The Grumman Hawke

Photo by PHAN Michael B.W. Watkins

ye Breaks Down

By Lt. Jerry Schafer

As a new naval-flight officer (NFO) in the squadron, I was excited to participate in a cross-country flight from Point Mugu, Calif., to Norfolk, Va. I recently had left the fleet-replacement squadron (FRS), and I planned to visit friends.

With me in the backend of the aircraft was a new mission commander, who sat in the middle seat, and another recent FRS grad. Up front, the pilot was an experienced carrier-aircraft plane commander (CAPC), and in the right seat sat a cruise-experienced copilot.

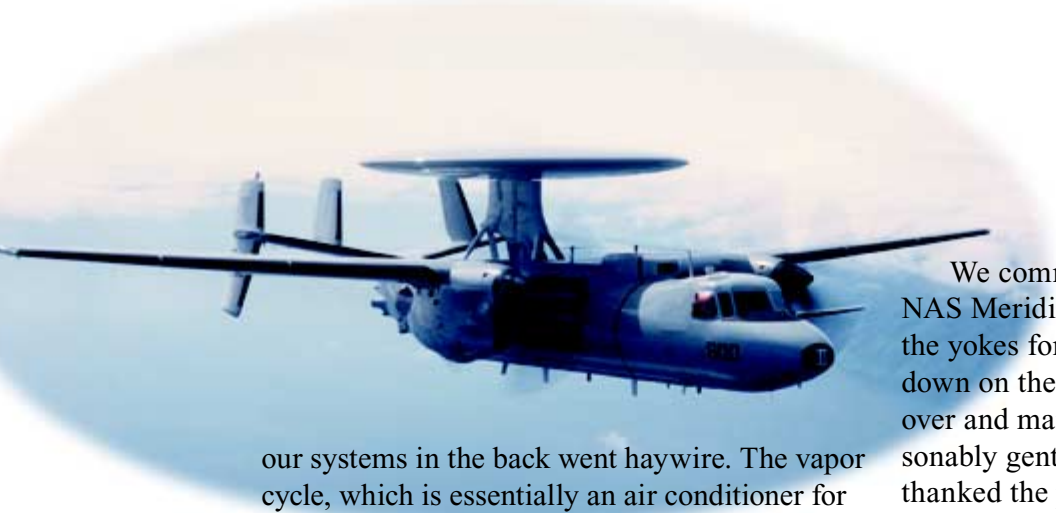
The trip began uneventfully: We stopped in San Antonio for gas, thinking if we broke down, at least we would be stranded in a fun town. After taking on 12,000 pounds of fuel, we continued east and planned to arrive in Norfolk in four hours.

A cross-country flight in an E-2C usually is not very taxing on the NFOs. Once we had verified we had a good radar, we placed it in standby, opened our windows, and trusted ATC to keep us clear of traffic on our IFR profile. It's easy to relax in a dark, vibrating tube when you have no mission to perform. I jokingly even considered breaking out my guitar from the aft equipment compartment. What happened next would make me thankful I didn't.

About 90 minutes after stopping for gas, while cruising at 25,000 feet, we heard a loud bang. The plane violently lurched upward, then back down, as the autopilot went off, and the pilot quickly regained control. "Holy Cow! What happened?" cried the mission commander over the ICS.

"I've got it! I've got it!" called the pilot, reassuringly.

We made sure we were strapped into our seats and began analyzing the situation. All of



our systems in the back went haywire. The vapor cycle, which is essentially an air conditioner for our electronic equipment, gave out, and, therefore, our scopes went off. Three of the five UHF radios also went off, while the other two barely were working. Initially, we thought we had blown a generator and perhaps a few other key electrical components. The emergency generator clearly was not working, which was perplexing.

We also had depressurized, so the crew donned oxygen masks. The pilot began a descent and squawked 7700. We had lost 5,000 feet of altitude in the 30 seconds since the loud bang. The pilots' radio was useless, so they weren't talking to ATC. We eventually contacted ATC on one of the radios in the back.

Although we were on IFR profile, conditions marginally were VMC. A hazy but visible horizon reassured the front end since all of their attitude sources were useless. In addition, the aircraft's trim seemed to be malfunctioning, and the pilot had to exert considerable pressure on the yoke to maintain proper attitude.

It quickly became clear we couldn't continue to Norfolk in our condition. We had to find a suitable divert and land as soon as possible. Our choices were NAS Pensacola, which was 150 miles to the south, or we could turn around and head for NAS Meridian, which was 80 miles to the southwest. We decided on Meridian, based on the difficulty the pilot was having in controlling the plane without trim. The weather also was better to the west. If we couldn't maintain a visible horizon in our condition, our situation could rapidly deteriorate into a bailout scenario.

ATC was extremely helpful in clearing us a path direct to Meridian. Along the way, the copilot took the controls for a period to give the pilot a break. He would need all his strength to control the plane once we slowed and entered the landing configuration.

We commenced a straight-in approach to NAS Meridian. Both pilots had their hands on the yokes for much of the time. For the touchdown on the runway, the pilot completely took over and managed to guide the plane to a reasonably gentle landing. We congratulated and thanked the pilots from the back and told tower we would taxi off the runway and park on the transient line. Unfortunately, we were in Meridian instead of Norfolk, but we and our plane were intact.

The investigation confirmed some of our initial assessment about what had failed in the plane

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was correct. The left generator had failed. Ordinarily, a bus-tie is made, which allows one generator to power the aircraft's systems. In our case, the bus-tie failed, resulting in an apparent random array of systems still being powered. The plane's trim subsequently failed, as did the cabin-pressure-outflow regulator, which caused our loss of cabin pressure.

We were satisfied in how we handled the emergency. The moment we realized the cabin pressure was gone, we donned oxygen masks and were up on ICS in less than 30 seconds. Although no emergency procedure in our pocket checklist covered the symptoms, we had our PCLs cracked open. In the back, we helped the pilots find a workable radio, and we helped coordinate our divert to Meridian with ATC.

Instead of Norfolk, the five of us enjoyed three days in exotic Meridian, Miss. A detachment of squadron maintenance personnel flew in and repaired the aircraft; it was an easy fix.

Lt. Schafer is a naval flight officer with VAW-113.