No-Gyro Approach on a Dark Night

By Lt. Will Pressley

Some dark nights never are forgotten—no horizon, no moon, and the low-altitude haze kept us from seeing any stars. If ever there was an IMC night at the boat, this was the one.

I was a newly minted carrier-aircraft plane commander (CAPC) and had signed for the aircraft only a handful of times. I felt comfortable as CAPC on this mission because I was flying with a very competent and experienced second pilot (2P). Our Hawkeye squadron was four months into a seven-month deployment.

We manned-up and went through the normal preflight checks. The heading-and-attitude-reference system (HARS), our secondary navigation source, didn't work. We still had our primary navigation, carrier-aircraft-inertial-navigation system (CAINS), and a standby gyro. With the minimum required equipment, and being pressed for time, we pushed to make the launch. We managed to get off the pointy end, but, during climbout, a hydraulic low-level light came on. Honoring the light, we returned to the boat.

We quickly got our hydraulics serviced, but mass confusion soon followed. The plane captain signaled to ask us if we wanted fuel, but we misinterpreted his signal. Thinking we were being asked if we were getting fuel, we signaled no to the PC. We sat in the cockpit, thinking the grapes simply were struggling with the fueling panel. Precious minutes passed until we called in a flight-deck coordinator to clear up the situation.

Several minutes later, with a full bag, I signaled to cease fueling. It took at least seven or eight minutes to disconnect the hose and to get the fueling panel on the starboard nacelle closed—the grapes were struggling. The aircraft-control officer stood on his seat, his head protruding from the ditching hatch, and directed

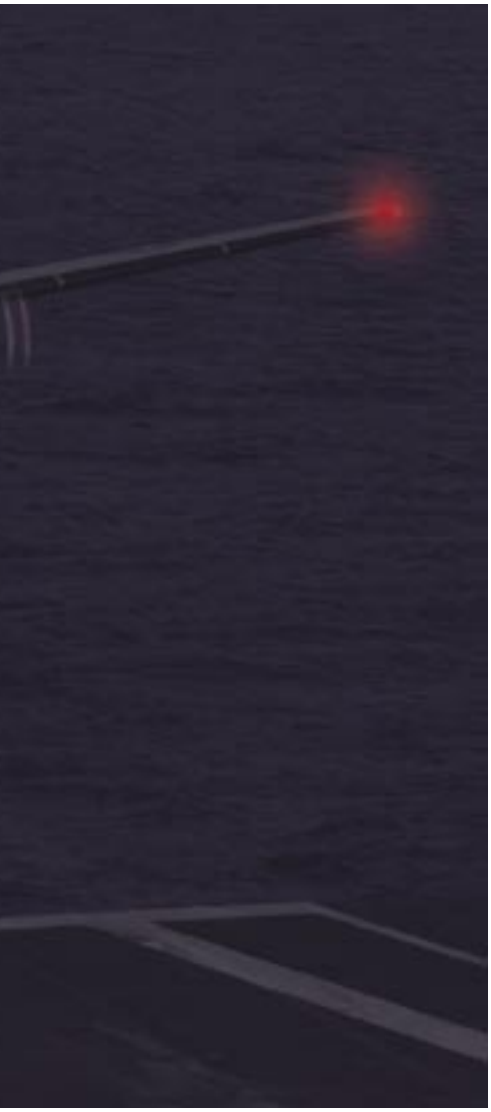

Photo by PH3 Yesenia Rosas
Photo modified

the purple shirts. When we got everything buttoned up again, it was time for the next launch. The situation was snowballing, and we were losing our cool.

Amidst all the confusion, I neglected to call in a troubleshooter to swap out the HARS for our hangar queen's HARS; we certainly had the time.

As we launched off the bow and climbed, our CAINS completely failed. All we had left was a poorly lit, standby peanut gyro and a wet compass. As we focused on the climb-out and keeping wings level, I declared an emergency and requested a no-gyro approach from CATCC.

If you've never shot a standby-gyro approach in a Hawkeye before, it can be an eye-opener. My advice to fellow E-2 pilots is to practice in the simulator—now. Since the gyro is poorly lit, my copilot shined his Grimes light on the instrument so I could see it—detracting from his ability to back me up. Also, the gyro has a nasty habit of precessing, and can read incorrectly if not checked and caged frequently. Fortunately, even though we had not checked the gyro after our first trap, it was relatively accurate. Accurate or not, though, it was small as hell.

Already a difficult aircraft to fly and land, manhandling the Hawkeye becomes quite sporting when your scan pattern is disrupted. I concentrated on keeping the aircraft straight and level and complying with CATCC's no-gyro instructions; flying required all of my focus.

I blundered through the pattern but thought I was doing OK. Meanwhile, the controller gave instructions to turn at half-standard rate. Those words went in one ear and out the other, as I banked a full-standard rate with each turn. As the controller wondered why this crazy E-2 pilot was overshooting the headings so rapidly, I considered an inflight alignment of the CAINS. As quickly as that thought entered my mind, though, I dismissed it. I remembered it took about 30 to 45 minutes to get a full airborne realignment.

Weaving my way to final, still relying on a standby gyro and wet compass, I eventually approximated my final bearing. Sweating, trying not to think about how dark it was, and fixating on the gyro, I finally dumped fuel at three miles. After adding that task to my already overloaded brain, I completely forgot to start my descent. I tried to get CATCC to give me more sugar calls, but, after they started to give me numeric headings, I abandoned that idea and got a "paddles contact" call at two miles.

Because I forgot to descend, I was high and had to put in twice the normal rate of descent to find the ball. Thanks to laser lineup and paddles, I found centerline and was talked down to glideslope. I got the ball on the lens inside a half-mile and worked it down to catch a wire.

Analyzing the emergency in the safety of the ready room, I realized it really had started on deck. Even though the HARS had failed, I could have used the time on the flight deck—over 30 minutes—to call in a troubleshooter and have the faulty component replaced. I could have double-checked the standby gyro; I hadn't even looked at it.

I let the troubles on the flight deck distract me, and I didn't keep the big picture. Flight decks and aircraft have slow days, just like aviators. I let theirs become mine.

Lt. Pressley flies with VAW-112.