flying SAFETY

JULY 1995

SECOND ANNUAL

THERE I WAS

ISSUE

MISHAP PREVENTION PLANNING

GENERAL JOSEPH W. ASHY
Commander, AFSPC

■ A key factor in our ability to superbly perform our mission is a safe, healthy work environment for our outstanding people. This environment is established and sustained by an effective mishap prevention program. In fact, a vibrant mishap prevention program acts as a force multiplier, preserving our precious people and resources.

"Safety," like any other process or military operation, doesn't "just happen." Any effective process needs a plan to achieve the desired goal. Here are the keys to AFSPC's successful safety program:

■ ***Balance**, Risk vs Output*. In every operation, we balance the possibility of a mishap — and the consequences of that mishap — with the objective of the operation. AFSPC is institutionalizing this process through Operational Risk Management (ORM), a tool that will allow our commanders and personnel at all levels to make precise decisions to balance risk with readiness or productivity rewards. In our flight operations, commanders, pilots, and maintenance all assess whether the risks posed by weather, crew fatigue, crew training and other factors are worth accepting in order to complete training events, passenger movement, search and rescue or other mission objectives.

■ ***Plan** for success*. Plan on success by matching resources to the tasking. It is a leader's responsibility to ensure that his or her people have the resources and training necessary to accomplish their assigned task. Extending people beyond their resources, training or ability, is a plan destined to fail. When occasional mishaps do occur, we have to learn as many lessons as possible and update our plans. Our launch ranges have an extremely low number of mishaps, in spite of their complex, risky operations. Why? Because each has a well-defined plan that is updated regularly.

■ ***Execute, Execute, Execute!*** Mishaps are usually the result of poor execution. The best plan does no good if it's not used or is outdated. Our nuclear maintainers' impeccable safety record is due to strict adherence to plans with no tolerance for deviations.

■ *Teamwork*. Work as a team and back each other up. Most mishaps in all safety disciplines are caused by human factors. Help each other whether on-duty or off-duty. It's that simple.

■ ***Leadership***. The true "chiefs of safety" are our commanders and leaders at all levels. This is not just a functional activity, it's a leadership responsibility. Leaders must involve everyone in planning and execution. If everyone is involved with a plan's formulation, they will understand what they're accomplishing and can aggressively, but safely, execute the plan.

Air Force Space Command will continue to work hard to improve the safety of all aspects of our operations. Our commitment to succeed in the vital areas is second to none. ■

Our 51st Year

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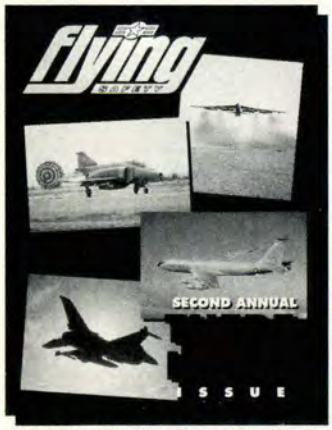

About Our Cover: Our cover aircraft types remind us "There I Was" incidents can, and do, happen in any environment or airframe.

IN THIS SPECIAL ISSUE ...

We've selected some of our better "There I Was" stories 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 29 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 AFSA/SESP, 9700 Ave G, 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.

IT'S A PRIVILEGE

COL CHARLES MATTHEWSON
Staff Judge Advocate
HQ Air Force Safety Agency (AFSA)

■ There was turbulence everywhere. Our system had some definite vulnerabilities. Situational awareness was good, but task saturation was a problem. We were under attack and had taken a couple hits. Ejection was not an option. At best, we hoped for a manageable crash landing.

Unusual predicament for a ground-pounder, but a fairly accurate portrayal — in the case of *United States v. Pellerin.*

The turbulence came from things like a recent court decision in litigation involving the Ramstein C-5 multiple-fatality mishap in 1990. And recent legislation requiring greater public disclosure in aircraft accident investigations. And pending changes to AFI 91-204 (and its underlying DoDI 6055.7), with substantial inter- and intra-service disagreement as to what our policies should be. Attacks came from civilian lawyers in judicial and academic settings, from the media, Congressional inquiries, and Freedom of Information Act (FOIA) requesters. And from a pending IG investigation of a complaint challenging the basic fabric of the safety investigation process.

In the midst of it all came the defense counsel's discovery request for "a copy of the report compiled by the Safety Investigation Board convened by HQ, 12th Air Force" relating to the June 1994 B-52 mishap at Fairchild AFB. Charges had been preferred against Col William E. Pellerin, the Fairchild operations group commander, for dereliction of duty in supervising the particular flight operations. An Article 32 investigation was conducted, and the convening authority referred the charges to a general court-martial.

The discovery request came as no surprise despite the privileged status of the report. Previous case law (associated with a T-38 mishap near Holloman) had made it pretty clear that such a request would have to be dealt with under the Military Rules of Evidence (M.R.E.) in order to pursue prosecution. This move by the defense put the Government between the proverbial rock and hard spot: compromise privilege or compromise prosecution.

Both government interests were very important, but neither was absolute. The challenge was to put the bombs on target while evading enemy fire. The first move was to have the Secretary of the Air Force formally assert executive privilege over the requested report. She then authorized the trial judge to review the report privately to determine if anything in the report had to be released under the law. (Privileged material is always subject to judicial review.) He had to review it in the light of three legal authorities: a 1963 U.S. Supreme Court case *(Brady v. Maryland),* a Federal statute (the Jencks Act, 18 U.S.C. 3500), and an Executive Order (M.R.E. 506 in the *Manual for Courts-Martial).*

Brady required the Government to provide the defense with any evidence in its possession that was potentially favorable to Col Pellerin either on the issue of guilt or on the subject of sentencing. It didn't matter that the Air Force safety community had the evidence and the Air Force prosecution team didn't — same Air Force, same Government. The Jencks Act would require the Government to provide the defense with any statements in its possession which had been provided by witnesses to be called by the prosecution. Rule 506 required the Government to provide the defense with any evidence in its possession that was relevant to Col Pellerin's guilt or innocence. They had authorities from the highest levels of all three branches of our Government stacked against provisions in Air Force and DoD regulations creating a departmental privilege. Although the privilege had been upheld in various courts since 1962 when contested by FOIA requesters and personal-injury litigants, we had no protection against an accused in a criminal trial where loss of freedom was at stake. The judge said the defense had a right to limited portions of two witnesses' testimony (or all of it plus that of another, under Jencks, if they testified), limited portions of the safety board's analysis, and all of Col Pellerin's own testimony.

But still, our regulations prohibited the use of safety reports as evidence for punitive actions — in fact, for **any** purpose other than mishap prevention. The Secretary of the Air Force had just certified that we don't use safety reports for any other purpose, as previous Secretaries had done several times in prior litigation involving aircraft mishaps. How could we do anything else now? How could we make such certifications ever again if we compromised privilege now? How could we maintain the credibility of our promises of confidentiality in safety investigations if we compromised privilege now? The rock and hard spot were closing on us fast.

One wingman said prosecution was paramount: "We must hold people in positions of leadership accountable when misplaced loyalty translates to dereliction of duty with tragic consequences." The other

wingman said privilege was paramount: "We must hold a firm stance on confidentiality in safety investigations or we'll lose the ability to claim privilege and we'll lose credibility with our witnesses." Came the call from flight lead: "Do both."

The Secretary had decided to comply with the judge's order. It was necessary to ensure a fair trial and "due process." The safety evidence would not be used by the prosecution, and the defense would be permitted only a very restricted access to, and a very limited use of, the evidence. It could only help Col Pellerin; it couldn't hurt him. The judge would ensure a proper handling of courtroom disclosures and record-of-trial content. The information was still "limited-use, privileged" but it would be made available to the defense in this — and potentially any future — criminal trial involving an aircraft mishap.

The spirit of the safety privilege was not being violated since the information would not be used to support disciplinary action. Confidentiality had been promised to assure witnesses no harm would befall them (or maybe even others) as a consequence of their disclosures to the safety board. This assurance was being maintained. No one would be "incriminated" by this evidence. Quite to the contrary, the accused might be acquitted — or his sentence lessened — as a result of access by the defense.

By way of epilogue, although the defense obtained access to limited safety information, the evidence was not used at trial, and the judge ordered the defense to return the safety report documents to the AFSA records custodian after the trial. All in all, a fairly smooth processing of a tough issue.

So why were we hoping for, at best, a "manageable crash landing" in this scenario? Largely because of misperceptions. People might think that the prosecution was able to use the safety board's evidence or that this exception would deny us the ability to claim privilege in the future. These perceptions, if they become widespread, could hurt the credibility of the safety investigation process. However, the essence of safety investigations won't change as a result of this case, nor will safety-privileged material be used against individuals. Mishap prevention remains as the sole reason for doing safety investigations of aircraft accidents, and safety reports remain privileged.

So, "there I was" in the midst of a confrontation of constitutional proportions between two of the Air Force's highest interests: safety and accountability. Now **you've** been there. Please help rectify the misperceptions and spread the word:

When the action rises to the level of court-martial, the accused will most likely have a right to see certain parts of a safety report.

- Privileged, limited-use safety reports **cannot** be used to support disciplinary actions.
- Disciplinary actions taken after aircraft mishaps **must** be based on evidence derived independently of any safety investigation.
- When the action rises to the level of court-martial, the accused will most likely **have a right** to see certain parts of a safety report.
- In such cases, the trial judge will issue a **court order** stating what the defense has a right to for purpose of ensuring due process.
- The judge will also ensure the safety information is **properly protected** from unauthorized use (e.g., by the prosecution) or disclosure (e.g., to the public).
- If the Air Force feels the limited use by the defense would compromise the safety investigation process, the Secretary may **deny access** and have the charges dismissed. ■

Flying Safety

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THERE I WAS

■ As a command pilot, I learned why standard operating procedures need periodic review and, sometimes, revision. One morning, we were preparing our F-100s for a cross-country flight from Carswell AFB, Texas, to Kirtland AFB, New Mexico. We used cartridges for engine start, which was a quick way to get the flight ready to go. If a cartridge misfired, our procedure was to leave it in the starter breech and hook up an MA-lA external pneumatic power cart. This saved the 15-minute wait for cooling recommended by the Dash-1.

On this day, my cartridge didn't work, so rather than hold up the flight, I used an MA-lA to get started. We were soon ready to go and taxied out. Takeoff and departure were uneventful.

For the short flight to Kirtland AFB, we climbed to 26,000 feet in a spread formation. Leveling off, we set up 0.8 Mach cruise, and lead told me to move from the No. 4, slot position, to the outside wing. I eased the throttles back and started to move aft when I noticed the rpm winding down through 50 percent. Then I heard it — a loud explosion from the back of my jet! The fire warning, flight system fail, and master caution lights were all brightly lit. I informed flight lead that I had just **flamed out!**

A wingman, flying just forward and to the left, felt the explosion. He moved back so he could watch me and radioed that I had what appeared to be large quantities of fuel coming out of a crack on the aircraft. I started a gentle left turn toward Reese AFB, Texas, which was 78 miles away and the nearest emergency landing field. It was very quiet as I established a 250-knot glide. My rpm was now reading zero.

I slowly advanced the throttle, but the engine invariably began to compressor stall. More warning lights illuminated, and the aircraft started a slow roll to the right. I corrected with left aileron and rudder which would only temporarily correct the problem.

The next radio call really caught my attention. There was a 60-foot flame coming from my tail section! I applied left controls to level the aircraft before ejecting, but it was useless. The left rudder pedal moved freely to the full forward position without any aircraft response. The entire warning panel was now illuminated, ironically with the exception of the overheat light. All my controls were frozen. It was time to part company with this jet, and I ejected at 17,000 feet. Fortunately, that ride went smoothly.

Once free of the seat, it was a freefall down to 14,000 feet, where the parachute opened as advertised. I completed the four-line cut and got a great view of part of west Texas. There was plenty of time to choose a landing spot, and I landed without injury.

As luck would have it, a real Texas cowboy saw me coming down and drove over in his pickup truck and helped me gather up all my gear. He took me to a small, nearby town where I enjoyed some great Texas hospitality. Later on, I met up with my flight at Reese.

As it turned out, the explosion came from the cartridge that had been left in the engine. In our rush to take off, we had disregarded the recommended Dash-1 procedure and lost a valuable asset.

As a result of that mishap, our operating procedure was changed. A misfired cartridge must be cooled for 15 minutes and removed before engine start. Sometimes standard operating procedures can be improved to find smarter and safer methods. Check six and happy landings! ■

There I Was...

■ *"If the minimum wasn't good enough, it wouldn't be the minimum!"*

I can't tell you how many times I've heard and SAID that expression since I've been in the flying business. Two months after I upgraded to aircraft commander in the KC-135R, I received a slot to attend the Flying Safety Officer (FSO) course at Kirtland AFB, New Mexico. After this course, I felt pretty darn confident concerning the chain of events that leads to a mishap and how I was not going to allow myself or my crew to get into that position.

About a month and a half after FSO school, I was on my way to a 45-day European Tanker Task Force (ETTF), based out of RAF Mildenhall in England. The missions flown out of Mildenhall are challenging, and landing at Mildenhall can be very difficult, to say the least.

Official USAF Photo

It was during a night approach that I found our established minimums to be a little liberal. About 100 miles out and 6 hours into our mission, my copilot called pilot to metro service for the weather. They answered with 1,000-foot ceiling, 5-mile visibility, and winds gusting to 35 knots. We computed the crosswind to be 24 knots which gave us a 1-knot pad since our directives allow a maximum crosswind of 25 knots. Soon after this, we descended into the soup with the intent of shooting the ILS for a full stop. Once we were on final and established on the localizer, approach control handed us off to the tower.

Meanwhile, I had my hands full of airplane. It was all I could do to keep the airspeed within 10 knots of my target airspeed and within 1-dot width of the localizer and glideslope. Once we were talking with tower, I requested a wind check. They responded with winds variable, 20 gusting to 40.

My navigator chased through the crosswind chart to find we had a crosswind component of 24.5 knots. I told the crew we had the minimums to shoot the approach, and we would continue. We eventually broke out and received wind checks throughout the approach — my navigator responding to us with the crosswind component.

I have to tell you I felt I was wrestling the tanker more than flying it that night. Once we crossed short final, we became unstable. So I swallowed my pride and initiated a go-around.

We asked for vectors around for another ILS. This time, in the flare, we started to drift a little more than I felt comfortable with. So, once again, I went around.

On this mission, I had an instructor pilot acting as my copilot. I asked him if he would like to try an approach, thinking tonight wasn't my night, and maybe by now I'm a little flustered. He accepted, but about 4 miles out on his ILS approach, things got very unsteady. So he, too, initiated a go-around. At this point, I'd had enough. We asked for vectors to divert to Lakenheath. I shot the ILS for a full stop at Lakenheath, and I don't know that I have ever been so happy to be on the ground!

I must admit my pride was a little dented after this whole ordeal, but I felt I made the right decision. As it turned out, several tankers diverted into Lakenheath that night even though the winds were "legal" to land at Mildenhall.

Our tech orders and command directives are always there to give us direction and establish minimums, and until this dark night in England, I believed "they" would not establish these minimums unless it was good enough.

What valuable lesson did I learn that night? Not all crewmembers are alike, and we cannot all have the same minimums. Our commanders ensure we have guidance, but it rests on OUR shoulders to establish personal limits and not be afraid to swallow pride and TAKE IT AROUND. ■

Official USAF Photo

"THERE I BE !"

■ There I be, climbing out of Carswell AFB, Texas, one beautiful October day. The weather was CAVU (ceiling and visibility unrestricted). I had plenty of gas to get back to the base, so I planned to fly home on the low charts.

I was on an IFR flight plan and filed for 10,000 feet. My initial clearance was "runway heading to 3,000 feet." As soon as I leveled at three grand, I looked down to engage the autopilot, and I also took the time to bump my radar down to a 20 NM scope.

As soon as I looked up and started my clearing scan, I saw that I was on a collision course with a brown-and-tan Piper *Cherokee*. There were two people in the plane, and the pilot was wearing a yellow pullover shirt with a collar and sunglasses. The passenger had a striped button-up shirt on.

I guess you can tell that we were pretty close to impact right then. I could even tell that the impact point would have been right behind my right shoulder.

Well, I snatched the stick, pulled 7.2 Gs, and I managed to miss the *Cherokee*. Initially, I was mad because I thought that my travel pod had departed the aircraft and my clothes were spread all over central Texas. But then I got to thinking about what would have happened had I not looked up when I did, or what if it had been popeye.

When I got back home, I called Regional departure and discussed the event with the supervisor. He told me that both aircraft involved were on IFR flight plans, on altitude and heading, and in class B airspace. They had already reviewed the tapes and determined that their controller was 100 percent at fault. Yet, if I had been in the weather or looked down for another couple of seconds, I would have been dead right.

Why did I get so close to that aircraft? First of all, the controller screwed up. Second, and more importantly, I was complacent. I was IFR in class B airspace on a CAVU day. All of this lulled me into a false sense of security. The last thing I expected was a midair. This caused me to feel comfortable looking down in the cockpit for a little longer than normal. I was also distracted from my visual lookout while I was getting the autopilot set at exactly 3,000 feet.

Now I don't let anything distract me from looking out of the window when I'm in a high-traffic area. ATC controllers are human, and they can and will make mistakes. And when they do, it can kill you. ■

There I Was...

USAF Photo by SrA Andrew Dunaway, II

■ It just wasn't my morning.

My back-seater and I had gotten up early just so we could HARM some poor Iraqi antiaircraft battery, and the external tanks wouldn't feed. The flight lead decided we weren't very useful without JP-4 and told us to head on home.

Arriving at our home away from home just prior to sunrise, we saw the fog bank covering the field and decided to hold awhile to let the crud burn off. The SOF was tracking the alternates and heard the weather was going to crump at the one 35 NM away, so he sent us there before the field went down.

The landing in reduced vis just after sunrise was uneventful. Three hours and two SCUD attacks later, the weather back home started to break up. The SOF informed us we could now come home. My trusty EWO and I got in and fired up our faithful Weasel.

We didn't require much in the way of a prebrief since we had been working together for months during Desert Shield and a couple of weeks of actually shooting at things. As a matter of fact, things were flowing so smoothly it sometimes seemed as though a mere thought would produce the required response from the other cockpit. A word would suffice where sentences had previously been required, and we both tried very hard to anticipate the other's mission requirements. This nonverbal comm would soon bite us in the butt.

The standard comm plan was I would have the NAVAIDs for the departing base and my EWO would dial in the next set of NAVAIDs. In this case, he dialed in the TACAN and ILS for our home field. We got to the active under 300-foot ceilings and executed an uneventful takeoff.

After takeoff, I wanted to tune in the NAVAIDs for home and punched the nav to my EWO. Unfortunately, he sensed I wanted the NAVAIDs for home, and he punched the NAVAID button too. This only served to cycle the NAVAIDs back to me. Neither of us noticed because the cockpit indicator lights were turned down, and in the F-4, no light usually means the other cockpit has control.

Bottom line — we went out approximately 20 miles and began an opposite direction approach to the runway we had just departed. We were completely comfortable with this situation since the NAVAID beeps were happening and, in general, things were looking good.

Inbound on the TACAN approach, a controller came up and asked us where we were going. I told the controller the standard approach terminology, and there was a moment of silence. He then asked if I really meant to do an approach back to the field I had left. He notified me I was about to enter a RAPIER warning engagement zone, and I might consider a 180-degree turn.

I did the 180. We both let out some #$&!?#s and began to do a LOT of talking. ■

There I Was...

USAF Photo

■ It was a great day to be a T-38 instructor. My compadre and I were out "burning" some "T-3" instructor time in the jet on our way to Eglin AFB, Florida, to meet up with four other instructors from our squadron. The day was absolutely gorgeous. There wasn't a cloud in the sky as we leveled off at FL390 inbound to Memphis NAS. Neither of us had ever been to Memphis NAS except in the simulator. Even then, we never flew approaches to the field, instead concentrating on "under the bridge" maneuvers over the river.

I was a relatively new evaluator riding in the back seat, and a more experienced evaluator was manning the front. At the time, I had accumulated more than 800 instructor hours in the airplane and felt immensely confident, yet cautious of any complacency. We both studied the approach plates for Memphis NAS about 30 minutes out. Our plans included an ASR followed by multiple closed traffic VFR patterns. The ASR approach went without a hitch, and I transferred control of the aircraft to the front-seater for some VFR patterns.

For those of you unfamiliar with back seat T-38 landings, the best description is that it is like trying to parallel park your car at 160 miles an hour — with the hood up! The front-seater's first landing was excellent, but a tad long at 1,000 feet. I could certainly do better.

I followed that "meatball thing" down the glidepath into the overrun and chopped the power early to compensate for light winds. The main gear settled to the runway with a pleasantly rhythmic thump-thump about 700 feet down the runway.

My compadre took the next landing. Usually his landings were enviably on speed and "in the zone," but once again he touched down nearly 1,000 feet down. I attributed this to his getting reacquainted with the picturesque view from the front seat. I assumed control of the aircraft and proceeded to demonstrate my finest "on speed" 500 feet down the runway landing.

I mistook my cohort's silence for awe at the exquisiteness of my landing performance. As he initiated the closed traffic pull-up for the full stop, he said, "Hey, did you see that big black thing in the overrun?"

"What thing?"

He tried to point it out on the landing, but due to my back seat view of his head, I still couldn't see a thing. After landing, we were ushered to the far end of the ramp and nearly forgot about the entire incident.

While taxiing for takeoff, I glanced into the overrun to see the "big black thing" and got one of those cold chills from what I saw. About 100 to 150 feet short of the threshold stood a 6- to 8-foot tall, all black stop-sign looking object. I couldn't believe it! I couldn't believe we didn't rip our gear off on that thing! I couldn't believe our centerline travel pod didn't get ripped off by that thing! I couldn't believe that my front seater hadn't warned me about this sooner than he did!

My first tasking on Monday was to notify my wing safety office of what I thought was a serious hazard to flight, especially for AETC training missions, and get their opinion on the matter. After I contacted knowledgeable personnel at Memphis NAS, I discovered the object was indeed nearly 10 feet tall and was some sort of radar reflector for surveillance radar use. Though the Navy personnel didn't agree with my concerns since it had never posed a problem for Navy aircraft before, I notified our headquarters safety office. It's true that my concerns may have been more pertinent than a flier who never went to the NAS, but I felt a responsibility to try to get the word out.

Sometimes, no matter how well you study an approach plate, review FLIP, or familiarize yourself with the aerodrome sketch, there might still be a hazard for your particular type of operations. In my case, we taught others to touch down between 500 to 800 feet past the threshold. For the T-38, this necessitates a relatively low threshold crossing height. This unlit, unmarked obstacle in the overrun was my first encounter with any such hazard. I had wrongly assumed TERPs and airfield criteria would either prevent the construction or highlight the existence of such a hazard. It's the age-old story of assumptions getting one into trouble.

Of all the "I couldn't believe its," I, most of all, couldn't believe I'd nearly trashed out an airplane because I assumed all airfields were hazard-free environments. The bottom line is that the aircraft is checked out to you, and it is your charge to do everything in your power to ensure it is returned in one piece. ■

USAF Photo by Walt Weible

THERE I WAS

■ ... on a routine missile site support mission. My copilot was at the controls, and we were flying four high-ranking base personnel to several sites when my conversation with the 0-6 was interrupted. "We have a *fire* light."

I turned my attention to the instrument panel and saw the bright red warning light, but all other indications were normal. I thought, "Not another fire light. Now we'll be all afternoon sitting on the ground for another faulty warning system." I had no fewer than four previous fire warning indications, and they had all been glitches in the system.

Taking the controls of the H-1 I began a descent and instructed my copilot to advise Operations of our situation. While briefing our passengers of the fact that we would be making an unscheduled landing, I noticed a launch facility (LF) about one mile off the nose and decided to land at that government controlled facility to preclude any legal problems that could arise. Noticing the fire warning light had extinguished itself when I began the descent only reinforced my belief that it was "just the system." Approaching the LF, I adjusted my approach to land near the gravel access road to facilitate maintenance and perhaps expedite correction of our faulty warning system.

Having planned a normal approach to a hover, I began to add power to break our rate of descent. I was rudely awakened from my almost lackadaisical approach when the fire warning light again illuminated and our descent rate was not arrested. Salvaging what I could from the approach, power turbine speed began to bleed off as I increased power requirements beyond what was available. With the low rpm horn and warning light blaring and glaring and the now ever-present fire warning light, we made a rather firm but otherwise OK approach to a touchdown.

Securely planted on "terra firma," my copilot promptly egressed the cockpit to further evaluate the condition of our aircraft. After informing me of the black smoke and burning cowling, my copilot initiated passenger egress while I completed the emergency engine shutdown.

The MDR on the engine included the following discrepancies: Combustion case cracked; combustion liner sleeves worn and burned; first, second, and third stage turbine nozzles cracked; second stage turbine case cracked; seal rings burned; and the T5 harness burned.

It has been said that flying is not inherently dangerous, just terribly unforgiving. You can bet that the next time I have a fire light or any other abnormal indication, I'm not going to treat it like "it's just the gauge." ■

THERE I WAS

■ As a young lieutenant, I was taxiing in trail with my flight commander for the flight to the home drome. The weather had improved to 1,500 feet overcast with 3 miles visibility; however, rain showers had left the ramp wet.

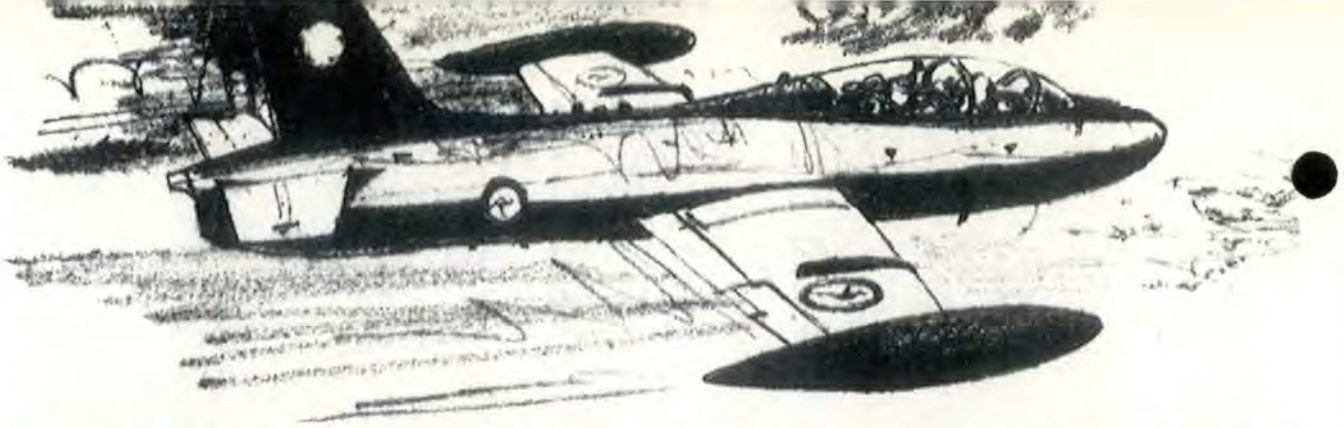
While taxiing cautiously, I discovered the perks of attempting to stop on newly paved asphalt. My flight lead stopped for quick check on a narrow taxiway with two cars on one side. As I began braking, my aircraft started to fishtail, with every attempt yielding the same results. Unable to stop, I directed lead to move forward. The urgency in my voice resulted in his moving while the quick check on his jet was still in progress. Fortunately, my aircraft came to a stop before further action was required.

After taxiing my jet for a brake check, we were cleared for takeoff and subsequently taxied into departure position. Twenty seconds after lead released brakes, I began my takeoff roll and once safely airborne, established radar contact. Following squadron standards and as briefed by lead, upon reaching 350 KCAS, I set the power at 850 degrees FTIT and complied with standard radar trail departure procedures. As the saying goes, I was "fat, dumb, and happy" following lead on the published SID (standard instrument departure).

If you haven't figured it out by now, it wasn't my day. Instead of maintaining my situational awareness by closely monitoring our position on the SID, I depended on my radar to follow lead. You guessed it — I lost my radar contact. I informed lead of this while attempting to re-establish radar contact. A glance at my flight instruments revealed my disorientation. My aircraft was passing 3,000 feet MSL in excess of 20-degrees nose high pitch with 190 KCAS, and power set at 700 degrees FTIT. Immediately, I confirmed the unusual attitude and executed recovery procedures. Suffering from a severe case of the "leans," feeling as though I was in about 70 degrees of left bank, it was all I could do to keep my jet in a wings level climb.

Upon reaching VFR conditions, passing through 16,000 feet MSL, I was able to reorient myself and rejoin with lead. The remainder of the flight was uneventful.

In summary, this "nondemanding" mission was truly a learning experience. Hopefully, you already know trail departure procedures do not require the use of a radar. In fact, my dependence on a radar contact resulted in my spatial disorientation and unusual attitude, not to mention the "leans" that followed. The bottom line . . . if my jet had been nose down instead of nose up, you wouldn't be reading this. ■



THERE I WAS

■ Not so many years ago, I was a student pilot in the Royal Australian Air Force about to embark on my wings test. Naturally, I was quietly confident of my ability, and I knew I would do well. I managed to hide these feelings by behaving like a nervous jellyfish with two left tentacles.

My nervousness increased when the chief flying instructor, who was to judge my performance, was nearly an hour late. This meant, after enduring a morning of inactivity, I was suddenly late and trying to make up time. Following a rapid preflight, the test was on.

The departure went well, and it was a beautiful day, so I was starting to feel pretty good. The voice from the back said, "Okay, Bloggs, show me your aeros." I remembered my premaneuver checks, and a clearing wing over, then selected my line feature and pulled into a loop. I suddenly realized I had forgotten to plug in my G-suit, and my career flashed before my eyes.

To correct this error, I would need to interrupt the aerobatic sequence, release the control column, and use both hands to plug it in. My thoughts were the testing officer would realize I had done a poor preflight by not connecting it prior to takeoff. I didn't want him to know I was guilty of such poor airmanship, so I decided to "tough it out" and continue on without a G-suit working for me. This was not the best decision under the circumstances, but it seemed good at the time.

So, on with the aerobatics. Barrel roll, vertical eight, and the voice from the back says, "What's that noise?" The noise was a "clunking" caused by my G-suit connection banging between the ejection seat and the side of the cockpit. Terror filled me again, and when the voice from the back said, "Taking over," I fumbled, furiously trying to connect the hose without appearing to move, while the voice from the back tried to reproduce the noise. Well, as luck would have it, I was unable to connect the hose, and the voice in the back said, "Handing over." More aerobatics and more "clunking" followed.

Finally, the voice in the back said, "There's something wrong with the aircraft. I'm going to declare an emergency, and we'll go back." I decided now was the time to try and recover the situation, so I mumbled something about suddenly realizing what the problem was. The voice from the back was very angry. He did not believe I had "just discovered" the problem. I had a lot to learn about being a plausible liar too, it seemed. A veritable torrent of abuse rained down upon my head, and I started to lose interest in my test.

The test continued. I flew with the extra burden of what I had done and with an angry testing officer. My performance suffered badly during this flight because of my feelings of guilt and self recrimination. I was unable to forget this example of poor decision making, so I continued making mistakes. Eventually the ordeal ended, and, happily, I passed the test. I went on to become a "voice from the back" in my own right after some years in the operational world.

I have often thought back over this particular lesson as I have watched pilots and copilots create hazardous situations where there was no need for them. If you make a mistake, this makes you as human as the next guy, but don't make it worse than it is by trying to hide it. A testing officer is impressed by the way you control the aircraft, and this includes how you cope with the unexpected human error. People are always willing to help you correct mistakes, and testing officers are people too. In my case, the smart solution was a simple "My G-suit is disconnected. Handing over while I reconnect it." This would have prevented the wasted time and effort I caused.

I hope you think of my experience the next time you recognize you have made an error in judgment. We are all prone to such errors, but you can minimize their effects if you obtain help to correct them before they develop into something more serious. The embarrassment you prevent may be your own. ■

There I Was...

Official USAF Photo

■ There I was, taking a moment to collect my thoughts after 50 minutes or so working heavy traffic in the local control position. I knew what to expect when I came on duty. There were 28 departures scheduled within a 1-hour period. I knew the last 8 or 10 would be ready to go when the first 14 or 15 were back in the pattern. Knowing all this, one would think I wouldn't "sweat the rush" because "I've done this many times before." "It's going to be another day in the hot seat." They'll be here soon. Here they come.

RAPCON calls to give me a heads-up. "Get ready 'cause they're probably the best and the worst thing that could have happened." I appreciated the notification because it gave me a better idea of how things would transpire initially. It reassured me RAPCON intended to do their best for as long as they could.

I took another look at the proposed flight progress strips and the flying schedule. I have 14 in my airborne bay, and flight data has 6 which soon will be requesting takeoff clearance. Ground control is constantly taxiing them out — everything is going smoothly. My watch supervisor says, "Guys, it's going to get pretty busy here in a little while. I know we'll earn our money in just a few minutes."

It's too late now to bow to the anxiety of the ensuing situation — the white light is flashing. The first one is 15 miles out. In less than a minute, another white light starts flashing. A pilot calls ready for departure. No problem. My flight data controller is on the ball. I have a release all ready. Off goes the departure in front of the arriving traffic. A second departure calls ready. Before I can answer it, the first arriving aircraft is on my frequency.

This scenario continues to increase in complexity as time goes on. I ask RAPCON for spacing to launch four departures. RAPCON calls back, saying, "I can't give you anything else due to traffic. They're lined up for the next 30 miles. There's targets all over the scope, and I have so many aircraft in my airspace they appear to be flies."

The first six or eight aircraft to arrive get a shot at landing. A few more departures are launched as the five remaining arriving aircraft are joined by four or five more from approach control. Spacing and sequencing is tight now so as not to run out of airspace. The frequency is very congested. I'm living now what I've anticipated for the last 5 or 10 minutes. Four or five more aircraft land, but I can't let my guard down. Two or three more aircraft land. The supervisor projects a lull coming before the second wave gets here. My relief is plugging in beside me. I begin my briefing on what was going on. My briefing is now complete. We switch plugs as she takes control. I listen for a while to make sure I covered everything. My relief has everything under control. I can now relax.

The supervisor tells me I did a good job. I appreciate the pat on the back, but I really must ask myself, "If something had gone wrong in the height of the congestion, could I have detected it and developed an alternate plan?" I felt confident I was on top of the situation and could have provided additional instructions if they were needed. The pilots made things flow smoother by acknowledging my instructions and complying with them in a timely manner.

Another typical day at the office? Maybe. We must approach each traffic situation with the same focus and concentration as was applied in this situation. No matter how much talent and experience you may possess, if you lose the ability to feel and then to control the anxiety and pressure, you will find yourself losing the edge necessary to detect and correct a potentially dangerous occurrence. ■

There I Was...

USAF Photo by SrA Andrew Dunaway, II

■ Hmm, phone's ringing!! Too damn early to be the squadron unless it's a recall. What time is it anyway — 0630. Jeez, just went to bed at midnight. Good flight last night. Finally got low altitude with good weather. "Hello."

"This is Roadway Package System — RPS. We have a package to deliver to your address. Would you like to give us directions to your house?" (At 0630 a.m., I'd like to give you some directions, all right!!) "Sure, madam, just go north of town, first right turn, blah, blah, blah...."

"Can we leave the package on the porch?" "Sure thing, whatever you say." Click!! Well, time to get some sleep. Today's gonna be another long day. TOP 3, LANTIRN flight tonight, debrief — man, it never stops.

Only 0830!! Can't seem to get back to sleep. Might as well get up and go jogging. Dog would like that. Sure is foggy and rainy again. Wish we'd get some decent weather for once. Tired of this constant rain and cold weather....

...Later

Three, two, one, HACK! Ten hours to land time. Sure hope to get some work done without too many distractions. Glad we have a 10-hour night crew rest rule — otherwise this would be a long day.

Okay, weather's looking good, first go is airborne, time to try to mission-plan for tonight. What? The MSS is broken again? Let's try a reboot. Already tried that, huh? Guess we'll have to do our planning the old-fashioned way — use someone else's plan!! Heh, got one that matches our time and range. Sierra Hotel!! Oh no, TOP 3 again. What is it this time? Code 3 for engine bit ball. Does the SOF know? Any problems with the engine? Thank goodness for GE!

Brief time already? Gosh, don't even have the boards ready. That makes me look bad. "Okay, 2A and B, we'll draw up the LANT check and Bunt Attack as we brief. Hang on. I'll try to get us through this one by step time." Thank goodness again for experience. Wasn't such a bad brief after all.

Step time. Okay, weather is a factor. Hafta plan a letdown to Seymour to get VMC. Marginal on the route. Man, I didn't need this! Tanker track is IMC — what else is new? Bet Exxon 11 will find the solid layers too!! Okay, let's press on with this upgrade — 2A's going to Targeting Pod school soon and needs this ride. Don't forget flashlights — this ain't no "Field Grade" night tonight!! Man, I seem tired already, and it's only 6 o'clock. Got half of my work day still to come.

"Squadron Ops, Viper 01. What's the status on 02? I see them shutting down."

"Sir, he's a ground abort. Can't get the flight controls to clear. There's no D-model spares. What's your plan?"

Man, this day is going well. "Ops, Viper 01 will go ahead and fly a single-ship instrument sortie with TOP 3 approval." Sure could use the practice — haven't really done a dedicated instrument sorti for a while. Not looking forward to flying at night in the weather though. Gosh, sure wish my HUD

lighting would dim down and wish my altimeter lighting was brighter. Well, I can read the altitude in the HUD once I bring my FLIR picture up. Course, that FLIR picture won't be a pretty sight in the weather! Oh well, flying instruments can't be too hard.

Why is it so hard to hold heading and altitude tonight? Guess not being able to see the "round dial" altimeter is screwing me up a bit. Now, let's get this fix-to-fix going. Now I know CLUBBE is on the southeast side of Seymour. I'm on the west side. So that should be an east-southeast heading. Hmm — just doesn't make sense. Let's see, the ASLAR approach should be down here — whoa!! Recover!! Damn, how did I get 20-degrees nose high and 40 degrees of bank? Better pay attention. Okay, plug those coordinates and let's go direct.

I know I need to turn left to intercept the inbound radial. Why can't my brain compute that? Overshot the turn — damn! Whoa, let's get back on altitude! Didn't know I used the round dial so much. Man, I already got a case of the leans, and I'm still VMC above the clouds. Why?

Here come the clouds — time to get serious about flying instruments. POOF! IMC — I hate that!! Boy, sure looks like Star Trek in the FLIR. Maybe I should turn it off. Nope, then the display is too bright — then I lose my altimeter. I'm tough!! Whew, VMC at 2,500 feet. Yeah, yeah, yeah, I know I'm below glide slope. Got the field in sight — takin' over visual. Whoa!! Two dots below is a bit much. Let's just go around early. Nice ramp lights at Seymour. Let's see, departure instructions were...? Damn, forgot them. How we doin' so far?

"Seymour Approach, Viper 01, request repeat of missed approach instructions."

"Viper 01, climb to 1,500, right turn to 350, reaching 350, climb and maintain 3,000."

"Viper 01, in the turn to 350." Man, 3,000 is gonna put me IMC again. Okay, just concentrate. Boy, is this disorienting! Whoa, check altitude again! Nice goin'! "Viper 01 requesting PAR pickup on final."

Man, this is the hardest PAR I've ever flown. Wish the winds would quit bouncing me around! Damn wind shears!! Whoa! Check altitude. Goin' well below glide slope. Okay, enough is enough! "Approach, Viper 01 terminating PAR. Request RTB direct to Pope AFB. Request final altitude of 2,500 to remain VMC."

"Viper 01, climb and maintain 4,000, proceed direct Pope AFB."

Okay, let's just relax, fly back VMC, stay in contact visually with the ground, and land uneventfully. #*@&! I'll be landing with 6,000 pounds of fuel. NOT!! Mil power, boards — man, that just increases the bumpy ride. Should get there and land with 4,500 pounds or so.

"Pope AFB information Alpha ... blah, blah, blah ... WET RUNWAY!! ... Low-level wind shears ..."

Okay, here's the decision. I'm a hell of a lot safer on the runway in the barrier than I am up here in the air flying right now. All right, got that descent to 2,500 — way to go, Fayetteville!! Phew!! VMC — love that feeling! Field in sight. Okay, lining up with the runway — watch the glidepath — you can do it!! Touch down on brick one — time for the test. Aerobrake, nose down , full brakes, speed brakes ... slip slidin' away ... everything under control, no barrier. Think I'll kiss the ground. I think the smartest thing I can do now is shut this aerospace vehicle down and give her back to the maintainers. And the sooner the better!

The Moral of the Story

I lived to tell this story. I'm lucky. Some of my friends haven't been so lucky. I think the moral of this story (as long as it is) is you have to know your limits, you have to recognize when you've reached those limits, and then don't be afraid to wave the BS flag and call a "knock it off"!

I had been extremely busy the 2 days previous to that flight. I was tired. I was distracted. I was burning the candle on both ends. I'm really lucky someone is watching over me and didn't let me do a tactical mission that night. I'm lucky I survived an instrument backup!!

I made the decision I would rather land on a wet runway and possibly take the barrier than to keep on flying that sortie, convincing myself everything was okay. Probably the smartest decision I ever made. I was able to go home, look in on my daughter, and give my wife a big hug. I'm able to tell you this story!! ■

Official USAF Photo

Official USAF Photos

THERE I WAS...

■ It was a routine day at Taegu Air Base, Korea. Working Transient Alert duty was not very challenging, I thought, and there wasn't any risk of a mishap. I was Super Crew Chief, had done it all, and could do no wrong. Boy! Was I in for an awakening over the next 2 days!

We had already handled our morning shuttle flight to Yongson and had settled down to wait for a C-141 carrying Class A explosives. Our base ops guys, who shared the same two-room building, had reminded us that any aircraft carrying Class A had to be parked on taxiway Bravo — they couldn't be parked on the "Big Ramp," the normal transient parking area.

Time went by, and all of us forgot about the inbound until the tower called and said he was on the ground and was waiting for a follow-me truck. Racing to the truck, I grabbed the new guy (who had only 2 day's total time at work) and hit the door.

As I pulled away, the 141 was already passing our shack, cooking along about 20 mph. No problem for Super Chief! I put the petal down and pulled in front while turning on the follow-me lights. As we rode, I was briefing the new guy, "V," on how the lights worked and which buttons did what.

A minute later, we were at the opening to the "Big Ramp," and I signaled a left turn onto it. The 141 was hot on my tail — it looked like about 50 feet were all that separated us. I followed the normal parking pattern and dropped off a marshaler at the final turn spot, then pulled up to the final stop area.

At this point, things started going sour real quick. After signaling for the aircraft to stop, I noticed the new guy waving from the truck. Since he was new, I figured that was the safest place for him. He could watch how we did things.

Racing to the truck, I could finally hear the MAC Air people calling on the radio. At that point, I finally remembered the plane had Class A's on it and wasn't supposed to be where I'd just parked it. No problem, I thought.

I briefed "V" that I'd goofed and the plane needed to be out on Taxiway Bravo, a straight shot out from the entrance to the big-ramp area. I told "V" to drive the truck while I marshaled the jet out. My last words were, *"Whatever you do, DON'T cross the double yellow lines right before the runway!"*

Off he went with the C-141 hot on

his tail. I had marshaled him out and started jogging alongside the left wing but was lagging farther and farther behind. As we crossed over onto Taxiway B, I realized that they were rapidly approaching the double yellow lines. At this point, all I could do was continue to run along yelling "NO, NO!!" as loud as I could. Looking down at the end of the runway, I could see two Korean Air Force F-4s pouring smoke, beginning their takeoff roll. Running faster and shouting louder, I could already envision the fireball that was about to occur because of my actions.

Much to my relief, the C-141 stopped right at the double yellow, but the T/A truck continued right across in front of the F-4s. As I watched, the jets pulled hard up, leaping from the runway into emergency climbs. They got airborne about 500 feet from the truck and probably had a couple hundred feet in altitude by the time they flew over it.

By this time, I'd finally reached a point where the aircrew could see me, and I signaled them to remain stopped. Using the MAC folks' radio, I managed to get ahold of "V" in the truck and had him stay put on the other side of the runway until I could get there. The tower folks were very interested in talking to me too.

Once I got to the truck, I asked "V" if he'd seen the double yellow lines, and why didn't he stop? He said he saw them, but the 141 was so close, he was afraid they would run right over him if he stopped. By the time we got back to the shack, I had convinced "V" that the pilots of most of the planes would not run over him if he stopped when he needed to stop.

The boss met me at the door and told me to go home and not to come back until the next day. It seemed the Korean base commander, a general, was looking for the guy who was driving the truck. Although I wasn't the driver, I was directly responsible for endangering all of the people in this episode.

Returning to work the next day, it was still up in the air as to what would come of all this. The C-141 crew had filed a formal complaint, and nobody knew what the Korean general had in mind for me. With this weighing heavily on my mind, I caught two USMC A-4s and took them into the revetment area for refueling. Everything went normally (so I thought), and they departed to Iwakuni, Japan.

That afternoon, we got a call from their senior maintenance officer. He asked, "How is your tool situation over there?" Our swing-shift super replied that we had a very limited amount of tools, and if they were coming over, they needed to bring their own. He said they weren't — they had been there already, and one of his planes had flown all the way back to Japan with an unsafe light in his gear handle. His plane captain (USMC equivalent of a crew chief) had found a large, common screwdriver stuck into the landing gear door uplock roller. He said the plane captain liked it better than the one he had, and he intended to keep it, so we might want to get a new one. Once I heard this, I remembered putting it there while I signed for the fuel.

The next day, our chief called me in and asked me what was on my mind. He had two letters of appreciation and two major incidents, with me as the star, all in the space of 1 week.

Complacency got me the first day. I tried too hard to do everything and forgot the most important thing — "V" was not trained, and I should never have put him in the danger I did. The FOD? I'll share responsibility for that with my supervisors — the stress from the day before was still unbearable.

Everybody can learn from this. **Aircrews**: Watch your taxi speed and distance from follow-me trucks. You look a lot closer and much bigger through the rearview mirror. **All personnel**: When you ask someone to do something, insure that they are qualified to do it. When in doubt, train them yourself. **Supervisors**: If you have administrative action or worse hanging over any of your people, pair them with someone — their mind will definitely not be on the job.

The punishment rendered for the two offenses? The chief told me to get out of his office, take a 3-day pass, and come back to work with my head on straight. I took his advice, but I'll never forget the incidents and what could have happened. ■

THERE I WAS

LCDR KEVIN B. LYNCH
Courtesy *Approach*, July 1992

■ So there I was, in the North Atlantic, loving life but hating my dry suit. The water temperature was 47 degrees F. No options, just curse and bear it.

We had just completed initial DLQs for my new copilot and were going for a Helo Inflight Refueling (HIFR) qual. My copilot had done HIFRs previously. The Aegis cruiser was making 28 knots steaming in formation with three other small boys. Though true winds were from behind us, relative winds were 10 degrees to port at 15 knots. After a smooth hookup, my copilot positioned the helo for the fuel transfer. As he flew formation with the ship's flight deck, salt spray began to build up on the windscreen.

Although the hose was charged, I was sure we weren't taking on fuel because the fuel indicators were not climbing. I had the crewmen doublecheck the connection and asked the ship to verify they were pum ping. Both crewmen confirmed the HIFR system was connected and pumping. I heard a loud, dull thump come from the after station. I asked the crewmen if the hose had separated from the Wiggins fitting because it sounded as if something had banged on the cabin floor. When the first crewman said no, I got my first inkling that something bad was about to happen.

I checked the gauges; everything was normal. Since we didn't really need the fuel and it appeared as if we weren't getting any, I decided to call it quits. That's when *it* happened. *It* sounded like tree limbs going into a chipper. (It was most likely an engine failure due to FOD or fatigue. Ed.) Having heard that sound before, I called for full power while pushing both speed selectors forward. There was a big torque split — I mean really big — like No. 1 engine working and No. 2 engine resting. I stopped my scan when I saw Nr at 90 percent.

I heard the crewman call for an

emergency breakaway and noticed we were entering forward flight. My copilot was maintaining the helo in ground effect as he increased airspeed. I declared an emergency to the ship and asked them to stand by. I jumped on the controls momentarily, more to make me feel better than as a result of my copilot's performance. Realizing how well he was doing, I released the controls and became the cheering section. When he called out 80 knots, I told him to start a climb.

As we passed through 100 feet, the popping stopped and no. 2 engine began to show signs of life again. The torque split had decreased to about 20 percent.

My copilot maintained single-engine airspeed and climbed to 500 feet. Since we were flying and the water was going in the right direction (away from us), the aviating and navigating were under control. It was time to communicate.

After quickly discussing our options with the crew, I told the ship of our intention to return to the CV. Feeling confident that we weren't going into the water, I decided to see if the engines could be matched up. I set them at 104 percent Nr and headed for mother.

Now some may think it unwise to make a 48-mile transit to a CV, passing up two small decks along the way, but losing an engine during a run-on landing to the CV seemed less dangerous than losing an engine on final to a small boy without a waveoff option. Both engines stayed on-line during the return trip, and we landed.

If the water is cold, wear your dry suit. Seeing the water 15 feet below me with 90 percent Nr was uncomfortable, but being in 47-degree water would have been more so.

Fly the brief. Everyone responded as we had briefed, making it easier to cope with the emergency.

Keep the entire crew involved in the decision process. We all agreed on the decision to return to the CV, discussing different "what if" scenarios throughout the transit. This kept everyone from breathing a sigh of relief prematurely.

Nothing beats experience. Having had a similar emergency earlier in my career, I didn't wait for any secondaries. Immediately going to full power kept us airborne and out of the water.

Aircrew Coordination Training (ACT) works. As a former ACT instructor and disciple, I'm convinced the program's pluses well outweigh its minuses. When responsibilities are assigned and understood in the brief, people will perform superbly in both their normal duties and during emergencies. ■

LCdr Lynch flies H-3s with HS-9.

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 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. ■

Official USAF Photo

There I Was...

■ This incident happened on my third air refueling track in my pilot upgrade training program. It was a daytime VMC air refueling with one B-52 on one KC-135.

After 30 minutes of successful air refueling training, the boom operator and I coordinated a practice emergency separation. I approached the contact position from precontact. The boom operator told me to return to precontact. As I returned to that position, the boom operator said, "Move back 200 feet." At this point, I suspected something was wrong.

I told the tanker I planned to descend to the bottom of the block. I pulled the throttles to idle, slowed to 240 CAS, and began a shallow descent. The tanker called out the Center frequency and our squawk. At this point, I was falling back to 100 feet plus and well below the tanker.

I checked my squawk and then rechecked the tanker position. He was 70 to 80 feet and closing both vertically and horizontally. My airspeed was 220 CAS approaching the bottom of the block. I attempted to level off, but the IP in the right seat pushed the yoke forward. He was not sure what the tanker was doing and did not want to lose sight. The IP suggested going to the left of the tanker. I made a turn to the left while continuing my descent. As the tanker approached my altitude, I lost sight of him. I transferred control to the IP who had a clear view of the tanker.

We were still closing rapidly, and we called for a breakaway. The tanker raised his airbrakes. Our closure increased. The safety observer called for gear. The copilot (IP) lowered the gear handle. We moved 3 feet closer and dropped like a rock. I got the squawk to emergency in our descent. We passed well underneath the tanker, slightly offset to the left.

After we landed, we talked in detail with our tanker people. The reason they started the emergency descent was because the outer pane of the pilot's window shattered. He did transmit his intentions over the radio after he thought we were well clear. However, his radio was inoperative because some of the buses were off the line.

We all learned a great deal from this incident. Most important is call the breakaway earlier. If I had monitored my own aircraft's airspeeds and altitudes better, I could have called it earlier. Guard would have been a good frequency to call on since AR primary gave no response. Also, next time I have a choice, I will go to the right side of the tanker so I can keep him in sight. Finally, I learned lowering our gear really provides quick and positive separation. Next time, I will be a lot quicker in my actions. Fly safe! ■

THERE I WAS . . .

Photo courtesy Mr. Dave Menard, Air Force Museum, Wright-Patterson AFB OH

■ It's not "kick a tire and light the fire." It never was and it never will be. I've been reminded of that several times. During WW II, I wangled a P-40 cross-country from our training base in southeastern Alabama to Kansas City. (Kansas City was a great RON town.)

Soon after reaching cruise, the Allison engine in the P-40 began spewing oil through seams in the cowling and openings in the firewall. Before long, the windscreen was opaque brown, and the cockpit was dampened with a fine mist of oil. Pulling down the goggles and cranking the plexiglass open gave some quartering side visibility. The closest place to set down was Selma. A helpful pilot in a control ship talked me down for a sod landing.

The transient maintenance NCO cleaned up the mess, saying someone had overfilled the oil and/or not secured the cap. It would be okay now.

Impatient with the delay, off I went to my planned refueling stop at Memphis. My big concern was how much oil had soaked through my flight suit into the "pinks."

Guess what! It did it again! Not so bad this time. Probably residual oil smears that became foamy drops on the hot engine.

Memphis was having some kind of an airshow. Nobody was much interested in a transient. "Just clean the windscreen real good, Sarge, and fill all the tanks." Then I was off to file. There was a cold front east of Kansas City, but I should be able to get through by going under it. That's what I learned in weather. VFR was okay. I was running late.

Off again. About 100 miles out of Kansas City, I ran into a wall of clouds — the cold front. I switched to the full belly tank and dropped down to go under the front. Then I did a one-eighty in the mist above the branches. I came back a couple miles and decided I'd better climb up and go over.

At about 3,000 feet, the engine quit. I reduced power and switched tanks. The engine restarted. Ah hah, they didn't fill the belly tank. I now had maybe 20 minutes of fuel left. The closest base: Kansas City — if I could make it. I couldn't get over the front (had no oxygen), so at about 8,000 feet, I punched through on needle, ball, and airspeed. Very exciting turbulence.

Once through the roughest, still in the clouds, there was nothing on the radio but static. I eased down. It gets very puckery when you don't have a good altimeter setting, don't know exact terrain elevation, and you're in solid weather. So I climbed up a little and took a few deep breaths. I checked the fuel. Final option, when she quits, bail out.

Then I saw a hole. A sucker hole is what we called them. I spiraled down in a tight turn and got under the clouds. I held a westerly heading.

Then there was this river. A river leads to towns. Towns have airstrips. I followed the river. Fuel needles were now almost pegged. Then I saw a town ahead. Whew! Kansas City Tower gave me a straight-in to Fairfax.

That's one of the hard ways. There were many others. *Don't let someone on the ground mislead you.* One time, going into Earnest Harmon, we were cleared to 2,000 feet. At the time, above a cloud deck at 4,000, we refused. The DME showed 20 miles to the base EVEN THOUGH THE CONTROLLER SAID HE HAD US DIRECTLY OVERHEAD. We rehomed the station and started over. At our previous location, the hilltops were above 2,500 feet. Some SA-16 pilot (probably bored) was following our vectors, and the controller had misidentified us. We had 72 souls on board.

And don't let someone with you mislead you. One night a new navigator flying with us was sure we were on course and the Azores was 30 minutes dead ahead. We got a positive ID on the homer, and a needle pointed at the wingtip said otherwise. A 90-degree left turn and a few minutes proved the ADF to be correct.

The lesson? We've all heard if you want it done right, do it yourself. That's not always possible, but almost as good is CHECK IT YOURSELF. ■

THERE I WAS...

Official USAF Photo

■...a senior flight examiner on C-130s with many hours in the airplane. We had shut down No. 1 engine and were landing at Dover AFB, Delaware.

As I briefed the approach, I very carefully explained I would reverse the inboard engines after landing. After touchdown, I again verbally briefed that I was bringing the throttle to ground idle and was going to reverse the inboards. I counted the throttles 1, 2, 3, and reversed what I thought were 2 and 3.

The airplane suddenly veered right and headed for the grass. With a little luck, I was able to catch it and stay on the runway. Then I figured out what I had done.

As an instructor pilot/flight engineer, I had flown a lot of simulated engine-out approaches on locals. In that case, the engine is merely pulled back to idle to simulate the failure, but in a real shutdown situation, the throttle is pushed full forward. So, after landing, when I counted throttles, I forgot No. 1 wasn't there. I started with No. 2 and reversed 3 and 4. There was no harm done, but I sure felt dumb. ■

Official USAF Historical Photo

There I Was...

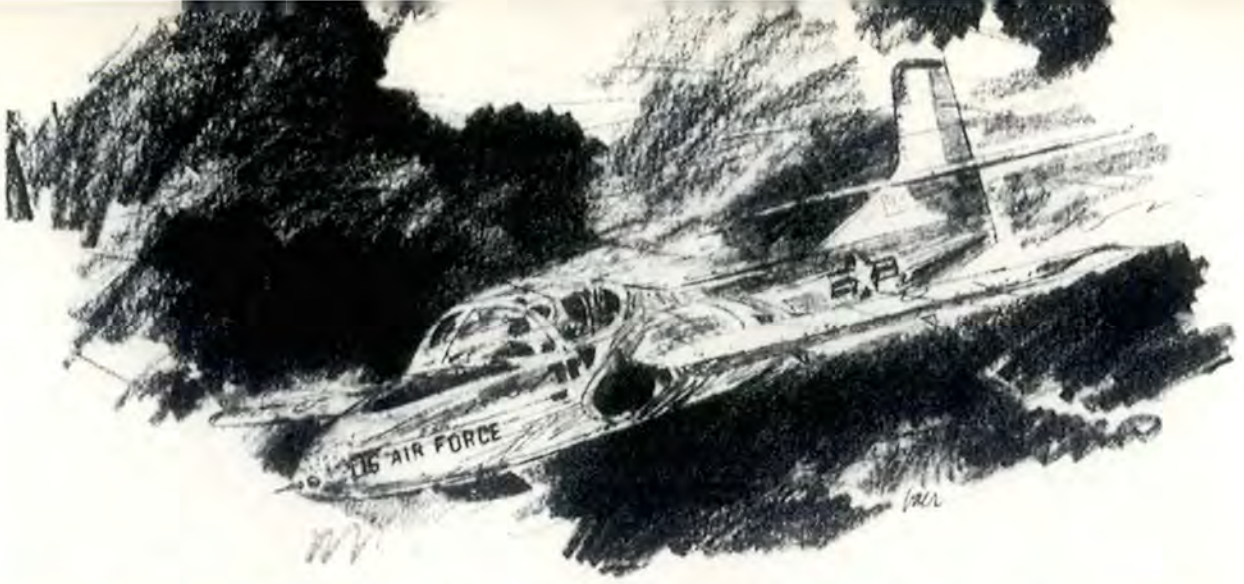
■ We were in a hurry. The aircraft was ready for pick-up from the contractor at the depot, and the Air Traffic Control system had a very small launch window for us. If we missed the window, it would be at least another 8 hours before ATC would give us another IFR clearance. We rushed through the Dash 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 boldprint, 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, th EPR remaining is less than the KC-135 requires to fly. What if I had not, in desperation, pushed the throttles to the firewall? You would probably be reading about this in the Class A mishap file. ■



THERE I WAS

■ Training students in the little Tweet was hardly something you bragged about. It was slow and it was noisy. It didn't go very fast and it was noisy. In the summer it was hot and it was noisy. It took forever to climb high enough to do spins. But it sure was a good teaching tool. I learned a lesson almost every time I flew.

On one summer sortie at a Southwestern base, I had climbed to the top of the high areas to accomplish some needed spin training. During the brief time we were at altitude, the typical afternoon buildups started. Eventually, we were squeezed into one corner of the area in order to avoid spinning above the clouds. When Center announced the SOF's weather recall for potential thunderstorms over the base, I was ready to go home.

Looking from our area back toward the common recovery point out of the areas, I noticed two of the bigger towering cu's on either side of our usual route. Neither had reached much over 20,000 feet, and neither had anything resembling an anvil. I couldn't even see anything falling from the bases.

Since we were the only Tweet in the areas, I was given an immediate descent to the recovery point. The two buildups appeared to be about 10 miles apart, so I planned to fly between the two towering cloud columns and stay in the clear all the way home. It looked like the sky between them was blue and clear. At 200 KIAS, with the speedbrake extended, and using frequent valsalvas, we were "racing" downhill for home.

Suddenly, we flew into a rainshower. The precipitation was so heavy, we lost all forward visibility. The noise was so great, we couldn't hear each other over the intercom. The shower lasted for about 7 or 8 seconds. As suddenly as it started, it was over and we were back in the clear. I had hardly had enough time to get my cross-cockpit instrument scan going.

Before I had a chance to say a word, the student muttered "Jeeez!" from the left seat.

"What is it?" I asked.

"Look at the wing," he answered.

I leaned over to see what was wrong with the left wing. I really couldn't see anything and he finally said, "It's the intake."

Looking over my own canopy rail, I saw the fiberglass intake was thoroughly stripped of paint and a lot of it had been delaminated. I declared a precautionary recovery with the SOF and returned straight home without a stop at the Aux field.

The Safety shop and the fire department met us as we cleared the runway. Before we could unstrap and climb out, all of the people on the ground were pointing at our jet and walking closer for a better view. After stepping over the side, I was as speechless as the people who met us. Every light (taxi light, "passing" light, wing tip, beacon, and strobe light) was gone. The entire speedbrake surface looked like a wild man with a ball peen hammer had pounded every square inch. The fiberglass intakes and the leading edge of the wingtips were stripped of paint and nearly peeled away as if hit with a giant sandblaster. The leading edge of the vertical and horizontal tails were seriously dented. Clearly, we had not flown through a rain shower. We had spent 7 or 8 seconds in some major hail.

Despite the apparent lack of thunderstorm characteristics, the towering cu's were indeed growing thunderstorms. Even without an anvil, they were capable of producing major hail. My somewhat casual treatment of these clouds led me to believe it was "safe" to fly between them. Blue skies above and small-sized building clouds were no insurance against the power of nature.

Since that day, if I even suspect there's a chance clouds might be potential thunderstorms, I've given them a wide berth. Even the slow Tweet can make double-digit distances around building weather with ease. Besides, even the Tweet deserves better treatment than found around thunderstorms. ■

THERE I WAS

■ Twenty-five years of flying experience, nearly 10,000 hours in the cockpit — you'd think I'd know better. It was an early morning local training mission in the C-141. I'd like to blame it on getting all of 2 hours sleep prior to the alert call.

Crew fatigue is a real problem, but only one of the links in the unbroken chain of events leading to a mishap report. The crew consisted of myself, five other pilots, and two engineers — I'm a flight examiner pilot, and another pilot is an instructor.

The crew has more flying time and experience than you can shake a stick at — the type of crew a mishap report would call "highly experienced and qualified." The weather was beautiful — high overcast, nearly calm winds. The only visibility restrictions were the patchy ground fog in the trees and the curvature of the earth. The board might say "weather was not a factor." The aircraft, for a 33-year-old, was in rather good shape. There were only relatively minor open discrepancies. The kind of aircraft which leads a mishap board to use the phrase "The pilot failed to...." (read "pilot error").

We had been flying almost 3 hours. The local had worked out very well. Each of the six pilots accomplished three approaches and at least two touch and go's. Every other approach was an opposite direction approach. All approaches and landings had been very well planned and flown. The morning had been extremely productive.

I was in the right seat. I had an annual composite eval coming up, so I decided to finish the local with a no-flap approach and landing. We were in the closed VFR pattern. There had been some call sign confusion by the tower controller between us and another local in the pattern. Originally, we were to be No. 2 for the approach and landing, but due to the call sign confusion, we were now No. 1. This was fine with me because I was already late for the engine running crew change.

For the benefit of the other local, I reminded the tower we were planning a no-flap full stop. We were cleared for "the option," and, again, I reminded the tower we would be a full stop. The tower cleared us to land. Due to the tower's apparent confusion, additional communications were required, and I failed, for a short time, to pay attention to flying the aircraft. As a result, I delayed getting the power back and getting the aircraft configured. I couldn't extend the pattern (or could I?) because we were now No. 1 inside the other -141.

Well, we all know how the Star Pig likes to fly no-flap approaches — 20 knots hot on final, 30 knots hot over the threshold. I had, and passed up, several opportunities to "break the chain" of events leading

to a mishap investigation. I've got two chain-breaking opportunities left at this point — go around or land and get it stopped before the other end. Remember, I'm late for the crew change, and I've got all this experience. You guessed it. I planted that sucker.

For those of you waiting to read the mishap report, I'm very glad to say there will be no report. I put it down smoothly in the first 1,200 feet and injected the brakes with only 4 million foot-pounds of energy.

Was it the correct decision? *Absolutely not!* This has got to be one of the poorest decisions I've made since pilot training. I chose to break the mishap chain at practically the last possible link. I must tell you, I am furious with myself for this decision. There are several reasons for my feelings.

Permit me to "what if." What if my airspeed had been higher? I could have "wheelbarrowed" on the nose tire. I'm sure you all remember the C-141 mishap when that happened.

What if the thrust reverser(s) had not extended? What if the spoilers had asymmetried? What if, because of the close temperature and dewpoint (remember the fog in the trees?), the runway had been moist and I needed heavier braking at the far end of the runway — in the rubber deposits?

What if I needed heavier braking and the antiskid malfunctioned? What if I had executed a go-around? (All the other "what ifs" would have disappeared.) I caught grief from the next IP for being late at the change anyway. What's another 5 minutes compared to an investigation?

What makes me most angry with myself is I am a flight examiner, and my performance sets a tone for the way the rest of the pilots in the squadron fly the airplane. As the saying goes, "Your actions speak so loudly, I can't hear what you're saying." I tried, after the local, to make it very clear to the rest of the crew I had made the wrong decision. I hope they can hear over my actions.

Our discussions after the local led me to ponder one other disturbing point. I always state in my premission briefing that if **anyone** sees **anything** they don't like or understand, please bring it up. It's better to clear up the problem among ourselves than try to explain it to someone else later.

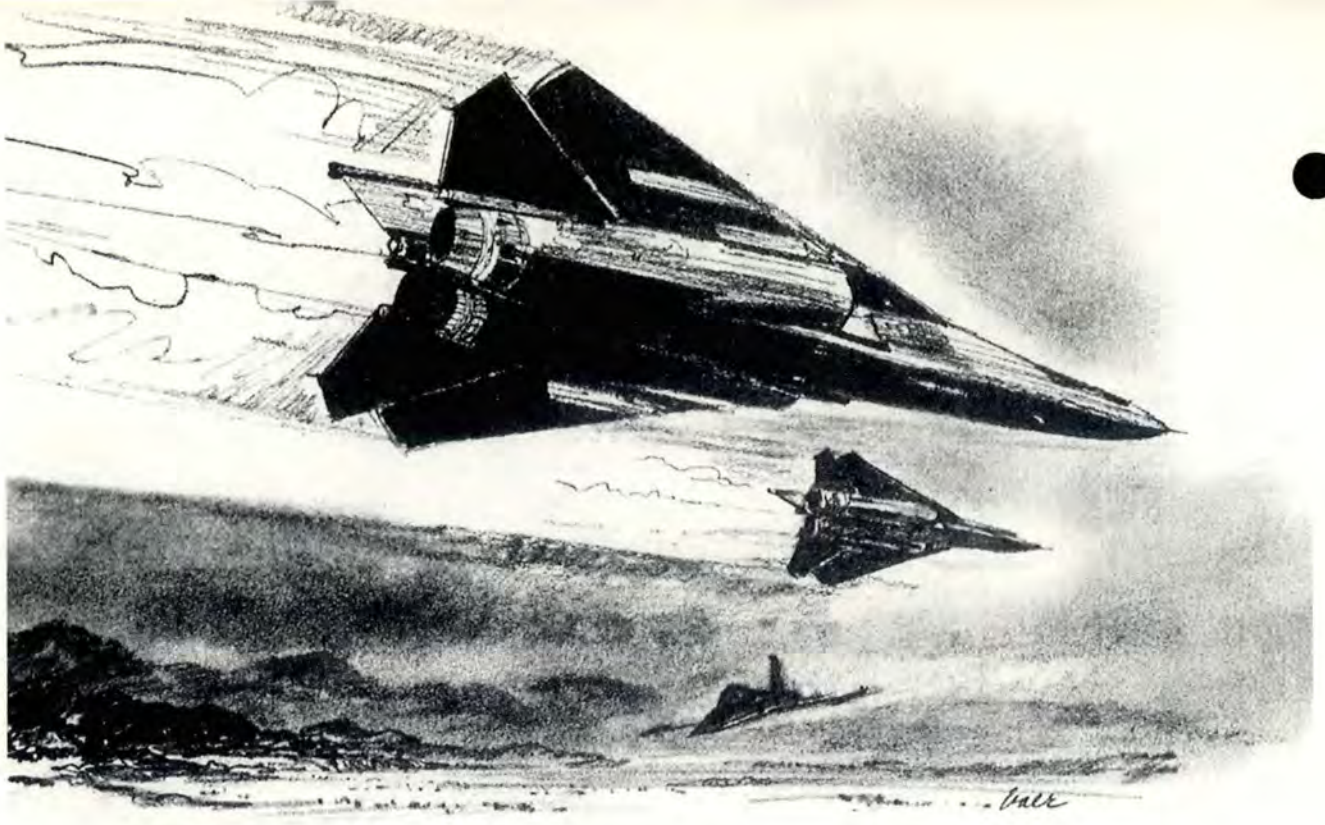
After we were on the bus back to the squadron, several of the crewmembers said during the approach and landing, they thought to themselves things like "Aren't we a little hot?" "Maybe we should go around," or "This is going to be very interesting!"

Don't get me wrong. I am not attempting to shift responsibility for my poor performance from myself; however, "The **crew** failed to ..." is another favorite phrase in mishap reports. I am certain if I had rolled through the approach lights at the other end, the "Why didn't you ..." questions asked by the investigators would have to be answered by more people than myself. I also feel certain nothing was said to me, in part, because of my crew qualification, and the other crewmembers were sure I knew what I was doing.

Every time I go flying I learn something. Occasionally, the learning curve is steep. This local training mission was one of those *steep climbs*. Next time, I hope to break the mishap chain sooner, rather than later. The sooner it is broken, the more options there are available.

Also, there are too many mishaps discussed in resource management classes where the obvious question asked is "Why didn't _____ say something?" Generally, most everyone in a classroom forum says, or feels, they would say the appropriate phrase in a given situation to break the mishap chain. I watched it not happen on this local. I am going to try to feel more free to speak up when I see something apparently wrong. I am also going to try harder to foster the same feeling in other crewmembers.

Finally, if I had made the right decision and gone around, I would have been embarrassed, but I would have felt better knowing I had made the right choice. If I had ended up sitting in the middle of the localizer antenna, I would have been very embarrassed and certainly much more angry at myself than I am now. This time, things went my way. I'm not going to press the test again. ■



THERE I WAS

■ My first trip to Red Flag in the FB-111 was a 2-week TDY, and we were on our ninth and final sortie on the tenth and last day of the "war." Both Nellis and Las Vegas had been fun and educational in many ways, but like just about everyone else, I was ready to go home.

During the last few days, the intensity of the exercise and the requirements for maximum concentration began to peak. Live ordnance was being released regularly, and deconfliction problems began to gain a lot of attention as compression of TOTs and target area saturation were emphasized.

Formations began pushing the gap at 30-second intervals, and that's not much when planes are ingressing at 540 knots and egressing supersonic. Into that, add aggressor aircraft, ground threats, C-130s, French Jaguars, Wild Weasels, and terrain following attackers, and there is a high potential to see someone where you don't expect them.

See and avoid was obviously high priority. Today, however, we didn't expect to see much since all the F-15s who had previously been trying to down us were now on our side. We still had aggressors (F-5s) challenging us, but we hadn't seen them on previous sorties and didn't think they would be a factor with F-15s providing CAP. If it had been real combat, we probably would have had the nerve to call it a cake walk.

The weather was bad as we entered the range, but as we expected, it cleared near the target area. The excitement began on the bomb run, but that's not unusual for guys who find the IP inbound to be fun. We took 30-second spacing on lead to simulate the frag of a MK 82 even though we were only dropping smoke-producing MK 106s.

As we neared the target, we spotted lead's smoke well placed on a column of trucks. The bombing system looked good as the time-to-go counted down to zero. Bombs away! We banked and pulled, and in the turn, I could see our smoke also on target. We rolled out at 300 feet with burners lit and lead in sight, with a planned join up at Mt Helen. We would then blast through EC West avoiding ground threats and trying to keep from going supersonic over the manned sites.

I checked our rear and saw an F-5 beginning to convert, called it to lead, and thought to myself we might have fun today after all. We rocked our wings so the aggressor knew we had him visually, and after a short chase, he broke off and climbed to our 3 o'clock. We then

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heard lead call "Chili Flight, AAA o'clock." As we began our defensive actions, smoke salvos appeared on our right. We started to move back to a line abreast position on lead as he banked to the left.

Out of nowhere, a flash appeared below us, and we realized it was another attacker. I heard myself half yell "Holy ----, someone flew under us!" We knew that at our altitude we missed the other guy by maybe 100 feet with a closure of over 1,000 knots. We told lead, and we all began to look for a wingman, but it became apparent the IFR conditions we thought we left upon entry were waiting just ahead in the hilly terrain of Cedar Pass.

I brought my attention back into the cockpit, and we armed up the terrain following radar. I checked my radar scope to ensure terrain clearance, and my pilot transitioned to instruments. Lead was doing the same. The visibility had gone to zero in this short time, and the DME on our air-to-air TACAN also read zero. In these conditions, we had little idea of lead's direction and concluded we had reached our saturation point, and it was time to get out.

Our climb began with my attention on the DME, which seemed to be decreasing, and the altimeter, which wouldn't increase fast enough. In the excitement, we almost forgot a critical step in the 111 during decelerating flight — moving the wings forward. Other 111s had been lost when this step was left out. Luckily, my pilot remembered to bring the wings forward as we leveled off still in the clouds. At the time, I was interested in results without caring much how they were accomplished.

Later, as we discussed those exciting 5 minutes, we agreed we had been lucky not to hit someone else and that a friendly airplane can be just as deadly as a missile or a bullet. Most importantly, we found out that in a deteriorating situation, the most essential thing you can do is stay in control of what you still have control over. ■

YOU are this Nation's most valuable resource. Don't take an UNNECESSARY risk.

DON'T DO IT.