

I've reflected on the various, though infrequent, errors I have made as a naval aviator. A four-letter expletive followed when my kneeboard card blew out the window. I also declared minimum fuel with a 3,000-pound-external load, rather than put down at a nearby military facility and return to base clean. None of my mistakes killed me, but many could have.

As the oncoming UH-3H SAR-alert crew at our Caribbean island base, we were scheduled for the weekly, night-SAR-proficiency flight. Thrown into the mix was a VNAV-orientation flight to a small island in the Puerto Rican Op Area.

It was a great night to fly: a nearly-full moon, a few scattered clouds, an FMC aircraft, and the crew felt good. Even the SDO was having a good night. I covered the SOE for the flight, down to each individual landing. Since I had not flown at night for several weeks, I decided to spend a few minutes in the pattern before beginning the night VNAV. I asked the SDO to notify the watchstander we would be at the observation post, the final point of our VNAV, in 15 to 20 minutes. You'll see why later.

I programmed the waypoints into the TACNAV, and soon we were feet-wet. The objective was to pick up visual-reference marks as

Between a Rock and a Hard Place

By Lt. Tariq Rashid



we went feet-dry and transition to a paved-expeditionary runway on the southern side of the island. We had all the external lights blazing and made an uneventful landing. After a couple more bounces, we departed and transited along the southern shore to pick up the next landing spot, which was a large, hard-packed dirt pad astride a road that led from the shore. I knew it was suitable since I had landed at this pad the day before. It was about four-to-five-aircraft-lengths long with a similar width. It had almost no grade, except in the upwind 20 percent. It was surrounded by gentle, shallow rises, ranging from 50 to 100 feet MSL high. The full moon allowed us

to easily spot the road. We started our ingress at 300 feet MSL.

We circled the pad and used the searchlight to evaluate it. Our comfort level was high, so we decided to do one landing and then continue to the next landing spot, a large concrete pad atop a 480-foot pinnacle. The high ambient-light level seemed to make our searchlight redundant.

There had been very little dust when I landed the previous day. Since the environmental conditions hadn't changed, I was surprised to see the moderate cloud we kicked up on our landing. Even a little dust seems like a lot when the light is reflected from a 450-watt searchlight and four



Photo by Matthew J. Thomas. Modified

floodlights. A full moon and a searchlight are great, but they are not daylight.

A UH-3H standard-NATOPS takeoff is to lift into a 15-foot hover, stop and stabilize, add 15 percent additional torque, lower the nose, and accelerate on climb out. It wouldn't make sense to sit in a hover after takeoff and risk brownout. Having noted hover power at 75 percent from our previous takeoff, I decided to do a "no hover takeoff." I would pull smoothly to 90-percent torque and transition forward as the aircraft passed vertically through 10 feet. I instructed the copilot to monitor the gauges and engine-power-control levers.

After a smooth increase in power, we lifted from the deck and transitioned. As we accelerated to 10 knots, I heard one of those sounds you never hope to hear—the sound of one engine spooling-up to compensate for its twin, which has decided to stop.

A quick glance showed one torque needle well above 100 percent, while the other pointed in the opposite direction. My initial thought was torque split. The H-3 is not equipped with automatic load-sharing. This function is accomplished through speed-selector positioning. This causes an occasional torque split under high-demand conditions. I called, "Match torques. Match torques," while my eyes went back outside. At the same instant, I felt the aircraft settle. I had no choice but to flare and stop our forward motion. The alternative was having the chin dig into the rise at the end of the LZ.

Every helicopter pilot knows hard landings with aft stick can result in bad things. Normally, a helicopter rotates around the CG, and, since the rotor mast is in line with the CG, you have to be creative to hit yourself with the rotor in-flight. However, if the tail wheel is in contact with the ground, the aircraft rotates about the tail wheel while the rotor disk still tilts about the rotor mast. As the helicopter pitches down, it can rotate the tail boom up into the rotor disk, which is still tilted aft. Ground contact actually surprised me, and I quickly neutralized the cyclic and bottomed the collective—not sure if we were on a side slope.

With the parking brake on, the aircraft slid forward a few feet. We quickly pulled off the engines and got the rotor brake on. I jumped on the radio while the crew chief and copilot got out to look at the aircraft. What had seemed like a relatively comfortable landing had chopped through the last section of tail-rotor-drive shaft. Pieces of it were strewn all over the LZ.

We tried every radio and every frequency we could think of, even going to nearby hilltops with PRC-90s. There we were, less than five miles from the observation post and less than 10 miles from our home field, and no one could hear us. At least, no one was listening.

If you have to ditch, or do a PEL, or land anywhere out of radio LOS, tell someone before you get down low. It would be ridiculous to do an intentional ditch and forget the mayday call until you are too low for it to do any good.

Finally, the observation post came back on one of the PRC-90s. It turned out that our SDO had called him when we were overdue for our ops-normal report. We soon had a truck pick us up for a night's stay on a tropical island, followed by a non-stop flight to the hospital to begin the dreaded post-mishap process.

Make those ops-normal reports; don't treat them as an admin hassle. Make them detailed, and include intentions or changes of status. Injuries could've meant the difference between life and death.

Could I have done anything differently? I should have stabilized in a hover before transition. The failure might have been delayed until the power pull or an even more precarious position like an overwater hover. I had to balance that with the risk of brownout at night, which, at the time, I assessed to be the greatest hazard. The irony of it all is even when we think we're doing everything right, we still are not bulletproof. We get better by learning from our mistakes and those of others, admitting that we are not flawless and avoiding unrecoverable situations. These are the things we can control, but there is always the unexpected, and that requires our greatest preparation. 🦅

Lt. Rashid flies with HSL-48.