Our 50th Year

flying SAFETY

MAY 1994

THERE I WAS

In This Issue...

We have selected some of our better "There I Was" stories for you to read. We hope they will spark a discussion wherever aviators gather to talk about flying. Some of these stories go back quite a few years, so please look past those things we no longer do or organizations which no longer exist. Each story was selected because the message it contains is still applicable to today's operations.

Each of the authors in this issue have given us a gift — they've taken the time to tell us about a personal experience which made them more capable aviators.

We are given the benefit of their experiences without having to endure their humiliation, pain, or fear. As we read their stories, we make judgments about our own abilities — could we prevent the same mistake or "fly the jet" in the same situation?

But the authors have gained something too. They take solace in knowing their fellow aviators gained from their misfortunes — their stories (and they in a sense) have become immortal. It doesn't matter what kind of aircraft you're in when you have a "momentary loss of judgment" or you miss a checklist item — both have a potential for disaster.

Passing on our experiences to fellow aviators needs to be a part of the "Air Force safety culture" as much as crew resource management training for aircrews and stressing the use of tech orders to perform quality maintenance. The "essence" of the stories in this issue represents some of the risk we incur in operating Air Force aircraft. By passing on your "There I Was," we all benefit from your experience — you help to lower the risks for all who are a part of Air Force aviation.

Commanders, we need you to encourage your people to share their experiences and allow us to pass them on to your aviators and maintainers so others are not doomed to repeat the same mistakes. If you set the example, your people will follow.

So, I'm asking every flying squadron commander to get with their safety officers and NCOs to make sure we get at least one flying and maintenance "There I Was" story once a year. Have your people put it in their program notebooks as a checklist item reminder. The more stories we get, the more we will print. In the end, we'll all be a lot smarter.

We know you are busy taking care of your people and successfully executing important missions around the world.

Let us help you.

–The Ed.

Our 50th Year

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THERE I WAS

■ It was the mishap pilot's first sortie in theater after an extended TDY to Nellis ... That's how the mishap report would have started, though I don't think it would have had any relevance. The sortie was pretty standard.

Gas-n-go to Wainfleet and Cowden. Weather was English standard — good enough to try, but not good enough to work. So pretty soon Cobra flight found itself on the usual European profile — BFM (basic fighter maneuver) backup above the weather.

Owing to the fact it was one of two backup missions, the profile was pretty simple — HATF, fighting wing, 5-7,000-foot perch setups, 3,000-foot gun jinks, and a couple of high aspect neutral fights. Everything was going pretty smoothly, if rather uninspired, until the second 5-7,000-foot perch.

I was offensive and took the shot at approximately 7,000 feet. "Two" breaks for the missile and climbs a bit. I lag, stay level, and maintain energy for my corner velocity turning pull into his six when I see Two reverse.

Unsure, I continue for his six and watch him reverse again. Finally, I recognize a scissors developing. We end up with a horizontal multiplane scissors with Two above me. I let this go for two more reversals and then wonder about a terminate (hint) when I see Two gaining an advantage. I continue, figuring only a "wuss" would quit now.

Two sees an opportunity and tries pulling down to my six. I go down as well to defeat that and then decide to change the game as I have plenty of energy (280+ knots) and bring my nose into the vertical. Realizing the imminent loss of airspeed (and nose authority) would not be good in this situation, I roll onto my back and pull to level. Unfortunately, your opponent isn't always predictable. He had started back down again.

As I saw an enormous A-10 at 500 feet or less (who can judge in such an instant?) growing rapidly closer in my sight, I heard Two yelling "Pull" as I, less descriptively, began blathering "Knock it off" over Eastern's frequency.

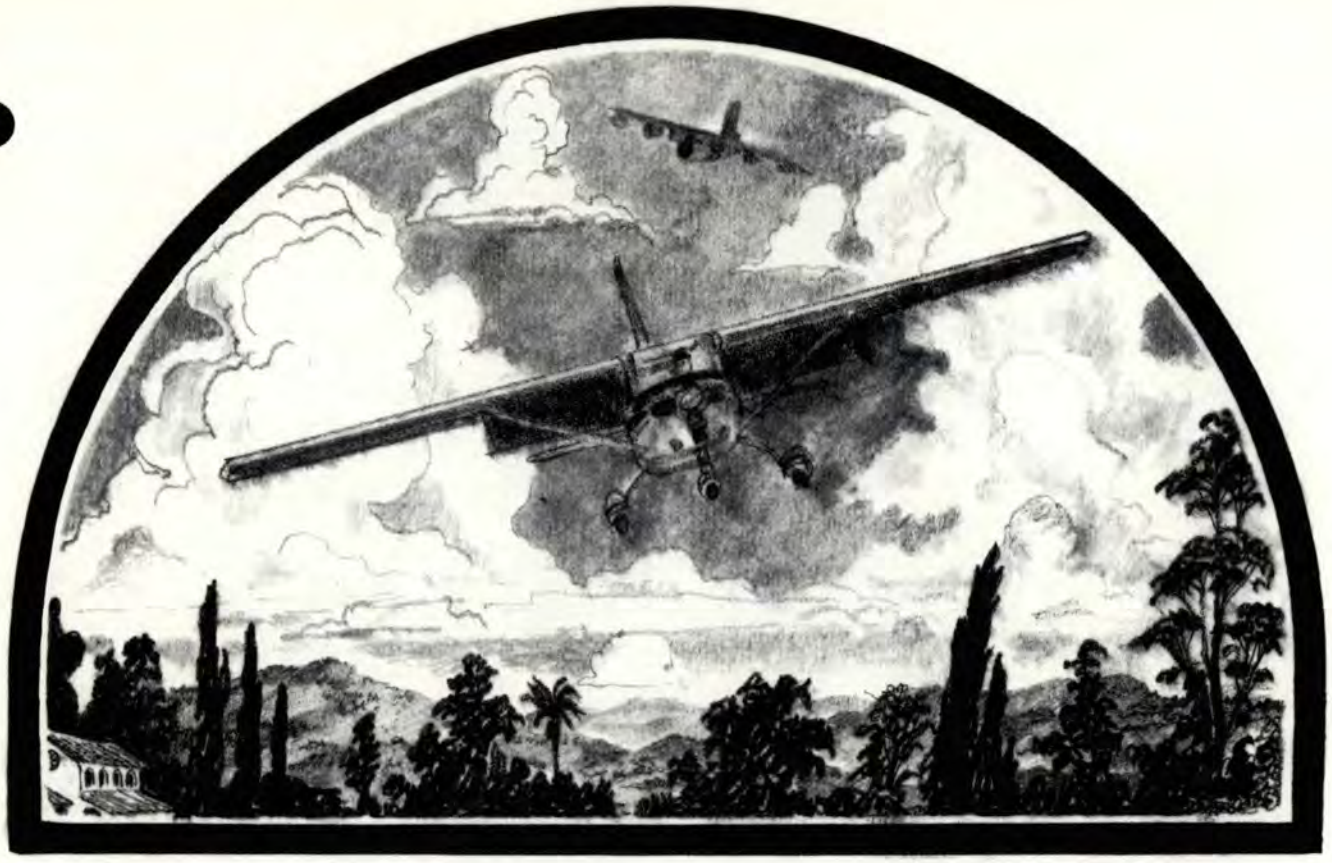
As I sat in my jet, upside down and pulling for the ground, I waited for Two to smash into the back of my jet as I knew physics would demand. I wondered if I'd be able to eject after the impact. Fortunately, I was wrong, and the jets didn't collide (though I don't know how close they came), or this would be the mishap report (plus some notes on sleep patterns and last meals).

Did I screw up? First, I didn't terminate the stalemate. I thought Two was developing an advantage and wanted to see if I could neutralize it or if he could capitalize on it. Second, I didn't leave myself a big enough out. As I pitched up into the fight, I realized it wasn't so wise — a bit too late. Third, I didn't have enough respect for scissors. I doubt I've been in one since Holloman, and I wanted to see where it would go.

My recommendations? First, flying combat aircraft is dangerous, and we get paid extra money for taking the risks, but it doesn't hurt to minimize the danger.

Second, one way to minimize the danger is to be proficient so if you haven't done any scissors in a while, go out on your next BFM sortie and practice. Just remember you have two aggressive fighter pilots pulling into each other's high six, and that means into each other.

Finally, be ready to knock it off if things ever start not going right, and have respect for the risk, not fear. ■



THERE I WAS

■ I was a highly frustrated student pilot. After almost 20 hours, my instructor still had not signed me off to solo. Hour after hour we practiced stalls and landings. I was consistently making smooth landings right on the numbers, and I was confident my solo flight would be a piece of cake.

Finally, one calm morning after a brief session of touch and go's, the old man signed my ticket and turned me loose. As I predicted, three perfect landings. The next day, I arrived at the aero club early and eagerly checked out the only Cessna 150 available. After a careful preflight, I was on my way to terrorize the skies of the local area. After practicing some stalls and maneuvers, I decided to return to the field and do some touch and go's. When I was abeam of my intended landing spot, I began landing preparations. As usual, ease off power, carb heat on, 20 percent flaps, as I had done a hundred times before.

Suddenly, something was very wrong. The controls were fighting me, and the airspeed indicator wound down to 60, through 50, and finally the stall warning horn sounded. I knew this was a totally unsatisfactory condition at 400 feet AGL. It felt as though something was jammed in the controls. The tower was directing me to turn base to clear the way for an inbound C-130. I was too busy to answer. Instinctively, I forced the nose down and gave the aircraft almost full nose down trim.

Finally, I had the aircraft trimmed at 70 knots in an easy descent. Cautiously, I turned base, and after some strong words from the tower, I declared an emergency. On final, things seemed normal, and I made a rather shaky landing. I brought the aircraft to a full stop and took a deep breath.

When performing my postflight checks, I realized what caused my problem. The flap switch did not return to neutral after I selected 20 percent. Instead, it continued to the fully extended position.

When I realized what had happened, I was embarrassed, but I also knew the intensive training I received from my instructor probably saved my life. Each time I climb into the cockpit, I think of his philosophy: "In the art of flying, experience is great, but there are no substitutes for detailed preparation and comprehensive training to ensure mission success." ■

THERE I WAS

■ I, like all other pilots, had the attitude that "it could never happen to me." Although I constantly went over my boldface emergency procedures and ejection criteria, I never considered even the possibility of the situation I found myself in during January 1987. I was doing 40-degree, 500-knot visual dives at a target in the Imperial Valley. I had flown an identical hop that morning with the same IP and aircraft. It was basically a repeat of what we had just flown, so we were both set to go out and concentrate on a good CEP (circular error probable).

All evolutions up to the target were uneventful; we were in a 40-degree dive looking for 500 knots at release. I don't think I'm all that different by saying that when doing high-angle dives, my attention is focused on altitude, airspeed, and dive angle while I'm tracking the pipper and making mental release calculations. The point is that I can't think of another maneuver where a catastrophic emergency could be less welcomed or where a pilot's attention is so focused on the mission at hand.

What happened next neither the IP nor I could have been ready for. Passing 8,000 feet, the left wing separated at the fuselage, followed by an instantaneous explosion as the wing fuel entered the engines. The aircraft went into a violent right, high lateral G roll and proceeded towards the ground as a fireball. There was no warning, and all that I remember is the aircraft starting to wrap up to the right as I lost consciousness.

The violent roll broke my left forearm six times and drove my helmet into the left side of the canopy, giving me a concussion, before I was able to react. Somehow, using survival instinct and a lot of luck, I was able to pull the upper ejection handle. My IP was unable to escape due to the extreme cockpit environment.

It's something you have to consider. Even now I have to fight the, "Well, it can't happen to me twice" attitude. We have all seen those ejection decision films, and marveled at the indecision and resulting fireball, but think about it! It happens! ■

THERE I WAS

■ Following the uneventful taxi-back landing of a B-52H, I climbed aboard to update my touch-and-go currency. We took off and completed a low approach to let the wheel brakes cool. Sitting in the IP seat, I watched the pilot set up for a touch-and-go landing.

As we touched down on the rear landing gear, the pilot eased the front trucks onto the runway and raised the airbrakes as the copilot reset the stabilizer trim to the takeoff setting. The throttles were advanced. Suddenly, the aircraft shuddered and started veering to the left as the pilot fought to control it. He started to apply power to complete the touch and go when the aircraft shuddered violently again. The pilot, fighting to maintain control of the aircraft, quickly discussed the situation with the copilot, as we were headed toward the left side of the runway and possibly into grassy infield. I wanted to yell out "ABORT!!!" But I kept quiet, hoping they would make the correct decision and knowing the value of a back seat driver when their hands were already full. We were now about half-way down the runway and quickly running out of pavement.

Finally, the pilot elected to abort and called for the abort checklist. As he pressed further on the brakes, the mighty beast shook terribly as we began slowing down.

Finally stopped, we all got out to examine the aircraft damage ... a blown main gear tire was shredded, a 10-inch hole was in the right flap section, and a very nervous, but relieved, flight crew was beginning to calm down.

The problem ... a main gear wheel brake had locked up which did not allow the tire to rotate and was not caught as we taxied out for takeoff — a B-52H at light gross weight has plenty of extra power for taxiing.

I learned to be very careful when checking those tires to make sure they are all rotating following a taxi-back landing. Remember, most checklist items are a result of problems someone else experienced on a previous flight. ■

THERE I WAS

■ There I was, on a hot, muggy, summer day, waiting for our load to arrive for our beloved C-130B. Our mission today was to fly shuttles for a "user unit" going home from an exercise. "No big deal," I thought to myself.

As we loaded the first pallet aboard the aircraft, I noticed it was quite hard to push on the dual rail system. As loadmaster, I thought "Warped pallet," as I doublechecked the weights. After we loaded the pallets, all of which were hard to push, I thought to myself, "BOY, ALL THESE PALLETS ARE WARPED!"

I had begun to investigate further and asked the loading agency if these were the correct weights. Then the navigator yelled down to the cargo compartment, "Come on up for the crew brief, load. We're running behind schedule." "Okay, okay," I answered, as I signed off the load. (This was another broken link in a long chain of events.)

As we began engine start, I noticed the aircraft was sitting "kind of low." I was contemplating this when I remembered we had taken on quite a bit of fuel to carry us through the day, and we were close to max takeoff weight anyway. It just didn't look right, though, when I entered the aircraft ...

As we began to taxi out of parking, the AC noted the aircraft was slow to move. Our engineer explained we were parked on an incline. Then the engineer asked me if all the cargo weights were correct. I explained everything matched on the manifest, and the weights were correct to the best of my knowledge. The engineer reassured everyone he put "a few extra thousand pounds on the TOLD (takeoff/landing data) card for MOM AND THE KIDS, so we'll be okay for takeoff if the cargo weights are off a little."

Approaching the runway, the pilot announced, "This will be a rolling takeoff, crew," as I buckled in for takeoff in my favorite position in the back of the aircraft. Our sluggish C-130B began to lumber down the runway, skybound. Sitting in the tail — I mean the last seat in the rear of the cargo compartment, I didn't feel the usual acceleration for takeoff and wondered . . . Nothing was said in the cockpit except the usual stuff, and then "GO!!"

Our overgrossed C-130B slowly began to climb when I heard "Full power" come over the interphone. It seems the 50-foot pine trees at the end of the runway were getting taller instead of smaller!! After clearing the pine trees, tower called us and thanked us for the "air show." "Some airshow it almost was," I thought, as the pilot called back and asked me, "What did you say those pallets weigh?"

The crew began to investigate the slow climb, and we decided to step climb to our max cruise altitude to see if we were really overgrossed. The engineer figured max cruise altitude with the information we had and determined we should reach "about 25,000 feet." When the aircraft refused to climb any higher than 18,000 feet, we calculated we were about 25,000 pounds over our intended weight.

It almost became a BIG DEAL after all, with *all* the factors figured in. As it turned out, the pallets were not weighed, but simply tagged at about 2,500 pounds each.

Several lessons here, but the one which sticks out in my mind most is aircrews are not the only ones susceptible to get-home-itis. Anyone can catch it, especially "user units" not flying with you. However, the aircrew must remember they will always be held ultimately responsible to answer questions when something goes wrong. I just pray you never have to answer with your life. We were lucky. The next time I have a "warped" pallet, I will measure it to see how warped it really is! Finally, I don't care if "it came on a C-130" or not — if it does not look right, add up, check out, or feel good, then I'd rather *live* with a late takeoff. ■

THERE I WAS

■ Going ACE (accelerated copilot enrichment program) for a few weeks is usually a good deal to get you off the local air patch for a while. But, even the best of us can be bitten by a combination of unfamiliar procedures at a strange field, a busy radio, and inattention to detail.

It was the classic setup. Departing McGuire AFB for Pease AFB, we filed for a radar departure at FL230 to pass west of the NYC TCA (now Class B airspace) by 40 miles. No sweat. We loaded up and called for a clearance. "You're cleared the Point Pleasant-One Departure" read clearance delivery, "Hampton transition, direct Manta. Cross Manta at 6,000 ... Departure on ... Squawk. ..."

I had a SID booklet on board but which of the nearly dozen was it? Oh ... there it is; Number 10. Can I fly it? Yes.

It takes us out 50 miles east of the coast. We have the water wings and rafts ... the climb rates are OK ... no TACANs ... good grief, it's 50 miles at 6,000 feet! There goes my fuel for approaches. ... I'll probably get vectored to Virginia before I can head north.

A few seconds of mental calculations and I knew I could make it.

Takeoff was uneventful. Sure is hazy. "Proceed direct Coyle; maintain 4,000; traffic, one o'clock, slow moving, altitude unknown."

No tally, let's see ... Coyle 113.4 and 81, that's to the east.

Then, not 30 seconds later, we heard "Proceed Direct Manta, climb/maintain 6,000, VFR traffic 11 o'clock at 4 miles, altitude 5,500, unverified."

I don't see the traffic. Whew! Where's Manta? The Sea Isle zero five nine at 76 ... that's one-fourteen point. ...

"Traffic now 2 o'clock, 2 miles, has you in sight." I gave the copilot the best fix-to-fix I could.

"Contact New York Center on 381.4."

The radios were so busy I couldn't raise the controller for what seemed like forever.

Suddenly, over all the chatter, I heard our call sign "Proceed direct Manta. You appear to be heading north. Turn to a heading of 110 and contact New York Center on 377.4."

Whew! We were on a good heading, weren't we?

Oh, no! I never finished dialing in the full VOR frequency. I was heading to the wrong fix! We turned and set our VOR and UHF radios.

Sure enough, I didn't tune, identify, and monitor! How embarrassing!

Then I got that chill. What if that had been a point-to-point in a nonradar, mountainous area with the wrong VOR station tuned in!

We were quickly given clearance to flight level and shortly thereafter vectored on course. But the lesson is: Apply the procedures. Tune, identify, and monitor. ■

THERE I WAS

■ It's been 12 years, but I'll never forget the scare of my life in the KC-135 — and it could happen again. As a brand new aircraft commander, I was sent to U-Tapao to join the Young Tiger Task Force. I wasn't exactly a new guy with over 1,000 hours in a C-130 and two years in-and-out of SEA. So, although I never was a copilot in the tanker and just moved right in as the AC in the 135, it was no sweat. I knew all about flying "in-country."

On a night refueling mission, we went up to play "Anchor Bingo." The newest tanker flew in high and then let down in the anchor as others offloaded to minimum fuel and headed for home. Sometimes it could take a couple of hours on a slow night, and it was boring!

I had an experienced navigator and boom operator, but the copilot was "right off the turnip truck." After flying several of these sorties, I knew the action wouldn't start until we got low, so I left the "co" in charge of the store and went back to take a refresher course on navigation.

Now there I was, struggling with the APN-69 ground mapping radar when I heard those terrifying words: "Ace, I'm at max power, and we're still losing altitude!" *That* will get your undivided attention! Immediately, I reverted from nav trainee to aircraft commander and jumped in the left seat. Sure enough, the throttles were at max, the firewall even, and we really were losing altitude.

I pushed the nose over and started a large descending spiral. This gave me some time to get a grasp on the situation. Guess what? The "co" had made a small error. He had opened up the wing fuel drain valves to move gas aft for the offload and promptly forgot them. Now we were in trouble!

The CG of the plane was well past any limits Boeing had prescribed. I was up to my _____ in alligators and all because I wanted to play navigator! The Dash 1 says "permanent set" may occur if the aft body tank is overfilled, and we had overfilled by a bunch.

I changed the fuel configuration, called "Tanker Charlie," and got some great advice. He told me to establish landing attitude at FL 200 and see what the trim setting was. Sure enough, the built-in safety system worked, and we had a normal aircraft configuration.

We came back to U-Tapao and made a typical, scared-to-death, cheated-the-grim-reaper landing. The "Tanker Charlie" met me at the plane where I told "the whole truth, nothing but the truth, etc." He had a free shot. Go ahead and show the world how smart he is and how stupid I am. But no, he explained to me about being an aircraft commander and my responsibilities.

It was wise and serious counsel; something I never forgot. I am a better pilot and a lot better officer today because this lieutenant colonel (later a brigadier general) took the time to help an errant young knight.

So, what are the lessons?

- Who is in charge?
- What are your responsibilities?
- When you make an error, how do you handle it?
- How do you keep this from happening again?

As a brand new squadron commander, I try hard to impress on my young aviators the importance of officership, leadership, and responsibility. Failing to understand this can sometimes be fatal, but in my case I lived to fight another day.

Two things I remember are to keep in mind what my job is and to never forget we all make mistakes. So, let's minimize the mistakes and accentuate the responsibilities. The Air Force will be better for it and so will the people that work with us. ■

THERE I WAS

■ I was one of two command pilots with a combined total of over 10,000 hours in a variety of Air Force aircraft streaking through the heartland of America in a Cessna 182 Skylane. A careful check of en route weather had been made, and we were assured by our faithful FAA briefer that once we passed between two rather large thunderstorm cells (plenty of distance between the two) near our point of departure, our trip home would be trouble-free.

Because of the possibilities of imbedded thunderstorms and a lack of weather radar on our trusty bird, we decided to remain in visual conditions, or if VFR could not be maintained, to return and wait for better weather. (Pretty good plan, don't you think?)

We were not far from our departure airport, enjoying fairly good visibility, when we started to encounter rainshowers. They were light at first, but got heavier, and it was soon apparent it was time to go to Plan B (return to point of origin). However, that nice little VFR corridor we had flown through was nowhere to be seen once we had done a 180° turn. No sweat. We just called approach (who we had been talking to for traffic advisories) and filed an IFR clearance, requesting vectors to our departure field.

Though I'm a little nervous (haven't much recent real instrument time in the last several years, thanks to a couple of staff tours), it's good to be in the protective custody of ATC. On vectors for an ILS, rainshowers are getting heavier, and it is getting darker — having a hard time maintaining altitude, thanks to terrific updrafts. Rain is now so hard it is coming through the door seals. It's very dark, with occasional flashes of lightning. The rain is deafening, and there is turbulence.

"Approach, no longer interested in the ILS. How about just vectoring us out of this weather and towards another airport that has an instrument approach." After a few more anxious minutes, we were vectored out of the intense weather and landed safely at a nearby airfield. It wasn't where we wanted to go, but it was nice to be somewhere!

After I regained my composure (about 2 days later), and since that time, I have pondered those "moments of terror" (out of a generally very pleasant USAF flying career). What are the lessons learned, and what can I do to avoid similar occurrences in the future? First is a healthier respect for possible severe weather and the value of getting weather information from all possible sources. (There was a military weather station near the location of this incident which we did not use.)

Now, when faced with marginal weather conditions, I have three different agencies from which to obtain weather information, and I use all of them. The other lesson I learned was to have a more realistic outlook on the capabilities of the general aviation aircraft that I am now flying. Without weather radar, one cannot navigate around imbedded thunderstorms, and most small aircraft don't have it. ATC radar is not set up to provide you with weather avoidance, either. Some general aviation aircraft have stormscopes (which detect electrical discharges), but I don't plan to bet my life on them to get around hazardous weather.

In safety publications, I had read "encounters with weather beyond the capabilities of the pilot" was the most common factor in general aviation fatal mishaps. This incident taught me that to be successful in my continuing quest to become an old pilot, my boldness (in the weather, go/no-go department) required an attitude adjustment. ■

THERE I WAS

■ I was a young aircraft commander on TDY with an even younger copilot, flying an approach in the soup with a lightlift helicopter — having that "something is wrong" feeling. But what could possibly be wrong?

The day had sure started off great, and the weather was beautiful. Since we needed to put some time on the aircraft, we planned an IFR trainer for the afternoon. Everything looked good; the forecast called for possible fog when we arrived back at base, but I was looking forward to some IMC. The weather at home keeps almost all of our gauge-flying in the clear, and we have our approaches down so well that we can rattle off briefings in a matter of seconds and fly the approaches from memory. However, I enjoy IFR and try best to train well (seeing "we play as we practice"), respect, and work with my crew and comrades — so I thought.

Well, from takeoff, everything went smoothly, and we got some good training in. We were already planning postmission activities on our last leg back to base when the weather reports caught our attention. Where we had been deciding on which approach to shoot, approach control told us that we would *have* to take an ILS — it seemed that a thick fog bank did creep in! Hey, no problem.

As usual, I knocked out an approach brief as my copilot scanned the approach plate and flipped switches. The frequencies were set, we received our clearance, and everything was fine until we intercepted our glide slope that we shouldn't have intercepted yet! Call ATC? Nah, the controller was busy. Our receiver malfunctions half the time anyway. My partner and I didn't bother to check everything again since shooting localizer mins seemed to be a good enough idea. So down we went!

"Wow, that tower was close!" And as if I awoke from a dream, I switched out the VOR frequency that was set in and tuned in the correct one for the ILS, banked into the localizer course, and caught the glide slope as the VASI lights made a welcome appearance through the weather. The taxi in was long and quiet; I learned a lot about myself, my attitude, and how lives can depend on my definitions of a couple of words.

"Training" is the real thing as far as effort is concerned, and everything, including briefings and approaches, should be treated as such. "Crew" is not one working for everyone, but everyone working as one. They deserve my respect, attention, and double-checking. I guess we really do "play as we practice!" Treat others (and approaches) as you would have them treat you! ■

THERE I WAS

M. R. "SCOTTY" GRAHAM

■ It isn't easy to admit you did something real dumb ... even when you know it. After you get to be an old guy and have basked in a degree of hero worship by the young hot sticks, you do a bit of soul searching and come to the conclusion that an honest confession might save some kid's life, career, or an expensive airplane.

At the close of WW II, when all the heroics had dried up, about all the enjoyment left was bragging about how great we were. One evening, after a few beers, we were waxing eloquent with all the hand gestures and rhetoric that fighter jocks are guilty of. One of our group, who traditionally never said much, piped up with, "I never was very good at anything until I became a pilot, and now I feel like I am as good as anybody!"

I seized upon this as a golden opportunity to yank his chain and said, "Why, Jim, you can't even fly a kite!" He retorted, "A beer says you can't lose me!" Me, "I can lose you on takeoff!" He said, "You are the DO. If you can schedule a couple P-38s in the morning, I'll show you a thing or two."

Now I'm trapped. This boy is out for blood, so how can I let his slap of the gauntlet go unanswered? I called the line and had two birds set up for early morning sorties.

Now begins a series of dumb things. We taxied out for a formation takeoff (a no-no in twin recips due to possible engine failure), I give Jim the ready sign, he responds go, and we did. I decide if I'm going to teach this second lieutenant a thing or two, I'd better employ some cunning. I moved the throttles right on through the "war emergency" safety wires and forced the screaming "Lightning" off the runway.

Immediately after breaking ground, I snapped the gear up. Then all hell broke loose! My left engine chose this instant to retire from the war and promptly blew up. The prop went to full flat pitch to maintain its RPM, and with the right engine cranking out maximum horsepower, we made a flat, quick hammerhead left turn. Things got a little busy for the next few seconds with bold face items spinning by (KEEP FLYING, HIT FEATHER, THROTTLE OFF, MIX OFF, MAG OFF, FUEL OFF, FIREWALL SHUTOFF, KEEP FLYING, DISPATCH LAUNDRY, and more). Had this been the right engine, we probably would have become instant statistics.

Looking around for Jim, who should have been making a normal straight climbout, revealed no Jim. A quick check of my own problem, then back to my wingman. I looked closer, and there he was with his wingtip in my shortrib. A quick doubletake reveals his left prop is also feathered. My God! He took me seriously when I said I would lose him on takeoff. Some rapid-fire radio conversation took place while I was flying a closed pattern, but he stayed right on me until I turned final. Then he started his dead engine and went around.

I couldn't convince Jim my engine had really failed until he taxied in and came over to curse me out in person. Then he saw the bulge in the left nacelle and grew pale as a ghost. "I thought you did that deliberately ..." "I know, I know," I mumbled, "but you earned that beer. You did a terrific job of flying. You've convinced me."

It doesn't take much intelligence to start analyzing this series of stupid events. But in 'fessing up, I will summarize and elaborate on lessons learned.

■ Leadership. A DO knows his pilots' capabilities and doesn't need to engage in dumb games.

■ Guidance. Rules are written to provide sensible guidelines and definitely should not be violated by anyone, especially by the fearless leaders.

■ Gains. Had the mission proceeded without mishap, and I did outfly Jim, what would I have accomplished except crushing his ego?

■ Regret. I have not enjoyed remembering this bit of stupidity. It was not a complete waste, however. I have kept it in mind while training many, many pilots over the years. One of my axioms is, "It is easier to *stay out* of trouble than to *get out* of trouble!" Good luck and FLY SAFE. ■

THERE I WAS

■ Years ago, I was flying F-106s at Loring AFB, Maine. We were to have a 4-ship flight for an intercept training mission. We briefed to depart in radar trail as the ceiling was about 500 feet. I was Number 4 and determined I would keep track of the three aircraft ahead of me on my radar, maintain a good radar trail position, and not get lost from the flight as we climbed up through the soup.

I tuned up the radar for optimum detection for immediately after takeoff. During takeoff roll, I glanced at the radar at times to pick up those ahead of me, and, immediately after takeoff, began working hard to maintain radar contact with the other flight members. Things were going pretty well as I had the flight on radar. With all this attention to my radar work, I suddenly noticed one of those big barns they have on the farms in Maine go past my left wing tip! I had gotten so engrossed in the radar work that I had not paid proper attention to flying the airplane and came very close to making an undesired contact with the ground shortly after takeoff.

Lesson: Continually be aware of what the aircraft is doing while working weapon systems, etc., put your attention in the proper place, and divide efforts appropriately to always maintain situational awareness and aircraft control. ■

THERE I WAS

■ I lied last year when I said, "The rest of the ride was pretty quiet." You remember. Everyone else on the B-52 had gone to sleep. There I was, a young copilot extraordinaire, Maple Flag bound, way, way up north in Canada.

Now, it was true I did drop down to plus or minus 100 feet, mostly minus, and skim the marshy tundra. And it was also true we all eventually woke up and went on with our mission. However, I can't say things remained quiet.

An undercast formed. We were in the clear and on top at about 2,000 AGL. We began to see less and less of the ground, until finally, we were above a featureless, vast blanket of white … in a huge, dark green air machine.

Don't get me wrong — I love white puffies and ecological stuff just as much as anyone else. The problem for me was this nice undercast was in the wrong place. Why couldn't it be just 200 feet higher? I wanted to be in the clouds, or under them, or many miles above them, but not just barely above them.

The unfairness of it all! The BUFF can't run! Its huge, square sides make it hard to hide, and it can't pull Gs. Besides, we have to fly into this postage-stamp-sized intercept area to practice getting shot down. To top it all off, we've highlighted ourselves over this white sheet of clouds.

And then, for the second (but last) time that day, I executed a brainstorm. Why not just drop down a measly few hundred feet and duck into the clouds?

I asked the nav team how much terrain clearance we would still have if we dropped down 300 feet.

(I didn't want the 40-foot fin sticking up out of the cloud — no Jaws© music for me.) Were there any high towers along the route? Knolls, hills, ridges? Did the terrain slope up into us? Could I go down 300 feet and stay there through the target area?

Their answers were all what I and the pilot wanted to hear … so we did it. In fact, at the time, the other five folks on the jet thought I had a wonderful idea. (They were no happier at the prospect of this next "fighter exercise" turning out the way every previous one had ended for us: 16 successful intercepts — no misses.)

Yup, we did it. Ducked into the weather below a hard IFR altitude, on a training mission in peacetime. Yes, I know. Dumb, dumb, dumb. Short-sighted. Risky. Ineffective.

The radar never painted a shadow, so we were never below any ridges or other high terrain. If there were towers, we missed them.

But, the exercise monitors didn't miss us. Neither did the ATC radar. We were "clever" enough to turn our IFF/SIF to "standby," but that only had the effect of making ATC and the monitors twice as mad.

No one was waiting for us when we taxied in to parking at homeplate. However, current ops did have a message and phone number for my aircraft commander to call. It was a pretty one-sided conversation on our end. Lots of "No excuse, sir" — that sort of thing.

I did a lot of growing that day. We all did. When I saw people pushing too hard after that, I wasn't afraid to speak up: "Is this worth the risk?" You can, too. Please do. ■

THERE I WAS

A Second Chance

■ On a recent night, I experienced something I'll never forget. I lived the last few seconds of my life. At least it's what I thought was happening. I did almost everything wrong on a night approach in the weather. Everything wrong, that is, but kill myself, which I was sure I had done.

I've chosen not to sign this. The weather was bad enough no one on the ground saw what I did on short final, and I've decided to leave it that way. I do feel some obligation to put this down on paper. Maybe someone, some night, might benefit from having read this.

Since I've remained anonymous, I do owe the reader a quick profile. Suffice it to say I was highly qualified to fly that approach. I am an "old head" with many hours, most of it in fighters. I'm experienced and current in the fighter I fly now. I've had a tour in Europe and have had many approaches in the worst of weather. Enough said.

I took off on a night sortie. We'd had a lot of snow recently, but the runway was clear and the weather was OK. An hour later when I returned, they were calling it a 1,000-foot ceiling and 4 miles visibility in light snow. It would prove to be much worse than that.

I entered the weather from above and began taking vectors for an ILS fullstop. I wasn't being very careful about head movements while doing checks, and I soon had a case of the "leans." No sweat, I'd been there before, just concentrate harder on the gauges, and press on. I dropped the gear and as the landing light came on, I became conscious of the heavy snowfall. The glare from my landing light and strobe was terrible. I did nothing about it and continued.

I began having problems on the approach. My vertigo had progressed to the point where I was losing the battle of maintaining orientation. I had tried concentrating harder, but I was flying an atrocious approach and my corrections were getting larger. I should have gone

around then. My pitch was varying ±5 and my bank ±30° as I made unreasonable attempts to get the approach under control. I knew I was in trouble, yet I was trying to "lick the problem" instead of taking the smart way out.

Somewhere, about 300 feet and a mile out, I saw the overrun lights. They seemed suspended in a black space and confusing through the HUD symbology. I later learned the runway had several inches of snow on it and was indistinguishable from the terrain. I should have gotten back on the gauges, but I tried to make those threshold lights (which were rolling) level.

Then in the snow, I lost sight of the lights. An alarm went off in my head (finally), and I looked at my ADI. I realized I was going in. I was sure enough of it that I thought of my family and dying. I slammed the throttle to AB and did the only good flying I did all night. I got the wings level and started to pull out of a severe unusual attitude.

I stared in horror at the altimeter and saw it go through field elevation. In fact, I distinctly saw it stop at 20 feet below field elevation before reversing. My errors were not over. I still was letting my spatial disorientation rule over good instrument flying. The stall warning came on, and I saw 110 knots and dropping with the nose about 60° nose high. I thought "ejection" as I pushed the nose forward, but my 2,500 feet of altitude made me hesitate. I left the gear down, the AB in, got the airspeed under control, and climbed for clear sky. I knew one thing I wanted was to get out of the weather. I broke out at 9,000 feet, and I can tell you the stars never looked so good. I got my head straight and began to think. I guess this is really the point of all this, sharing some of my thoughts.

I came up with a plan. I had more than enough gas to divert. That alone was reassuring. I resolved to attempt a good controlled approach down to my minimums, and if I didn't have a good feeling for the runway environment (more than lights in space), I'd go low approach and divert. I also resolved to low approach immediately if I had similar problems maintaining my equilibrium.

I then began to think of everything I could do to improve the odds. I stayed above the weather until the "leans" were gone. When I did descend into the clouds, I made an effort to feel for the switches, minimize head movements, and lessen the onset of vertigo. I decided to turn off both my strobe and my landing light. My HUD lighting was poor (fuzzy) so I turned it off and limited my cross-check to round dials. I requested a PAR in the hopes I could smooth out my approach and avoid chasing "yellow bars" like I'd foolishly done on the previous approach. I normally prefer an ILS in the weather, but tonight a change was in order.

I forced myself to make small, "intelligent" corrections, taking my time correcting in the right directions until I had what I wanted. I knew the weather was around 300 and 1 mile, so I stayed on instruments until 300 feet before looking up. I picked up the lights and then, because the background was so bad, I continued flying instruments and now included a visual cross-check versus transitioning to mostly visual.

I can tell you I've never felt a better touchdown. The runway felt great, even covered in snow. I located the hook (just in case) but I never needed it. As I pulled off, I saw my altimeter was slightly in error. It read 20 feet below field elevation.

The "armchair" fliers will have a good time with this one, starting with my even attempting a second approach. The point of it all, at least for me, is a grim reminder that you're never above the basics. When the weather is bad, even the most experienced of us need to drag up all the little tidbits we hear in instrument ground school, at refresher training, and even at the bar. You have to review what you know, and then do it. They don't teach you things like turning off your landing lights and strobes. You're the one flying the machine, and if in fog or snow they're distracting you, get rid of them. Lastly, "field environment" may not be good enough; never give up on the instruments just because the field is in sight. Work on your basic instruments as if it's the most critical skill you must have — because it is. ■

THERE I WAS

■ ... the Captain of a B-737 with an airline operating in the Pacific. I was jump seat deadhead crew on this flight with a midnight takeoff at max gross brakes release weight (BRW) for the 5,600-foot length island runway — dark night conditions. The computed EPR was 2.18 max bleeds off thrust; V1 128, Vr 132, and V2 135; and BRW approximately 49,900 Kgs, 30°C. The computed N1 was 101 percent, flaps 10.

During takeoff by the first officer, I got the impression of lower-than-expected acceleration (as did the other two pilots after later discussion). All needles were pointing in the correct, expected direction, and instrument lighting was very low because of the dark night. I noted 2.18 on both digital EPR gauges, both thrust levers parallel, and no stagger. The 80-knots call was normal. At 105 knots, the end of the runway was approaching very quickly, and it was obvious acceleration was not fast enough to get to Vr until close to the threshold. A quick check of engine instruments showed 2.18 EPR and all needles parallel.

At 10 knots below Vr, the Captain urgently called "rotate quick" and simultaneously firewalled both thrust levers on the 737 — resulting in very positive thrust increase. The aircraft rotated just in time. We found out later that the jet blast angle at rotation blew stones and coral from the overrun onto the runway. It was *that* close. The EPR was set at 1.96 for the climb. Slow airspeed acceleration was apparent, and the aircraft was only at 15,000 feet at 50 miles instead of 25,000 feet.

During climb, all parameters were equal except N1 on both engines seemed lower than required for climb. The N1 read 88 percent on both engines. We should have expected 94 percent for the set EPR. No one suspected double EPR gauge failure or malfunction. I suspected fuel contamination.

The Captain decided to return to base to investigate the problem of lack of power in the climb.

There was no icing problem since the temperature was 30°C, but a check of anti-ice engine switches gave an 0.28 EPR drop instead of 0.09 EPR drop with engine anti-ice on momentarily.

After landing, ground investigation revealed Pt2 tubes (EPR) to both engines were blocked by coral debris, insects, and dust. This caused both EPR gauges to read high by 0.18 resulting in 2.00 EPR actual thrust, not the 2.18 desired!! The N1 gauges must have read about 91 percent on takeoff (in the green), but because of dim lighting and parallel needles on all engine instruments, we did not suspect lower-than-expected N1 on *both* engines simultaneously.

We had previously experienced an occasional single EPR gauge malfunction because of the Pt2 tube blockage causing a high reading. This stands out quickly because of the parallel thrust levers, with one EPR needle obviously reading high. However, we were completely unaware of the problem of simultaneous double EPR gauge malfunction with equal needle readings.

The lesson is to treat EPR readings with caution and always doublecheck *closely* the N1 on both engines. Ensure you know exactly what N1 you should get.

The Captain made the correct decision to firewall the thrust levers regardless of overboost danger to salvage the situation. An abort would have been fatal due to V1 being invalid because of low acceleration and V1 farther along the runway.

I tried to focus my eyes on the N1 readings when I first suspected poor acceleration, but did not have my glasses on and could only see approximate needle readings. Approximate readings were simply not good enough. Although 91 percent N1 may be OK on a long runway, it was critical on a short runway. ■

THERE I WAS

■ My copilot and I were tasked with ferrying one of our unit's aging UH-1F Hueys to the "boneyard" at Davis-Monthan AFB, Arizona. Although I had been looking forward to the trip, I had also become a husband just 2 days before — so the timing wasn't exactly perfect! Nonetheless, the previous week's exhaustive schedule of matrimonial planning and execution, at the expense of flight time, had bolstered my anticipation of the trip ahead. No offense, Sue.

The first leg of the mission was uneventful. The crew chief, our only passenger, occupied himself with the latest issue of *Hot Rod* magazine, while the two of us up front kept our current status in compliance with that intended by our thorough flight planning. So far, so good.

The second leg proved to be a little bit more exciting. Shortly after crossing a mountain pass at 12,000 feet, our single-engine helicopter suddenly made an uncommanded 20-degree left yaw as nearly every light and horn in the cockpit came on (or so it seemed)! Our airspeed dropped to about 60 knots, and the aircraft quickly developed a 3,000-foot-per-minute rate of descent. Since our initial cruising altitude was a subjective 500-feet AGL, mother earth was now screaming toward the skids. Recognizing the engine failure, the copilot (now my best friend!) immediately established an autorotation and turned the aircraft into the wind.

I forcibly discarded my map, as I was navigating this leg, and confirmed the engine failure. By the time I was mentally and physically in a position to take the controls, we were plummeting through 200 feet, and it was almost time to start the flare. I did not feel time and altitude would permit a change of controls and told the copilot to continue the autorotation to the ground. He made a beautiful landing in the desert scrub brush as I backed him up on the controls. It was the perfect recovery from a very critical in-flight emergency.

I've always believed only a fool survives a serious in-flight emergency without putting a few things into his or her "experience" bag. Read on for some things you can throw into your experience bag to prevent later use of the ol' luck bag!

ALWAYS BE PREPARED! The in-flight emergency has no compassion. It doesn't care if you haven't studied your EPs since your last checkride, if you have a wife or husband and three kids, or if you were just recently married. It can happen at ANY TIME — at 20,000 feet in clear blue skies or during that low-level run down the gunnery range. Don't get preoccupied with the miscellaneous activities while in the cockpit (navigating, eating, etc.). Your primary job is to fly that multi-million dollar bird. So keep up your guard!

It also follows that chapter 3 of your Dash 1 deserves some extra attention at regular intervals. Know each emergency from its first in-flight indication to your final recovery on the ground. The best pilots take NOTHING for granted!

Before heading out to slip the surlies, cover as much as you can during the preflight briefing. That "routine" checklist might just save your butt. Make sure each member of the crew understands his or her role in the event of an emergency.

For those of you who fly with an extra pilot next to you in the cockpit, work at maintaining good crew coordination. Let your copilot know that, aside from monitoring the standby AC loadmeter, he or she may have to recover the aircraft if things start going wrong. If possible, discuss your intentions prior to execution — a little adrenaline can impair any pilot's judgment. Also, call out any emergency indications you encounter. We want everyone operating from the same page of the Dash 1.

Finally, keep in mind that there are two kinds of pilots — those who've had in-flight emergencies, and those who will. ■

THERE I WAS

■ ... fangs out, hair on fire, making my best ZSU break off some vehicles I'd just "shacked" with simulated Rockeye. Fat, dumb, and proverbially happy, I started to roll out and head back to the IP when something big and dark flashed by just under the canopy rail. My God, I almost hit my wingman! "Reno, knock it off ..."

How could this have happened? My mind was already reviewing the previous attack. Obviously, Four had turned into me, not away. "Reno, set up for another attack," said lead. "Ah, Reno One, Reno Three and Four just scared ourselves pretty bad," I said. "Roger, can you RTB OK?" "Yeah" "See you later."

In the debrief, Four and I discussed how we almost reached out and touched one another. We had briefed our attack options against this target, an airfield in northeastern England. The four ship was to attack in coordinated two ships from separate IPs sequenced to the sectored target.

I would carry simulated Mk 20, and I told my wingie to plan on suppressing the target defenses at long range with 30mm while I pressed in with the Rockeye. I made it clear. Four should avoid getting too close to the target in his suppressor role. We discussed ordnance and flightpath deconfliction thoroughly, or so I'd thought.

The first attack went well, despite the rain showers in the generally good VMC area. Both Four and I got a tally on the target, some vehicles, on the first pass. Then One directed Rockeye attacks for the element leads, so I air briefed a line ingress to a split with Four suppressor and myself, the bomber. One and Two would be attacking 30 seconds before us from the north. Four was on the left as we ingressed heading east.

As I came off the target, I heard Four call "off right." I looked up to see him about 2,500 feet away. Yes, he was turning right, tail on. No conflict, I thought, and called "visual" as I racked over into a hard left bank to separate toward the IP. In fact, our flightpaths almost converged — we later estimated we passed within 50 feet of each other.

What happened to make our attack a near Fox-Four? After I finished hammering Four for overflying the target (your job was to suppress, not go for the min range shot), I pointed out my own big error — calling visual and then failing to continue clearing my flightpath. Anyone who's ever seen the A-10 in the air knows how easy it is to mistake aspect and angle off. The jet appears as a dark silhouette, and its odd angles can fool even an experienced hog driver. Coming off the target, I "saw" my wingman turning north.

If I'd thought about it for a moment, I would have realized Four had pressed in too close and was turning *toward* me. Four said he had been worried about the location of the other element and had turned south to avoid them. An error, since we were well separated by time, but it made me think — should I have put the wingman on the other side on ingress? Also, Four made the same mistake I did — he "saw" me turn away from him and relaxed his vigilance. In retrospect, we both should have realized immediately we were headed toward each other — it was obvious from the geometry of the attack.

Lessons learned? For the wingie: Do as you're told, and if you can't, tell somebody about it. A KIO (knock-it-off call) would have been appropriate here. For the leader: Yeah, it's tough navigating, setting up your weapons and countermeasures, and performing all the tasks to run your attack — but don't let an experienced wingman suck you into relaxing. Monitor your wingman and *anticipate* his actions. Finally, for both: It's absolutely vital for tactical partners to get and maintain sight of each other when they're that close. Don't assume anything. Complacency almost killed us. ■

THERE I WAS

■ I was flying the right seat of one of MAC's finest, returning from an overseas mission. We were almost at our descent point from cruise altitude. The descent, approach, and landing were going to be mine, so the AC was pretty much taking it easy.

So easy, in fact, he was still talking with another crewmember during the time when I would normally be checking the ATIS and getting ready for the approach. I was starting to feel a little annoyed at the distracting conversations when Center interrupted and cleared us for the descent.

As the AC rushed to do his part, I was left on my own without the usual backups. He was still getting the ATIS information, calling command post, and checking with the engineer for any customs problems we might anticipate. Of course, Center changed our frequencies every 5 minutes and gave us a new, intermediate level off every 2,000 feet.

Somehow, I managed to get on the published approach segment without getting Center or Approach Control mad at us. I was a little high, but at least I was legal. The AC finished with the approach briefing just as we turned onto final. He was visibly "pressed" as he tried to explain our maintenance problems to people on the ground who seemed to have never *heard* of a C-5, let alone work on one.

Finally, I was able to squeeze in a couple of words, "Gear" and "Flaps." The gear handle was lowered, he turned to another page in the approach book, and then the landing gear crosswind knob was turned. Since we had no winds, I reached up and reset the trucks to zero, then set the flaps to the landing configuration myself. From that point on, everything remained very professional all the way through engine shutdown.

As we boarded the crew bus, the AC apologized for not setting the flaps and for incorrectly setting the crosswind. Going over the whole sequence, we both agreed the loss of crew coordination started way back before the descent when we hadn't insisted on a "sterile" cockpit. Next time, when it's my approach, the first thing I'm going to do is take charge of my cockpit. ■

THERE I WAS

■ I started skydiving back in 1973 because it was cheaper than flying. To date, I've accumulated over 900 jumps. About 5 years ago, I was finally able to afford flying lessons. Since then, I've logged 1,200 hours — over 600 hours as a skydiver driver for Archway Parachute Center. While flying jumpers, I wear a parachute, so I wouldn't hesitate to jump from a disabled aircraft — that was, until Easter Sunday. One of my passengers was a nonskydiving 4-year-old.

It was slow at the Archway drop zone because the winds were barely inside the maximum skydiving limits. I was 7,000 feet over Sparta Airport in Archway's Cessna 182 with two skydivers on board. A mother and her son were also riding along as observers; i.e., they intended to land with me instead of jumping.

The engine suddenly lost power and started shaking like it was running out of fuel. I reached down to reset the fuel selector thinking one of the jumpers had accidentally bumped it. This happens a lot, so I wasn't too concerned. Suddenly, there was an explosion, and flames engulfed the nose of the airplane. My first instinct was pure fear. I was afraid we had turned into a flying inferno.

Things get blurred about this point, but I do remember shutting down the engine while simultaneously yelling "Get out!" to the jumpers. For an instant, I considered leaving, too, until I remembered the two observers in the back of the plane. The flames died out, so I knew we weren't in immediate danger. I gave a thumbs-up to the observers and concentrated on getting us safely back to earth.

I trimmed for best glide speed and headed for the airport a mile off the nose. I couldn't get a response from Scott Approach until I turned the master switch on. I don't remember shutting it off, but nobody else could have. I also don't remember undoing my seatbelt, but I must have because it was lying at my feet. I guess my desire to jump had been stronger than I thought.

Things were less tense now. I wished my legs would stop shaking. I didn't know how much damage the engine had suffered, but from the amount of oil on the windshield, it must have been substantial. I entered downwind at 2,000 feet and flew a tight pattern for a final approach 2,000 feet out and 800 feet high. I was aiming for a point one-third the way down the runway so I'd have a margin for error.

After I was sure I'd make the runway, I lowered the flaps and concentrated on airspeed. It was a little difficult to judge the flare point because the oil had obscured most of my forward vision, but I managed somehow. We touched down on the mains, let the nosewheel down softly, and coasted to the runway exit. As soon as we cleared the runway, I stopped the plane and followed the observers out the door. We'd been lucky so far, and I didn't want some vagrant flame to spoil it.

I have mixed feelings about my performance. There are things I should have done differently, and things I shouldn't have done at all. We're still alive because of preparation and the grace of God. I routinely practice emergency landings and, while flying jumpers, always stay within gliding distance of the airport. It finally paid off. ■

THERE I WAS

One reason young aviators do not become old aviators is *complacency.* To avoid this problem, we need to plan every facet of every mission with worst-case scenarios in mind, i.e., when shooting an engine-out approach, it should be performed as if the engine won't respond when the throttle is pushed forward, and you will be forced to make a real engine-out landing.

Plan every mission, and accomplish every preflight as though you expect the worst conditions — *because* as described below, you just never know when you might encounter them.

■ I briefed the T-1 sortie early on a Monday morning. The sky was really overcast, and I hadn't flown in a week and a half. No problem. I have almost 2,000 hours in the jet and what could go wrong? I had flown well over 1,000 missions over northern Mississippi in some of the worst weather a then FAIP (First Assignment Instructor Pilot) could ever imagine.

When we got out to the airplane, I just knew it was going to rain and the tires were bald. No problem. I've done this before and never worried about it. Ground ops and takeoff were uneventful. We made it out to the area and were planning just a few maneuvers, but would leave with a lot of gas to concentrate on pattern work, if the pattern was open!

Heading back, we learned from the SOF that a weather recall was in progress because of heavy rainshowers. No problem. I was in the front seat and this Pilot Instructor Training student seemed very good, although it was the first time we had flown together.

I thought to myself, that runway isn't much over 8,000 feet, so I better burn off a little more gas by putting out the boards. We still showed up on final with about 1,600 pounds. No problem.

Boy, was it raining! I told the student I better make the landing and assumed control of the plane on ILS final. I guessed we were the last aircraft airborne since we were coming back from the farthest area from the base. The RSU called up and reminded us the runway was very wet and there was a slight tailwind. No problem.

I flew somewhat of a min roll approach and was sure to pull off the power early for the tailwind. Touchdown seemed to be in the first 1,000 feet, fairly nose-high and on-speed. I went into the aerobrake a little late, but not that late. No problem. I've always stopped the white rocket with plenty of runway left. The 5,000 remaining marker whizzed by. Boy, this runway sure is wet! The brakes didn't seem to be grabbing much at all. The 3,000 marker went by. When the 2,000 marker went by, I told myself we're going to hit the barrier. The airplane finally seemed to start slowing and just inside 1,000 feet remaining, it was down to taxi speed.

Thankful to survive, I thought about checking the status of my underwear. Just then, tower called up and asked, "How's the braking action?" ■

THERE I WAS...

MAJ GEN STANTON R. MUSSER
USAF Retired

■ As the Vice Wing Commander of the 1st Tactical Fighter Wing, I had combined an F-15 training flight with a trip to the US Air Force Academy to visit and brief our sponsored squadron. Now it was time to head home so I could clear my in-basket back at Langley.

I was flying out of Buckley ANGB since Peterson AFB was closed. My takeoff clearance was for the shorter, 8,000-foot strip. "No problem. Even with a 5,660-foot field elevation," I thought, "I'll just use the afterburners." All ground checks were completed, and I was ready to soar like an eagle.

I taxied onto the runway, applied power, plugged in the burners, and the thrust pushed me back against the seat. Just after liftoff, about 50 feet in the air, one engine flamed out and the other engine rolled back towards zero RPM. My immediate choices were to eject or shove it back on the ground and hope to engage the barrier. Since the landing gear was still down and I had a few thousand feet of rapidly disappearing runway ahead of me, I elected to put it on the ground. I lowered the hook and fortunately got it down just in front of the barrier, traveling about 140 knots. The hook grabbed hold of me like a fly caught in a spider web, and I came to a screeching halt in the overrun.

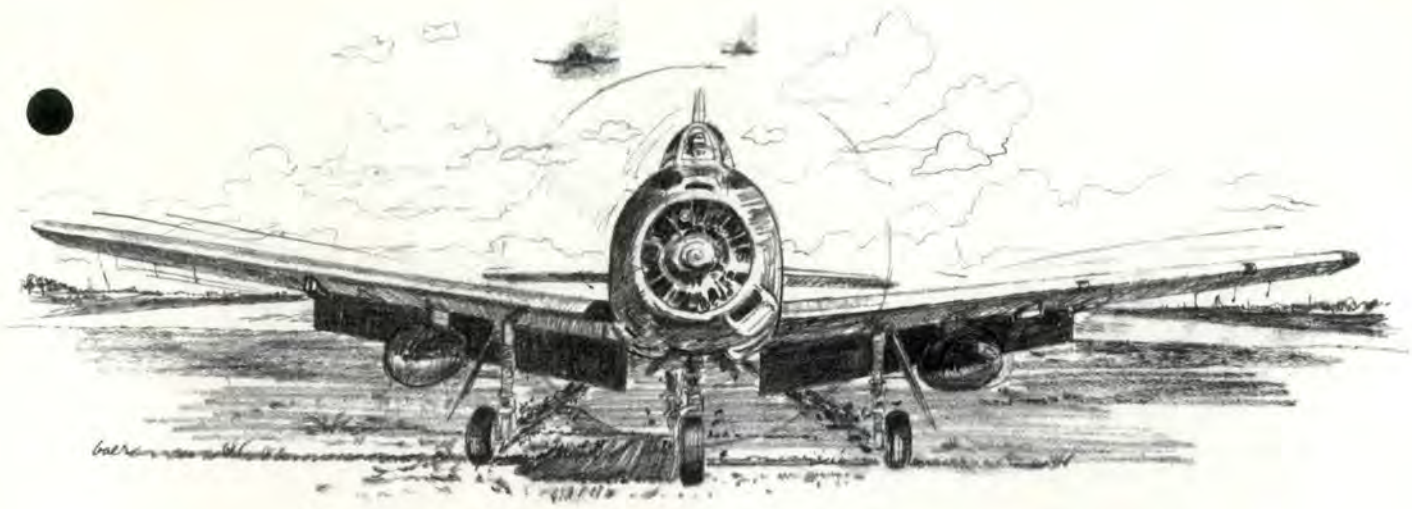
The next thing I heard was tower broadcasting, "You're on fire!" I started to ground egress and reached up to safe the seat. It was already safe. Even amid the heat of the situation, I felt a cold rush of fear. Had I tried to eject, I wouldn't have made it. Shivering from fright, I opened the canopy, took the long jump to the ground, and ran like a bandit.

It turned out the fire was caused by the sudden gush of residual fuel after the engines quit. The fire trucks responded and quickly put out the fire.

Although my ego was bruised and my body a little sore, I came through a potentially deadly incident unscathed. When I had time to reflect on the shortest flight of my career, I realized how lucky I had been. Somehow I had forgotten the very advice I had given to the academy cadets about the importance of air discipline. In my haste to return to Langley, I forgot the first rule of flying that I had insisted on from my pilots back home ... **complete all checklist items!** Not only had I missed arming the seat as I taxied out of the chocks, I also missed it as I turned onto the runway. Even with the old head knockers knocking on my helmet before I took off, it just *never registered!* Call it complacency or thinking of other things at the wrong time ... **it almost killed me!**

Today, the safety lever on the F-15 ACES II ejection seat is located on the left arm rest. The lever protrudes when the seat is still safe as a "can't miss" reminder to the pilot.

This old warrior was lucky that day at Buckley. But don't trust luck, my friends — trust your checklists and fly smart. Check Six and Happy Landings. ■



THERE I WAS

■ I was flying the T-28 "Trojan" out of Udorn Royal Thai Air Force Base during the war in Southeast Asia. Udorn was a single runway with about eight squadrons of F-4s, 40-some T-28s, and a lot of miscellaneous aircraft operating out of the Air America compound. It was a **very busy place!** With that in mind, there was a continuing emphasis on minimizing time on and around the runway. It got real busy about the time we recovered a Linebacker strike from over the North.

The T-28 was a real cute little aircraft with a 1425-horse, 9-cylinder radial engine (that's those engines we had before jets). We used it to go up north somewhere and drop MK-81s and MK-82s — kind of fun, but it didn't impress the Phantom Phlyers too much.

Well, anyway, one day I turned base to land, and as luck would have it, there was a bunch of double-uglies — excuse me, I mean Phantoms — rolling out on final close behind me. The tower, as usual, started his chatter to use the next available turnoff and expedite my taxi (I was still going about 100 knots).

Being a conscientious sort of a guy, I did my best and got on the binders as hard as I could and attempted to make the next turnoff, which was quite close. I almost made it, but didn't. Turning around was not an option, so it was on to the next turnoff which was a few thousand feet down the runway. The tower, naturally, was offering their encouragement . . . I jammed in the power to get a little more taxi speed and hurried down to the next turnoff at the departure end of the runway.

The problem was the T-28 had some idiosyncrasies. One of them was that it had good brakes — but only if you used them just once. They faded rapidly during that initial use and then just kind of disappeared. I had already used them once during my initial hard braking. Thus, I was in for a big surprise. As I stepped on the brakes while expeditiously approaching the end of the runway, I got not even so much as a little slowdown — nothing. I had absolutely no brakes.

I went off the end of the runway through the overrun, and off into the tules. The F-4 dearmers watched casually from their shack which was over near the parallel taxiway. Surprisingly enough, the gear didn't collapse. I just kept on bouncing along through the rough. I eased in a little rudders/NGS and started a gentle turn back towards the parallel taxiway. The dearmers bailed out of there with **great** haste.

Surprisingly enough, I bounded back onto the parallel taxiway, now at a much more controlled rate of speed. Tower/ground control had not uttered a peep. I don't know whether they hadn't seen me or were just rendered speechless. They never did call — it was wartime, after all. I strolled on down the taxiway and soon my faded brakes returned. Postflight inspection revealed no damage to my aircraft, although I did cause my flight suit to be temporarily unserviceable.

In retrospect, I did learn/relearn a few lessons.

■ Once cleared to land, the runway is yours, and it's yours until you clear it, regardless of who's next.

■ Be careful about expediting on the runway or trying to make an early/rapid turnoff. You can't help the guy behind you if you close the runway.

■ Cross-countries aren't all they're cracked up to be. ■

THERE I WAS.

■ We were scheduled for a Saturday morning air refueling mission followed by a flyby, with our receivers in tow, at a small coastal airport. Our normal crew of four was augmented by an extra copilot who was occupying the jump seat.

The rendezvous and refueling with three A-10 receivers were completed without incident. The game plan was to have a receiver on each wing and one in the precontact position for the flyby.

We received a handoff from center to a radar facility at a naval air field about 50 nm from our destination airport. Vectors to a VOR approach were provided. From the time we were handed off, it was a struggle to stay close enough to the power curve to even see it, let alone stay ahead of it.

The vectors we received brought us in very close to the airport, and by the time we intercepted the final course and were descending, we were very high and in the clouds. It was about this time the extra copilot contacted the airport on the Unicom. We were informed we were the highlight of the airshow because of numerous cancellations due to the weather which was currently marginal VFR.

When we finally reached 1,000 feet AGL, we were overhead the airport and just below the bottom of a very ragged cloud deck, not exactly what you would call the highlight of an airshow. The pilot decided to bring the flight back around VFR and do another flyby. All this time, the extra copilot was giving a spiel to the crowd below about the KC-135, the A-10, and the units and crews involved.

In the meantime, the pilot and copilot were straining to keep the airport in sight as it passed our 3 o'clock position as we skirted the bottom of the clouds. The boom operator had positioned himself in the boom pod prior to the first approach. From the navigator's seat, I had a good view of what was going on. As the extra copilot continued to talk on Unicom, I noticed we were beginning to lose altitude rather rapidly as the pilot leaned forward in an effort to keep the airport in sight.

Passing through 700 feet, I called "watch your altitude" over the interphone but was not heard by the pilot over the dissertation coming from the jump seat. The next thing I knew we were passing 500 feet in a nose down, 30-degree bank turn. All I could see was water out the front windscreen. I screamed over the call position "altitude" and thought I was going to die.

Immediately, the pilot pulled his head back into the cockpit, leveled the aircraft, and started a climb. Meekly, he asked the copilot and boom operator if we still had wingmen. Fortunately, we did.

As we passed over the airport and were thanked for the dazzling performance, the airshow seemed pretty unimportant. ■

THERE I WAS

■ I was flying a five-target, single-ship recce mission in the Desert Shield AOR. The first half of the mission had gone well, and I had just finished the air-to-air refueling before beginning the next low level route.

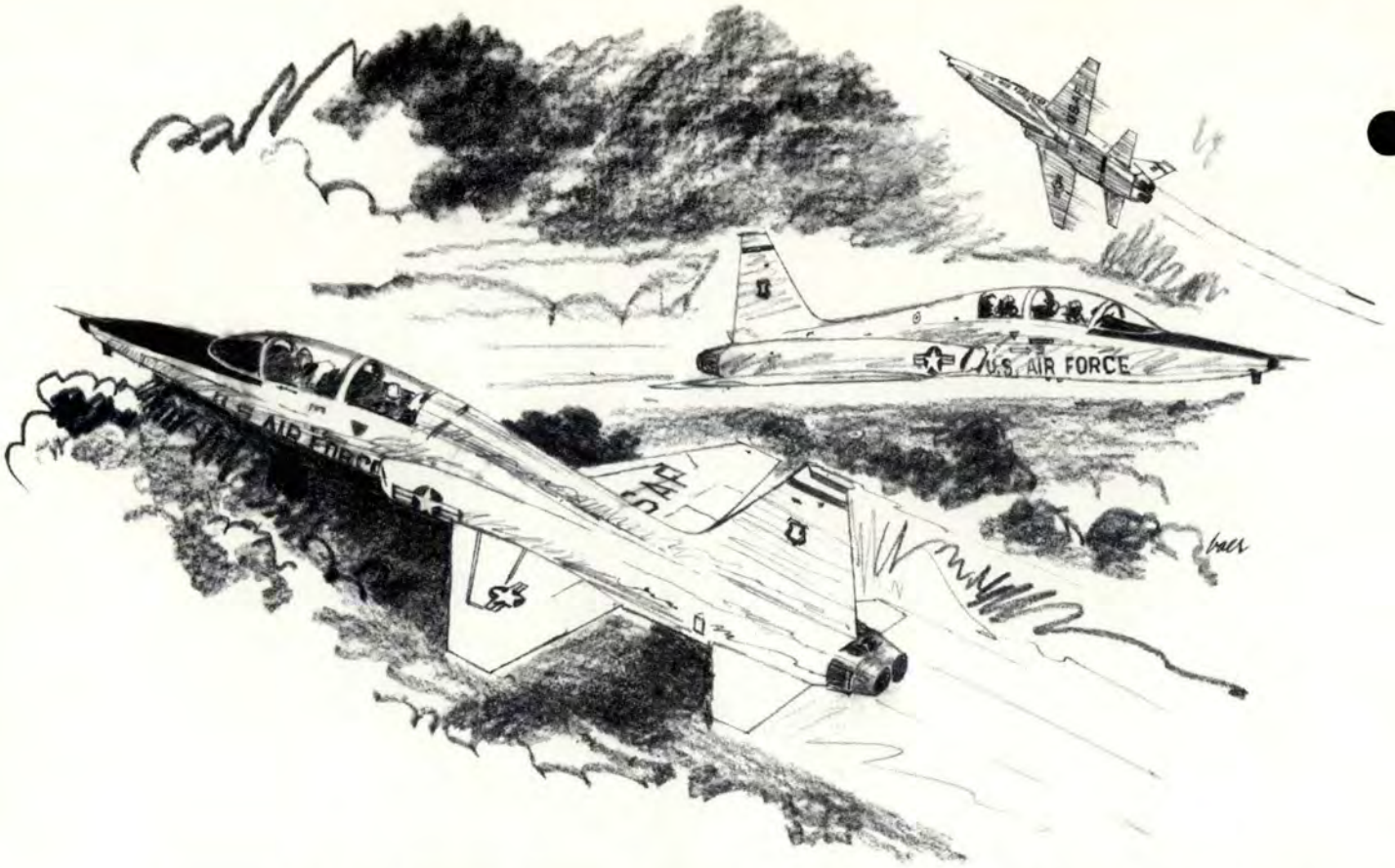
By now, I had moved toward the northern area of Saudi Arabia, and the weather was the usual mixture of clear skies with dust in all quadrants. After flying for 15 minutes, heading west into the afternoon sun, I realized the visibility was getting worse.

Concentrating on finding a small target in the middle of the desert, I had neglected to keep a watchful eye out for approaching sandstorms. Suddenly, I was in the middle of one. Visibility went to zero in any direction you looked. I elected to abort, pushing the throttles to military and raising the nose to 30 degrees pitchup on the HUD.

Since my only previous experience with sandstorms had been from the comfort of my hooch, I naturally assumed they didn't extend much above the surface. After setting up the climb, I pretty much stopped flying the jet and waited for clearer skies. Passing 7,000 feet, I realized conditions were not as I had expected. Noting my attitude was now 35 degrees and my airspeed was rapidly decreasing, I attempted to recover the aircraft, but it was too late.

The airspeed went to zero and the nose pitched down. I let go of the controls and the aircraft started a disorienting spiral dive. Some very basic instrument training finally kicked in, and I recovered to level flight at about the same time I flew out of the side of the blowing sand.

There was nothing inherently dangerous about this training mission. I had flown enough low levels in the AOR to feel confident. The weather wasn't anything I hadn't seen before either. Before this little incident, I didn't believe it was possible to become complacent when you're deployed half-way around the world and preparing to go to war. I was wrong. *People* get complacent – not the aircraft or the missions. ■



THERE I WAS

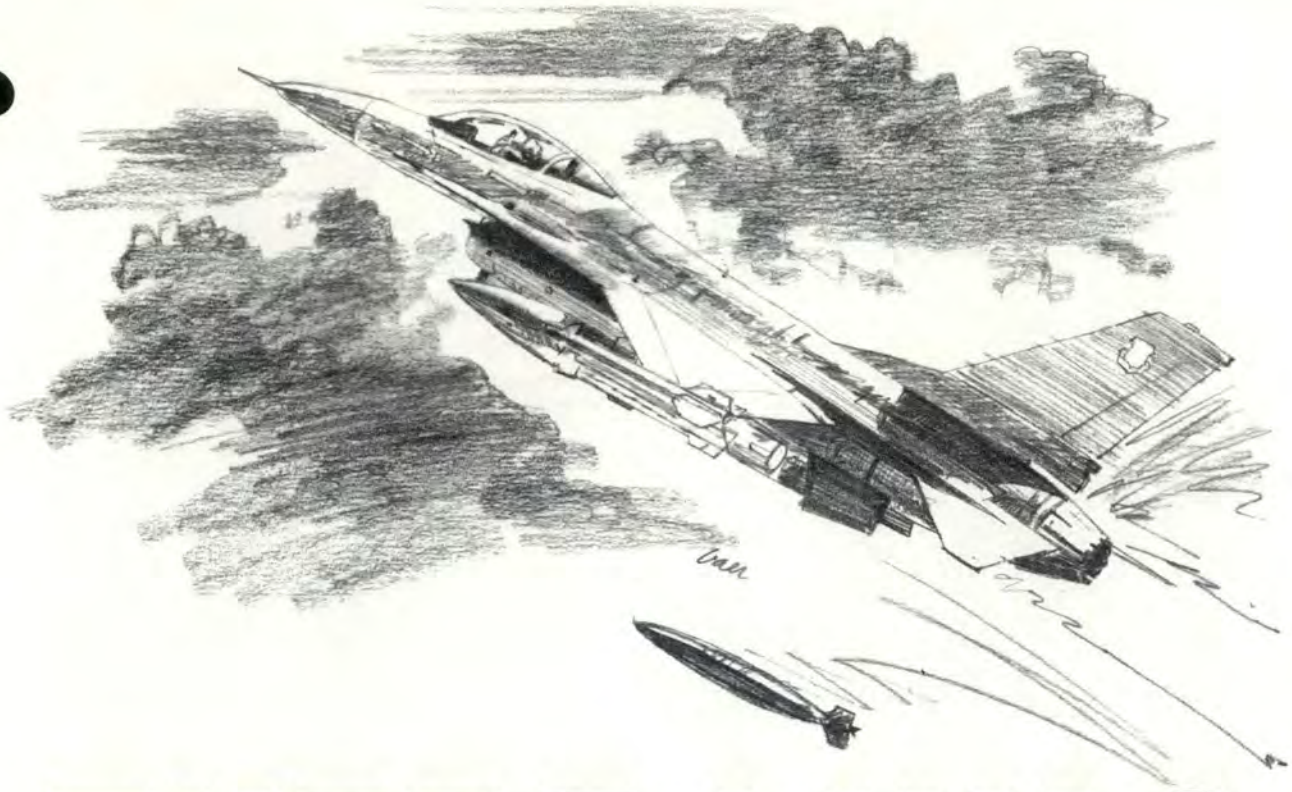
■ The afternoon schedule had two, two-ship missions scheduled against a pair of minitransport jets as part of a drug interdiction profile. We were 41 Flight and were to follow 31 Flight after they completed their mission. We planned a formation takeoff, followed by a system check on the way to the airspace. The formation takeoff was uneventful, and I began to prepare for the system check as we climbed on runway heading.

I had looked back to check on my wingman when out of the corner of my eye, I saw a small aircraft pass under us. It was too close, and we let tower know it. The tower said although they were aware our flightpaths were close, they thought the small aircraft would be clear by the time our flight was airborne. We felt, since we were under tower's control, there was less chance of a small aircraft passing through the airspace undetected. This time both the tower and I assumed a situation incorrectly.

We continued on our way to the airspace with no further problems. Just before we entered the airspace, air traffic control told us to be at flight level 190 or lower because 31 Flight was to exit at flight level 200 or above. Both flights acknowledged the altitude blocks. We had radar contact and assumed it to be 31 Flight. As the 31 Flight lead flew over us, his wingman was climbing up to altitude and split our tactical formation! We decided to discuss what happened, face to face, with 31 Flight after we landed.

The 31 Flight crew said they thought we were further away, so 31's wingman could practice some simulated gun passes. On their last pass, they got low and were in the process of climbing back to altitude when he split our tactical formation. Two close calls in one flight made me wonder if maybe my cross-check procedure was inadequate. During takeoff, my attention was channelized on my aircraft systems and my wingman's position. I neglected to clear our flightpath as well as I do in a single-ship takeoff. Then, as we entered the airspace, I mistakenly assumed my radar contact was a flight.

In my future cross-checks, I will assume nothing until I know wh the situation is completely. I wa very thankful when I realized this was one afternoon which could have had a different ending. ■



THERE I WAS

■ G-WHIZZZZZZZZZZZZ!

There I was, hurtling into the last Great Battle of the Mother of All ORIs (my last). Mission was a low level to a strange range with adversaries en route to test visual lookout capability (VLC). The low level and VLC were going great, and my trusty Viper A radar painted another pair of Barons vulturing just short of the IP.

After neutralizing that threat and reaching the IP, I made one more radar sweep of the target area and reefed into a hard 360 turn for timing deconfliction (Yeah, yeah, gross tactic! But range run in restrictions and D.S. low show only weather left us no other viable options).

Halfway through my 360, I noted the trailing element turning outbound for spacing, and the next thing I remember clearly was popping through the overcast on the range departure rejoin. What transpired during the 10 minutes on range keeps coming back in bits and pieces, like the day following a hard, long, happy hour. Having made four tactical pops, with three shacks and a dry cover, were, in my mildly hypnotic state, well above Sierra Hotel.

However, my three shacks were on the wrong target, and SH quickly turned to AS. In retrospect, it appears I was "awesome" in that mystical "auto twilight zone" somewhere between GLOC and a fully cognitive state. With a little tweaking to find the right target, I'll be king of the two-bit bombers.

The fast-paced sequence of events of navigating, radar SA, clearing, mental transition from LOWAT-SAT, ordnance switches, executing tactics, and, "oh-yeah," flying the jet led to a subtle "task saturation"in which G-AWARENESS was the low priority fallout. Being anything less than the best of the best could have made me a different type of SH (smokin' hole).

There are several time-honored and oft-mentioned gotchas you "ordinary limiter lovers" might review to keep you well inside the conscious zone.

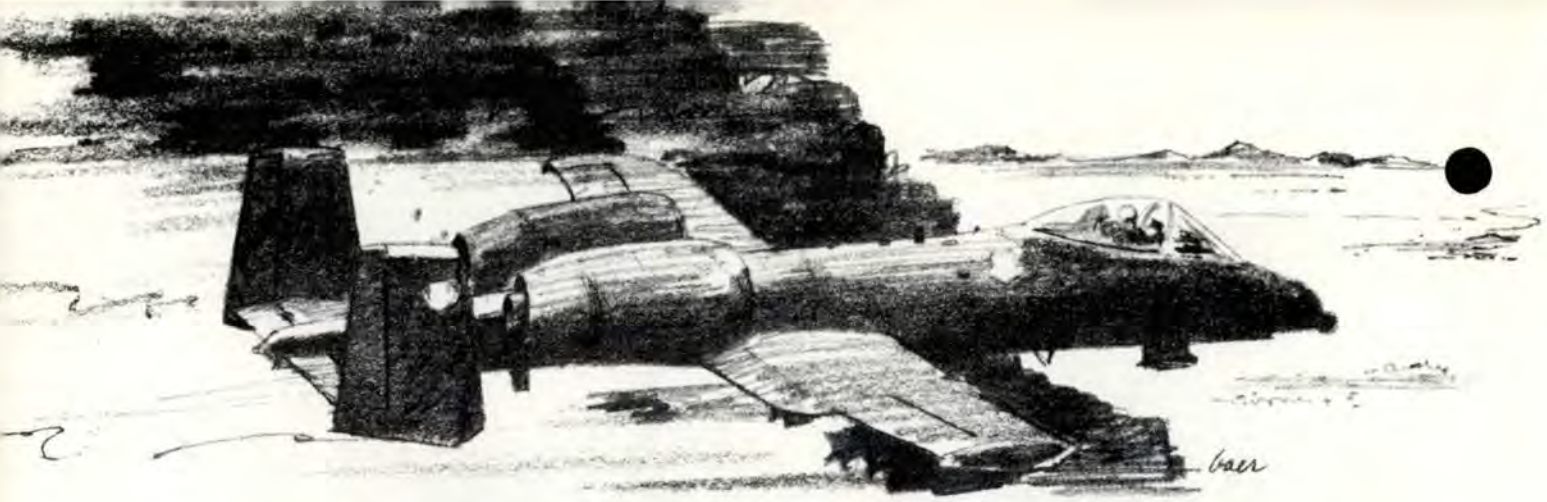
■ Some of us have been G-runting longer than others of us have been walking. Seniority has a price.

■ Fatigue is cumulative and insidious (ORI, ORE, CW exercise, surge, etc.).

■ G-warmups, like airbags, save lives.

■ Task saturation starts with a breakdown in the basics — fly the jet.

■ Mort Sucker — do you remember him? He pulled before he puckered. ■



THERE I WAS

■ There I was ... Red Flag in June, my third trip there, and my hair was itching to burn. I'd seen the crash tapes both times before and acknowledged the possibility. But I also came to Nellis bent on having a good time in the hog. Third time's a charmer, right? No complacency on my part. You don't raise hogdrivers on afterburner lifesavers and "gee-whiz" geometry. You use basic tactics at home, refine them at Red Flag, and inhale gun gas whenever you get the chance.

The mission was a two-ship, afternoon go, during the second week. The Navy had arrived in adversary Tomcats, and the skies were usually one war zone after another as we would ingress into Kawich Valley. This particular ride was no exception. But you figure, after the first week, nothing should come as a surprise. You've got the lay of the land down, you know where every little hill and dale is, and even the hair on the back of your neck stands up at the right time when you get near "the box."

I was flying as No. 2, and the target was the industrial complex in the valley. The route jumped from Student Gap, past the farms, across the ridge north of Black Mountain, past Belted Peak, and into the valley. We had just crossed the Black Mountain ridge, the sky was around 12,000 feet overcast, the air was somewhat clear, and we were cruising at 500 feet AGL and doing 275 KIAS.

My lead and I had been trading off lead and wingie all week, and we were pretty well versed on each other's quirks. No one had scoped us yet, and the way looked clear. Coming off the ridge, with lead on the right, and me out about 6,000 feet, I happened to check my 10 o'clock position. What a sight! An F-14 was attempting to chase an OV-10. The Bronco was holding his own, though the Tomcat was clawing to stay in the sky.

Lead called a radar strobe from the 4 o'clock area, and I scanned that area even closer. The airwaves were starting to clutter up with air-to-air chatter and bogie calls, and you could feel the proximity of the bad guys. Just yesterday, we'd been picked on by an F-5, and I had vowed we wouldn't get caught this time. My eyes were peeling apart the sky for anything that moved. And like a good wingman, I was spending a lot of time flying 300 KIAS, 500 feet, looking backwards.

In the transition from the Bronco-Tomcat fight to the possible threat on my right, my eyes momentarily hesitated at 11:30, and I remember thinking, "There's a peak at 12, 2 miles — we're right on the route!" The strobe again, this time closer to 6 o'clock. I started swaying in the saddle to get a real good look at deep 6 o'clock — it helps to clear behind the tails, and you don't have raise the seat all the way up and cock your head 180 degrees out to scan between the A-10's tails. Still nothing, no glints, no specks moving, nothing. (Meanwhile, we're still doing 5 miles a minute forward.) I glanced back at lead, still at 3 o'clock and no threats in sight.

Then my peripheral vision kicked into high gear — I mean real high gear — and I sensed something mammoth off to my left. My head cranked into overdrive, and my eyes widened to saucers as I saw a mountain pass off my left side — close, very, very close — and I was not above it, or level with it, but rather, looking up at it. I could have been flying fingertip.

I felt frozen as I passed this mountain. I finally started breathing again after what seemed like an eternity. My mind jumped to the thought, "What if you had rocked your jet a little more to the left when checking 6? You'd never have seen it coming!"

Complacency? Me? Never happen. I'm too good at what I do. Period. That would have made a great saying on my headstone. ■

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THERE I WAS

■ This happened to two experienced, mission-ready crews, one with 750 hours and the other with 500 hours. It was a beautiful, clear and a million day, absolutely no weather. The flight was a BFM ride.

The first engagement was briefed to start from a 1 V 1 intercept with the first contact assuming the role of the fighter and the other aircraft limited to level two maneuvering until the fighter passed the 3/9 o'clock line. The setup started as planned with both tallyhos achieved at the 4-mile point, with the fighter picking up the target in the 2 o'clock position. The fighter turned in on the target without a radar lock because of effective jamming.

At this point, the pilots of the fighter *and* the target aircraft then experienced a deadly and convincing illusion. Both pilots thought the other aircraft did not have a tallyho and was, in fact, *turning away,* presenting the tail cones to each aircraft. In actuality, both aircraft were turned nose on to each other and rapidly closing with each pilot trying to achieve a heat tone.

At approximately 6,000 feet, both pilots realized the conflict and each aggressively maneuvered left so as not to cross flight paths. The aircraft passed *well* within 1,000 feet of each other.

Lessons learned? Both pilots had a tallyho. Neither aircraft had a radar lock (not until it was of no use)! Both pilots experienced the same illusion.

All I can say is be aware of this problem. If you've got a radar lock, check out the closure rate, and if you do encounter this illusion, maneuver very aggressively! ■

Our No. 1 Reader Request...

THERE I WAS

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