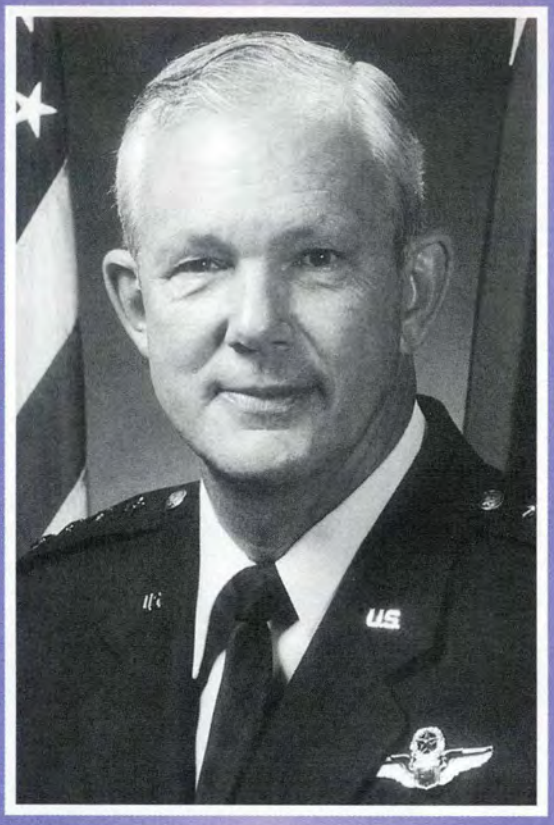
Flying Safety

MAY 1996

Our Third Annual "There I Was" Issue

SAFETY
A MATERIEL PERSPECTIVE

■ The mission of AFMC is to manage the research, development, testing, acquisition, and support of Air Force weapon systems. We perform product and process improvements throughout the life cycle of current weapon systems and exploit leading edge technology during development of new weapon systems. We also manage Air Force assets to ensure sustainability. To accomplish this mission requires the integration of individual talents, supervisory attributes, and a safe environment. Safety awareness must be ingrained in all we do and should serve as a measure to gauge every action, decision, procedure, and policy. Safety considerations and risk management must be an integral part of every mission and task.



GENERAL HENRY VICCELLIO, JR.
Commander, AFMC

Several factors must be identified and incorporated in a realistic approach to ensure safe completion of each task. First, is the individual — his or her training and attitude. Second, is the environment — weather, proper equipment, tech data, and clothing. Third, is supervision — qualifications, direct involvement, and a caring and positive attitude. Only when these three factors are assessed simultaneously can you strike the right balance between risk and mission accomplishment.

In AFMC, this balance is achieved through the system safety hazard analyses for a new acquisition or modification, job hazard analyses for work accomplished during depot level repairs, and the test safety review process used during flight test of aircraft and weapons. The user of our weapon systems is given an opportunity to participate in many of these processes through the Materiel Safety Task Group (MSTG) meeting held monthly at the Air Logistic Centers, the System Safety Group (SSG) meetings held by each weapon system program director, and MAJCOM days held periodically between AFMC and MAJCOM staffs. Class A, B, C, and HAP mishap recommendations are also carefully reviewed and coordinated with the user command to ensure the proposed fixes are both technically feasible, affordable, and operationally sound.

During all these processes, it is imperative commanders, supervisors, and workers identify hazards both on and off duty, determine the risk and the controls to best manage the risk, and then have the concern and conviction to call a halt or make a change when something comes up short. I challenge you to call things as you see them. We in AFMC cannot fix safety problems if we don't know about them. This requires a mindset — in ourselves and those with whom we work — that causes us to pause and evaluate every action we do or direct in light of the individual, the environment, and active supervision. If these factors are right, press on. If they're not, take action to make them so. We owe it to ourselves, our mission, and our people. ✈

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MAY 1996
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THERE I WAS

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Our front cover photo from the *Flying Safety* Magazine archives

We've selected some new "There I Was" stories as well as some of our better older ones for you to read. Some of the older 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 timeless and is still applicable to today's operations.

Sharing our experiences with others is as much a part of the Air Force as crew resource management training and stressing the use of tech orders to perform our jobs. 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. We hope you enjoy this issue as much as we enjoyed putting it together. Don't forget to take a look at page 25 to see how you can send us your "There I Was."

The Staff

CONTRIBUTIONS

Contributions are welcome as are comments and criticism. No payments can be made for manuscripts submitted for publication. Call the Editor at DSN 246-0936 or send correspondence to Editor, *Flying Safety* Magazine, HQ AFSC/PA, 9700 G Ave., S.E., Ste 282, Kirtland Air Force Base, New Mexico 87117-5670. The Editor reserves the right to make any editorial changes in manuscripts which he believes will improve the material without altering the intended meaning.

■ This is the first "There I Was," and it is a classic. It's an example of what can happen when seemingly unimportant things are omitted from our flight preparations. This one we'll title GET-HOME-ITIS — an old term we've all heard. Many of us have had it; some of us survived, others did not. Read and heed. Thanks.

We had an RON at an en route base. I, as an FNG, had swapped aircraft with Lead because his bird had intermittent radios. We were anxious to get to our destination and turn the aircraft into the MOD program as we were scheduled to deploy in the immediate future and were in a hurry to catch the transport that would get us back to the squadron.

I preflighted both aircraft while he went to Ops to file our IFR flight plan. Unknown to me, he changed the route of flight to avoid a line of TSTM that lay along our planned route of flight. He got the clearance over the radio using ground power (only one ground unit was available) because we had a final leg that stretched our fuel, and we didn't want to start and use up extra fuel.

After takeoff, I was having trouble with my comm and nav radios, so the strange headings we were using just added to my confusion. We were skirting the tops of the TSTMs in the milky stuff at 24M' when my engine unwound to idle, I lost pressurization, and the inside of the canopy iced over. I couldn't maintain position, obviously, so Lead dropped back into a wing position, and we started a glide into the top of the TSTMs. He transmitted, "You're in a turn." My gyros looked okay, but in the face of the previous electrical problems, I lost the faith. "Which way?" and "Roll right!" "You rolled too much — roll left!" With that, the airplane departed controlled flight.

I recovered in the TSTM using needle, ball, altimeter, and airspeed. My radio calls on the last known frequency got no response. My engine was running okay at 21M', but I was lost, in the middle of a TSTM, with (I thought) bad gyros, bad radios, and an unreliable engine. Guard channel got me a GCI to a GCA in 1/8 mile, obscured, 30 knots gusting to 50, with 4 inches of water on the runway, and heavy turbulence. That was 27 years ago. My leader dug a hole 42 feet deep with him still in the cockpit.

I never launched again without everyone in the flight having a complete IFR briefing, good radios, good nav gear, and the answer to the question, "Does this flight smell of get-home-itis?" ✈

Flying Safety

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A-10

USAF Art By David C. Baer, II

■ I've got 2,100 hours in the A-10, and I learn something new each time I fly her.

The squadron was surging, and after landing from my first mission, I went through dearm as I had a hung BDU (practice bomb). After the dearm crew safed the BDU, I taxied to a parking spot to let the load crews download the bomb.

After shutting down the engines, I started to climb out. I felt a tug on my left leg. Lessons learned from childhood taught me that before pulling hard because something doesn't give way — look at it first. My left leg G-suit pocket had caught the left ejection handle, and I had not safed the seat! The reason it had caught my leg is my (former, now) habit pattern was to stow my wallet in my left G-suit pocket. It had caught the ejection handle!

A couple of lessons learned and relearned: I'll do a thorough after-landing check each time, even though it's a quick turn. Second — I'm not putting anything in my G-suit pockets that isn't flat. Wallet, glasses case, etc., are out of there. And lastly, when something tugs on you, look before pulling. That tug may be trying to tell you something very important. ✈

C-130

USAF Photo by MSgt Perry J. Heimer

■ We took off out of La Paz, Bolivia's 13,355-foot runway. We'd been there 4 days awaiting a starter for the No. 3 engine. The takeoff ate up most of the runway, but we got off, made a circular climb to FL 230, and headed southeast to Asuncion, Paraguay.

Then it happened. Nothing but unbriefed thunderstorms! Turn left pilot heading 280 degrees, hold it, now right 350 degrees. Continually, back 'n' forth for about 300 NM till we reached the edge of the Andes.

I think I got one radio fix while flying through the thunderstorm area. I figured no sweat. I'll get a visual or radar fix. But was I surprised!

I looked outside and saw nothing but a north/south straight line of mountains in either direction with periodic breaks evenly spaced. Which one was which? I had never seen such an unnatural natural phenomena.

Piece of cake — I'll get a fix in the flatlands. Wrong again! The chart was completely white with a bunch of "squiggly" blue lines (streams) and scattered small black-and-blue circles (villages and airstrips) spaced haphazardly for hundreds of miles in all easterly directions, with big, bold letters saying, "Maximum elevation figures are believed not to exceed 3,800 feet." I looked to see if I could get a sun/moon celestial fix. Sorry, no moon.

So, there I was...lost! "Pilot fly heading 305 degrees till we pick up the Asuncion VOR, then head toward it." We were only about 60 NM north of where I guessed we were.

Next time, nav, check your charts, get a good weather briefing, and copy down headings and times while avoiding thunderstorms so you can retrace your steps. Flying in some of these countries can be more difficult than flying over water. ✈

AT-38

USAF Photo

■ It all began innocently, as it always does. I was on my second trip to Holloman for Fighter Lead-In after flying an OA-37 for 3 and 1/2 years as a FAC. Upon completion of the prescribed syllabus training, the morning came to jump in the jet and slip the surlies. I appreciated the fact my IP treated me as a "big boy," having one operational tour under my belt.

We met the sun rising over the mountains heading east into one of the working areas to reacquaint me with the jet and basically "G our lips off." Acquaintance complete, we returned to the radar pattern for some instrument work. I reckon I handled the airplane pretty well to that point because the IP asked me to shoot an ILS single engine on the first approach.

"Okay, I can handle that," I thought as I initiated a cranium contortion to recall the "funny" numbers.

"Well done," the IP said. "Now let's see a no-flap PAR." And so it went for another half-dozen funny approaches, a square-filling sortie if I ever saw one.

With the squares filled and bingo fuel, it was time to pitch up into the overhead for a "normal" full stop. Coming off the perch properly configured, the picture was just as I had remembered in my last AT-38 flight almost 4 years prior, except for the sink rate. All of you who have flown a T-38 recall that the picture can look fine — it's the sink rate that will get you. About two-thirds of the way around the final turn, the throttles came shooting out of my hand into full AB with the change of aircraft control overwhelmingly implied.

As I viewed the horizon rising uncomfortably high in the windscreen, I assumed the bailout position, and for the only time in my flying days, grabbed the ejection handles with sincere intent to use them. The burners kicked in, and we hovered over the desert floor for what seemed longer than we had fuel available. The only remaining words heard over the intercom while airborne were, "I'll make the full stop!"

Back in the squadron prior to debrief, the SOF called to see if we were okay and to exclaim we sure kicked up a lot of dust in the overrun. With that observation, we sat down to talk about the ride, the highlight, of course, being to cross-check sink rate in the final turn — point taken! When it was my turn for a few words, I offered that starting the pattern work with "normal" approaches would be beneficial for a guy who hasn't been in the airplane for a few years. See the norm before you deviate.

There were a few lessons learned on that ride, as there always should be. For me, it was cross-check, cross-check, cross-check. I think my IP learned just how far he shouldn't let a student go. A few words like "check your descent rate" in the first half of the final turn would have resulted in the overrun remaining just as dusty as when we started the ride.

Just a side note: We flew the sortie first thing in the morning. If the sortie had been that summer afternoon with typical Holloman density altitude, I probably would have realized the sincerity of my intent to use the ejection handles. ✈

C-141

■ There's nothing like being a brand-new copilot on a C-141 going on your dollar ride to Ramstein AB, Germany. It was going to be great. There were four pilots — an examiner on his "fini" flight, an experienced aircraft commander, a first pilot, and myself. We flew an augmented 24-hour crew duty day two-hop from a west coast base to get to Ramstein.

It was morning, and we were pretty tired when we landed, but hey, we were in Germany, it was summertime, the weather was beautiful, and we wanted to do the countryside. So we found our way to the train station and headed for the little town of Trier. It was early afternoon when we got there, and it was awesome! And wouldn't you know it, there was some festival going on. The beer and wine were flowing.

We had a great time that evening. Around 2100, someone brought up the fact our alert was at 0400 for an 0715 takeoff. (This is not good, Part 1!) It was sort of decided we should be heading back toward Ramstein. In my exhausted and semi-inebriated state, I remember the more-experienced pilots talking about drinking in the window. But we were okay, because with four pilots, we could take turns sleeping in the bunk during the next augmented leg. It was a little after 0100 when we got to our room — only 3 hours to alert.

I really couldn't tell how the other three pilots were feeling as we were flight-planning, but I knew I was still tired. Let's see, it was about a 45-minute flight to Gilze-Rijen, Netherlands — one runway, 7,000 feet long, 150 feet wide, and the airfield elevation was . . . zero. Do you think we really paid much attention to any of this? I know I didn't. I was just the dollar rider who got the nav seat. (This is not good, Part 2!)

We filed our flight plan, got out to the aircraft, and even managed to take off a little early. The aircraft commander was in the left seat, the examiner in the right seat, and the first pilot in the jump seat.

It was an uneventful flight to Gilze-Rijen until we got there. Center then notified us the air base wasn't open yet and asked for our intentions. (We must have missed the airfield operating hours at base ops. (This is not good, Part 3!) WOW! What an opportunity to sight-see! The pilot requested a descent to 4,000 feet and asked to fly VFR around the area. Those small towns, old churches, and castles were really something! The 20 minutes went by, and we were cleared

USAF Photo by SrA Andrew N. Dunaway, II

to the base.

The pilot decided he wanted to do a visual approach. We were cleared for it and told to descend to 2,000 feet. The pilot requested a climb to 7,000 feet for the purpose of showing the jump seater and myself the descent capabilities of the fully configured C-141. Okay, I thought. His plan was to have us configured by 12 DME and start down at 10 DME.

It began all right. There was 12 DME, and we were configured with our gear down and flaps at approach. Now, where was the runway? Still level at 7,000, airspeed at 180 knots, and passing 11 DME. I was standing up behind the pilot's seat, looking for the field. Then I saw it.

"There it is, 12 o'clock!"

"I don't see it," said the pilot as we passed 10 DME.

"It's right in front of us. Let's start down."

"I still don't see it," the pilot said as 9 DME clicked over. (This is not good, Part 4!)

"I see it. Flaps landing," the pilot said as he ripped the throttles to idle. The copilot (examiner) set the flaps to landing as the pilot pushed over.

After we started down, there was no more conversation in the cockpit. (This is not good, Part 5!) I quickly got in my seat and strapped in. From my vantage point, I could see the copilot's instruments. We were holding 185 knots, fully configured, with the throttles at idle. I looked to the left of the pilot and could make out the runway from the nav's seat!

At this point, I was just there for the ride, trusting the pilot to get us down. Then 4 DME went by, and we were passing 3,000 feet, still going fast. The pilot started some "S" turns, trying to get us down and slow us down. I thought, "It must be working because we're about 2 miles out and slowing past 150 knots (approach speed was 125 knots)."

At this point, things were moving fast. I could see we were coming up to the approach end of the runway, a little high and a little fast. We passed the threshold at about approach speed. I saw the 5,000-foot-remaining marker go by as the main gear touched down. Without being told, the copilot pulled out the spoilers as the pilot got the thrust reversers going. I could see the end of the runway coming as the reversers were full out, and the pilot (and maybe the copilot) stood on the brakes! After a few seconds of uncertainty, the aircraft started slowing down enough to ensure we would not go off the end of the runway.

The taxi to parking was quiet. We ran the checklists, got out of the aircraft, and met up outside. The pilot started the conversation with "I thought about going around, but I thought I could get it down." The copilot, examiner, said, "I didn't see anything unsafe, so I didn't call for a go-around." That left the first pilot and me. We both thought about calling for a go-around but figured the experienced pilots in the seats knew what they were doing. (This is not good, Part 6!) There would have been one hell of an accident report had we gone off the end of the runway.

I learned a lot of valuable lessons on this one ride, and I've tried to pass them on in the 5 years I was flying the line. When we're called up to fly hard, we usually play hard. Drinking in the window isn't playing hard — it's showing poor judgment and a bad example. This "link" leads to lack of good crew rest, again inhibiting your judgment. And for goodness sake, if you see or feel something you don't like, say something! You could end up just as dead as the guy making the mistake.

I hope these lessons help someone else so you won't find yourself in a similar situation. See you at the next Octoberfest! ✈

T-37

■ There I was...125 miles from Albuquerque in my T-37 with the fuel low-level lights on. While this occurred many years ago, I still remember my student suggesting we land at a little civilian airport. I can no longer remember when this light comes on in the T-37, but back then, as a new ATC IP, I knew I was in big trouble.

The weekend had started on Friday as my student and I left Reese AFB, Texas, for a three-hop flight to Los Angeles. After an uneventful arrival at the NAS, we had gone our separate ways with relatives (really!). I had requested a three-hop return on Sunday, but wiser, older heads had said, "No, too tough for a newbie." Before leaving the NAS on Friday, the student and I agreed to meet at 1600 to mission plan the one-hop east on Saturday.

Well, 1600 Saturday, and no student. I started the mission planning. He had to come soon or our options would be few due to bases closing for the evening. He didn't, and they did. By the time he arrived, the only place within range and still open was Nellis AFB, so off we went, arriving there around 2300.

Much to our chagrin, there were no rooms at the inn — and no rooms in town, either. A hotel was having its grand opening, and a golf tournament was in town. So, we changed in the men's room of one of the hotels and checked our gear, ate an early breakfast, and did the only logical (?) thing — watched shows and gambled until 0500. Then back to Nellis for our two-hop (Kirtland to Reese) flight home. We both felt fine, and the Nellis forecaster said we might encounter cirrus at FL 215 (our VFR planned altitude) but 195 should be okay.

About 20 minutes out from Nellis, we hit the clouds and started a descent to approximately 11,500 feet to stay VFR. Now, I could not reach anyone to get an IFR clearance. Fuel was getting so far below that planned, I decided to climb IFR on VFR clearance — higher altitude, better range — both on the UHF and for fuel. I considered Williams AFB (just south of our route at Phoenix), but they did not open till noon. Finally got the IFR clearance, slowed to 125 KIAS (L/D max for Tweet), and landed downwind at Kirtland.

Saw the SOF (crusty major) and explained I wanted to file an OHR on the Nellis weatherman, for he had blown it. Rain, turbulence, ice, St. Elmo's — you name it. When he asked why I didn't divert to Luke AFB, I walked away — glad that God watches out for his dumber animals. You can count up all my mistakes — my ego won't let me!

This could very easily have become one of our "dumb" mishaps. When things start to come unglued, take time to be sure you're not painting yourself into a corner. ✈

USAF Photo by Mr. Walter Wright

USAF Photo

■ "Why don't you lead this one?" I said to my wingman as we met in Base Ops at Torrejon to plan the next leg of our weekend cross-country into Aviano. My wingman was a 500-hour F-4 pilot who was doing well, and we'd just entered him into flight lead upgrade training. This would be a good sortie to start with — not too challenging — just get two F-4s from Torrejon to Aviano.

The flight went well, and we'd planned to do a formation wing landing at Aviano. As an instructor, I could fill one of his flight lead upgrade squares. We had a good victor mike the whole way until we began our descent into the haze and murk of the Po Valley. There was no ceiling, but the visibility was 2 or 3 miles, and the budding flight lead made a good decision to call for a precision approach.

My flight lead led a smooth approach although a little faster than I would have led it. Trying to be the alert IP, I flew a little wider on final than I would normally have flown so I could keep an eye on the lineup and his aimpoint. No landing in the overrun for me! On short final, I concentrated hard on holding a steady position on his right wing.

We had a good touchdown about 1,000 feet down the runway. As I lowered the nosewheel to the runway, I looked forward to begin my own rollout when I saw my F-4 was about 40 feet away from rolling the right main gear over the BAK-9 housing on the right side of the runway. Instinctively, I slammed the stick to the left, and fortunately, my wingman had landed us with enough extra knots to make the right aileron effective. The right gear hopped over the barrier berm without a bump.

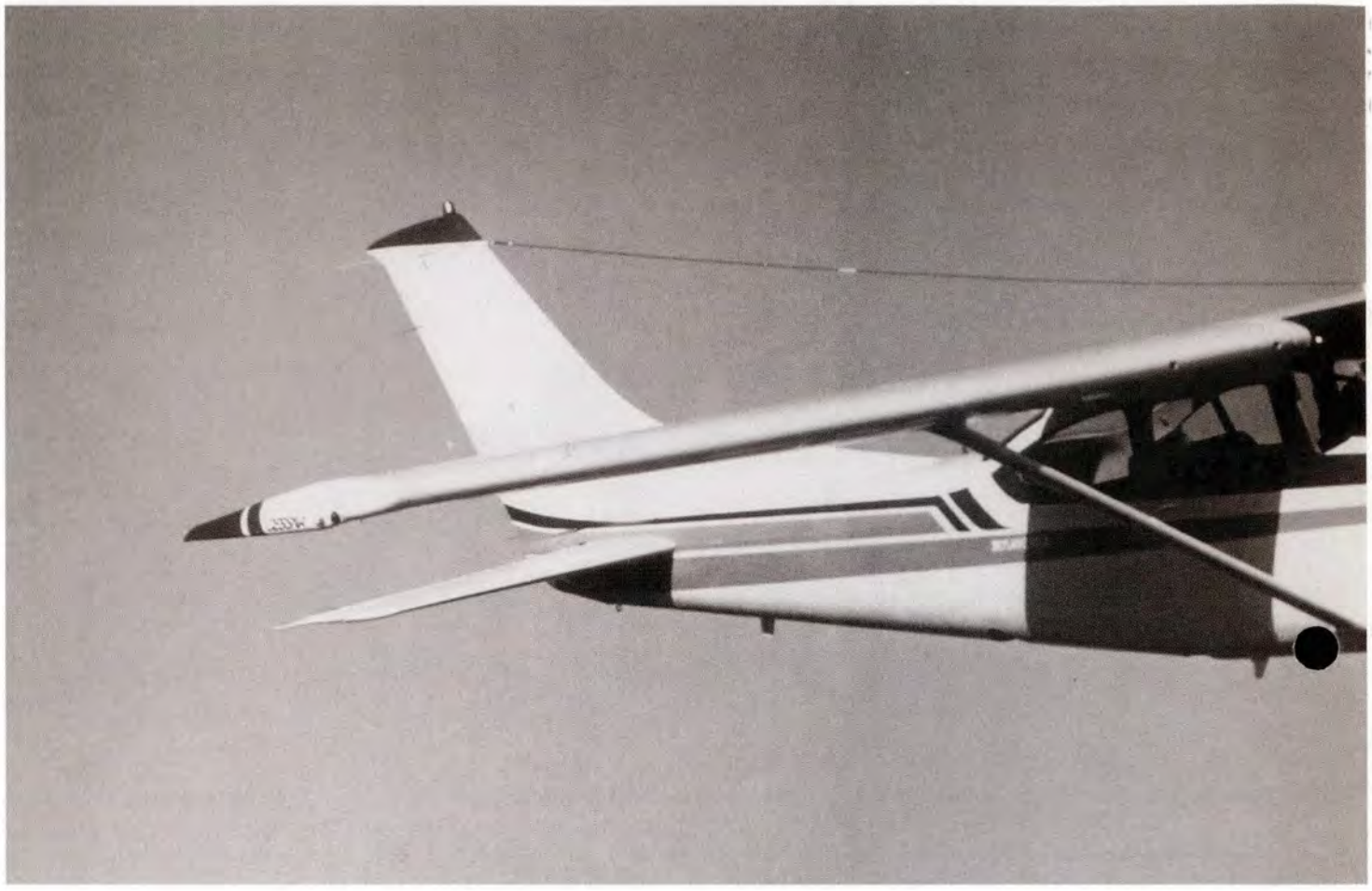
"Doboy 11, you having any problems?" the tower asked, knowing something had happened but not sure what.

"Negative," I croaked.

The rest of the rollout, marshaling, and parking was uneventful, and my careful inspection of the right gear and tire revealed nothing. That evening over pasta, we discussed how large a ball of tin foil we could have become if that right main had sheared off in the barrier.

A mishap board probably would have determined that I was wider than recommended, and my lead landed close to the centerline of the runway, putting me on the right edge of the runway. Fortunately, we were able to eat pasta rather than the big schnitzel. As an instructor, I thought I was flying a prudent approach under the circumstances. What did I learn from that? When you think you're doing "good," you can be 10 seconds from dying! Be careful out there. ✈

Civil Aircraft



■ The only thing more dangerous than two highly experienced T-38 FAIPs flying together in a T-38 is two highly experienced T-38 FAIPs flying together in a complex, high-performance, loaded-with-options, light civilian aircraft.

We set out on a six-hop cross-country weekend in the above-mentioned rented light airplane. The airplane was loaded with all the bells and whistles: retractable gear, constant speed prop, moving map display linked to the state-of-the-art avionics, and oh, yeah, it also had the most horsepower we could find. It was fast (relatively speaking, of course).

The pre-mission planning and brief emphasized our relatively recent inexperience in the light civilian aircraft environment. We'd heard about military aviators who'd really messed up while "playing" with light airplanes. Not us, though. We were professionals and actually conducted ourselves as such. (I know that's hard for some of you to believe.)

The second day of our 3-day adventure began at dawn. Shortly after sunrise, we crossed the Sierra Nevadas westbound at almost 14,000 feet. It was a glorious view.

We accomplished a bunch of in-flight computations for practice but shortly got bored with this exercise. (In retrospect, we were very subtly losing our ability to accomplish simple arithmetic.) We ran all the checklists deliberately and without any errors or omissions (well, almost).

About 150 miles into our 300-mile flight, the other guy says to me, "Hey, I think the ailerons are out of trim." My reply, after looking out the windows on both sides of the airplane was, "Uh, we don't have any aileron trim tabs on this thing."

We checked the rudder trim, visually checked the flight controls and internal load. Nothing obvious that would cause our ship to list. I flew the airplane for a few minutes and felt the subtle turning tendency for myself.

I relinquished control and continued to try to identify the cause of our leaning. All the while I stayed "high" to avoid those other light air-

Photo courtesy Cessna Aircraft

planes normally found below 10,000 feet.

With 30 miles remaining, we accomplished a shallow IFR en route descent to an ILS at our destination airfield. About 3 miles out on our final approach, we simultaneously figured out what the problem was. It was as if a huge flashing neon sign suddenly appeared on the engine cowling. It said "Switch the wing fuel tanks, you idiots!"

The reason we felt a heavy wing was because one wing tank was full and the other was nearly empty. (Our receipt for gas showed 35 gallons — it was a 35-gallon tank.) The 16-year-old kid working the gas truck made a point of telling us we might have a fuel problem. He said, with genuine concern, "Sir, you might want our mechanic to check this out. Your right tank was still completely full. I don't think the tank was feeding at all."

It would have been quite embarrassing to run out of fuel with 3 hours of fuel on board. Not only might it have been embarrassing, it might have hurt.

So what happened?

Our recent aviation experience was almost exclusively with an airplane not equipped with wing fuel tanks. In fact, managing the fuel balance between the two internal, centerline fuel tanks in the T-38 is quite simple.

The time each of us spent checking out in the aero club airplanes was all accomplished in the local area and did not require us to manage fuel. Each flight was about an hour in duration on a full load of fuel. Based on the *If it's not broke, don't fix it* rule, we always left the fuel on the same tank. This inaction unfortunately turned into a habit pattern.

Here's the clincher. We were perfectly legal flying at the higher altitudes without supplemental oxygen. We did not exceed the FAA limitations on altitude or duration. We did, however, push those limits right up against the wall. Hey, we're healthy jet jocks. We wear G-suits during the week, you know. What's a half hour at 14,000 feet and an hour or two at only 12,000 feet? No big deal, right? Wrong!

Looking back on the scenario, we both realized we had suffered slightly from hypoxia. It was only enough to inhibit or disable some cognitive abilities. Such as:

- Remembering to switch tanks. Fuel checks were in the checklists we read aloud and responded to in classic crew-cockpit/CRM style but somehow failed to actually accomplish.
- We could not figure out why the "ailerons" were out of trim.
- A subtle loss of concentration — couldn't do simple in-flight computations in our heads.

Most importantly, we did not realize we were suffering the ill effects of a lack of oxygen to our brains. The minor euphoria or sense of well-being prevented our perception of any problem.

Flying airplanes, any airplanes, can be hazardous if you are not totally prepared for the particular challenges associated with their unique operating environment.

When jumping from jets to props and back again, be totally prepared for the differences. There are a bunch of them. ✈

KC-135

USAF Photo

■ We were in a hurry. The aircraft was ready for a pickup from the contractor at the depot, and the Air Traffic Control (ATC) system had a very small launch window for us. If we missed the window, it would be at least another 8 hours before ATC would give us another IFR clearance. We rushed through the Dash One preflight on our KC-135, started engines, picked up the clearance, and taxied.

We had a fairly light fuel load, only 60,000 pounds, but the aircraft was carrying water. Tower cleared us on to the active. Before takeoff checklist — push the throttles up, set takeoff EPR, 60 knots, No. 3 isn't taking water, 90 knots, ABORT! Throttles idle, speedbrakes 60 degrees, brakes apply, turn off the runway. The tower tells us if we can make it to the active runway without delay ATC will still accept us.

No one wants another 8 hours here at the depot. So we taxi quickly! Recompute takeoff data for a dry takeoff (remember, we are quite light). We reach the active, receive takeoff clearance, and take the runway. Before takeoff checklist again. Set takeoff EPR, 60 knots, 90 knots — everything looks good. Rotate! Gear up! EPR on Nos. 2 and 3 is rolling back! What's happening? EPR on Nos. 1 and 4 is now rolling back! What's going on? Crash landing after takeoff checklist goes through our minds.

In desperation, I push the throttles to the firewall, and the engines respond. We are barely flying, but the KC-135 is beginning to accelerate. All cockpit instruments register normal. We continue to climb. Needless to say, the crew is trying to figure out what happened. And then the light goes on.

Remember the ABORT? We ran the bold print, but in our rush to make good a quick takeoff, we did not accomplish the entire abort checklist. The water pumps were left on. On the dry takeoff, we set the engine EPR to a dry setting, but the engines were giving us a wet thrust. The EPR rollback? Merely the water running out. When setting a dry EPR on the gauges and getting wet thrust and the water runs out, the EPR remaining is less than the KC-135 requires to fly. What if I hadn't, in desperation, pushed the throttles to the firewall? We would probably be reading about this in the Class A mishap file. ✈

Story time

■ I chanced by a group of fledgling pilots at the bar the other night and overheard that famous opening statement, "There I was..." No doubt another daring episode of superior skill and cunning, I thought. I couldn't help but identify with the lad, for I'm sure I've begun a few of my tales with those very same words.

But while I stood there, I recalled what an "old head" had said to me one night at another bar — about how bar talk is usually inflated by the storyteller to "properly" distort the abilities involved. The fact is accepted by all, he stated, and we both agreed it usually made the story a bit more interesting. But then he went on and talked about an underlying and seldom recognized benefit of these tales — the sharing of the lessons learned as well as the actions taken to preclude a disastrous ending. The taleteller is actually teaching through example — the best method yet devised, short of being there yourself. I agreed again, and we closed the topic with another round.

But as I drifted back and listened to the young pilot begin his story, I couldn't help but think of the times when all did not go well — those times when things did not function "as advertised," and the results were disastrous. Now the tales those pilots could tell, if only they were still with us.

And what about the times when I've been in a tight situation, made the wrong choice, and still lived through it? The times when fortune shined upon me and I came through it all, perhaps not smelling quite like the proverbial rose, but indeed alive. The personal education gained from these experiences is valuable, too — perhaps even more valuable than the typical "fighter pilot" story. But to tell such a tale would definitely not convey the image of a true fighter pilot, the very image that I — uh, I mean the storyteller — desires. So how to tell it? There should be a way...there must be a way....

****

"Excuse me, gents, but I couldn't help but overhear your story. I recall a similar event that happened to a friend of mine one time.

"THERE HE WAS..." ✈

USAF Photo

F-15

■ The range training officer had just advised me I had killed the last of four adversary aircraft my element had engaged on a dissimilar air combat tactics mission on an air combat maneuvering instrumentation (ACMI) range. No shots had been fired by the opposition, and I was feeling rather good about how things had gone for me and my Eagle jet.

Partly out of sheer exuberance, and partly for the benefit of my A-4 "partner" who had acted as a six-checker while I heavily worked the F-15's radar and weapons systems, I figured one victory roll for each of the four kills I'd been credited with by the ACMI computer would be in order.

So, here goes...stick forward slightly to 1 G, or a touch less, out of the mild climb I was in, then stick smartly to the right, being careful not to go to max deflection (a Dash One no-no in the Eagle if rolling more than 360 degrees). One, two, (going almost too fast to count)...say, the nose is starting to move off its point...three...my God! I'd better knock this off...four...stick is centered laterally, but the bird won't quit rolling! Let's try just a touch of opposite aileron...no good! Perhaps increase the roll rate.... You dummy, you must have induced an auto-roll.... Let's see, are we positive or negative G? Damn, can't tell.... Would estimate about 1/2 positive G 'cause I'm light in the seat but not hanging in the straps...okay, positive — here goes anti-roll rudder...jeez! That was obviously the wrong way. The roll rate is at least as fast as, even seems faster (...must have done eight or nine rolls by now, and the nose is starting to drop below the horizon), but now I'm definitely negative G — the shoulder straps are cutting deep, and the lap belt hurts. I guess that's good news. No doubt in my mind now which rudder to use...here goes.

Pro-roll rudder...it's still rolling. I believe it's rolling faster, but I know I've got the correct rudder in...hope it works, would sure ruin my day if it doesn't...okay! It's slowing down its roll rate — looks like three rolls after getting all the pro-roll rudder I

USAF Photo by SrA Andrew N. Dunaway, II

could achieve...oops! What was that?

As the Eagle stopped its rolling, it did a negative 2 1/2 G and a positive 7.3 G ya-ha maneuver with several smaller cycles of the same porpoise — all with the stick held centered. Thank God it's over.

After looking my beast over to ensure all was well, I decided I'd probably not do that again. I distinctly recall thinking how foolish I'd feel if I had rolled that way after splashing my fourth or fifth Flogger only to leap out because I couldn't recover from a condition I had induced.

I've since talked with a senior MACAIR test pilot and a USAF "golden arm" who has flown Eagles since the early days at Edwards. Both stated they'd never been in that particular flight regime, though the MACAIR pilot stated he was aware of a great dislike by the Eagle for any high sustained roll rates at negative, or even low angles of attack (the Dash One says so, too).

Flight conditions were approximately 400 KCAS, FL 230, approximately .5 G, rapid roll rates. Roll-yaw coupling was apparent by the third roll. Approximate time of "maneuver" was 6 seconds. Best guess on total number of rolls was 12 to 14, altitude loss was 3,500 feet, and airspeed decreased approximately 50 knots. All three control augmentation systems (CAS) axes dropped off during the recovery. Internal wing fuel was within 50 pounds of balanced. I had 5,000 pounds of fuel remaining and a centerline tank.

Further study of the flight manual's flight characteristics section convinced me I really hadn't had an "auto-roll" as defined there (it always is a result of high AOA) but, rather, had experienced a particularly nifty example of roll and yaw coupling due to high roll rate, high airspeed, and very low angle of attack. I learned that waiting until coupling becomes evident may well be too late.

I hope the telling of this experience may keep some other aggressively exuberant Eagle driver from being an unwitting and unwilling passenger for one devil of a ride. ✈

HH-53C

USAF Photo

■ I was in the center seat of the HH-53C, part of a six-man crew on an RWR/threat countermeasures training sortie against some radar emitters on the range. We were eager to get the mission underway and see if we could defeat the radar threats and avoid being "shot down." The guns were loaded, the ALE-40 chaff programmers were set, and the RWR set was warmed up — we were ready!

We arrived at the range uneventfully, descended down to 100 feet AGL, and proceeded to our operating area taking maximum advantage of the terrain to mask our movement from the "bad guys." Once we arrived at our designated area, we elected to start things off by flying several approaches to practice combat insertion landings. On short final of the fourth approach to the LZ, the RWR scope began to show some acquisition radar activity off to our 11 o'clock. They were starting to look for us, and the cat-and-mouse game was about to begin.

My finger was itching on the ALE-40 chaff release switch — I was ready! We landed all right, and after a minute, the copilot initiated the takeoff. We climbed to 100 feet AGL, leveled off, and began to accelerate. At 100 feet AGL and 60 KIAS, the RWR scope lit up like a Christmas tree with the missile launch light flashing and the audible warning blaring — they had us!

"BREAK RIGHT, BREAK RIGHT! MISSILE LAUNCH 11 O'CLOCK, CHAFF'S AWAY, CHAFF'S AWAY, they still have us locked up, punching more chaff, CHAFF'S AWAY!" My eyes were glued to the RWR scope, and I worked the chaff release switch as we continued the right turn in an effort to break radar lock until the tail scanner yelled "STOP DOWN! STOP DOWN! CLIMB! CLIMB!"

The pilot and I both quickly looked through the pilot's right side window, and my heart froze as I saw individual grass hummocks go flashing past. I was sure this was it and rotor blade contact with the ground was only milliseconds away! The pilot yelled "ROLL OUT! CLIMB!" at which time I snapped out of it and made a quick instrument cross-check to find we were in a 30-degree right bank and at 40 feet AGL! The copilot rolled the helicopter level and initiated a climb up to 200 feet AGL where we all began to breathe again.

Lessons learned? Talk about channelized attention! The crew was so intent on defeating the radar threats that we almost defeated ourselves by flying into the ground. As for me, I was so focused on the RWR scope and working the ALE-40 system that I allowed my normal instrument cross-check to break down. Missile threats don't have a PK (probability of kill) of 100 percent, but the ground almost always does! ✈

Cessna 150

Photo courtesy Cessna Aircraft

■ There I was...practicing emergency landings in a Cessna 150. It was the week before I received my private pilot's license. The sky was clear on a beautiful June afternoon with no crosswind. It was a perfect day for flying. I was making my sixth simulated emergency landing when it happened.

On final, approaching the threshold, the prop suddenly stopped. I put the nose down and touched down at about 80 mph. When I had slowed enough, I headed for the grass to get out of the way of the twin-engine Cessna that was behind me. As I cleared the runway, I heard him go around.

In the air, there had been no time to attempt a restart. I was glad I didn't bother to try because when I tried it on the ground, it wouldn't start. But after the first try, I saw why. Embarrassment can hit pretty hard. The fuel mixture knob next to the throttle was all the way out. This, in effect, shut off fuel to the engine and caused it to stop.

Proficiency can breed complacency, even in low-time pilots. I had gotten so confident I didn't bother to look when I pulled the throttle knob back on final. Instead of getting the throttle, I had grabbed the fuel mixture knob and pulled it all the way out. I was concentrating on other things and didn't even notice the different feel of the knob.

I had heard stories about other pilots making dumb mistakes that I would never make. Suddenly, THERE I WAS...✈

F-111

USAF Photo

ANONYMOUS
Courtesy ***The Combat Edge***, Aug 94

A long time ago, in a place far away, I was a lieutenant who, better lucky than good, narrowly averted a mishap. This story has all the elements of the classic mishap scenario — a chain of events that snowballed into a situation whose outcome could have resulted in the loss of a combat aircraft.

This potential mishap involved such factors as crew rest, discipline, supervisors with "gethomeitis," and "lip service to safety," along with deteriorating weather. Running out of gas in any aircraft is not a good way to distinguish yourself. In an F-111 holding 32,500 pounds of JP-4 internally, running out of gas would have been committing the cardinal sin of Aardvark attack aviation. As I touched down with 900 pounds remaining, I realized I'd come within 5 minutes of doing exactly that.

My story starts out in Alaska, a long way from Cannon air patch. We red scarfers were deployed to Brim Frost and having a great time avoiding the adversary air, putting bombs on target, and doing the Bush Company. But all good times come to an end, and it was time to deploy home. The deployment briefing mentioned a possibility of snow showers at home, with the weather steadily deteriorating throughout the day. Our supervisors briefed that, in any case, we would not push the weather! We would not have gethomeitis, and we would land short of our home destination if the weather dictated.

The planning and briefing went well. We were scheduled for an early morning takeoff which would require an 0-dark-thirty wakeup. Any experienced pilot would know that the 6-hour-plus, 3,000-mile hop home was not just a routine sortie and that a proper period of crew rest would go a long way toward

Out of Gas in an Aardvark!

making the journey a safe one.

But I was not so much experienced as I was enthusiastic about this TDY — and it wasn't through yet, so off went this intrepid lieutenant for a night on the town. Mission successful, I returned to the VOQ just in time to realize that my crew rest was not only in jeopardy, but it would be virtually nonexistent. Probably would have to bend the 12-hour bottle-to-throttle rule also. That's all right. I'd hacked worse than this.

I remember having the cold chills on taxi out, and something kept telling me I would have been a lot better off sleeping than launching on a 3,000-mile flight. My WSO, years my senior, appeared not to notice my condition, or at least didn't mention it. Rotating in the preceding Vark's cloud of burnt urea, we flung our 80,000 pounds of mass into the early morning sky. A couple of guys blew the radar trail departure, forcing the entire formation, including the tanker, to do a 360 to effect the joinup while wasting precious gas.

The first few hours were going okay as I snacked on my box lunch to take the edge off my headache. We refueled to top off for the remaining portion of the flight, and I did a respectable job of hopping on the boom and getting my gas. With that done, I felt I could coast home and be none the worse for my late-night antics. However, we still had a long way to go.

A weather update, with reported conditions of less than VFR at home, was transmitted to the formation by the airborne SOF. We were still 3 hours away, plenty of time to make a decision to divert if needed. Another hour passed, another weather update, and things were getting worse. The ceiling was under 1,000 feet, and light snow was falling, but visibility underneath was good — press on! I wasn't very concerned, for I knew we "weren't going to press the weather" and that plenty of suitable divert destinations lay between us and the snow-covered high plains of eastern New Mexico.

The next weather update didn't sound very good. Ceiling and visibility were being reported at 500 and a mile and a half. Funny, that's exactly what Cat C weather category minimums are. As we approached our last divert base, I started to wonder what decision the bosses were going to make. They said they "weren't going to press the weather."

It was relatively apparent the weather was continuing to get worse, or in more precise pilot terms — crump! "I bet we RON at the divert and head home tomorrow," I told my WSO. But as the DME increased after passing our last divert base's TACAN station, I knew they were serious about reaching homeplate. Okay, let's get my act together here. I'm dead tired now, but all I have to do is an IFR splitup, vectors to the ILS final, and put this puppy on the ground. Fuel is fine: 5,500 pounds.

Weather update, still calling 500 feet and a mile and a half with blowing snow. As the gaggle of Aardvarks split up, it became a real circus up there. I guess this appeared easier than it was actually going to be. It was obvious the controllers were not used to working this type of mass IMC/IFR recovery (ASLARs didn't exist yet). Aircraft were being vectored all over the place for spacing, wasting valuable recovery fuel. The radios were a mess, with ops checks interrupting controller instructions. My gas was still good (4,500 pounds), and I was second in line to go down the chute. Boy, I was tired. I wished I had gotten a good night's sleep.

USAF Photo

The first guy to shoot the approach, a senior captain patch wearer, broke out of the weather, landed, but ran off the runway into the overrun, unable to stop on the slick, snowy runway. Another vectoring delay as they scrambled to get him clear of the runway.

Okay, my turn now. Looking good, 4,000 pounds of gas, and an

continued on next page

ILS I could fly in my sleep. Weather reported holding at my weather category minimums. Configure: gear, slats, flaps, and down we went. I had it wired passing glide slope intercept altitude. My WSO called descending through 1,000 feet on the radar altimeter, and I anticipated breaking out of the weather any second now. There was 500 feet, cross-checking for outside references, all I could see was the cold gray of low snow clouds. Passing 400 feet. Hey! Come on now! Where's the clear air? Approaching 300 feet, my fun meter was pegged. I was 200 feet lower than I was supposed to be on my weather category and still hadn't broken out. That was enough fun for me! Burners now as I raised the nose to go-around attitude for a missed approach.

USAF Photo

Looking back on that approach, I have often wondered if descending another 10 feet would have allowed me to break out of the weather. Or, if I had been better rested, I wouldn't have panicked and used burner on the missed approach. I wonder how low that ceiling actually was and why they kept reporting it at 500 feet. It's history now.

Standard climbout put me on downwind for another attempt at the approach, but I needed a hole between other recovering Aardvarks. After using afterburner, I had 3,000 pounds of fuel remaining. I think our supervisors finally determined things were going to hell after the first guy couldn't stop on the runway and the second, me, missed the approach. "No, we won't push the weather!"

It was as if they didn't know quite what to do when a dominating voice came across the UHF. It was the SOF in the tower taking charge of the situation. "Three thousand pounds," was my response to his question of how much gas I had left. Every suitable divert was now emergency fuel away. His directions were simple and calm: "Point east south east, perform a max range profile climb, and you are now an emergency. Add that last fact to all your calls to ATC. You are going to Dyess AFB, 200 miles away. Good luck!"

The rest of the Cat C weather category pilots were diverted right behind me, but since I had already missed the approach using burner, I was the low man on gas. Very few people had ever tested the accuracy of the F-111 fuel gauge as low as I was going to.

I flew that divert profile as smoothly as humanly possible and thought about controlled ejection as I watched the fuel gauge wind down. I was trying to concentrate on the task at hand — making it to Dyess' runway on the fumes I had left. But the thoughts of why this was happening kept creeping into my thought process.

"Boy, was that stupid staying out all night, and why the heck did they push the weather when they said they wouldn't?" I felt mad and foolish, but a quick glance at the fuel gauge brought me back to the here and now. Approaching 1,000 pounds remaining coincided with the start of my max range en route descent.

An amazing thing happened during that descent. It appeared the plane was making fuel. The closer I got, the more confident I was that we could make it. We did! Boy, can you aerobrake an Aardvark with 900 pounds of fuel left! The tower controllers got mad at me for scraping my tail bumper all the way down the runway and throwing sparks. I parked the jet and wearily crawled out of the cockpit 7.2 flight hours after brake release that morning. They tell me the guys back at Cannon clapped for us after learning we made it down safely. I was exhausted, but elated that we'd made it down the normal way. No VOQ bed ever felt better than the one I slept in that night.

I learned even lieutenants need crew rest. And, if you're a commander out there, did you learn anything? Are you going to push the weather to get home? ✈

B-52G

■ I had recently become a B-52G aircraft commander and was naturally inclined to do my best now that I carried the responsibility that came with the position. However, as I learned after one particular mission, there is a lesson to be learned from trying too hard.

The exercise was in full swing, and I found my crew scheduled for a nighttime, three-ship MITO launch followed by an EWO profile sortie, cell departure, night air refueling, and low-level bombing. Everything was going smoothly, and I wasn't overly nervous about the mission, even though I did have a slight case of sweaty palms. My main thought was that this was a higher headquarters-directed mission, and I wanted to do well — no matter what.

The MITO and subsequent departure went relatively smooth, and I was just beginning to relax to a degree when a "few" things began to go wrong. Lead had just called for a turn, and I began my turn to stay behind him in cell. It was dark, we were in the weather, and my ADI said we were not turning. "Well, maybe a little more spoiler input..." Still no turn. ADI says straight and level. A quick cross-check with the copilot's and WOW! Where did that 45-degree bank angle come from? "You got it, Co." Transferring aircraft control was probably the only commonsense thing I would do all night. He took the aircraft, and I wasn't worried since he was a good instrument pilot. Now maybe I could fix this ADI. This task was to be short-lived.

A few seconds later, I heard someone asking to check the cabin altimeter. A quick glance confirmed the worst. We were not pressurizing! Darn! What next? Our switches were in their normal positions, and I mentioned that maybe it was the pressure bulkhead door. The nav was new, extremely eager to please, and said he would check it. He cleared off interphone and oxygen to do so — in an unpressurized cabin! I told the radar navigator to get him back on oxygen ASAP! The last thing I needed was a physiological incident!

USAF Photo

This was turning out to be quite a night. It was still a while to the ARCP. Maybe we could fix these things. I sure didn't want to quit. These were my predominant thoughts at the time. I was slowly being afflicted with what is commonly referred to as "push-itis."

I elected to continue the mission, even though it meant keeping our masks on. We would refuel at the bottom of the air refueling block so we wouldn't be "too much" above FL 250. Someone pointed out that this was a particularly long mission, and the idea of wearing the mask was going to make it very uncomfortable. My response was "We will just have to be tough."

To make a long story short, we did tough it out, even though it resulted in a real-life breakaway that scared the wits out of me and my crew. I flew low level using the standby ADO, which probably was not the safest thing to do since it was in nighttime conditions and greatly disrupted my normal cross-check. Looking back on it, I put my aircraft and crew in a few unhealthy positions that could have been avoided, except for an attitude I let get the best of me. Judgment was eroded and safety compromised by an overexuberance to get the job done.

When my squadron commander was briefed on the details of this, he stated the staff would have more than likely asked me to RTB, burn down fuel, and land. The worst we would have experienced in that scenario would have probably been the boredom while we waited for landing gross weight. ✈

RF-4C

USAF Photo by MSgt Perry J. Heimer

■ I hadn't been in my first RF-4C squadron long as a first lieutenant. I was just getting to know the aircraft, and I knew I was safe. And I guess I felt smart enough to know that my excursions near the edge should have been with an IP. But I let the machismo of being a Phantom Phlyer back me into a tight corner.

I wasn't feeling well one Friday, so instead of beer call at the Club, I went home. I started feeling worse the next day, and I found out I had contracted a severe form of pneumonia! The flight surgeon put me on quarters and prescribed 500 mg of antibiotics four times a day. In 48 hours, I felt a little better. But then the "cure" became worse than the disease! I was just "decked" with the runs and the heaves, and I thought I would rather die than go on! I was to continue the medication for at least 2 weeks. I lost 30 pounds during this ordeal, to boot.

Meanwhile, my squadron was processing mobility to go to Nellis. It was a TAC exercise which was a forerunner to Red Flag. All types of fighters would fly this exercise against the aggressors (who were in T-38s at the time). An excellent deployment! And a few weeks in Vegas would be fun.

My GIB came to my house to get all my mobility stuff so I could process with the squadron in spirit, at least. I was told I should go out and be with the squadron to observe what was going on, and after a while, if I felt better, I'd fly. (What's the story of the big lie that goes "It's okay! Step the crew! We're just signing off the forms"?)

I had taken my last dose of antibiotics. I had had a normal temperature for several days, and I was feeling a lot better. My bride of only a year had fed me well, and I thought I was ready. I hopped a base C-118 to Nellis and joined the squadron. I was glad to be there, as my youthful enthusiasm led me to have a strong squadron identity.

The first day there, I noticed I was hotter than anyplace I had ever been. One squadron mate — a goat-roper from Texas — said, "It's like walkin' behind an F-4 at the hot refuelin' pits, but it never stops!" We had our range briefings and worked on our local area maps. As I left, I noticed I was on to fly the next day! Well, that should be okay. After all, I had signed the 1042, and the flight surgeon took me off DNIF, right? Besides, I was where I wanted to be — with the squadron.

Using uncanny judgment, I went back to my Q and went to bed early. I got up and reported in the next day for an 1100 local takeoff. We were reminded that the traffic pattern airspeed was up to 350 knots (vice our usual 300 for the Phantom) because there were F-105 Wild Weasels around who would fall out

of the sky at 300 knots! Okay! So I got the message.

My GIB and I went out for our mission. The life support folks were smart enough to give me two plastic flasks of ice water to put into my G-suit. They said I would probably need them. Sure enough, while waiting for quick check, I drank one of those flasks dry.

I knew I hadn't flown for a while, but I was still technically current. Anyway, I had already made up my mind I would be very conservative. I would let the aggressors wax my tail! I felt that learning about "tally" would be a great objective for this point in my flying career. The mission went as planned until I got into the traffic pattern. We had three-bag Phantoms, and it was a short mission, so the external wing tanks were still feeding as I came over Las Vegas for the pattern.

I came off the range and turned up initial at 350 knots, just as ordered. I was figuring how I would lose that extra airspeed before the perch. I know! I'll just suck the stick right in and bleed it off fast! Well, that's what I did. But in a left break, if you jack the nose up fast, the AOA gauge would sneak out of the slipstream. No problem! You just feel this Phantom shaking like a bike on bricks.

Of course, if you'd just gotten over pneumonia, your mind wouldn't work fast enough to tell you that you were in deep yogurt at this point. And so, when the intrepid aviator puts the stick right to roll out, any doofus would naturally expect the airplane to snap to 135 degrees of bank to the left, nose headed for Caesar's. (By the way, didn't we start accelerated stall demonstrations in the Phantom at 350 knots with tanks dry, but with a whole lot more altitude?)

Would this guy's slow mind get him out of the jam, or would he try more aileron? Well, it was just one of those things that had scared me a few years before when I was practicing power-on stalls in a Cessna 150. I snapped the plane violently to the left, and my right foot on the rudder answered the call! So, in this case, by the grace of God and a smidgen of Cessna-based experience, the boot went to the floor, and I executed a nicely coordinated rudder roll deep into dihedral effect and got wings level at 200 feet AGL! (The tower was beautiful: "Click 43, the pattern altitude is 3,200 MSL!" Yeah, thanks!)

I got things under control and gingerly brought the jet around final to a safe landing. The heavy gross weight and high-pressure altitude necessitated antiskid braking, but I was never so glad to get that Phantom stopped that day.

When I parked, the first thing I did was to remark to my GIB that I had almost made widows of his wife and mine, and that if he never wanted to fly with me again, I'd understand! (By the way, he stayed with me, and I never felt I ever thanked him enough for his individual leadership!)

Our SOF was equally understanding. He, too, exercised some great leadership in working out the problem in my debrief ("... adverse yaw, dihedral effect...") He was a true professional, and it helped me out a lot.

I spoke with my flight commander, and despite being caught up in the frenzy of the exercise, he realized that just finishing up pneumonia medicine didn't mean that I should have gotten off DNIF. As it turned out, my weight loss and the torture which the antibiotics did to me had long-term effects. I was not back up to 100 percent for some time. Therefore, flying in unfamiliar territory with outrageously hot weather was not a smart thing to do.

So the big lesson is that all the care and attention to details cannot overcome being physically slowed by a serious illness. How many of you self-medicate? How many of you put less than 12 hours between the bottle and the throttle? Have you listened to your flight surgeon lately? ✈

Our No. 1 Reader Request

Tell us about the story relating to flying safety you learned from most!

Fliers, Maintainers, Air Traffic Controllers, Firefighters, Aircraft Munitions Specialists — all are welcome!

All entries remain confidential

If we print your story, we'll send you our "belly-washer" size Flying Safety coffee mug (confidentially, of course!)

Write, E-mail, fax, call, or send your cassette tape to:

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Don't let your story fade away!

A-10 Near Miss!

■ There I was...en route to the air-to-surface range to deliver some practice bombs. We were a four-ship at 8,000 feet under IFR control.

Approach Control called out opposite direction traffic at 8,500 feet at 10 nautical miles (unverified altitude). Approach Control then called the same traffic, 4 nautical miles at 8,000 feet.

Our flight lead then asked for avoidance vectors. By the time we were issued them, another flight member called "pull up."

We missed the light aircraft by 200 to 300 feet. Lessons learned:

See and avoid is paramount.

■ Unless both aircraft are under IFR control by the controlling agency, there is no requirement to issue avoidance vectors to the IFR aircraft.

It is better to ask for avoidance vectors early, and not need them, than to wait until it's too late. ✈

USAF Photo by SrA Andrew N. Dunaway, II

T-39

USAF Photo

■ There I was...a victim of circumstance. The mission was a routine one — a 1600 takeoff with two stops and then back home. Lieutenant P. H. and I checked the weather, NOTAMs, and filed the flight plan, noting that it looked like an easy day. Everything was running smoothly. Even the DV had shown up on time.

Then the No. 1 engine failed to start. After several attempts at starting the engine, we suggested to our passengers that the Officers' Club might be a better place to wait while a specialist tried to solve the problem. Unfortunately, there were no spare aircraft available.

Three hours later, we were airborne. Luckily, the weather was holding up at our destination. I told the DV, "We'll get you there, even if we have to push the jet." Little did I know how true my statement actually was.

Thirty minutes out of our destination, I gave the standard inbound arrival message to the command post. They acknowledged, "Roger, we copy all and know who your DV is. You are not cleared to land." Thinking that I was hearing things, I asked them to confirm that we were cleared to land at the base. "Negative, you are not cleared to land." The command post suggested we divert to a civilian aerodrome 15 minutes away from our present position. After further inquiry, we learned our proposed arrival time was 5 minutes after the start of the base's quiet hours. No one could land.

After coordinating the diversion with Center, arranging for a staff car to meet us, and briefing the new approach, we found ourselves on final to an aerodrome neither of us had been to before. Approach Control informed us the tower was not operating and to stay on approach frequency after landing.

On rollout, Lt P. H. directed me to pull out the aerodrome diagram. According to the diagram, all taxiways were open, and all led to a parallel taxiway. Lt P. H. started a turn onto the nearest taxiway (unlighted) while I ran the checklist. I looked up just in time to see grass growing out of a supposedly open taxiway. We both groaned. The taxiway was too narrow to turn around, and since all taxiways led to the parallel (according to the diagram), we elected to slowly press on. The taxiway extended a hundred feet forward, a hundred feet to the left, and ended. We were stranded on an unlighted, closed taxiway at an unfamiliar, uncontrolled aerodrome with no one to talk to except Approach Control. We were on our own.

We favored one side of the taxiway and used differential braking, differential thrust, and nosewheel steering in an attempt to "kick" the aircraft around and leave the same way we came. We ended up sideways without enough room to complete the turn. Since Transient Alert was nonexistent that late at night, we were on our own to try and get out of the mess we were in.

We had to shut down both engines and unload all the passengers. Everyone, including the DV, had to help push the aircraft backwards enough to complete the turn. I acted as fireguard while Lt P. H. started the No. 2 engine. We taxied to parking without any further mishap.

Looking back on the mission, there were five factors which contributed to our problems:

- A 3-hour maintenance delay.
- Being diverted to an unfamiliar aerodrome.
- An incorrect aerodrome diagram.
- Lack of ground agency.
- Taxiing on an unlighted taxiway.

Of all the factors, the one we could have prevented was taxiing on the unlighted taxiway. By rolling out to the end of the runway and taking the lighted taxiway and a little more time, we could have saved ourselves a lot of grief. Aerodrome diagrams normally are correct. The one that affected us has now been corrected. Take some advice. Take a little more time to analyze the situation, and use a well-lighted taxiway. ✈

C-130H

■ It had been such a sterling ride, what could possibly go wrong? As it turned out, a lot, and in a hurry. Here's the setup.

Two-ship, C-130H, SKE, heavy equipment drop (training bundle), SKE escape, SKE recovery at Aux Field Alpha, and RTB. For the unfamiliar, SKE stands for station keeping equipment.

This amazing arrangement of receivers, transmitters, and indicators allows us to fly formation in IMC (and you fighter types think yankin' and bankin' pegs your fun meter) and has been best described as a 3-hour ILS. But the weather is our friend today — only partly cloudy with low scattered decks and light winds.

The crewmembers are all experienced — instructors in each aircraft — including yours truly. I've even got an aircraft commander as my copilot and an evaluator nav at the table. In fact, things were so good one of our squadron's newly minted second lieutenants was hopping on our aircraft to observe. From the word "Go," we were in the groove. Flying as No. 2, we were in position from "gear up" to "green light." I thought, "Too bad I can't store this one away for my next checkride. Hey, those partly clouds are turning into mostly clouds, and lead's sorta in and out. No sweat." We then turned and climbed on the escape and headed down for our NDB procedure turn. The SKE scope showed us in position — we were golden.

Brief what you'll fly, and fly what you brief. That's the rule, and that's exactly how the mission was going up until we got handed off to our final controller. You could tell from the amount of chatter on freq that his plate was full, and we weren't going to be first in line.

"Herky Two-Zero flight, climb and maintain three thousand five hundred. Hold south of the Alpha NDB, 10-mile legs. Expect further clearance at 1445. Time now 1424."

"Hey, doesn't this guy know we've got a no-hitter going here? This could be a perfect game, and we don't need 20 minutes worth of holding." But with flexibility being the key to airpower, we dutifully followed lead's signals over the flight command indicator (FCI) box and started up after the "Execute" light flashed.

So there we were, level at 3,500 feet. Lead's out there poppin' in and out of the clouds. We're nailed in position on the SKE scope, needle pointing up towards the station. Then my copilot came over the interphone. "Hey, do you think I could run to the back for just a second? I thought I'd be able to make it until we got back to the home drome. But those six cups of coffee this morning are finally catching up with me, and I don't think I can make it through holding and the approach. And besides, the nav can look over your shoulder while I'm gone, just to keep you out of trouble."

For a split second, I thought "No," but then I reviewed how the flight had gone so far. Perfect. Besides, even though we were using SKE, I still had lead in sight (barely), we had another 20 minutes before the approach started, and what could go wrong?

"Okay, but don't take too long. We might get cleared early." And off he went. The copilot had time to get off of the flight deck, and the nav was able to walk over and stand behind the now-empty right seat before the "Master Lost" caution illuminated, and my scopes went blank.

With lead as the master aircraft, our magic box needed his magic box's info to paint all those handy things like aircraft positions. Over the interphone, in my best IP voice, I stated "Crew, we have a 'master lost'" as I scanned outside for lead. That partly cloudy had now turned total cloudy, and I was staring at solid white. At this point, my flight engineer stated, "Hey, it blinked like this once on the route and came back in just a second." Reassuring? You bet. But a second came and went — still nothing.

I keyed the mike, and in a slightly more tense tone informed lead we had a "master lost." His response was, "You mean you d i d n ' t get my turn execute?" A quick glance at the ADF showed the needle now pointing behind us, and I replied "No."

At this point, my trusty nav told me we had lead on skin paint (one of the nice upgrades Lockheed added to the radar capabilities on the newer H-models), and he was definitely in his turn. Now, you don't use skin paint to fly SKE, but it can tell you what's in front of your aircraft. I knew I was in position when we lost lead and he started his outbound turn. I was well past the station, which is where lead started

USAF Photo by MSgt Perry J. Heimer

his turn, and I was supposed to have started mine.

I was confident lead wasn't my immediate threat, but I didn't know who our busy friend at the ATC radar scope might be vectoring our way. I felt the best thing to do was turn to the outbound heading, staying in the holding pattern airspace, and continue to handle the problem from there. I had already slowed down about 10 knots when I announced my intentions to lead and the crew. With the nav raising a voice of concern — "I don't like this..." — we turned outbound.

That moment in time will be etched in my mind forever. There I was, logging solo time in a Herk, flying formation in the weather, with no SKE. How had I gotten myself and my crew backed into this corner? About this time, my copilot started climbing back into his seat. The relief he had recently experienced vanished with one look at the SKE scope. Lead came back on and suggested we take the master. The FE had already checked the electrical panel, and it was fine.

As the copilot was trying the master switch, my evaluator nav informed me, in a more insistent manner, we would soon lose lead on skin paint (due to the width of the radar beam and turn dynamics), and we needed to get our own clearance. "Lead, the master change didn't help. We probably need to get a separate squawk..." The nav now announced lead was off of the radar scope, and we were just about halfway through the turn. The only good thing that happened in this whole sequence was lead's copilot squeezed in a radio call with the controller. He told him we had a problem and got us that needed squawk.

As soon as the first digit was coming over and the copilot was dialing it in, I started rolling wings level and climbing for VMC. We broke out at about 3,700 feet into the clearest blue sky I had ever seen. We were now talking to ATC and working our clearance home.

The next 20 minutes were a mixture of relief and disgust for me. How could I have put my crew and aircraft in jeopardy like that? What happened to the SKE? We didn't have any fault codes showing. CBs were all in. Why did I let the copilot out of the seat when we were getting ready to enter holding? Was my turn to the outbound heading the right decision? Our crew discussed these questions as we headed back home.

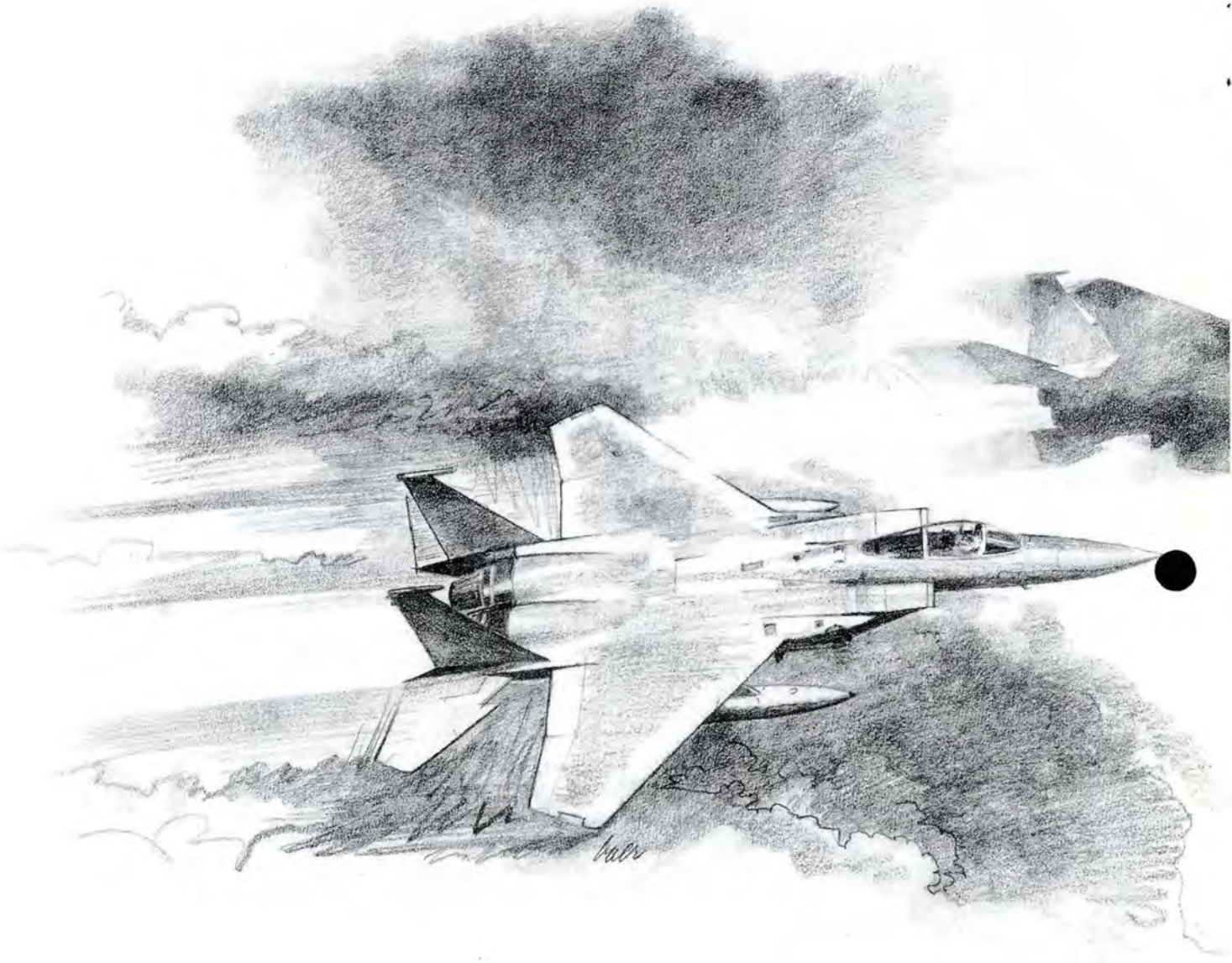
The copilot finally said, "Well, I'm sure I couldn't have hit the SKE control panel, because I'm always really careful when I get out of the seat." "I know what the problem is," the nav stated confidently as we all watched him point to the panel. Our frequency selector switch had been moved (bumped) one position over. We were on the wrong channel.

Our recovery at home station was uneventful. When lead got back, we rounded up everyone available in Ops for the debrief. The entire episode, from the copilot leaving his seat to breaking out on top, probably took about 2 minutes, which seemed like 20. What went wrong? My overconfidence, for starters. The mission had been going so well I ASSUMED nothing could possibly go wrong. Not listening to that little voice when the copilot first asked about running to the back was another. I talked myself out of a good decision by not thinking of the possible consequences. Let's not forget "overlooking the obvious." A quick review of our SKE parameters for the control panel could have fixed the problem before it got uglier. (Don't always assume the problem involves resetting circuit breakers or rebuilding the component.)

What went right? Well, I had a nav who kept me honest. After I explained my reasoning for making the turn, he said he thought we were closer to lead than we probably were, which tells me I should have communicated better. Next, I demonstrated, quite effectively, to our squadron's newest flier ALL aspects of formation flying require the utmost vigilance and respect. Finally, we all made it back in one piece — you aren't reading about this in a mishap report.

I know my fellow -130 drivers will "what if" this scenario just like we did (three-ship versus two-ship, multi-element formation, what would you do as lead, etc.), and that's great. The more aviators who can benefit from my mistake, the better. I know my clue bag got substantially larger as a result of this experience. I hope yours gets a little fuller, too. Keep 'em flyin'. ✈

F-15



■ As the safety officer, I had read hundreds of reports over the years, each time trying to analyze what happened at the wrong time to cause a mishap to occur. It was always easy to sit in the squadron with other pilots and point fingers at those faceless persons in the mishap reports.

Well, now it was my turn to analyze again. But this time I wasn't on the investigation board. I was the pilot the board should have been investigating. As the other pilot I was flying with said, "We just used up one of our 'luck marbles' in our flying career." Thank God we both had some left.

It was just another intercept mission — oh yeah, ho-hum — but there were factors to consider. I had just come in the day before from overseas and had jet lag (I was not thinking at the normal speed and was somewhat fatigued). However, I was an Eagle driver. I could hack it just like the other 40 squadron pilots.

The fatigue was the first "minus" in the equation. The second was proficiency. I had flown five times in the past month, so I was just maintaining "mission ready" and only had about 125 hours in the F-15. But that was like the rest of the pilots, and they could hack it.

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USAF Art By David C. Baer, II

The next "minus" was the weather — 500-foot overcast, with rain, and about 2 miles visibility. No big deal. Just another ILS approach...so I thought.

Okay, now you're thinking with all these "minuses" in the equation, why don't I just punch out during the taxi? Well, the "plus" factors that day included the best airplane in the world and the fact I was flying with an IP who had seen everything during his 2,000+ hours in the F-15...or so he thought!

The mission went smoothly in the airspace — good fun and good training — and I felt like I was getting back in the saddle. Ready to RTB, I could relax now since the demanding part of the mission was over. Boy, was I wrong!

As lead put me into 2-mile Eagle radar trail, we started through the dense, gray clouds at 10,000 feet. I had a good lock on lead and called it. We started vectors to pick up the localizer. Lead started to slow to 200 feet. I was now trying to maintain situational awareness on what lead was doing and deal with master caution and inlet ice lights when lead started his turn onto the localizer. The last radar picture I had was of lead 2 miles ahead at 2,000 feet starting his turn. Then things started to snowball, and I hadn't thought of a backup plan for what was about to happen.

I now had a search display only on my radar, that is, no lock on lead, and the localizer bar was coming off the wall. I now decided to fly my own approach and intercept the ILS since I was low on gas.

I hardened my turn to get the localizer but hadn't configured as of yet. I also hadn't let lead know I had lost vector contact. Lead had already slowed to final and configured. I was now on the ILS and slightly high and got the call to change to tower frequency. We had just changed our radio setup between primary and the aux radio, and this added to my tasking.

While I looked down to change to the correct frequency, I continued to try to lock on lead but was unable. The radar then got a lock, but AAI confirmed it was only a C-141 on downwind.

At this point, I was getting task saturated and started to consider my options, but time was running out. I was now at 5 miles with no lock and almost no clue. Things just didn't seem right, and I called requesting lead's DME, but the new radio setup led to confusion, and I called it on the wrong frequency.

Now at 3 miles, I broke out of the weather, and the hair stood up on the back of my neck. Lead was not in sight, and I called him again on the correct radio and asked his range. Just as I was about to do a 6-G missed approach pullup off the ILS, I heard a sobering "500 feet...behind you."

After climbing down the ladder and kissing the ground, I started to analyze once again what had happened and why I was not dead. Well, it was not just one thing. As in any other mishap, it was all those minuses adding up.

Because of my hard turn on final and because of my late configuration and higher speed, I had passed lead. And because of task saturation, complacency, and ego, I hadn't called lost contact. I didn't want this experienced F-15 IP to think I couldn't hack a simple radar trail recovery. Well, I showed him! I proved two airplanes can be in the same piece of sky.

Since this occurred, I spilled my guts to other pilots so they wouldn't put themselves or me in this situation again. During my discussions, I found I was not the lone ranger. Stories came up of individuals in the same type of situation. Now, some started to speak out and admit it. I wish they had done so earlier. I might have been a bit more on the ball if I had known of the consequences.

One month after my situation, another pilot came to me and said, "I'm glad you told me about your trail experience. I found myself in the same situation last night after a night scramble RTB in bad weather. I learned from your mistake, and it may have saved me." ✈

Memorial Day May 27, 1996

101 Critical Days

Labor Day Sept 2, 1996

THINK SAFETY Both ON and OFF the job!!