



2 Flying Safety • April 2008

	Combat Search And Rescue Mission Dark and stormy night — rescue WX
	8 Air Refueling Hazard Leaving parts with the boom
	10 One Jumper Unaccounted For Trials of a new AC
	Image: Additional system Fighter Pilots And ORM So many missions, so little time
	Poster Deployed Safety
	18 Go Green Or Go Home How not to use
	20 No IFEs Call him lucky
	22 Flying While Fatigued Nobody was awake
	V 25 Land Or "Go Around" Birds on the runway
Cover: USAF Photo by SSgt Michael R. Holzworth Rear Cover: USAF Photo by MSgt John E. Lasky Photo Illustration by Dan Harman	28 Aviation Well Done Awards Crews of Torque 88, Yukla 21, and Maj Darrell F. Thomas
	31 Class A Flight Mishap Summary Flying Safety Magazine online: http://afsafety.af.mil/SEMM/fsmfirst.shtml
U.S. AIR FORCE	



Deployments – A Tale To Tell

"Mission hackers!" That's the term that comes to mind when thinking about the efforts of all our deployed Airmen. Be it ops, maintenance or support, everyone's

doing their best to ensure mission success. As professional Airmen, we have extreme difficulty saying the word "can't" when it comes to operational missions. We take our aircraft and crews to their limits, and sometimes beyond, to achieve mission success. Deployments take a toll on all involved. Extreme environmental conditions, fatigue, around-the-clock taskings, and the anxiety from being in-theater all add up. Airmen in-theater operate on the edge, and safety needs to be ingrained in all our operations to help prevent noncombat losses.

This issue of *Flying Safety Magazine* is oriented around situations aircrew have found themselves in while deployed. I'm sure everyone has their own "There I was" story when it comes to deployed operations. It's normally resolved by timely crew coordination, operational risk management, or more often, just by dumb luck. These are the stories that need to be told to fellow aircrew, so they don't have to repeat your mistakes to learn the same lesson. I challenge squadrons to have gatherings where, over a cold one (non-alcoholic, of course, in-theater), Airmen bring up some of their most harrowing missions, episodes of sheer buffoonery, and tales where your wingman or navigator bailed you out when you were headed either to disaster or a trip to the commander's office.

I'm grateful for those who donate articles and suffer a little embarrassment, and sometimes a lot, at the hands of their buds, explaining how they messed up, in an effort to prevent someone from repeating their mistakes. We're all wingmen in the Air Force, and relaying your experiences is another way of looking out for each other and building camaraderie. So keep shooting the watches, and fly safe!

Safety Sage

GENERAL T. MICHAEL MOSELEY Chief of Staff, USAF

LT COL THOMAS GREETAN Deputy Chief, Media, Education and Force Development Division Associate Editor-in-Chief DSN 246-4110

DEPARTMENT OF THE AIR FORCE — THE CHIEF OF SAFETY, USAF

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MAJ GEN WENDELL GRIFFIN Chief of Safety, USAF

> ROBERT M. BURNS Managing Editor DSN 246-0806

COL WILLIAM "WILLIE" BRANDT Chief, Aviation Safety Division DSN 246-0642

> SHERYL OPEKA Executive Assistant DSN 246-1983

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DAN HARMAN Electronic Design Director DSN 246-0932

E-Mail — afsc.semm@kirtland.af.mil Address Changes afsc.semm@kirtland.af.mil

24-hour fax: DSN 246-0931 Phone: DSN 246-1983 Commercial Prefix (505) 846-XXXX

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CSAR There I Was

CAPT CHAD L. SUMMITT 23 WG/SEF Moody AFB, GA

USAF Photo by SSgt Aaron D. Allmon II

Before I get into my "There I was" story, I need to give a little background for those who don't know much about Air Force Combat Search and Rescue. The basic premise is that each service rescues its own people. However, if there are circumstances where one service turns down a mission, such as the Army when the moon illumination goes below 20 percent, then other services get tasked. That is when Air Force CSAR generally gets missions assigned, when it is very dark, the weather is very bad, or both. The CSAR motto is "These Things We Do ... That Others May Live." Very similarly, the Air Force Special Operations Command motto is "Anytime, Anyplace." Now, on to the story.

We had been in Iraq for about a week and were finishing the swap out between units. We were taking over the CSAR mission from a unit from another base. For this round of deployments, it was the initial one, which meant we had to bring in all our equipment, unpack, and set up everything. Because of this, we brought experienced crews. Most of us had not only previously deployed, but we deployed to this very location the year prior. Therefore, we had a solid experience base to establish our operating standards.

We had just finished our local-area familiarity flights and took over the alert schedule from the outgoing unit. It was our first night on alert, and the weather was degrading rapidly. Lightning was starting to flash all around, the winds were picking up, the tents were whipping around violently, and the dust was getting worse, resulting in degraded visibility. Walking around the compound, we joked with each other, saying, "Well, we have mission weather tonight." Sure enough, those words rang true.

Not too long after that, we got the call to heighten our alert posture. This means we send part of the crews to the helicopters to allow us to respond quicker. Usually when our units first take over the alert schedule, there is a practice scramble or alert scenario. This was in the back of our minds, but with the weather deteriorating the way it was, we were pretty sure something was going on. Soon after, we got the tasking from the Joint Search and Rescue Center to launch our crews to search for two Marine fighter pilots who'd had a midair collision. Due to the weather, we took a little longer than usual to take off, because we were making sure we had our game plan together. The weather then had winds exceeding 40 knots, low visibility due to a sandstorm, a thunderstorm in the area moving from west to east, and lightning striking all around. The field was IFR, but the visibility was acceptable, with the close cultural lighting around the base.

We caught the tower controller by surprise when we requested our "Special VFR" takeoff, but we were eventually cleared and off we went. We were a Pavehawk (HH-60G) two-ship, of which I was on the lead aircraft. We fly low-level, below 500 feet AGL most of the time, especially in combat. At night on NVGs, we typically fly around 125-150 feet, and this night was no different. The visibility worsened once we got away from the lights of the base and surrounding towns. Not five minutes after takeoff, I remember looking up from following our position on the map and not being able to see in front of the aircraft because of the blowing sand. However, when I looked down at the forward-looking infrared radar picture, I was still able to see the ground along our flight path. That gave me some relief, but just two minutes later, I couldn't see outside or on the FLIR picture. That was the first real uneasy feeling I experienced on the mission, and we were only seven minutes into the flight. I asked the engineer if he could still see the ground. At times he could, and at times he couldn't. Flying at 150 feet AGL with little to no visual references is not a comfortable feeling. It would be like flying less than 200 feet above the ground in clouds.

On top of a low-level, low-visibility formation flight, we also couldn't identify hazards until we were right on top of them. For anyone not familiar, Iraq has many power lines taller than 300 feet. I remember following along on the map and inform-ing the crew of "wires" at several points along our route. Once we were within a half mile of the wires, I directed a climb to a sufficient altitude to clear them, and we wouldn't see the wires until we passed directly over them. After two or three sequences of climbing and descending to avoid power lines, we finally decided to fly at 500-700 feet to keep us clear of most obstacles. Plus, altitude really was not a factor in terms of being shot at, because there was little chance of any hostile forces seeing us in those weather conditions. Even at 500-700 feet, sometimes I could see the ground and sometimes I couldn't. Needless to say, it took the entire crew on both aircraft to safely execute and fly the mission.

The next significant event occurred when we had our first major turn on our course routing. It was not flown aggressively at all, but the course line turned left somewhere between 60 and 90 degrees. After we made the turn, our wingman, No. 2, asked us to slow down because they were having trouble keeping up. We slowed down 10 knots. A couple of minutes later, they said that they were still not catching us, and we slowed down another 10 knots. A few more minutes passed with the distance between us continuing to increase, and then the co-pilot on No. 2 said, "Hey Lead, I think we're in front of you." Silence came over the radio at this point. How could our situational awareness have allowed this to happen? We have four crew members in the back of our helicopter, plus all the crew members on No. 2 who should



continually have the other aircraft in sight. At this point, we decided to stay in the trail position at about 0.7 to one mile and continue to give position calls between each aircraft. We have the capability with our air-to-air TACAN to display the distance between aircraft, but it doesn't tell us where each aircraft is in relation to one another. That was the reason for the position calls.

Then we were over a fairly large lake and able to keep No. 2 in sight at 0.7 to one mile spacing. Once we crossed the lake and were back over land, we closed our spacing to maintain sight of one another as we approached the objective area to search. Unfortunately, the farther we went, the more desolate the area became. Flying across this featureless desert terrain, environmental conditions worsened, if you can believe that, and were such that there was near-zero effective illumination. We tried several different things, such as trolling at slower airspeeds and lower to the ground in an effort to do a better search. But we were having a hard enough time just seeing the ground directly below us, so we weren't able to effectively search the area. We could have easily flown within 25-50 feet of the wreckage and would not have been able to see it. It was around this time that we heard an MH-53 formation on the radio, but they were having no more luck than we were. We had been flying for a couple of hours

by then and had all we could stand, so we decided to knock it off. We finally made the smart decision to divert to Baghdad, get a weather update, and wait until dawn if need be.

Once on the ground, we refueled both aircraft and collected ourselves. We talked to No. 2 and found out that earlier they were doing all they could just to stay on our wing and keep us in sight. When we made that 60-90 degree left turn, they were on the left side and broke over the top of us. To compound their situation, the co-pilot's door flew open during this maneuver. They barely missed hitting us, but that put them in a nosedown right bank, heading toward the ground, with few visual references outside the aircraft. They managed to get it back under control, leveling out around 150 feet, and somehow overtook us shortly after that. We had no idea that we nearly had a midair collision.

The rest of the mission was uneventful. We mission-planned on our portable flight-planning equipment and launched again just before dawn. Visibility was still bad, but by the time we were away from the cultural lighting around Baghdad, the sun was rising, which improved the visibility. We searched multiple sets of possible coordinates and finally found some wreckage later scattered for miles across the desert. The pilots unfortunately did not survive the incident, and they were

Lightning was starting to flash all around, the winds were picking up, the tents were whipping around violently, and the dust was getting worse. We joked with each other, "Well, we have mission weather tonight."



USAF Photo by SSgt Alice Moore

later found several miles from the wreckage. All in all, we refueled multiple times that day and logged 10.8 hours per aircraft before returning after a long duty day. We did multiple brownout approaches in the desert to verify wreckage parts, and returned with minor problems, such as cracked windshields from the brownouts. We gave up the aircraft to two fresh crews that went back out to continue the search, logging more than 11 hours of flight time per aircraft before returning to base.

After this experience, here are some lessons I learned and recommendations I have on how we can do our jobs safer:

1) Seriously analyze the importance of the mission. Is it a military asset, or is it a local civilian? Although not in this case, too often we've crashed and killed entire rescue crews going after foreign civilians who were driven out to safety the next day and survived whatever injuries they had.

2) With weather conditions as bad as those, delay until daylight if possible. I realize this may not be an option, but it would help mitigate some of the risk.

3) When launching in bad weather, have the formation take both lateral and vertical separa-

USAF Photo by SrA James Croxon

tion from the beginning, to avoid potential midair collisions and to reduce the overall workload. Instead of getting closer to maintain visual contact with each other, take a mile separation and stack 500 feet in altitude from each other. Then, either pick a point to rejoin, or set hard boundaries, search on either side, and rejoin after the search.

4) Consider setting a limit and sticking to it, like the Army's not less than 20 percent moon illumination, instead of allowing aircrews to fly into "0/0" weather conditions on life-and-death missions. To my knowledge, our HH-60Gs (CSAR) and MH-53s (AFSOC) were the only helicopters flying that night. Both communities were flying in horrendous weather conditions. Many times it's necessary to execute missions in such conditions when the reward is worth the risk; however, I think we can do a better job of mitigating the risks to protect our valuable assets. Ask nearly any rescue aircrew member who has been deployed, and I bet you'll get a similar story. Some of us have been lucky, but unfortunately, far too many have made the ultimate sacrifice. To make a difference, it's going to take some fundamental changes in the way we think, operate and execute our missions. I think the time has come, before we lose another aircrew member, helicopter, or both.

Air Refueling Hazard

CAPT SIG JUCKNIES 560 FTS/DOC Randolph AFB, TX

It was my 14th sortie in the AOR, and I was pretty comfortable with the routine. The sortie began like any other: standard brief, a stop at life support, and a short bread truck ride to our home for the next 16 hours. No incident was going to prevent *me* from completing my preflight and launching this combat mission. The takeoff and five-hour flight to the AOR were uneventful.

The sortie started off fairly active for a lateevening flight. We started the vul, fulfilling the assigned air support requests, and soon responded to multiple troops-in-contact situations. About nine hours into our sortie, we contacted our scheduled tanker and coordinated to move the air refueling point over the troops in contact that we were supporting. After blocking the airspace we needed with ATC, the rendezvous went as advertised, and we were established in the precontact position several minutes later.

The air was fairly turbulent over the refueling point, undoubtedly because of the high mountains under the new location. This was not much of a factor, since both pilots were very proficient, getting to air refuel at least four times per combat sortie. This night presented us with another challenge, though. The boom light on the KC-135 that illuminates the green and red bands on the boom was inoperative, making it very difficult to see the closure trends during refueling. In a B-1, the refueling receptacle is a few feet in front of the windscreen, making the boom one of our primary references.

We asked the tanker crew to turn on their flood light to help illuminate the boom, and that helped a little bit. We could make out the markings on the boom that defined the envelope, but couldn't see them clearly. We talked about the lack of detail that we could see from the front cockpit, but decided to continue and refuel, keeping in mind the troops



below who were taking enemy fire. We connected with the tanker and began onloading fuel. We were scheduled for an onload of 65,000 pounds.

After taking on about 15,000 pounds of fuel, the air became a little more turbulent, making it more difficult to stay stable in the contact position. During the day that would have been a moderately simple task, but at night with poor visual cues, it was a bit more of a challenge. At one point, I started falling aft in the envelope and pushed up the throttles to move back into the heart of the envelope. Before too long, I found myself beginning a pilot-induced oscillation. We started moving forward and aft in the envelope, getting closer to the edges where it would be necessary to disconnect.

It wasn't long before I decided to disconnect and move back to the precontact position and attempt a more stabilized refueling. I was at the front of the envelope, very close to the forward limit of the boom, and cracked the throttles in order to start an aft trend. Soon after this, I pressed the boomdisconnect button on our jet. Normally, that would

USAF Photo by SSgt Angelique Perez

release the boom and cause a disconnect generated by our aircraft. On that occasion, nothing happened. I pressed the button again, as we were quickly moving to the aft limits of the boom. Again, the action was not successful. The other pilot in my jet pressed the disconnect button on his stick with no success, either. At that point we were at the aft limit, but the jet was not disconnecting from the boom. This caused the KC-135 and the B-1 to start a trend back toward each other in the vertical direc-

tion. I had seen enough and simultaneously pulled the throttles to almost an idle position and pushed forward on the stick, causing a brute force disconnect between the two aircraft. The disconnect was harsh and led to a breakaway call from the boom operator. We were already descending well below the tanker's altitude.

After the breakaway, we could hear an increase in wind noise over our air refueling receptacle. We decided not to close the receptacle door until we could get the boom operator to inspect the area. We moved back into the precontact position and asked the boom operator to take a look. She used the boom receptacle light to illuminate the B-1's receptacle. All she could see was some bent metal, but couldn't tell if the damage would prevent further refueling. She told us that she, too, had tried several times to initiate a disconnect, without success. After consulting with the crew, we decided to terminate air refueling. We raised our bingo fuel to our divert base by 10,000 pounds to account for any extra drag on the aircraft, and continued to support the TIC. We notified the ground troops that we only had 1.5 hours of play time remaining before we had to return to base. During the rest of our vul, we coordinated with the CAOC and other applicable agencies for an early departure from the AOR to our divert base. We closely monitored our fuel to ensure that we had no fuel leaking from our aircraft. The RTB was uneventful.

After landing, we discovered that the air refueling receptacle had torn out of the B-1, but we didn't know the reason for the disconnect failure. Less than a week later, this same incident happened again with a different KC-135 and B-1, highlighting that this was not an isolated incident. Inspections were done of the B-1s and the KC-135s, and we developed some interim procedures to prevent further incidents in the AOR. No further incidents occurred during the deployment.

During training, having the boom light being out at night would have sent us home, but to support the troops on the ground, it was important that we refuel and get back in the fight. Given this situation again, I would make the same decision to air refuel, but would probably move the track away from the mountains to avoid the further complications generated by turbulence. During combat operations, we as pilots, sometimes have to take more risks than we would during peacetime operations. If risks cannot be mitigated, and the importance of the mission warrants continuing, a plan should be devised to prevent multiple risks from compounding into a disastrous situation.

One Jumper ⁷ Unaccounted For



CAPT STAN TALLMAN 86 AW Ramstein AB, Germany

> USAF Photo by A1C Heidi Holston Photo Illustration by Dan Harman



I had been at Dyess for a few years, and we had recently returned from K2 from my first rotation as an aircraft commander when the scheduler came at me with a "good deal." We usually got the typical Pope or Lawson JAATTs and these were great experience, but no one wanted another week in Fayettenam, so I jumped when I heard the destination: McChord! We were to be only the second crew to get a mission to McChord for a JAATT in a long time, so there weren't many experienced guys around for me to pick their brains.

The first thing I did was find the AC from the first crew. He probably had more hours and experience of total flying than anyone else in the squadron. I got the scoop on what they did, how it worked for them, who to talk to, and more. He told me that it was "really simple — you meet your Army liaison the day before, he gives you the setup, briefs you on local area stuff, and then you go drop!" Gee, that DOES sound simple! "Simple" to a 7,000-hour pilot and simple to a 900-hour pilot aren't necessarily the same thing.

I got with my crew and we flight-planned the trip up there, the drops, and then the trip home, and for the most part, there were no surprises. The first day was to be a positioning leg to McChord, and also do several night drops before checking into billeting. The next night would be more of the same, and then return home the following day. My crew consisted of a high-time co-pilot, who was also a good buddy, a student navigator who was getting HALO-qualed, but was notoriously weak, and an instructor nav who was an exchange nav with more experience than the rest of the crew put together. The engineer was a typical mid-time engineer, who was good, but unusually quiet during missions. Six loadmasters were getting requalified/recurrent, including three new guys, one instructor and two evaluator loadmasters.

We filled out the required ORM sheet and had a moderate score, but this was normal given the complexity of the mission, the low-time AC, and the amount of bodies getting trained on the airplane. I gave the DO the premission brief, and off we went. We'd planned to meet our ground liaison officer when we landed at McChord, and expected to get a recap of the type of jumps to expect, DZ location, size and markings, and local airspace and range procedures. This is where the story gets fun!

We waited around for the pre-arranged GLO, but no one showed up. We called over to Gray AAF and the sergeant in charge told us that the GLO wouldn't be able to make it, and if able, the jumpers could go early! So, we jumped into our plane with the most basic outline of a plan for the six-minute tower-to-tower flight to Gray AAF to pick up our Army jumpers. Luckily the weather was VFR, and the winds were not terribly challenging that night. With the timeline already tight, we elected NOT to shut down, and instead, do our jumpmaster briefing with engines running to expedite the process. Having done several JAATTs before and scores more after, I knew that trying to convey critical info under the noise and exhaust of four C-130 engines was less than ideal.

We got the skinny on the drop that night: one stick of eight HALO jumpers, one stick of about 15-static line, with an elevator back to Gray to pick up more, and repeat the drop sequence again before calling it quits for Day One. We got the DZ markings, altitudes and the rest, gave the carps to the jumpmasters, and loaded up for our first drop. It was after 7 p.m. and just getting dark, and as we climbed up for the first drop, the co-pilot contacted Seattle Approach and let them know that we'd be doing airdrops with multiple passes. We knew we were close to the Seattle-Tacoma International Airport, and as the dusk turned to night, it looked like a freeway in the sky, with all the air traffic around us.

We reached our drop altitude for the first stick of static, and we made for the IP, which was a point of land sticking out of Puget Sound. No one ever saw the IP, and after driving three miles past it, I asked the student nav if he was ready for us to turn inbound; he didn't see the point either, and agreed that we should turn inbound. About that time, we got the first of about 50 traffic calls from Seattle approach, which further muddled the situation. Once we were past the traffic and cleared back on our run in, I was a little confused as to our exact position. The Approach frequency was as busy as ever, and I still had half an eyeball out the window looking for traffic, as we were going against the flow of fast-moving arrival traffic. We were putting around at 130 knots, groping around over the now-dark Puget Sound, hoping to see a lighted block Alpha on the drop zone just past the shoreline.

I lined up on SCNS, as the nav wasn't giving any direction and was pretty confused, and we still didn't have our checklists completed. One minute came, the slowdown checklist wasn't complete, and no one had the PI in sight, so I called "No Drop," and the co-pilot and loadmaster acknowledged. That totally sucked. Our CRM was horrible up to that point; every crew position was task-saturated, partly from being unprepared, then rushed, and in a new environment. Even the basic tasks seemed difficult, and after one pass, we still weren't in any better shape.

The instructor nav stepped in finally, directed a turn to our outbound heading, and gave us a point to fly to. We made a right turn out, finished checklists, ran the 20- and 10-minute advisories, and pre-slowdown and slowdown checklists. For the moment, things seemed to start coming together. We found the point of land for the IP, and we began our drive inbound. One minute out, there was a "No Drop" call from the LM, so we didn't drop, relayed it to the DZSO, and continued inbound. As of then, no one had seen the actual IP or the DZ!

I made the right turn outbound, we tried to set up again, and made a brief query to the loads as to why the "No Drop" and all I heard was, "Training!" OK, fine, we'll talk about it later. We approached the point of land, and the student nav gave us a LEFT turn inbound! You could see the giant question mark above the pilots and engineer, and I confirmed with the nav, "LEFT? Are you SURE? The inbound course is to the RIGHT. We've been making RIGHT turns all night. Why the hell do you want to turn LEFT?" He had no good answer and gave us a right turn onto the run-in course, and that was when I was sure that his SA was lower than the rest of us, which meant it was pretty much out to lunch.

Silence filled the interplane as we began the third run in. Silence on the flight deck either means everyone knows exactly what's going on, or that NO ONE knows what's going on! Guess which one we were?! The co-pilot finally picked out the PI and walked the rest of us onto it, and that was the first time all night that I had a little confidence about the rest of our mission. With a little prompting from the instructor nav, the nav set us up on centerline, and gave us good advisories and called "Green Light." The co hit the switch, and we got 15 static jumpers out and 15 confirmed chutes from the DZSO.

We pressed on with the mission, climbed up to 10,000 feet to do the HALO, and the IN demo'ed it, to the crew's relief, all the while avoiding traffic from the Sea-Tac corridor, sketchy comms with the DZ, and the "training" going on in back.

With the last of the eight HALO jumpers safely away, we made our way back to Gray AAF to pick up our second lift of the night. During the ERO, I conducted a mini-debrief to try to figure out why things went so bad and how to do it better the next time.

We climbed out again and set up for our staticline drops. Traffic put us off our run-in on our first attempt, and we ended up about 10 miles away from the IP. I began a turn back toward the IP, We called 15 away to the DZSO, and as we made the turn off the drop, the DZSO called us back that he only has 14 chutes!

USAF Photo by SSgt. David L. Wilcoxson

and the student nav directed a turn, again in the WRONG direction! With minimal help from the instructor nav, we made our way back to the IP. We got on the run-in again, and we had a hard time finding the PI again, so NO DROP! We made two more attempts and two more no-drops.

Everyone was getting tired, irritated and frustrated as we made our third attempt. Finally, everything looked good, and the nav called "Green Light", and 15 go out on static lines. We called 15 away to the DZSO, and as we made the turn off the drop, the DZSO called us back that he only has 14 chutes! My blood ran cold as I was certain that we had put a jumper into the Sound. We orbited for about 10 minutes trying to clarify how many went out versus how many were on the ground! This really drove home the point about how poor our CRM had been that night, to the point of dropping a jumper off the DZ, or worse.

As we cleaned up and started heading back to Gray AAF, thinking the worst, the DZSO called us back and let us know that all jumpers were accounted for. Apparently they had not seen the last chute, but did the actual count wrong, and there had been 15 jumpers safely on the DZ the whole time.

We finished our last HALO drop and returned to McChord to clean our shorts and check into our rooms. We didn't have any more scares the next night, but I don't think we, as a crew, ever had total SA.

The learning curve for me as a new aircraft commander was very high, and I will never forget how uncomfortable I was that night. Starting from the very beginning, allowing external influences to rush the crew unnecessarily starts everyone off on the wrong foot. The C-130 community has a reputation as people who find a way to get the job done, no matter what. Unfortunately, we sometimes lean too far forward. As for the crew, little did we know at the time, but the loadmasters were having their own difficulties with "training" in the back of the plane, which we didn't find out about until the next day. We were too task-saturated that night to realize that we weren't getting the usual assistance from the back of the airplane. Also, the instructor nav never stepped in when the student nav was so out to lunch that he was making the situation worse. Everyone was thinking the same kinds of things, but no one was speaking up. Finally, I should have been more directive as the AC, starting with pulling the student nav out of the seat when we were so far behind the airplane that we couldn't tolerate any more weak links. I learned a lot from that JAATT! 🛫

Fighter Pilots And ORM

CAPT MATT YEATTER 16 WPS/SEF Nellis AFB, NV

Offensive counter-air, defensive counter-air, offensive surface attack, close air support, forward air controller, sandy, SEAD. How many missions are on your squadron's DOC statement? With the reduction in the number of Air Force fighters and the need to do more with less, today's fighter pilots find themselves in a precarious position. How are pilots going to stay proficient in their squadron's multiple mission types? On the same note, how are pilots mitigating risk in their attempt to maintain proficiency?

Some have used the phrase "jack of all trades" when referring to today's F-16 pilots, and I think that's a good analogy. Gone are the days of mission specialization in the F-16 community. Whereas

five years ago an F-16CJ squadron flew mostly SEAD sorties, today they are rotating through the AOR flying CAS missions, just as their F-16CG and F-16C+ counterparts do.

In addition to the multiple missions required of multi-role fighters, the overall experience level has decreased in squadrons. Between the manning requirements of UAVs and other non-flying billets, squadrons find themselves manned with more inexperienced pilots than in the past. This inexperience is proving to be a challenge to fighter squadrons. For instance, a pilot with 2,000 hours in the F-16 can pull from his experience to compensate for lack of currency or limited proficiency in specific mission tasks. Inexperienced pilots don't have the same luxury. What is "automatic" to experienced pilots takes more attention from their inexperienced counterparts.

An inexperienced pilot in a fighter squadron



USAF Photo by A1C Shanna Y. Jones

probably flies on average 8-10 sorties a month when factoring in weather, maintenance aborts, deployments, and other issues. Of these sorties, not all are tactical. More often than not, young wingmen and flight leads end up flying a lot of adversary support, which leaves pilots with few tactical sorties in which to maintain or gain proficiency in multiple mission types.

The purpose of this article isn't to address how to tactically train pilots, but to offer a few solutions as to how we, as combat aviators, can mitigate risk while maintaining our tactical capabilities. Squadron leadership and weapons officers spearhead this process with a comprehensive training plan. The squadron training plan should focus on a building-block approach, with the end result of having the squadron ready for its AEF or upcoming tasking. Along the way, squadron leadership may need to massage the training plan to ensure that pilots complete their RAP requirements.

Not all sorties are dedicated "blue air" missions. It is critical for pilots to part task train on nontactical sorties. For instance, if a two-ship is scheduled as "red air," plan a GBU-12 first run attack on the way to your marshal point. BSA and CAS are also great skill sets that are easily incorporated into a "non-blue air" sortie. There is no excuse to fly a sortie and not practice something tactical!

What if you're scheduled for a 4vX escort sortie and your last OCA escort mission was seven months ago? This is where pilots need to minimize risk exposure through effective use of ORM. "Throttle back" the mission as required to attain the flight's learning objectives, while considering the currency of all the pilots in the flight. This is easier said than done for most fighter pilots. The willingness to admit your limited proficiency is a part of being a fighter pilot that needs to be emphasized from the leadership down. What makes fighter pilots great is their attitude that they can take on the world. This can also be their greatest weakness when considering ORM principles and safety.

Another excellent way for pilots to maintain proficiency is through the use of simulators. Repetition and practice at 1 G pays huge dividends. All pilots know the value of "chair flying" and mission study before mission execution. Through simulators, pilots can increase their overall situational awareness by removing items from their cross-check and limit the time required to focus on non-tactical portions of a mission. Also, by being thoroughly prepared for a sortie from simulator practice, pilots can reduce basic breakdowns, such as sensor misprioritization. Many past mishaps that have been caused by basic breakdowns in deconfliction from other aircraft or controlled flight into terrain have occurred because the pilot was misprioritizing sensor operation over basic flying contracts.

The last pieces of the puzzle are the flight commanders who are responsible for ensuring the training of their assigned/attached pilots. Flight commanders need to monitor the currencies of their pilots. Through integration with the training shop, flight commanders are able to effectively schedule pilots to maximize their training. Sometimes upgrades need to take the "back burner" in order to ensure that squadron pilots are proficient in their squadron's tasked missions.

Bottom line: fighter pilots will continue to get the job done! I don't know of any pilot who'd ever admit to being unable to accomplish the mission. The challenge for today's fighter pilot is going to be how to mitigate risk while accomplishing the mission. Through effective use of ORM, while maximizing all training opportunities, fighter pilots are able to confidently employ their weapons systems.

Deployed Safety

AL ARIA

Preserving Combat Capabilities

USAF Photo by TSgt Cecilio M. Ricardo Jr.



CAPT JASON HUGHES 437 AW Charleston AFB, SC

It was probably the 20th sortie of the month, and by this time, my crew and I had grown accustomed to this type mission: go from "Base One" to "Base Two" to upload cargo, and then on to "Base Three" for delivery. Nothing about this load was different from any other, and the flight duty period was the average 16-hour day. It was, however, extremely hot, and due to the very high weight of the load, we had some problems carrying enough fuel to make it all the way back home at the end of the day. We knew fueling downrange was a must, and we tankered as much gas as we could. The heat was a difficult obstacle. After all the fueling and loading was complete, we crunched our numbers and were set to go. It was going to be a long T/O run and a slow climb to altitude! Everything went fine, and we were soon at cruise and on our way. We studied the weather en route and called for an update about an hour out, which was clear skies and a little windy on the ground — nothing that should raise eyebrows.

"Base Three" is a location I had flown to several times, as well as having flown in and out of other nearby bases multiple times. After studying the terrain chart and arrival I wanted, I briefed the crew on what to expect on approach and what we should see. It was dark, and "Base Three" was definitely in mountainous terrain. I talked to the other pilots, and we agreed that because the field lay in the middle of the city, washout would be very bad, and because we would be clear of the mountains before our descent, we weren't going to wear our night vision goggles. I wasn't a fan of them anyway, and many of the fields now have serious washout problems, and coordination is usually a hassle, causing more trouble than anything. About 30 minutes out, we started to see the city where the airfield lies and the mountains around them. Before we knew it, we completed our checklists and were getting clearance to descend and begin our approach. I pulled the throttles, started down and WOW! Huge mountains were just below our flight path, and they sure seemed close. According to the chart, our current altitude and descent rate, we should have been fine. I thought to myself, "It sure would be nice to have those NVGs now!" We



continued and cleared the mountains fine, as I felt the release of tension I had built up coming over them in the dark. All this time, my co-pilot was on the radio getting nowhere with the controller, who evidently thought we were going somewhere else.

After extended vectors and many frequency changes, we got in touch with the correct tower controller and were told to continue on approach, but that there was a vehicle on the runway, and the controller wasn't sure if it was gone yet. Around 1,500 feet AGL, we were configured and were approaching short final with no landing clearance, as the tower radioed, asking us to make a 360 degree turn, present position, because he still wasn't sure about the vehicle on the runway. This was starting to feel very much like one of those stories you read about. We turned around, and by the time we rolled out again, tower had given us clearance to land. While in the turn and directly over the city we most wanted to avoid, I thought, "I'm sure glad I didn't wear those NVGs, because I would have been blinded." As we came through 1,000 feet, my co-pilot told me the winds were very

high, almost at our limit by a couple knots on the nose and from the left. I definitely felt them as I fought to keep the wing down and applied enough force on the rudder. I told him to watch the winds and to send me around if they got any worse. I was thankful they didn't, and we made a very lively touchdown, for lack of a better description. As we taxied clear and parked, I realized my hands were shaking, and my legs were stiff. The other pilots applauded and were thankful to be on the ground after that ride. The whole time I was thinking to myself, "That was really stupid; those mountains could have come up and bit us, and we would have never seen them." At that moment, I made the decision to depart on NVGs, regardless of the city lights. I'm not going to take another chance with those mountains again. We discussed the departure plan and agreed that we will wear the NVGs until we reach an altitude above the mountains.

Once we finished the download and got fuel, we cranked engines, and I put on my helmet and NVGs so that I could taxi, while my co-pilot briefed the departure one last time and readied himself to fly. What I didn't notice was that he was still wearing his headset, no NVGs, and we were now sitting on the runway cleared for departure. I made the decision, due to the lack of time, to do the takeoff, and after we climbed out, I would give the jet to him. As I looked down the runway, I was blinded by the runway edge lights and asked the tower to turn them down. Once the lights went out, I pushed the power up, released brakes, and my copilot said, "Wow, it's dark!" We climbed out, it hit me like a couple of butterflies in the stomach, and I thought, "Man, that was stupid! What if my NVGs had gone out on T/O roll, and I would have had to give the jet to my co-pilot? Don't we train with both pilots on NVGs?" Now I know why. Is that why the instructor failed my NVGs in the simulator every time I did a T/O?

After we leveled off and were clear of the mountains, I gave the aircraft to the co-pilot and had a long discussion as to why what I did was so stupid. We all agreed. Thanks, guys.

Lessons learned: I think you get the picture — go green or go home! NVGs, when used properly and at the right time, though troublesome, heavy and uncomfortable, could be the saving grace some day. There would have been nothing wrong with holding at altitude while we put them on and then continuing our descent over the mountains, nor would there have been anything wrong with holding position before T/O and putting them on. There was no inbound or outbound traffic, so what was the hurry? There isn't anything more important to me now than taking the time to do the right thing at the right time. That is, if I can think of it at the right time! I felt one step behind that whole night, and it's obvious, looking back, that I was.

IFEs

CAPT DEVIN K. PIETRZAK 99 ARS Robins AFB, GA

As I was sitting around a table during flight debrief after my last flight in 2006, I began to think about how, after nearly nine years of flying, I'd always been able to walk away from the jet, knowing that the mission was complete and another safe flight had been completed. Many of you might sit back and not think much about that statement, but what wasn't mentioned was that during all my flights, I've also been able to say that I've never experienced an in-flight emergency.

To give perspective on my aviation career, I started out going through navigator training at Pensacola Naval Air Station, Fla. As part of my Photo Illustration by Dan Harman

training, the program consisted of eight flights at the controls of the T-34C, followed by four more rides in the Turbo Mentor, riding in the back seat. After this phase, the class would track to a more specialized phase with Tanker/Airlift, completing training at Randolph AFB, Texas. I chose to PCS to Randolph and completed my training in the T-43, a variant of the Boeing 737. After training, I picked up my first assignment to Robins AFB, Ga., as most KC-135 navigators were assigned there or McConnell AFB, Kan. After a three-month training tour at Altus AFB, Okla., I finally made it to Georgia. Before arriving there, I amassed more than 150 hours of flying time, free of any emergencies, even minor system interruptions.

During my next three and a half years and 500+ hours as a KC-135R navigator, I never experienced an IFE. Those years included multiple deployments, several overseas trips in support of Coronets, many joint readiness exercises, and hundreds of local training missions. There were minor cases of pressurization problems, and an electrical issue once or twice, but nothing preventing us from finishing our mission and landing. The crew debrief typically concluded the same way, as all crew members agreed that another safe mission was complete.

About five years into my flying career and four more into my current position, what happened? Pilot training. I was lucky enough to be selected for SUPT, and happily left for Columbus for another year of Air Education & Training Command and CONUS flying training. After flying the T-34C, I knew that tracking Heavy/Tanker was the right move for me. My previous experience as a navigator coming from a crew airplane, made me realize how nice it was having extra sets of eyes on the instruments and having other crew members backing up all phases of the mission. When it came time to choose the aircraft I wanted to fly, I chose to go right back into the KC-135R at Robins. So, after a third trip to Altus AFB, three months of flying, and another 200+ hours of AETC, I arrived back at Robins AFB. Again, the training was free from minor system issues and IFEs.

OIF and OEF were still in full swing, so qualification training was expeditious, and out the door I went to deploy. Our aircraft was starting to see more maintenance issues, with constant heavyweight takeoffs and hot sandy conditions. Still, after more than 500 hours of flying during my first two deployments, no IFE.

Four Altus tours and four flying deployments behind me, I sat around the debrief table, awaiting the same words from all my crew members on how the flight was fine, and everything was done safely. However, after almost nine years of flying, I heard the comment that must have passed through one ear and out the other when I was a co-pilot and navigator. A crew member said that during the briefing for the flight, we glossed over the mission too quickly and spent too much time discussing EPs. This was a shock to me, because through all crew positions I've flown in, I've never had an issue with the briefing on emergency procedures. One point to consider was that this mission wasn't typical. Our Special Missions office accomplished the mission planning and briefed the crew on that night's mission. After the specialized briefing, I felt that I offered up as much time as needed for the navigator's personal brief that included more detailed items and crew resource management issues with four-person operations. After all these years, *ONE* crew member said, "Too much time on EP briefing." I started to question myself. Did the office that briefed our specialized mission not brief enough? Did I not give ample time to the mission navigator to clear up any gray areas?

navigator to clear up any gray areas? I dug deeper into how I brief for local training sorties. Nine years without an IFE! Was I spending too much time on briefing crew actions during an emergency? I eventually took this question on my drive home. This allowed me to think more clearly without interruptions, and I later came to my conclusion. First, I considered the several variations that our crew brief can go through, depending on each unique refueling mission. Next, I looked at how we brief during deployments, when we fly with the same crew members and begin to understand how each one deals with in-flight situations. When flying with hard crews, briefs tend to shorten, with the understanding that non-mission specific actions remain the same as the previous flight. This is vastly different from during training programs, when many flight members are in the early learning phase, and repetition is vital, making sure everyone learns how to effectively take care of issues together as a crew. This is what we call a form of CRM. Last are local training missions. For the KC-135, crews consist of a minimum of three, but have consisted of more than 10 to complete training. These briefings are then tailored to meet specific crew and mission training. That night of my last flight, we had eight crew members on the aircraft, and I felt confident that all primary crew members understood the mission. Eight is a large crew for the KC-135, and it's very important that everyone know their role during an emergency.

The mission wasn't perfect, but we completed all training and didn't experience an IFE. During debrief, we discussed specific issues we had during the flight, and I felt satisfied with the length of my briefing covering EPs before we stepped.

So, why after nine years and not a single IFE, am I writing this story? I wanted to tell my story to all crew members out there to remain confident in their briefings. Make sure you feel comfortable with how the briefing is being led, and if you have an issue during the brief, speak up about it. Ultimately, make sure the crew is prepared. Remain confident in your actions and don't get complacent. Mission planning and briefings are there to ensure that happens. Like the old saying goes, "Plan to fly, and fly the plan." I'm confident that if our crew were to encounter an IFE, we would've been prepared and would've handled the emergency properly.

Always be prepared and ready for that unexpected problem. Don't become lazy in your flying, because you never know — today may be the day your EP training is put to the test!

Flying While Fatigued

CAPT RYAN TRUSCHINSKI 18 OSS/OSOST Kadena AB, Japan

Fatigue is a factor we all deal with. From loss of sleep to crossing multiple time zones, we run into different facets of fatigue. Many factors contribute to fatigue, and each is just as bad as the others. We have several fail-safes in place to help fight off fatigue, the main one being getting adequate sleep. The Air Force mandates that a flying crew has 12 hours of crew rest with eight uninterrupted hours for sleep. This is a good rule, seeing as eight hours is the recommended amount of sleep. However, in order for these fail-safes to be effective, they need to be used. Fatigue has a way of catching up with you when you least want it to. Just like when you're driving, fatigue can creep up on you. However, unlike driving, in the air, you don't have much of a choice as to when you can pull over and get some rest.

Early in 2003 during the start of OIF, flying operations were on a continuous basis. I was a crew member on a KC-135 deployed in the AOR for the beginning of the air campaign. We found ourselves flying continually and getting the minimum crew



rest before going on another mission. This minimum crew rest met the requirements for getting the recommended time for sleep, but because of the duration of the mission, we found that our show times would slowly slip further into the day, so that within a week, we would be on the opposite time of day. So, on one Sunday we would show at 8 a.m., and by the next Sunday, our show time would be 8 p.m. This did nothing to help get our circadian rhythm settled down. When you checked on an individual, day-to-day rest was adequate, but looking at the trends over several days would show that the situation was not ideal. On a routine flight, we would have one or two crew members taking short naps, either on the way out to the AR or on the way back to base. Sometimes they'd nap on both legs. The main reason was that, for the most part, we would have almost three hours of cruise time to get to and from our AR track. About half of the cruise time would be in areas where there wasn't radio contact with any controllers or receivers. The one thing I can equate this to would be driving through the Iowa countryside. You get a hypnotic constancy where nothing changes, and you slowly phase out with the lack of outside stimuli. Not only that, but out in the AOR, there are areas of very little light, especially at night. Before you know it, sleep may rear its ugly head.

The crews I was flying with each had two or more deployments under their belts. I was on my fourth deployment. All of us were current and qualified and had seen the same missions multiple times before. I hate to say it, but I'm sure there was some level of complacency in our approach to the mission, and I'm sure our crew was not the only one.

With the constant slip in our flying window, I was not sleeping as soundly as I usually do. On top of that, I was dealing with jet lag, uncomfortable cots, and the occasional construction project in the middle of tent city. Instead of sleeping for the eight hours provided, I found myself going to the chow hall for the different meal times, because of the lack of consistency in rest times. The basic thought I had was that it was better to get food than to toss and turn without getting sleep. I was experiencing some sleep deprivation by the time our crew show time came around, and we walked over to ops as the sun was setting. We sat through the regular briefings from Intel, Weather and Ops. The mission was fairly routine, with no weather affecting our route. After our crew brief, we grabbed our gear and headed out to the jet. The drive lasted about 10 minutes, and I'm pretty sure I napped for about eight of those minutes. Being tired enough to nap was a clear indicator that fatigue had a hold of me already.

Once we got to the jet, the preflight through takeoff was uneventful, and we proceeded with the mission. On the way out, the boom operator took a nap, so he'd be fresh for the refueling. The rest of the crew played a name game to pass the time. One person would give a name of a movie character, and the next person had to use the first letter of the last name, and use it as the first letter in a first name. For example, James Bond could be the first name, and Barney Rubble would be a valid following name. Anyway, we got to 30 minutes from refueling and configured everything for the rendezvous. Refueling went as planned, and once the receiver was off and clear, we started heading back to base. We checked off with our controlling agency and entered the portion of the route where we had a break in radio



coverage. On top of that, there was very little light in the sky and on the ground, so it was almost basically complete darkness outside the jet.

With no radio coverage and very little to see outside the windows, the crew began feeling tired. The boom operator fell asleep in his seat, which really didn't bother the rest of the crew, as there was nothing going on. The co-pilot decided he would also take a quick nap until we got back into radio coverage. The aircraft commander was OK with this, and said he would be able to monitor the jet, while I backed him up. We were good to go with two crew members watching the jet, while the other two got some rest. As time went along, I slowly found myself getting very tired, with the occasional head-bob. After each, I'd quickly check on the pilot and where we were, just to make sure everything was still good to go. One head-bob turned into an unplanned 15- to 20-minute power nap. That, in itself, would not have been that bad, as long as the pilot was keeping track of things.

As I slowly woke out of my nice little nap, my eyes adjusted to the darkness in the cockpit, and I looked around to see what was going on. Next to me, I found the boom operator fast asleep in his seat, exactly where I last remembered him. I next looked up to the pilot seats and checked on the co-pilot. He also was fast asleep. I checked the time, and found that I had been out for at least 15 minutes. I then looked at our position, and found we had another 15 minutes before we got back into radio contact. I looked back up to talk to the pilot and let him know about my falling asleep, and to check to see if I had missed anything. That's when I finally noticed that the pilot was also fast asleep! I reached over and shook his shoulder and woke him up. He quickly came to, and his eyes suddenly got really wide, probably as wide as mine. We suddenly realized that the autopilot had been the only thing keeping us flying for anywhere up to 15 minutes, while all four of us were oblivious to the world.

We debriefed this and implemented different techniques to ensure that never happened again. One of these was not allowing more than one person to sleep at a time. We were very lucky that nothing happened while we were asleep, and I'm positive that the unique situation we were in helped us, and that it never went beyond just a learning experience. We could easily have had a mishap if anything had gone wrong, with no one able to react to it. Many factors built up the level of fatigue we all had, and it was not readily apparent to us at first. Crews need to be aware of these things and need to take their crew rest very seriously. As a last resort, if the crew is too tired to fly the mission, they should consider not flying until they get the rest they need. Luck can only carry you so far - everything else falls on you being ready and able. Get some rest. 🛌

Land Or "Go Around"

our rotate point put us right through a flock of birds.

I was on a runway during a touch-and-go, and I saw that

USAF Photo by SrA James Harper

CAPT JUSTIN BYBEE 45 RS/DOF Offutt AFB, NE

We were at the tail end of a 10.5-hour sortie into Souda Bay, Greece in an RC-135. Not a bad place to be stuck if you have to be away from your family for a while. We were about 25 days and 75 flight hours into our deployment, so our ops tempo was comfortable but keeping us busy. The pilot in the left seat was an instructor pilot and also a squadron commander. Most commanders know that their 30-60-90 is pretty ugly, and their proficiency suffers accordingly. This commander was a good pilot who was actually pretty current, and not the sort of lieutenant colonel that you had to worry about telling if someone was screwing something up. He was one ride before his fini-flight, when he would be off to take a nice assignment, though out of the cockpit.

In the right seat was a fairly seasoned co-pilot who was finishing his few remaining hours before he was sent to an upgrade for aircraft commander. A good co-pilot still with a few tricks left to learn before taking his own jet. I am an instructor, as well, and sitting in the jump seat. I also had the "A" code, connoting that I was in charge of this aircraft, regardless of who was flying it. It was sometimes an uncomfortable place to be, depending on who was sitting in the seats to your right and left.

The approach to Souda Bay was frequently hazy, but you could still pick up the runway quite a ways out. As we were switched over to approach control, we waited for their step-down instructions. Souda Bay approach could not see us, so they had procedures for where they'd let each aircraft down, based on the mountainous terrain. With 8,000 ftplus mountains to the south, they were holding us up for quite a while before they'd let us take the visual. We had flown enough practice instrument approaches to this runway that we were ready for something nice and simple at the end of our day, and they cleared us for a visual approach.

The colonel lined us up for the approach as the co-pilot finished the checklist. We had been having some problems with our Terrain Awareness and Warning System, so we wanted to get as many flight parameters after the expected inadvertent terrain call, so we could give our maintenance something to work with. Approximately 200 feet above MDA on a steady approach, we got an inadvertent call-out for terrain from our TAWS. Expecting the call, the pilot acknowledged it and stated, "Continuing."

I took a quick look at our radar altimeters, airspeed, and VVI; all normal. At approximately 50 feet, the pilot started slowly easing the throttles back for flare and touchdown, when he and the co-pilot noticed a flock of seagulls sitting on our 1,000-foot aim point. And herein lies the dilemma — do we continue to land and potentially eat a seagull, but be on the ground, or go around and maybe avoid them, but potentially take one in the air? Ground always sounds safe, but so does airspeed and altitude below you.

Had it been an '80s rock band staring us in the eye, I think it would have been a simple decision — run them down and pick the parts of snare drum and mousse out from between your tires in parking. But these are quick, maneuverable FOD potential, clearly looking for an engine to destroy.

Scenario 1. The co-pilot called "go around" and the pilot began his procedures. Pickle, power, speed brakes, flaps, gear, flaps. Before the power had even been applied, the seagulls took flight. Weaving left and right, above and below, most of the birds passed safely, but one went by a little closer than what felt comfortable. The tactical coordinator soon called from the back that he smelled cooked chicken, except nothing he wanted to eat. Almost on cue, engine No. 4 choked, followed by No. 1, dropping to zero and yaw to the right.

So, now there we were at least putting altitude between us and the ground, but with a failed engine. The pilot cleaned the aircraft up, and got us into holding over the field, as we cleaned up the engine failure emergency. We talked to command post and let them know our plan, put all our ducks in a row, and set up for another approach. The SOF took a drive down the runway and cleaned out bird debris from our previous attempted landing. The pilot flew a nice stable approach to a full stop, with no more bird incidents. We taxied to park and



It has become standard that regardless of the position or experience of the crew member calling the "go around," it is treated as gospel. shut down the remaining engines.

Scenario 2. Seeing them late and already in the flare for touchdown, the pilot continued his landing and pulled the throttles to idle, as the birds whizzed past, dodging left and right. We watched one that came too close and decided not to make it past the No. 4 engine. Already at idle, it windmilled itself to zero N1 on our rollout. The pilot barely even noticed the difference in yaw as he brought the airplane to a stop and turned off the runway. We taxied back to parking and shut down the remaining engines.

Both scenarios are somewhat tame views of what could happen either way. When birds gang up like they did, they have been known to do a lot more damage than destroying an engine — they could take down a jet. But, what is the right decision between these two scenarios? In one, you put the safety of altitude between you and that which can potentially kill you — the ground. In another, you take out the speed and alti-

tude that can potentially kill you and stop.

What actually happened was much closer to Scenario 1. I was on a runway during a touch-and-go, and I saw that our rotate point put us right through a flock of birds, and decided to abort. Looking at the situation in hindsight, I know that it was the right decision, but then, why was I taking another aircraft up into the air when we saw the clear possibility of a bird strike? Unknown to us until after we landed, the bird luckily only damaged our flaps and caused us one more pattern, before we full stopped. But as the co-pilot called "go around," I was only half sure that it was the right decision.

In a crew airplane, when a crew member calls "go around," you go around because the safety is in the air, and you have time to fix whatever problem that crew member saw. And, it has become standard that regardless of the position or experience of the crew member calling the "go around," it is treated as gospel. However, here was a situation where it was clearly safer to be on the ground. I don't mean to question what has become standard in the Air Force, to question the safety of the air. But, where is it that every pilot longs to be, as soon as their aircraft as been hit with an unknown ailment? This incident ended in only a simple bird strike for us. However, where will *you* be when a flock of birds finds you, and will you wish you were on the ground or in the air? 🐙

However, here was a situation where it was clearly safer to be on the ground.

USAF Photo by TSgt Robert J. Horstman





The Aviation Well Done Award is presented for outstanding airmanship and professional performance during a hazardous situation and for a significant contribution to the United States Air Force Mishap Prevention Program.



CREW OF TORQUE 88 61st Airlift Squadron 643rd Air Group Little Rock AFB, AR

The Aviation Well Done Award is presented to the crew of Torque 88, 61st Airlift Squadron, 643rd Air Group, Little Rock Air Force Base, Arkansas, in recognition of outstanding achievements during a flight emergency on April 18, 2007. During departure from Sharana Landing Zone, Afghanistan, to Bagram Air Base, Afghanistan, the crew received a missile warning at only 200 feet above the ground. While performing the appropriate actions in response to the threat, the No. 3 engine flamed out at only two knots above minimum control speed. The razor-sharp crew expertly handled this critical emergency, while simultaneously scanning for additional threats and avoiding dangerously high terrain. The crew brought this emergency to a successful conclusion by restarting the engine, performing a climb to a safe en route altitude, and returning to home station. The investigation revealed a piece of a turbine blade had catastrophically failed and caused the malfunction. The quick reaction and excellent crew coordination enabled the safe return of 22 passengers, six crew members, and a \$30 million aircraft. The outstanding airmanship and safety awareness displayed during these accomplishments reflect great credit upon the crew of Torque 88, Air Mobility Command, and the United States Air Force. 🕩

AVIATION



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CREW OF YUKLA 21 962nd Airborne Air Control Squadron 3rd Operations Group Elmendorf AFB, AK

The Aviation Well Done Award is presented to the crew of Yukla 21, 962nd Airborne Air Control Squadron, 3rd Operations Group, Elmendorf Air Force Base, Alaska. On June 26, 2007, the crew departed from home station on a pilot proficiency sortie. As the crew descended into Eielson AFB for practice pattern work, they began noticing several seemingly unrelated irregularities, such as popped circuit breakers and engine gauge malfunctions. Recalling a previous E-3 Class B mishap, they astutely, quickly and correctly analyzed the problem as a serious No. 2 engine bleed air leak. Despite that there were no checklist procedures to assess or handle this type of situation, they correctly elected to shut down the engine and immediately return to home station. This near-duplicate malfunction occurred four years ago, resulting in more than \$700,000 in damages. The decisive actions of the crew of Yukla 21 prevented an imminent engine fire, limited damages, and ensured the safe return of a multimillion dollar aircraft. The outstanding airmanship and safety awareness displayed during these accomplishments reflect great credit upon the crew of Yukla 21, Pacific Air Forces, and the United States Air Force.

AVIATION



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MAJOR DARRELL F. THOMAS 14th Fighter Squadron Misawa AB, Japan

The Aviation Well Done Award is presented to Major Darrell F. Thomas, 14th Fighter Squadron, Misawa Air Base, Japan, in recognition of his exceptional attention to detail and decisive action during a flight emergency on July 27, 2007. About 30 minutes into the sortie, during a climb to 41,000 feet, Maj. Thomas started to feel a tingling sensation, and immediately recognized the symptoms of hypoxia. He quickly checked his oxygen pressure regulator and discovered he had a no-flow indication. Maj. Thomas started an immediate emergency descent, declared an in-flight emergency, and safely recovered the aircraft. Soon thereafter, maintenance personnel discovered the supply hose at the bottom of the oxygen regulator had become detached, thereby making any chance of acquiring desperately needed oxygen impossible. Maj. Thomas' professionalism, recognition of hypoxic symptoms, and understanding of the severe danger he faced, coupled with knowledge of the F-16 systems, allowed him to avert a potential Class A flight mishap. His actions ultimately resulted in minimal mission impact. Maj. Thomas' actions reflect great credit upon himself, Pacific Air Forces, and the United States Air Force.



FY08 Aircraft Flight Mishaps (Oct 07 - Jan 08)

6 Class A Aircraft Flight Mishaps 0 Fatalities 4 Aircraft Destroyed FY07 Aircraft Flight Mishaps (Oct 06 - Jan 07)

11 Class A Aircraft Flight Mishaps 1 Fatality 4 Aircraft Destroyed

Flight Rate Producing

01 Nov	F-22A	No. 2 engine FOD discovered during post-flight walkaround
02 Nov	F-15C →	Crashed on training mission; pilot suffered minor injuries
20 Nov	E-8C	Hard landing; wing/pylon/gear/radar damaged
28 Nov	T-6A →	Dual T-6 midair collision
29 Nov	HH-60G	Hard landing during brownout; damaged FLIR, WX radome
15 Jan	F-16C →	Aircraft crashed in ocean during training mission

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29 Nov MQ-1B → Departure from controlled flight;destroyed on impact; cause unknown **17 Dec** MQ-1B → Lost link; destroyed on impact; cause undetermined

- A Class "A" aircraft mishap is defined as one where there is loss of life, injury resulting in permanent total disability, destruction of an USAF aircraft, and/or property damage/loss exceeding \$1 million.
- These Class A mishap descriptions have been sanitized to protect privilege.
- Unless otherwise stated, all crew members successfully ejected/egressed from their aircraft.
- Reflects all fatalities associated with USAF aviation category mishaps.
- "+" Denotes a destroyed aircraft.
- USAF safety statistics are online at: http://afsafety.af.mil/stats/f_stats.asp
- If a mishap is not a destroyed aircraft or fatality, it is only listed after the investigation has been finalized. (As of Jan. 31, 2008).

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Flight Planning

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Texes

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