

I'm Not Nervous, I'm

HYPOKING

By Maj. Roger McDuffie, USMC

I was formation lead on a three-plane ferry flight from NAS Meridian, Miss. to Salina, Kan., for a weapons detachment. The forecasted weather was 100-knot headwinds at altitude and isolated thunderstorms at our destination. We had a standard brief, followed by an uneventful takeoff and join-up.

Heading northwest at FL390, Center asked if we could climb to FL410 for traffic. To help our squadronmates in trail of our flight, we accepted Center's request and climbed to FL410 (the service ceiling of the T-45C). I set power for max range and continued, unaware of the impending excitement.

Fifty minutes into the flight, I contacted Little Rock Metro to recheck the weather in Salina. As I considered diverting to our planned alternate because of active thunderstorms and lower-than-forecast ceilings at Salina, I saw the

Photo composite

exhaust-gas-temperature (EGT) gauge spike. “That’s strange,” I thought, and tapped the gauge (which all seasoned aviators know is the immediate-action item for erroneous indications). The master caution and corresponding engine-control-amplifier (ECA) caution lights came on just as I tapped the gauge. Suddenly, I heard a loud bang, then a quick series of popping and grinding noises from the engine compartment, followed by a second loud bang. The rpm and EGT rapidly decreased, confirming the flameout of my only engine. This was going to be a bad day. My first thought was, “I never again will tap another gauge.”

Initially shocked by the situation, I struggled to find the cause of the engine flameout. The rpm quickly was falling through 30 percent when I tried an immediate air start.

“Center,” I called, “Talon 18 declaring an emergency. I have just lost my engine, and I’m rapidly losing altitude. I need immediate vectors to the nearest airfield.”

My major concern, besides getting the engine relit, was not colliding with commercial traffic beneath me, directly over the city of Little Rock, Ark. After several unsuccessful airstart attempts, my face felt flushed, and my lips were numb. But, because I was nervous, I didn’t pay attention to my physical indicators—my condition worsened.

I remembered telling myself, “Calm down; you are not going to die in the next few seconds.”

That’s when it hit me. “I’m not nervous, I’m hypoxic!”

I thought, “You idiot,” and immediately pulled the emergency-oxygen handle. With two breaths of pure O₂, amazingly, the gauges in my cockpit became incredibly clear. I had not recognized they had gotten fuzzy. I could have been killed had I not recognized the signs of hypoxia.

I was so wrapped up coordinating with Center, trying to determine the cause of my engine failure and getting my engine relit, that I had forgotten to activate the emergency O₂. I felt foolish. The T45C on-board oxygen-generating system (OBOGS) does not generate oxygen with a failed

engine. Even though I was breathing fine through the mask, my cockpit pressure had risen well above 25,000 feet while I had been troubleshooting. Fortunately, I did not pass out and create an expensive smoking hole somewhere in Arkansas.

As I free-fell with 13,000 pounds of metal and fuel strapped to my back, Center asked my intentions. Thinking their request funny at the time and maybe still feeling some hypoxic effects, I told them, “Right now, my intentions are to get my engine started” (ATC did not know that the T-45C is a single-engine aircraft). They eventually gave me a vector to Little Rock AFB, which was obscured by multiple cloud layers. At this point, I saw one of my wingmen

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off to my right side. Passing 24,000 feet after a few more airstart attempts, the rpm crept up from 20 percent and slowly continued to climb. “Thank God, a successful relight,” I breathed.

I passed the lead to my wingman, told him to just get me pointed at the field, and to keep the power up. With my wingman handling the communications and navigation, I focused on the engine instruments for any follow-on problems. I set power to 80 percent, expedited to the divert airfield, intercepted a precautionary approach profile, and landed at Little Rock AFB.

A couple of good points came out of my emergency. Thanks to recognizing the onset of hypoxia, I am not a statistic. This happy ending is a credit to the quality training conducted at Pensacola’s Aviation Physiology Department, which, until now, I always have thought was just a good excuse to get back to Pensacola Beach. My wingmen and ATC personnel reacted quickly to my emergency and provided assistance, which helped my overall situational awareness when it was needed most. 

Maj. McDuffie is an instructor pilot in VT-7.