A mishaps, 18 of which were command-controlled. However, even more tragic than the loss of 32 airplanes are the 16

fatalities that occurred. Sixteen fellow aviators and over a squadron of airplanes are no longer with us - we can do better. Command-controlled mishaps, ones that could have been prevented by ACC people, accounted for over half of our Class A losses and require increased attention and effort. We can gain significant benefits by applying our quality techniques to reducing the number of command-controlled mishaps. This area is ripe for improvement.

In the ground safety arena, we had 45 Class A and 11 Class B mishaps. Again, the most tragic aspect is that we experienced 36 fatalities (32 off duty), a 20 percent increase over last year's combined SAC/TAC total. Off-duty fatalities continue to be the area of greatest concern. We are constantly looking for better ways to stop off-duty fatalities, but we need your help.

Does not meeting our goals mean that we failed in our mission? No, it doesn't. It means that we didn't do as well as we wanted to. The goals are still valid and attainable and the quest is worthwhile. We have the quality tools, knowledge, desire and leadership support to improve. Can we obtain our goals this fiscal year? **YOU BET!** The upcoming holiday season gives us a perfect opportunity to show what we can do. Let's all work toward reducing mishaps through the "We Care" program this holiday season. In the air and on the ground -- we can do better!



Colonel Bodie R. Bodenheim
Chief of Safety



Safety & Combat Capability:



*Lieutenant General Martin J. Ryan, Jr.
Commander, 8 AF
Barksdale AFB LA*

Our new Air Force is generating a great deal of excitement, and for some, anxiety, as we undergo reorganization, SERBs, RIFs, VSI/SSB, "Feet on the ramp," retraining, "maintenance under ops," etc. And all of this change comes on the heels of our most visible success -- DESERT STORM. We proved we are the most capable Air Force in history. Our equipment is on the "leading edge of technology," our personnel the brightest, best educated and trained, and most motivated ever. We have built a combat capability which can literally reach out and exact very precise, very efficient crippling damage to an enemy anywhere in the world. That capability is the product of decades of successful planning, acquisition, recruiting, and training.

As for the future, cuts in our force structure will most assuredly continue to challenge us to get the most of every person, every aircraft, and every piece of equipment. The continued resizing of our forces will literally force us to expand the "envelope of risk" to extract still greater combat capability from each remaining person and system. There will be tremendous pressure and personal drive to expand your own capability. Each aircrew member will feel the need to fly a few more sorties, pull a few more G's, press a target a little farther, fly a little lower, farther, faster. Each maintainer will pick up the slack by working more often, working longer, working faster, and perhaps cutting some corners to get the job done. Each of you may begin to feel that you can do all this just as safely as you used to. Each of you may feel that the push for combat capability surely must require some reduction in safety -- after all that's what a little more risk means, or does it? These are all quite natural, professional responses to an increased workload. These may seem to be "correct", but are they? Can we afford to subject our valuable resources, i.e.,

Contradiction Or Key Ingredient?



people and equipment, to “unnecessary” risk?

Let’s turn to equipment -- both new and old. Much of our newly acquired equipment, subsystems as well as complete aircraft, have given us a tremendous increase in combat capability. We have better night capability, more precise weapons delivery, higher ingress/egress speeds, and unbelievable maneuverability. Our older systems have received many modifications which have improved their capability. And even in unmodified aircraft, our competitive juices flow to uphold the “old bird’s” reputation and show it still has the combat capability to keep up with the new systems. This competitiveness is what has given us the edge, it’s what drives us to operate at our limits and sometimes beyond. If we’re going to maintain our combat capability, we’ll have to use every bit of this new, and old, technology. However, attitudes such as “the equipment will take care of us” or “we’ve outgrown those antiquated safety rules” will eventually get you into trouble.

Our press for increased combat capability, particularly now that we are building a new, smaller, more efficient Air Force with sophisticated, “smart” airplanes, and “smart” weapons as well, seems to contradict our old safety standards and programs. We certainly can’t do both. **On the contrary!** Not only can we do both, i.e., operate safely and expand our combat capability, but the former is a key ingredient in having the latter. You simply cannot have a combat capability if you do not train and operate safely. In fact, perhaps a better name for our

Safety office is the Availability and Readiness office.

The willingness to take unnecessary risks on the job may also extend into the off-duty hours. Past history indicates that the biggest attack on the availability and readiness of our people is the off-duty environment. More people are injured or killed during off-duty activities than on-duty. You always hear about aircraft mishaps because they seem to attract more national news media attention, but you seldom hear about the airman who wrapped himself around a tree while attempting to take a curve too fast on a motorcycle, or about the individual who, after having consumed some alcoholic beverages, decided to go for a midnight swim with friends, only to never return. This waste of highly motivated, highly trained professionals is one that neither your unit nor this great Air Force can afford. Safety, that is Availability and Readiness, is undoubtedly the key ingredient in combat capability. With this in mind, here are five words that we can all use to ensure this key ingredient works:

(1) PEOPLE -- EMPOWERED TO SUCCEED in finding better ways to ensure Availability and Readiness of themselves, co-workers, equipment and aircraft. People need to be motivated to make this happen.

(2) MISSION -- For most of you it’s “on time -- on track -- on target.” For all of you, it’s Availabil-

WE CARE ABOUT YOU INITIATIVE

The first time many of you hear about the "We Care About You" initiative is when you receive a letter from your commander saying you have been placed in the program. Makes you believe the title right off the bat, doesn't it?

Well, that's not the way it's supposed to work; and we really want you to understand the program. The "We Care" program started in 1987 in what was known then as TAC, following an increase in off-duty fatalities. In fact, the number of fatalities resulting from off-duty traffic mishaps had increased 100 percent over the previous year. It was time to try something new, and the "We Care" program was conceived and developed to fill a critical need.

The program is designed to identify individuals that, for lack of a better description, fall into the category of "accidents waiting to happen." This doesn't mean that these people are poor workers,

lousy citizens or anything like that. It means that these folks are at greater risk for being involved in a mishap. What causes a person to be identified for the program? The most obvious examples are things like blatant disregard for safe working or driving practices, being involved in an alcohol/drug related mishap or incident, being assessed 6 or more traffic points within a 6-month period. In short, a person's behavior is the key identifier for entry into the "We Care" program. Some of the less obvious indicators are preoccupation due to emotional stress or change in behavior patterns like when "ole happy-go-lucky" turns into a "raging storm cloud."

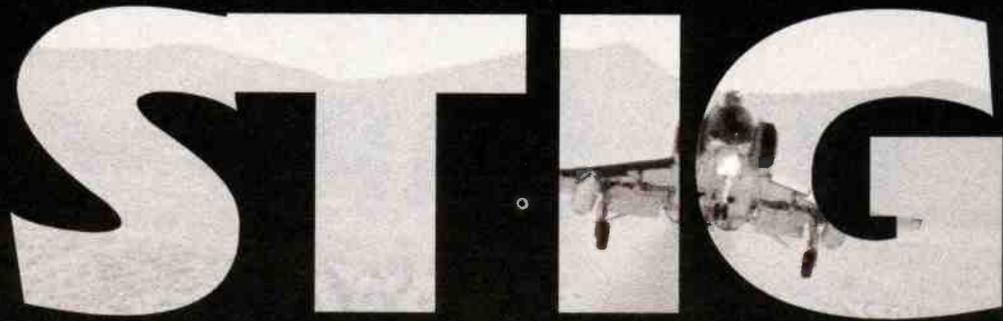
After an individual is identified for the program, they should receive counselling on the behavior or situations causing concern. This session should be used to explain the "We Care" program and may not be the time to formulate a plan of action. The key to the "We

A person's behavior is the key identifier for entry into the "We Care" program.

Care" program is the flexibility of actions available. Commanders are able to tailor the use of the program not only to the unit/mission needs, but to the needs of the individual concerned. Frankly, there are just too many possibilities to attempt to explain them all in this article. The main thing to remember is that the program is designed to provide guidance and assistance to individuals before "events" get out of hand and someone gets hurt or killed. "We Care" is a tool in the mishap prevention program which places responsibility on Commanders, First Sergeants and Supervisors to take care of their people. ■

*MSgt. James Kivell
HQ ACC/SEG
Langley AFB VA*

STIG



*Lt Col James D. Teigen
HQ ACC/SEF
Langley AFB VA*

THE HARDEST

The plane lay upside down, leaking JP-4. The engines were still so hot that you could feel the heat all the way out to the cordon we had set up.

The aircraft had sustained major damage; and yet, looking at it, "all" that was wrong was a bent vertical stabilizer, bent wing tip, and the canopies were damaged. Still, it was upside down, and getting it back on its gear would be a major undertaking. The wing commander got word to me to go to his office as he was going to call Headquarters and needed all the details.

The first question as I entered his office was: "Why didn't he take the barrier?" I could only shake my head and shrug my shoulders.

The initial interviews with the student and Runway Supervisory Unit (RSU) controllers helped to answer the nagging question of why wasn't the barrier used. The story unfolded along the following lines.

The solo student had some difficulties in the final turn, overshooting and just missed rolling out lined up with the center runway. Multiple go-arounds were directed by the RSU controller. As the flight continued, interest grew as to how was the solo student going to get the aircraft around the final

turn, line up and land before he ran out of gas. I'm sure those same thoughts were also running rampant in the student's mind.

The controller asked the student about his fuel state and received the chilling news, "800 pounds, on the go, request closed."

The controller began to give instructions to the student, talking him through downwind and corrections for the pattern winds which proved to be the student's biggest problem. This is where the plot thickens.

The RSU controller had a running commentary on the overall performance of the student's ride to date, and based on the fuel state and the need for instruction, was now convinced that if the student rolled out somewhere near final, to let him land. The student lived up to everyone's expectations.

The mishap final turn was one of those overshooting turns, where there was no way the aircraft was going to make it around within the prescribed ground track; and, of course, it didn't. The RSU controller was giving instructions and basically talking the student down. I'm sure visions of a "save" were bouncing around in the back of his mind.

The student, seeing the final turn extending was pushing the throttles up to compensate for any

MAS

THING TO KILL

airspeed he might have lost and to carry just a few extra knots to help get his jet aligned with the runway. The overshoot was almost to the center runway; and, as such, in hindsight, landing on the center runway may have solved everything. The student made corrections to realign with the outside runway, still carrying extra airspeed, "just in case."

The RSU knew the student was hot, but the alignment was looking better and the feeling was that the student would get it on the ground with this pattern. They allowed the student to continue. The mishap aircraft cleared the threshold with airspeed and altitude to spare.

The aim point drifted, and the aircraft began to flair, high and hot. The student had the throttles back into idle, and the jet floated well past the prime touchdown zone. The RSU controller hesitated a fraction of a second too long, hoping and praying that the student would get it on the ground. The jet finally settled to the runway, still too fast, and with too much runway behind him.

The student tried to aerobrake, and the aircraft began to become airborne. The RSU observer noted the "unauthorized flight" and reached for the microphone to talk to the student when the aircraft settled again to the runway and assumed a three point

stance. The student began to apply wheel braking. He didn't understand that with the excess airspeed, his braking efforts would not affect his jet the same way that it had on other rides. He quickly realized that the jet wasn't slowing down. Much to his amazement, the end of the runway was quickly approaching and he still had too much airspeed.

Somewhere in the student's thought process, the concept of taking the barrier was not an option. Whether this was taught in a formal context, in a classroom setting, or from a flightline "word-of-mouth" situation, the student knew that "bad" things would happen if he had to take the barrier. He applied his maximum effort toward applying the wheel brakes. In so doing, he blew both main tires in quick succession. He was still going way too fast.

With little concrete left in front of him and just a raised barrier followed by 1000 feet of overrun, he made a snap decision which continued the mishap chain of events. The student saw the high speed taxiway approaching on his left and with his aversion to taking the barrier, compounded by two flat tires, he chose the turnoff. He fed in left rudder with the nose wheel steering switch engaged. The aircraft shifted violently from its present direction to more of a sideways left drift and began to slide and

STIGMAS

The Hardest Thing To Kill

skid.

The gouge marks on the runway revealed that this condition didn't last very long before the aircraft literally began hopping sideways down the runway toward the threshold and raised barrier. On one of the hops the nose cleared the barrier webbing. The right main gear engaged the webbing and began to tangle up, raising the cable, and with the dynamics of the hop, wrapped the cable around the right main gear.

The cable resisted the efforts of the jet to continue to move. Holding onto the right main gear as the jet continued to hop, the cable caused the jet to pirouette, roll completely inverted and land upside down on its vertical stabilizer and canopy with damage to the right wing tip as it flopped over.

The student shut the engines down; and then without thinking, released his lap belt. He fell into a little heap, upside down in the canopy. Realizing there was no other way out, he used the canopy breaker tool and punched a small hole and crawled out. Later, we couldn't get his helmet out of the hole, but the human body is amazingly adaptable in times of high stress.

As I told this story to the guys here in the office, they said: "We don't have RSU's and stuff. How does that story relate to the aviators in Air Combat Command?"

The question never got answered as the old aviator leaned back and told a story of his one overrun experience in an A-7D, and how the sliding and hopping had brought back his own experiences at Nellis. He too had blown tires (but his episode involved a wet runway culminating in hitting the rubber build-up area on the runway) trying to stop and skidding sideways into the barrier. He stopped upright. He was lucky.

In just the past few months, ACC has had a significant number of aircraft off the runway for general reasons: judgement, landing long, landing hot, long/excessive flare, landing downwind, wet

runway, failure to use all available resources to stop - like using the tailhook, etc. The results were the same, each and every one of the scenarios resulted in significant damage. Some aircraft were a total loss.

In researching this article, I came across a unit which has taken the stigma away from taking a barrier. Rather than chiding the aircrew for making an arresting gear or barrier engagement, they cheer and herald him. For you see, they really know that if the beast can't stop in the confines of the runway, the best choice is to take the barrier. They actually plan for it, and it is foremost in each and everyone's mind that they can take the barrier. They know that each barrier engagement is one less Class A or B mishap, one less chance for losing an aircraft. There is no stigma attached to taking the barrier. That's the real lesson from this story.

Stigma is the hardest thing to kill. Perceptions, side comments, actions of others, bar talk about how someone "pulled it out in the nick of time," and commanders' comments/directives all form the basis for how each and every aviator flies his aircraft. To stop this reluctance for taking the barrier and to save our aircraft/aircrews, the stigma has to die from the top down. The ACC Commander has commented on ejection, that there is no stigma attached to leaping from a dying jet, so also there should not be a stigma attached to using the hook/taking the barrier. Rather, let's look upon this as a real aircraft save, as it is. We retain an aircraft and aircrew to go fly and fight another day. **Bottom Line:** Start planning today that if the situation arises, use the tailhook, plan to take the cable/barrier. Nothing is more wasted in aviation than altitude above you, airspeed you used to have, and RUNWAY BEHIND YOU.

Stigma is a hard thing to kill, so what are you going to do about it? ■

What's a NNMSB?

*Capt Mark A. Martin
HQ ACC/SEW
Langley AFB VA*

The importance of Air Force munitions safety certification cannot be over emphasized. We must know that an explosives item won't function when it's not supposed to and that it will function when needed. That's the purpose of the Air Force Nonnuclear Munitions Safety Board (NNMSB). Hopefully, every explosive munitions item you use in the Air Force has either been reviewed and approved by the NNMSB or it has been around so long that it received de facto approval.

The NNMSB was established in 1966 and has broad responsibility on munitions issues IAW AFR 127-16. It is the review authority and System Safety Group for almost all nonnuclear munitions used in the Air Force. In accomplishing its mission, the following is a partial list of NNMSB responsibilities:

- a. Review and establish design criteria.
- b. Provide guidance to program managers throughout the lifecycle of munitions programs.
- c. Maintain safety cognizance over all new or modified nonnuclear munitions used in the Air Force.
- d. Conduct a complete safety study and review of all new or modified nonnuclear munitions over which it has cognizance.

Along with the above, the NNMSB also maintains a liaison with other services and provides technical expertise on munitions issues when called upon.

The NNMSB is made up of experienced individuals who occupy key staff positions within their respective commands. The NNMSB meets several times a year to review new munitions items coming

into the inventory or to monitor the progress of those munitions items being developed for Air Force use. Sometimes the NNMSB is asked to review and approve an item that has been in use in the Air Force for some time, but has somehow slipped through the approval crack. This is where problems can occur.

For instance, items are sometimes purchased from another service or locally procured by a unit to fulfill a specific mission requirement. You may believe that a munitions item used by another service is certified for all services to use. Not true! Our safety requirements differ slightly from the other services. But, once the Air Force NNMSB reviews the safety aspects of a munitions item, you can feel comfortable that it's safe for use in our unique environments.

How do you know if a munitions item has received NNMSB approval? Well, if the item is Air Force stocklisted and appears in T.O. 11A-1-46, Firefighting Guidance, Transportation, and Storage, Management Data and Complete Round Chart, it's authorized for use in the Air Force. If you're using a munitions item that is not listed in either of the above, contact your Weapons Safety Office. Special permission must be received from the Air Force Safety Agency to use the item until it receives safety certification. AFR 127-100, para 2-7 provides guidance for these situations.

Hopefully, this little article provided you with some information about a process that is not well known at the unit level. If you have any questions about this process, take a look at AFR 127-16, Nonnuclear Munitions Safety Board. And remember...IYAAYAS... ■



Pilot Safety Award of Distinction

Colonel Snider was number two on a two-ship close air support mission at Fort Campbell, KY. As he was turning base position for a 30-degree dive bomb delivery, Col Snider's aircraft experienced a series of engine compressor stalls that rapidly progressed to an engine stagnation. While attempting to clear the stalls, Col Snider noted increasing engine temperature, decreasing RPM and lack of engine response to throttle movement. He immediately turned toward Fort Campbell Army Air Field, 13 miles to the east, and began his flameout approach from 11,000 feet. At the same time, he accomplished the appropriate critical action procedures, jettisoned his centerline tank, and shut down the engine to clear the stagnation. While attempting an engine air start in backup fuel control (BUC), Col



*Colonel Dale K. Snider, Jr.
Commander, 181 TFG
Hulman RAP (ANG)
Terre Haute, IN*

Snider maneuvered his aircraft toward the nearest runway. His wingman, unable to contact Col Snider since the engine was shut down, informed Fort Campbell tower of the emergency and of the impending flameout landing. Even while working on the tedious BUC airstart procedure, requiring slow and methodical throttle movement to reach usable thrust, Col Snider

maintained optimum airspeed to stretch his glide for a flameout landing with little margin for error. Turning a 3/4 mile final for runway 04, he delivered his full concentration to landing the aircraft. Delaying his gear extension until short final, Col Snider landed 500 feet down the runway at 165 knots with a 15 knot tailwind. The left main tire blew during braking action, but he maintained directional control and stopped the aircraft on the centerline. Col Snider then shut down the engine which was operating in BUC idle and ground egressed. The entire emergency procedure, from the compressor stall to stopping on the runway took less than two minutes. Col Snider saved a valuable combat aircraft in a most demanding situation by exhibiting superior flying skills and judgement.

Aircrew Safety Award of Distinction



On 15 June 1992, Captains Bellinger and Face were taking off for a local area instrument mission. At approximately 170 KIAS during takeoff roll, Captain Bellinger noticed a puff of smoke in the front cockpit followed by



*Captain Clyde T. Bellinger
9 FS, 49 FW
Holloman AFB NM*

fumes that burned his eyes. Captain Bellinger quickly called for both crewmembers to go to 100 percent oxygen. As they were doing this, Captain Bellinger noticed that the fire and overheat lights for the right engine were both illuminated. He immediately performed the required boldface and continued the takeoff. Once airborne, the crew retarded the throttle to idle and shutdown the engine IAW the checklist. The overheat light immediately went out, however the fire light stayed on another 10 minutes. While burning down gas, the crew had a chase aircraft look them over. The chase saw nothing abnormal. The crew then performed an uneventful single engine ILS approach and shutdown in the dearm area.

Inspection of the engine showed that there had been a serious oil fire on the right engine which could

have quickly resulted in an uncontrollable fire and ejection. The timely and professional actions of Captains Bellinger and Face in handling this serious emergency prevented the loss of an aircraft and its crew.



*Captain Steven M. Face
9 FS, 49 FW
Holloman AFB NM*



Flightline Safety Award of Distinction

On 2 March 1992, TSgt Rodney L. Smith saved a valuable A-10A aircraft, personnel, and the fuel system repair facility from impending destruction. Upon completion of a job on aircraft 80-0235, he was on the right wing inventorying his tools. Suddenly, he was distracted by a droplight that had somehow fallen from inside the open fuel cell cavity, shattered and triggered a fire in the fuel-puddled drip pan under the aircraft. Without hesitation, he descended from the aircraft,



instinctively grabbed the burning drip pan with his bare hands, and pulled it clear of the aircraft. It was too late though, because at this point, the underside of the aircraft, as well as the floor, was engulfed in flames. He ran into the office and yelled, "Fire in the hangar," ran back to the burning aircraft with a fire extinguisher and began fighting the fire. Under his direction, five other fuel system specialists soon began assisting. Within minutes they had the fire under control and be-

gan breathing a sigh of relief, when TSgt Smith noticed flames blazing through the open fuel cavity on top of the aircraft. He quickly as-



*TSgt Rodney L. Smith
355 CRS, 355 FW
Davis-Monthan AB AZ*

cended the B-1 stand on the right wing of the aircraft and doused the fire. The fire was completely out by the time the fire department arrived. Had it not been for Sergeant Smith's swift actions, grave damage would have resulted to a valuable aircraft and one of only two base fuel cell repair facilities may have been destroyed.

Crew Chief Excellence Award



*SSgt Ricky A. Kaarstad
155 CAMS, 155 TRG
Lincoln MAP (ANG)
Lincoln NE*

While SSgt Kaarstad was performing an end-of-runway inspection of an RF-4C, he noticed the #1 engine fuel control was vibrating slightly as he looked up in the left auxiliary air door. Sgt Kaarstad installed the auxiliary air door strut so he could insert his hand in the door to investigate. He discovered both the fuel control and the

rear gear box hinge bracket, which secures the fuel control, were so loose he could easily move them with his hand. Sgt Kaarstad immediately informed the aircrew and they returned to the parking ramp. The follow-up investigation by the engine shop revealed that the dowel pins which secure the fuel control hinge bracket to the rear gear box had rounded out their mounting holes and were no longer able to secure the fuel control. Had this situation gone undetected, a fuel line could have ruptured causing an instant, catastrophic fire resulting in the potential loss of both aircraft and crew. Sgt Kaarstad clearly ex-

ceeded the requirements of the End of Runway Checklist to find this discrepancy, since the auxiliary air door area is not a required inspection item. For his professionalism and willingness to go beyond what is expected, Sgt Kaarstad is highly deserving of this award. His actions depict what a quality culture is all about and the kind of benefits we reap from its existence.





Niagara Falls



AF 80 547

EJECTOR SEAT

B. J. '02



NIAGARA FALLS

136th FIS

RESCUE



Unit Safety Award of Distinction

Purpose: Recognizes a unit (squadron-level and below) for sustained performance or a one-time act in preventing mishaps that do not fit the criteria for other safety awards.

Eligibility: All ACC-active and ACC-gained units.

Selection Criteria: The unit must identify significant contributions to mishap prevention through a one-time act or sustained performance. Contributors in any area and all categories will be considered: flight/ground/weapons safety, maintenance, custodial, medical, operations, information systems, etc.

**YOUR unit could have
been featured here!**

Ground Safety Individual Award of Distinction



Purpose: Honors an individual for sustained performance or a one-time act in preventing mishaps that **do not** fit the criteria for other safety awards.

Eligibility: All ACC-active and ACC-gained members.

Selection Criteria: Selectee must have displayed skill and ingenuity beyond normal levels of performance through sustained superior performance such as developing and implementing a new policy, program, or idea to enhance the quality and effectiveness of the unit mishap prevention program. One-time acts, other than those that qualify an individual for the Crew Chief or Flightline Award, which prevent mishaps or protect resources will also be considered. Contributors in any area and in all categories will be considered.

**Some deserving individual
or team could have been
featured here!**



Weapons Safety Award of Distinction

Purpose: Honors people who make exceptional contributions to weapons safety.

Eligibility: All ACC-active and ACC-gained members.

Selection Criteria: Selectee must have displayed skill and ingenuity beyond that usually expected with similar training and experience during an emergency or unusual situation, or when their foresight and prompt, decisive action results in detection and elimination of a potentially serious or costly weapons mishap.

**Does someone under
your supervision deserve
to be featured here?**

Fleagle

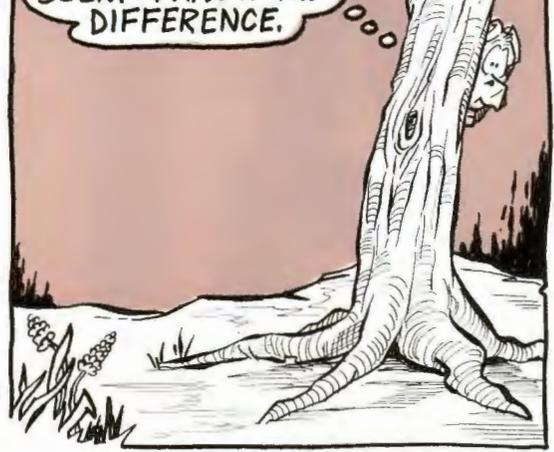
I'M GONNA DO MY BEST THIS THANKSGIVING TO NOT LET TH'FACT...



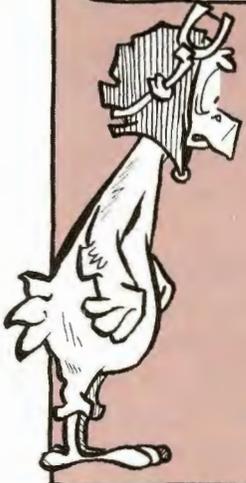
THAT I'M OF TH'WHITE MEAT AND FEATHER'S SET, WORRY ME.



EVEN THOUGH I'M NOT A TURKEY, THERE ARE A FEW OUT THERE THAT DON'T SEEM T'KNOW THE DIFFERENCE.



MOLE, HAVE YOU SEEN TINY?



HE'S HIDING.



HIDING? WHY?



IT'S THANKSGIVING.

I THOUGHT I WUZ TH'ONLY ONE WHO FELT THAT WAY.



YOU MEAN AS BIG AS THAT RASCAL IS, THERE'S STILL SUMPIN' HE'S SCARED OF?



YEP.



THINK OF IT. HOW WOULD YOU FEEL THIS TIME OF THE YEAR IF YOUR THIGHS AND DRUMSTICKS WAS TH'SIZE OF HIS?



ATTITUDE

*MSgt James Kivell
HQ ACC/SEG
Langley AFB VA*

As a rule, mishaps do not merely happen. They are caused by someone who did not think it could happen to them. Of course, in some cases an individual is hurt by the carelessness of someone else, like the innocent worker who is injured by a piece of equipment which fails because it was improperly installed. However, these cases are rare in comparison with the injuries individuals cause by their own negligence. The actual focal point for establishing truly effective safe working practices is in the worker's attitude. **SAFETY IS AN ATTITUDE!**

Until the entire supervisory force and each individual worker look upon safety as his or her individual responsibility, needless mishaps will continue to occur. A "Safety Mindset" is only achievable when the responsibility for safety is equally shared by both the individual and the group. When an entire squadron manifests this type of safety attitude, the mishap record will speak for itself.

The pattern for practicing safety must be set by the supervisor. When the supervisor performs any task in an unsafe manner, subordinates will automatically assume that they may also take "short-cuts" in the tasks that they perform. One such incident could very easily destroy the whole shop safety program.

Start new personnel in the work center with a safety-oriented attitude. Always ensure that new workers are introduced to the work center and their new associates in a manner which establishes them as an addition to the unit, not a strain on already

taxed resources. Remember, attitudes are formed from the first impression onward, and poor starts are hard to overcome. Special responsibility is placed on the supervisor to ensure that new workers receive careful instruction on safe work practices. New workers tend to have a high rate of mishaps despite their eagerness to learn and their willingness to observe safety regulations. Most mishaps that new workers are involved in are due to their lack of skill and awkwardness, but many can be traced to improper training.

A new worker's attitude toward performing tasks safely will be acquired from observing his or her supervisor and fellow workers' performance of tasks. If the shop is "Safety Minded" the new worker will develop the same attitude. It doesn't require any special steps or procedures to train personnel to perform their jobs safely; all it requires is the proper attitude toward doing the job right. Of course, the trainer should identify any steps in a procedure that are only performed for safety purposes, such as setting up warning signs to inform passers-by of an open manhole. By identifying these steps to a trainee, the supervisor/trainer can ensure that the trainee understands the reason that the additional task is performed. Thorough understanding of a task, or a step, is the best method of ensuring safe accomplishment by workers.

Mishap prevention mainly depends upon the safety attitude of the supervisor and worker. Remember - Safety is Everybody's Business. ■

Safety Professional Spotlight



*Janet Gaines
Editorial Assistant
The Combat Edge*

Remember one of the most quoted parts of Shakespeare's play, *As You Like It*? "All the world's a stage and all the men and women merely players...they have their exits and their entrances, and one man in his time plays many parts."

Janet Gaines made her entrance onto the safety stage in August 1987 and has truly played many parts; delivering stellar performances in each and every role. Ostensibly, Janet has been the Editorial Assistant for the last 5 years. However, describing Janet as an "Editorial Assistant" is akin to describing Mary Lou Retton as a "gymnast." Both descriptions are correct; but they belie the true depth of character, pursuit of excellence and dedication to quality exemplified by them as they played their parts on stage.

As the Editorial Assistant, Janet was responsible for magazine dis-

tribution, author recognition, production schedules, and proofreading of draft articles, galleys and camera-ready flats. Her management of the distribution data base and production schedule has guaranteed that over 21,000 copies of *The Combat Edge* reach our readers every month -- on time and in the quantity required to satisfy customer needs. She initiated an article tracking system that provides contributing authors with accurate and timely updates on the status of their articles. Janet ensured that authors received the attention and recognition they deserved which led to more contributors -- the life blood of a magazine that depends on voluntary author contributions for material to publish.

In addition to her role as the Editorial Assistant, Janet was the command safety awards coordinator -- her starring role on the safety stage. Every monthly, quarterly and annual safety award winner owes Janet Gaines a debt of gratitude. Without her, the awards program would not have existed, let alone grown into the comprehensive program in place today. For the

last 5 years she has directly contributed to every Air Force-level safety award the command has won. During her Awards Coordinator tenure, the command won every major Air Force award at least once and repeated as winners of the Koren Kollegian Jr. Trophy and Chief of Staff Special Achievement Award.

Most recently, Janet spearheaded the safety awards Quality Improvement Team that developed the Air Combat Command safety awards program. Her innate abilities as a team leader coupled with her intimate knowledge of awards and the quality process produced an awards program that encompasses all the diverse functional areas of the command. She blended the best of two former awards programs into one that is unique to Air Combat Command and rates second to none. Janet has guaranteed that ACC quality performers will continue to be recognized in a timely, first-class manner.

This star's persistence, fortitude and dedication secured her a leading role in our safety culture. However, as with every performance, there is a beginning and an end. As Janet leaves for her new position with 1 FW/PA, we bid her farewell with a standing ovation for a job well done.

Advanced Instrument

Maj Paul M. Wolf
329 CCTS/DOI
Castle AFB CA

*Editor's Note: Advanced Instrument Flight Course (AIFC) articles may appear in both **The Combat Edge** and **Mobility Forum** magazines. In the interest of mishap prevention through information, both magazine staffs have agreed to publish AIFC articles as applicable. To the readers of both magazines, we apologize for the redundancy. Our objective is to provide safety information to the largest possible audience. "War won't wait for a sunny day."*

- Ed.

On 1 June 1992, several simultaneous changes took place throughout the Air Force. One that is important to all Air Force pilots was the incorporation of the SAC Instrument Flight Course (SIFC) into Air Combat Command. SIFC became the Advanced Instrument Flight Course (AIFC) at Castle AFB.

Those of you who were flying over a decade ago may remember the USAF Instrument Pilot Instructor School (IPIS). It was an institution devoted to producing experts in instrument flight through academic, simulator, and in-flight instruction. In 1979, due to budget constraints, IPIS closed. Not long afterwards, senior Air Force leaders became concerned when evaluation trends showed a decrease in instrument knowledge. This concern peaked when several aircraft mishaps and incidents were attributed to a lack of instrument knowledge. In 1982, CINCSAC opened the SAC Instrument Flight Course.

The threefold mission of SIFC remains unchanged for AIFC:

- To increase combat capability by reducing aircraft mishaps through increased instrument knowledge.
- To provide a central point of contact and coordination (within the Air Force) for all instrument matters.
- To provide graduates to act as unit-level instrument focal points for both aircrews and the wing staff.

A year after SIFC opened, the Instrument Flight Center (IFC) at Randolph AFB reopened. Their charter makes them responsible for flight standards and aeronautical services as they apply to instrument criteria, procedures, training, and directives for the Air Force. However, they do not train Air

Flight Course

Force pilots.

The advanced Instrument Flight Course is a 13-day fire hose approach to making you the squadron "Shell answer man" for instrument flight. In fact, AIFC is the only school in the Department of Defense offering an advanced instrument education. The blast of information comes through 85 hours of academic instruction and 11 hours of simulators. It covers the entire gamut of instrument flight; from a basics refresher to advanced approach breakdowns, ICAO international procedures, ALTRV's, low visibility landing, and windshear. These are just 6 of the 23 academic subjects covered in the course.

AIFC teaches graduate level instrument procedures, techniques and information designed to expand instrument understanding and, therefore, safety. We graduate 156 pilots from ACC, AMC (Airlift as well as Tanker), ANG, and AFRES annually. The AIFC perspective is from the cockpit; and with a maximum of 12 students per class, student participation is strongly encouraged in all classes. The course provides a continual application of precision instrument flying based on simple formulas. These are applied to virtually every phase of flight, to give each future instructor some tricks of the trade that are teachable, so they will not have to rely on TLAR or quotes like, "You'll get the hang of it." Graduates are expected to return to their units and spread the knowledge. Closing the loop on this training requires getting information out to the fliers at the unit through any means possible; prebriefs, inflight pointers, hangar flying or the Instrument Refresher Course.

Currently the AIFC staff consists of 7 senior

instructors from B-52 and KC-135 aircraft with combined flight time of over 20,000 hours total and nearly 10,000 hours instructor time. Their aviation backgrounds include T-37, OV-10, T-38, B-52 and KC-135 aircraft. The instructors are: Lt Col Doug Munhall, Majors Tom Sapp and Paul Wolf, Captains Dan Charchian, Jeff King, Bill Schlecht and Craig Sutton.

A majority of their instructor time comes from CCTS and UPT while several have civilian flying credentials (Commercial and Air Transport ratings). The staff gains its technical expertise by attending seminars on subjects such as windshear and maintaining graduates of the USAF Terps Course, Airspace Management Course, and the Altitude Reservation Course.

AIFC is the central point of contact for Air Force instrument matters to ensure no conflict of policy is set or evaluated. We confer with the IFC at Randolph for clarification on instrument guidance or procedures set forth. The IFC makes the policy, we teach it. The staff and students are constantly discussing the finer points of AFM 51-37, AFR 60-16 or even FAAH 7110.65. AIFC instructors are always ready to answer your questions or solve an instrument problem. If we can't answer the question for you, we'll find someone who can. Please call us at DSN 347-4571.

Keep your crosscheck on *The Combat Edge* and *The Mobility Forum* for future articles. AIFC is here to serve your instrument needs: getting you to the target; making the delivery and getting home safely; no matter what the weather. War won't wait for a sunny day. Fly safe, fly smart. ■

MAKE YOUR TIME



The 12 aircraft, 2 squadron strike was planned and briefed under Weapons School guidance in accordance with established standard operating procedures (SOP). The scenario dictated a weather ceiling of 5,000 feet driving tactics to opposing axes of attack laydown and pop-up deliveries.

A multi-axis division flow through the target was deconflicted by time, as indicated by figure 1. The 4-ship adversary flight briefed air combat training rules and the Weapons School observer highlighted previous lessons learned. The mission lead (# 1 in Green Division) was a division lead qualified lieutenant. In addition, an AIRWING qualified strike lead was leading the Red Division.

Man up (step to the jets and preflight) was normal. The taxi, arming and takeoff flow proceeded as briefed. Approaching the runway for takeoff, mission lead was informed by the area controllers that a portion of the previously issued area clearance was canceled. Mission lead acknowledged the change and the strike aircraft departed.

En route to the rendezvous point, mission lead

(Green Division) negotiated for the original clearance without success. Faced with a 16 mile loss of the initial low level route for both Green and Blue Division routes, mission lead recalculated a new push time. However, he was convinced by a more senior member of the flight that the new push time should be based on a 24 mile loss of low level route. Green Division pushed on its new time based on a 24 mile correction with Blue Division in trail as briefed. Red Division pushed to make its original TOT. Along the low level route, mission lead calculated he would be 30 seconds late from his TOT but felt there was still adequate target deconfliction since a 1 minute and 30 seconds delay between Blue and Red Divisions had been built into the original target area planning. Revised time,

ME ON TARGET



C.R. Rondestvedt
Commanding Officer
Strike Fighter Squadron 22

however, was based on a 24 mile correction, not the actual 16 mile ground track. Consequently, Green Division arrived on target 1 minute and 30 seconds late and egressed. Blue Division was 1 minute in trail of Green Division and arrived on target simultaneously with Red Division.

A Weapon School observer was holding over the target at 5,000 feet. Another Hornet was also holding over the target at 11,000 feet to observe the strike and utilize post strike target time. The following observations were made from reference to VTR tape of the high Hornet.

- 1325:00 PLANNED TIME ON TARGET. NO AIRCRAFT IN SIGHT.
- 1326:00 SHADOWS SIGHTED. GREEN DIVISION AIRCRAFT ACQUIRED.
- 1326:30 FIRST GREEN AIRCRAFT POPS. NEAR MISS BETWEEN GREEN 2 AND GREEN 3 AVOIDED BY APPARENT PILOT MANEUVERS.
- 1327:00 GREEN DIVISION EGRESSES. BLUE DIVISION ACQUIRED.

- 1327:30 FIRST AIRCRAFT OF BLUE DIVISION POPS. SCAN OF TARGET AREA PICKS UP RED DIVISION AT POP POINT. EIGHT PLANE FLY THROUGH FOLLOWS. NO ABORT CALLS MADE. FOUR AIRCRAFT DID NOT DROP WEAPONS.

The debrief mood was somber. This strike occurred at the end of 9 days of concentrated weapons

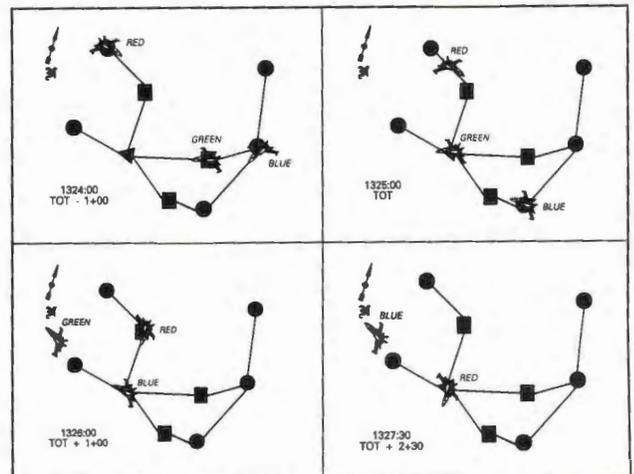


FIGURE 1

training. Similar tactics had been executed before without incident. The ensuing discussion centered around several areas.

The cardinal rule is to make your time on target. The FA-18's system is designed and optimized for it. Flight crews were briefed to be on time. Mission lead's attempt to recalculate push times left open the chance for confusion to become a factor, and it did. A distance of 24 miles was used in calculations instead of 16 miles. Mission lead's section leader, a senior officer, insisted on the incorrect distance and concurred with the new push time. Red Division pushed to make their target time while Green and Blue Divisions pushed on the new push time.

Mutual support within a strike package includes letting mission lead know if something is amiss. Blue Division lead wanted to push to make his TOT but instead adhered to the briefed flow and remained 4 NM in trail of Green Division. Blue Division lead did not advise mission lead of the potential problem and nothing was said by any strike member.

The Weapon School observer noticed impending disaster too late to call an abort. Concentrating on Blue Division, he noticed Red Division only when it entered the target area. Abort was not called for

fear that it would distract pilots already evading one another.

Lessons learned, always in hindsight, followed easily.

Make your time on target as briefed or modified. If you can't make it due to weather or enemy weapon system avoidance, abort or follow the planned and briefed backup. Make this a squadron tactical SOP item.

Speak up if you feel an unsafe situation is developing. Don't wait until a dangerous situation has fully developed to say something.

The senior member in a flight, led by a junior officer, needs to be aware that a recommendation may be taken as direction.

If a planned strike utilizing opposite axis strike elements is greater than 30 seconds late to the target, the Weapon School observer should abort the mission and re-set the profile.

In a strike utilizing opposite axis strike elements, observers need to pick up the ingressing element, clear the opposing strike axis and then evaluate battle area tactics and hits.

The lesson learned from this incident is important enough for every tactical pilot to take onboard.

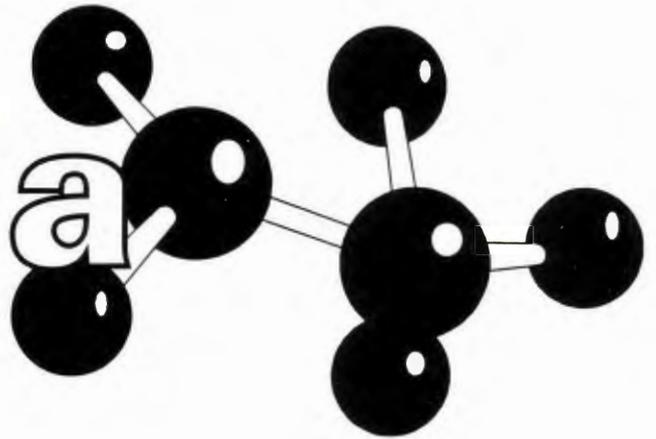
MAKE YOUR TIME ON TARGET!! ■

GET IT?

The Combat Edge is six months old as the November issue hits the streets. Your magazine staff is thoroughly enjoying the new and unique challenges experienced with each issue. We hope you sense this enthusiasm, but more importantly, we hope the safety messages are coming through loud and clear.

The distribution of the magazine is in a continuous state of flux. Unit deactivations, ship decommissionings, contractor changeovers and base closures (including the unforeseen event at Homestead AFB) all have impacted our efforts to get good info to the right people at the right place. For the most part you have done a great job in keeping us informed, BUT... I know we are still a long way from 100% distribution accuracy. As the bases begin to implement new street addresses and zip + 4 codes and if you receive your copies via the US Postal Service, you need to inform us as quickly as possible of these changes. Please avoid using personal names in your addresses when in reality the position or office dictates the requirement. PCS's, transfers, retirements, etc. can cause unnecessary refusal or forwarding and someone who has a valid need for *The Combat Edge* won't receive it. An AF Form 764a, a letter or even a phone call will enable us to update your address listing. Our telephone number is (804) 764-3658 (DSN 574-3658) and someone is here between 0700-1700 ET.

Safety Formula



*Lt Col Hans G. Stoll
552 ACW/SE
Tinker AFB OK*

Safety is the framework that relates mission to regulations and tech order guidance in order to ensure success. It is an uncompromising awareness of ACC standards. It is such an ingrained part of our culture that we make safety happen in the way we do our job and conduct our off-duty activities.

This definition of safety represents a carefully balanced formula for mission success. If followed, the end result will be fewer mishaps both in the workplace and at home as we continue to strive for quality in everything we do. There are three important elements or parts to this safety equation. Decrease the value of any one factor and the overall value of the outcome, safety, decreases.

The first factor is "relating mission to regulations and tech order guidance." Everyone agrees that if regulations, tech orders and checklists were followed to the letter all the time, the number of mishaps would decrease. People who take shortcuts or try to do things from memory endanger not only themselves but their coworkers and the mission. This applies even at home, where we set the tone for our families by reading and using the instruction manuals for those lawn mowers, chain

saws and kitchen appliances. Let's be safety advocates in our homes and while engaging in off-duty activities as well as on the job.

The second important element is the "uncompromising awareness of ACC standards." Empowerment, trust, teamwork, professionalism, and a total commitment to quality are examples. Our people must understand that they have the responsibility to apply these standards to their jobs. The result -- increased job satisfaction, mission effectiveness and ultimately, SAFETY.

The last and perhaps most important part of the equation is to make safety "an ingrained part of our culture." Our goal is to reach that point where we take the necessary precautions before and during a job, accomplish tasks correctly the first time and embrace safety without even having to think about it. Then we will be on the road to success.

The challenge for each one of us is to incorporate these three elements of the ULTIMATE SAFETY SUCCESS FORMULA into everything we do.



RESPONSIBILITY

*Capt Matt Phillips
965 AWACS Squadron
Tinker AFB OK*

When I was in copilot training, I remember asking my instructor, "What's the difference between me and that guy sitting in the left seat?" The instructor pilot's sardonic reply was, "Not much, just responsibility." In that one word, "responsibility," aircraft commanders are duly tasked to make certain that all air operations are conducted in a safe manner. An aircraft commander's job is made easier in our aircraft by other flight crewmembers who are also tasked with ensuring that the mission is accomplished safely. Sound judgement, cockpit communication, and thorough training are fundamental elements of flight safety, especially when considering the diverse scope of military operations involving AWACS. I can think of no other aspect of flying that requires more sound judgement, crew discipline, and training than final approach, transitioning to land, and touchdown. Recently, the Air Force had a number of aircraft mishaps resulting from breakdowns in communication, complacency, the halo effect, copilot syndrome, and improper crew actions during the final approach phase of flight. Because of this, no matter what conditions prevail (fatigue, task saturation, personality conflicts with other crew members), all flight crewmembers must be vigilant and attentive during the final approach. Above all, keep the lines of communication open, and use those lines to communicate to the pilot flying the need for a go-around.

Putting an aircraft safely on the ground takes thorough planning and knowing what to expect. This begins with a complete approach and weather briefing. I have found myself, unfortunately, skipping aspects of both in briefing approaches to crews, especially after long flights recovering to familiar

airfields. Occasionally, the unexpected happens causing us to rely on habit patterns and experience. However, good crew briefings are the basis of the game plan from which the crew may have to deviate in solving problems. Flexibility is good and necessary, but you'll want to get back to the briefed game plan ASAP.

Once an approach has been started, the criteria concerning when to land or go-around is a subjective decision. I have found myself in situations where it would have probably been smart to initiate a go-around but elected not to. Was it a smart decision? I don't know; we landed successfully. My rhetorical answer is not sufficient. Landing safely is the ultimate goal, but how it was achieved is also important. If an approach to landing does not look right, feel right, or seem right, then maybe it's time to go-around, analyze it, and try again.

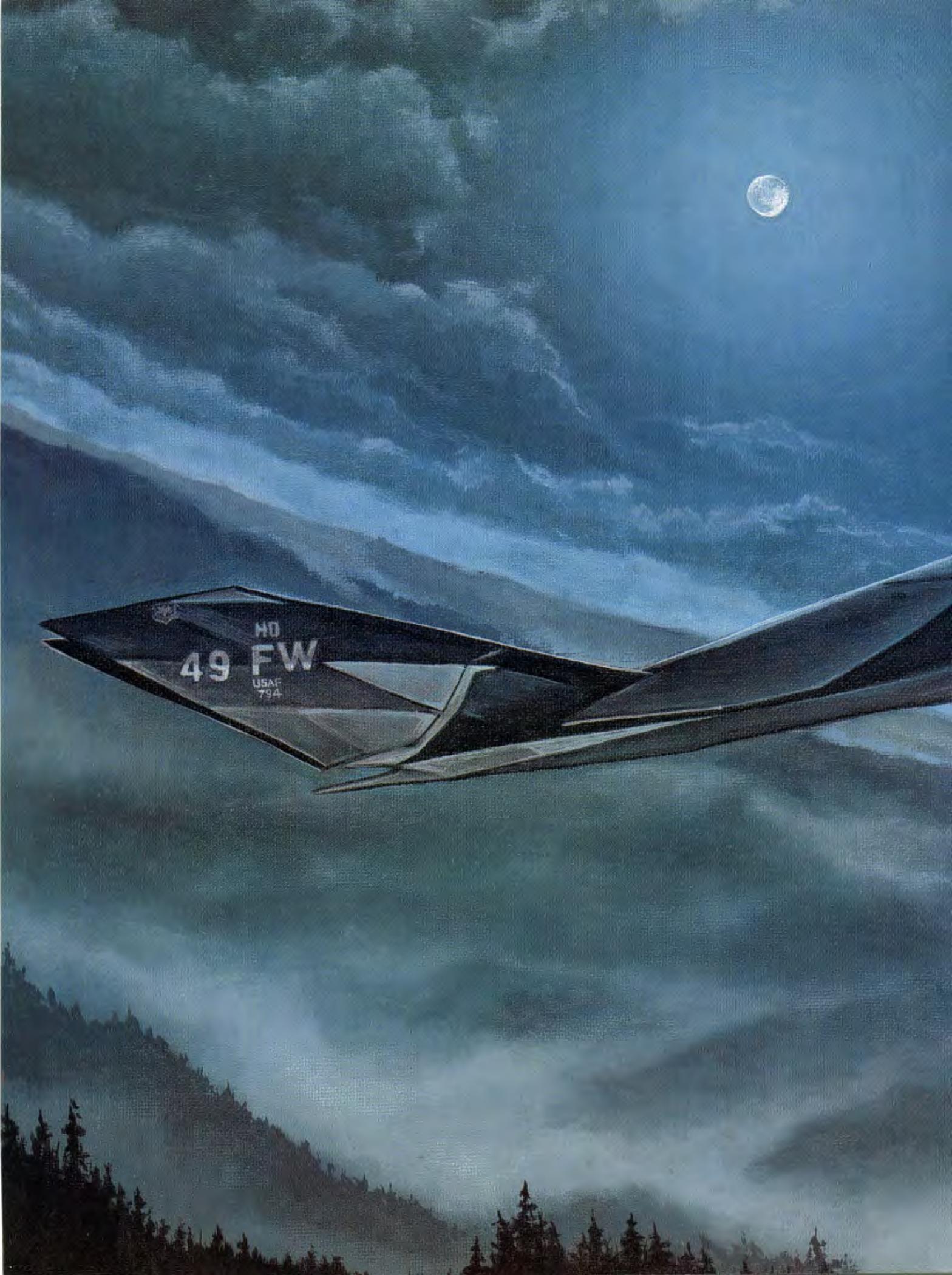
On approach, what might feel right to one pilot may look strange or dangerous to another. If this is the case, question the rationale for continuing or direct a go-around. Instrument approach procedures give guidelines on missed approach procedures, but it is the pilots who must make the conscious decision to use those procedures. Because the pilot's focus is to land, the need to "get the plane on the pavement" can cloud and overrule the judgement needed to initiate a go-around. Other crewmembers can help by providing the pilots with timely and relevant inputs. The Nav or FE may be the first to recognize the onset of a dangerous wind shear or other unsafe condition. Their inputs may be required to alert the pilots to danger before it is too late.

It takes dedicated and disciplined crew members who are skilled and practiced in functioning as a



team to accomplish the mission safely. The aircraft commander may have the ultimate responsibility in directing this team, but the team also has a responsibility to the aircraft commander. Be alert to problems as they develop, question deviations, and recommend corrective actions. Overall we're pretty good at what we do because we train as teams. Our excellent safety record is our report card.

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