



ORM Corner

UNUSUAL WEATHERS

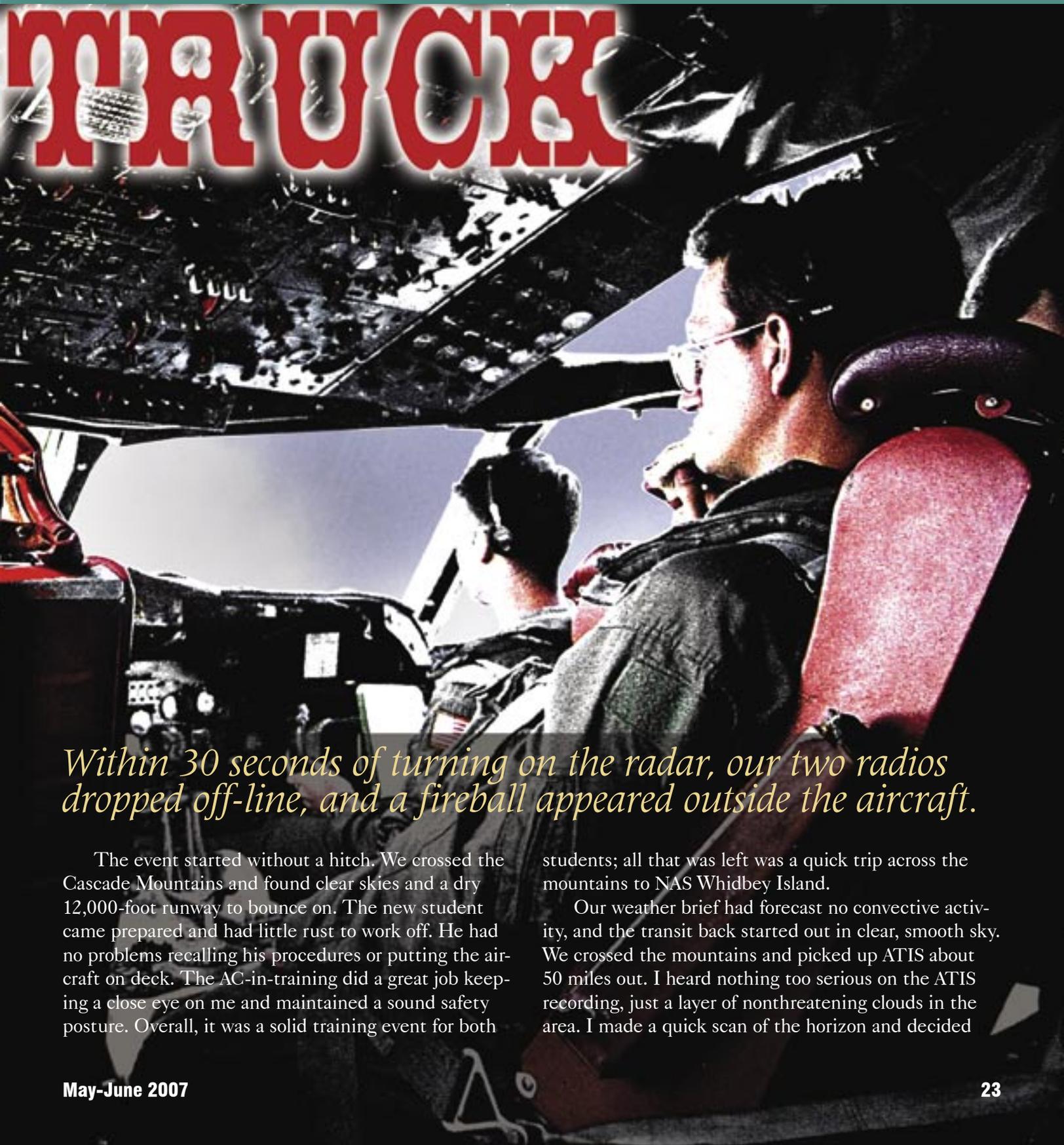
By Lt. Zane Stickel

I was scheduled to instruct a new pilot on his first flight in the squadron and another one who was learning defensive positioning before designation as an aircraft commander (AC).

As I reached the “identify hazards” portion of the ORM process, I considered that new replacement pilots tend to develop a little rust after the long layoff between the FRS and their first flight in the squadron.

As a result, they usually require a more active defensive-positioning posture. I also considered I had to put the EP-3 into unusual predicaments to properly instruct the soon-to-be aircraft commander. Both events had plenty of associated hazards, and we discussed many of them before launch. If only I had focused on the most significant hazard of the day: the unpredictable February weather in the Pacific Northwest.

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Within 30 seconds of turning on the radar, our two radios dropped off-line, and a fireball appeared outside the aircraft.

The event started without a hitch. We crossed the Cascade Mountains and found clear skies and a dry 12,000-foot runway to bounce on. The new student came prepared and had little rust to work off. He had no problems recalling his procedures or putting the aircraft on deck. The AC-in-training did a great job keeping a close eye on me and maintained a sound safety posture. Overall, it was a solid training event for both

students; all that was left was a quick trip across the mountains to NAS Whidbey Island.

Our weather brief had forecast no convective activity, and the transit back started out in clear, smooth sky. We crossed the mountains and picked up ATIS about 50 miles out. I heard nothing too serious on the ATIS recording, just a layer of nonthreatening clouds in the area. I made a quick scan of the horizon and decided

the report seemed to match what I saw. I began my descent into the cloud layer, and things started getting a little bumpy—nothing major, just enough for me to remind the crew to strap in.

We leveled off at around 8,000 feet and hit a fairly heavy pocket of precipitation. I decided it was time to throw the rosy weather forecast out the window and get some info for myself. I had the copilot turn on the color weather radar, and we searched for the red don't-fly-here blotches that forecast impending thunderstorm doom. We saw green and yellow at first look, but that was the only look we would get. Within 30 seconds of turning on the radar, our two radios dropped off-line, and a fireball appeared outside the aircraft. We heard an explosion, and my first thought was something must have blown up on the aircraft. I looked at my copilot, whose eyes were about as wide as mine.

After the initial shock, I was relieved to discover the aircraft still was flying, with no obvious holes in the airframe. Our FE then shouted that we had been hit by lightning, and we agreed. It was time for me to get us out of the weather.

I recently had been a part of a discussion with the fleet NATOPS team about implementing lightning-strike procedures into the P-3 NATOPS manual. Because it wasn't in the book yet, I would have to use my brain and try to remember what we had agreed on at that discussion. First step, fly the plane; that part was easy. However, I still needed to get out of the weather, and I had no working radios. Second step, set Condition 4 to ensure a complete inspection of the aircraft for damage. As I made the PA announcement to set Condition 4, my FE said he smelled smoke. Unfortunately, smoke wasn't part of the new, not-quite-ready-for-prime-time procedure. I figured activating the fire bill would take care of the positional inspection, and it seemed like the most conservative approach. I didn't realize at the time that communications with my aft observer were confusing to him; we weren't clear him clearly informed. I was about ready to descend without clearance when the radios popped back on, and my copilot quickly coordinated a lower altitude. The weather was much better down low, and we completely were out of the clouds within a couple of minutes.

We located the field and no longer detected any fumes, so I had the crew secure the fire bill and prepare for landing. I briefly considered performing a slow flight check because of the possibility of damage to the

control surfaces. However, I had not experienced any initial change in flight characteristics and determined that staying out of the weather and quickly getting the bird on deck was my priority. We got lined up on final and landed without a hitch.

Postflight revealed the lightning had hit the nose radome and exited at the starboard horizontal stabilizer, blowing a chunk out of the outer edge of the stab just beyond the elevator. The damage resulted in a Class C mishap.

So, what did I learn from my experience as the mishap aircraft commander? Regardless of the perceived risks of an event, the basics always should be an integral part of any ORM assessment. It doesn't get any more basic than weather. If you want to get the "X" in the winter in Whidbey, you probably are going to have to fly through a cloud or two, but that doesn't mean the weather risk can't be mitigated.

A Dash-1 without forecast convection and an ATIS recording certainly are no guarantee for smooth flying. A quick call to the weather shop before picking up ATIS might have alerted us to the possibility of lightning strikes in the area, and we could have altered our decision-making. I now always call the weather shop before entering clouds on my way home to Whidbey.

We weren't the first aircrew to be hit by lightning that winter, and a discussion of the previous incidents might have better prepared us for our lightning strike. We could have walked through the proposed procedures and alleviated confusion between the flight station and the aft observer. Also, if a procedure for a NATOPS change is being discussed at the fleet NATOPS level, it probably is good to get all aircrew in on the discussion. I was the only person on the crew who had seen the proposed procedures or knew they existed. I saw firsthand that lightning can remove large pieces from your aircraft. Had the lightning exited a little to the right, we might have had a major control problem. Short final is not the time to find out how your aircraft will perform at landing speed, with control-surface damage.

Lightning strikes are extremely dangerous and produce unpredictable consequences. They happen fast and unexpectedly. Although you can't outrun lightning, thorough ORM can help you avoid it or at least prepare for it. They say lightning never strikes the same place twice, but I have no intention of putting that bit of wisdom to the test. 

Lt. Stickel flies with VQ-2.