

No EP for This Emergency

By Lt. Francisco Alsina

Our EA-6B squadron was headed to Pt. Mugu for a live-fire HARM-missile shot. For many of us, this shot would be a first. I noticed, on the way to work, it was your typical Northwest winter weather: The sky was grey, with low overcast clouds. The weather brief at NAS Whidbey Island confirmed what I saw; we would be in and out of clouds and would have icing during most of our climb-out.

I was ECMO 1 in Dash 2. Flying in parade formation up to 30,000 feet, while going through the clouds with icing, is not something aviators want or look forward to. During the brief, we discussed lost-comm and lost-contact procedures. Both pilots were senior JOs who had flown together in section for years, so no one was worried about the en-route weather. We were more concerned about the weather at Fallon (for our gas and go) and at our final destination, Pt. Mugu.

The two crews went about their business: suiting up and preflighting. Nothing happened until soon after takeoff. We went into the weather at 4,000 feet. The clouds weren't bad enough to split up the flight into singles, but I could tell my pilot was not enjoying the added workload of flight wing in and out of clouds. We had filed for a final cruising altitude of 27,000 feet, but, as soon as we got there, it was pain-

fully obvious this altitude would not work. Both jets reported icing, and we were losing sight of lead with the passing clouds.

The lead jet asked for higher, and the flight then climbed to 30,000 feet. The higher altitude was not much better, so we requested 33,000 feet, and finally broke out into clear airspace. By now, we were aware the weather was not typical of the northwest. No one could remember the last time we had gone into the clouds at 4,000 feet and broken out at 33,000 feet. The temperature was far colder than expected; I think it was about minus 40 degrees Celsius at 30,000. My pilot and I were relieved the climb was over, as lead kicked us into cruise for the remainder of the flight. We could relax a little.

The respite lasted just a short time; in a matter of seconds, frost covered all the cockpit glass. My first thoughts were to begin rattling off the smoke- or fumes-in-cockpit emergency procedure, but there wasn't any smoke or fumes. My pilot thought one of the ECMOs in the back was playing a joke and demanded they stop. He forgot the backseat of the Prowler has no electronic-control-system (ECS) controls. The pilot quickly moved the jet away from lead, moved farther right and a little lower, and executed our briefed procedures for lost contact.



I could tell my pilot was growing more irritated, and I can't say I blamed him. He was trying to fly in section, using his left hand to run the throttles and to wipe off the canopy to keep sight of the lead. I went to full hot on the ECS, hoping this would help; it didn't. I also turned the defog to full flow, just as you would on a descent. What happened was the opposite of a descent after long periods of flying at cold temperatures. We had flown right through a pocket of warmer and more moist air.

After the valves opened for the defog, I expected the canopy to clear. Instead, it got worse, much worse. I touched the ducting for the defog, and it felt cold. The air within the pipes must have been just as cold. Turning on the defog expelled the cold air onto the canopy, exacerbating the situation.

Once I went to full hot and maximum defog, there wasn't much else I could do to help my pilot. He was flying form and fighting the frost on the canopy. It took about 10 minutes for the canopy to clear. Once we could see, I turned off the defog and added a little cold into the cabin for comfort—not a good idea. The frost quickly came back. Eventually, I was able to keep the defog on and the

temperature at a reasonable level, but, anytime I turned off the defog, the frost came back. For about an hour and a half, we flew with the defog operating.

On our descent into Fallon, the frost problem went away when the climate changed. We hot-pitted and flew our second leg to Pt. Mugu. Encountering severe icing and a broken transponder only added to the already “fun” flight.

In the debrief, I asked the crew of the lead jet if they had the same problem at the same time, and they said “yes.” I didn't give their response much thought, but lead should have asked if we had the same canopy problem.

Looking back, I realize the frosting canopy was indeed an emergency. Losing sight of lead is not fun or safe. Procedures were briefed and executed, and, being wing, we were in charge of maintaining separation. If this were to happen again, I would split up the flight into singles and would not complicate the situation with the added burden of flying formation. A closer look at weather briefs, the instruments in flight, and applying my experience should help me avoid a similar occurrence. 🦅

Lt. Alsina flies with VAQ-134.