# EMERGENCY

# Seat-Cushion Removal

*By Lt. Jamie Vega*

I was six months through my nugget cruise as a PQM in the SH-60F and HH-60H. My HAC and I were scheduled for a mid-cycle, cold-go launch on a night plane-guard flight. We preflighted in the helo-hole before dark, and we sat in the aircraft waiting for the pointy-nosed fellas to land. True to the previous months of cruise and workups, the recovery went long, and our launch was pushed to the next cycle.

We finally were towed onto the spot, an hour late, and started going through our normal checklist procedures. I was the rightseater, and my HAC copilot was in charge of the checklists. The pressure to get through the checklists and not bust the launch was upon us, but I felt we were proceeding at a normal and safe pace until we got to the backup tail-rotor check. The checklist calls for the backup servo to come on and pick up the tail-rotor hydraulics within a half-second. This, of course, did not happen. On the first try it took about a second and a half for the back-up pump to come on, and, when it did, the AFCS system went off-line. We tried again. This time, the test took three seconds, and the AFCS dropped again. We called in a troubleshooter who said it was a bad pressure switch and that "We were good to go, just gripe it when you get back." Can you hear the warning bells starting to go off in your head?

We continued through the checklist and tried again before launching with the same results. The HAC said the system just was warming up, and the pressure switch was likely the culprit. Seemed reasonable to me, but we still decided to get one last opinion from the flight-deck QA rep. He came in, and we did the check one more time. Three seconds passed with no signs of the aircraft warming up. The QA rep, one of the more senior and well-trusted maintainers in the squadron, said the same thing as the earlier trouble-shooter, "Bad pressure switch, up gripe, go flying."

All the extra checks had taken time, and we needed to make a quick decision whether to take the bird flying or bust the launch. After the QA rep left the rotor arc, there were a couple seconds of silence broken only by my question, "QA says its good to go, troubleshooters say it's good to go,

the checklist states it should take half a second; you wanna take it?"

The HAC took a couple of seconds and said, "Let's do it!"

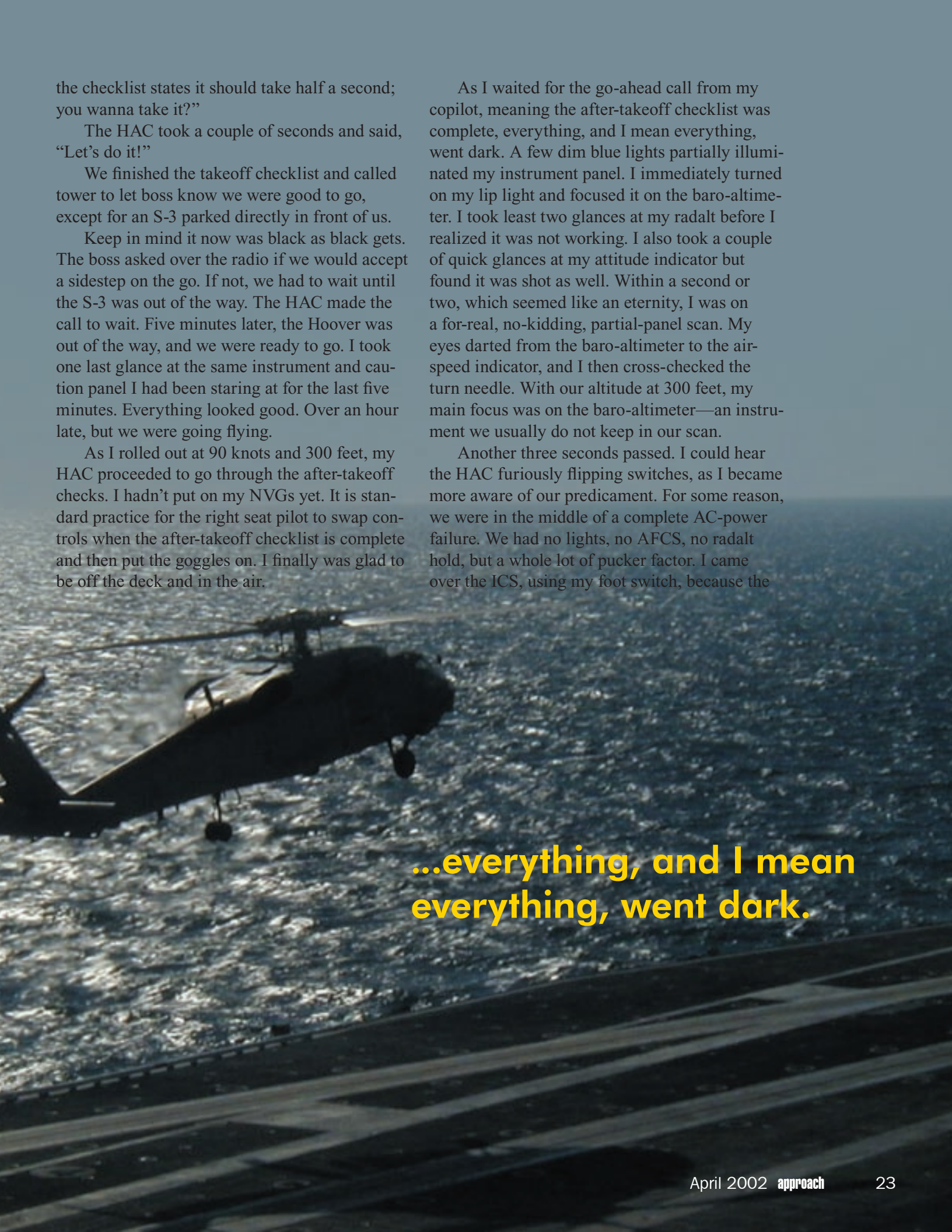
We finished the takeoff checklist and called tower to let boss know we were good to go, except for an S-3 parked directly in front of us.

Keep in mind it now was black as black gets. The boss asked over the radio if we would accept a sidestep on the go. If not, we had to wait until the S-3 was out of the way. The HAC made the call to wait. Five minutes later, the Hoover was out of the way, and we were ready to go. I took one last glance at the same instrument and caution panel I had been staring at for the last five minutes. Everything looked good. Over an hour late, but we were going flying.

As I rolled out at 90 knots and 300 feet, my HAC proceeded to go through the after-takeoff checks. I hadn't put on my NVGs yet. It is standard practice for the right seat pilot to swap controls when the after-takeoff checklist is complete and then put the goggles on. I finally was glad to be off the deck and in the air.

As I waited for the go-ahead call from my copilot, meaning the after-takeoff checklist was complete, everything, and I mean everything, went dark. A few dim blue lights partially illuminated my instrument panel. I immediately turned on my lip light and focused it on the baro-altimeter. I took least two glances at my radalt before I realized it was not working. I also took a couple of quick glances at my attitude indicator but found it was shot as well. Within a second or two, which seemed like an eternity, I was on a for-real, no-kidding, partial-panel scan. My eyes darted from the baro-altimeter to the airspeed indicator, and I then cross-checked the turn needle. With our altitude at 300 feet, my main focus was on the baro-altimeter—an instrument we usually do not keep in our scan.

Another three seconds passed. I could hear the HAC furiously flipping switches, as I became more aware of our predicament. For some reason, we were in the middle of a complete AC-power failure. We had no lights, no AFCS, no radalt hold, but a whole lot of pucker factor. I came over the ICS, using my foot switch, because the



**...everything, and I mean everything, went dark.**

VOX also was dead. I was partial panel and started calling out the instruments, "Baro-altimeter, airspeed, baro-altimeter, turn needle, baro-altimeter, airspeed, VSI." I peeked at the HAC, and he frantically worked checklists, liplights, flashlights, and switches.

After what seemed like an eternity, the lights finally came on. We still were flying and close to 300 feet. The HAC reached over and reengaged the AFCS and radalt. I took my first breath and removed the seat cushion I had just sucked up.

**If I had been more on the ball before we took off, I would not have taken the troubleshooter's advice.**

With the power back on, I asked the HAC what had happened. He said that when he turned off the APU (a normal part of the after-takeoff checklist on a cold-go), the generators did not take the load. The switch fiddling I had heard was the HAC trying to restart the APU without dumping the accumulator.

We checked in with strike and relayed we were down nights. Then boss came over tower frequency and told us to charlie spot 4. The fun wasn't over yet. We asked for a CCA because the boss apparently wanted us to shoot a visual. We got the CCA, but upon check in with approach, we were told to expect a sidestep because the fantail was clobbered. Great! The seat cushion resumed its previous position.

I transferred controls to the HAC and donned my goggles for what promised to be a fun approach. The approach to a sidestep is not exactly a helo bubba's preferred method of getting back on deck. It requires the right seat pilot to transition from flying an instrument approach to a visual approach, while the left seat pilot has no visual reference to the deck. Then we slide right, and at night without the proper deck lighting (blue lights on), your goggles bloom, just as you try to set the aircraft down. We requested the blue lights, but the deck couldn't accommodate us because of a re-spot.

I flew the approach, picked up the side of the ship, flew alongside, and then started to slide right. Just as I came over the spot, the goggles bloomed, and I barely could make out the LSE in front of us. I landed on his signals without having any real idea where the deck was.

Once on deck, we shut down and headed for our debrief.

Systems knowledge is key. If I had been more on the ball before we took off, I would not have taken the troubleshooter's advice. The checklist calls for half a second for a reason. I should have remembered why it was taking three seconds to switch. Without the generators on, the backup pump takes approximately three seconds to energize the servo. Our generators had not been on, or at least they had not taken the load properly. The HAC swears they were on, but I specifically remember looking over the caution panel before launching. There were no lights to indicate that the generators weren't on. Later, maintenance and two FCF pilots spun up the aircraft and could not duplicate the problem on deck. The helo has not had any problems since; I couldn't tell you if the switches were on or not.

The second lesson is about being a better copilot. When I turned to the HAC before takeoff and asked him what he wanted to do, I put all the decision-making into his lap. I had not formulated a plan myself. I just relied on the troubleshooters, the QA rep, and my HAC. The helo is a dual-piloted aircraft for a reason. In this instance, I made it into a single decision-making process, foisting all my worries and concerns onto the HAC. I trusted he would make the right choice without my input.

Finally, I learned that all the training I had in flight school and at the RAG was worth it. This was my first real emergency. I easily could have put four people in the water that night, but the hours of training kicked in, and solid procedures were followed. I would have preferred a normal landing, but I had done the sidestep procedure several times and felt semi-comfortable doing it again.

All in all, the flight has taught me a lot about ORM, the pressure to get the X, and about being a good copilot. I am a better pilot for it; now I just wish I could get this damn seat cushion to come out.

Lt. Vega flies with HS-3.