

Outta Control

By Ltjg. John Petrasanta

I spent most of the beautiful September weekend by my pool overlooking Tumon Bay, Guam, studying for my H2P board. This also was my first weekend SAR duty since arriving on the island. My HAC stopped by on Sunday to enjoy the pool and to help me study. This weekend of SAR and studying, while not much fun, had followed a great Labor Day weekend cross-country training exercise my HAC and I took to Saipan. That trip to Saipan was a great experience and included a dive at the Grotto.

This weekend looked to be uneventful, but, at 2130, I received a page. A 14-foot boat was drifting off the western coast of the island, with no power and two persons on board in need of assistance.

I arrived at the squadron at 2150. On my way to operations, I ran into our HAC, who also was headed to ops. “Just go out and get the bird spinning,” he said,

sounding calmly and collected. I immediately turned around to go grab my gear and start the helo. Though getting the nav bag was my responsibility, I assumed the HAC would grab it, since he was going into ops where the bags are kept.

We briefed the SAR scenario and the weather; everything was good to go. We launched by 2218. The weather was not great: heavy rain in spots, but the ceiling was well above us, so the visibility wasn’t too bad. All of our night-vision goggles were fogging because of condensation, and it was an extremely low-light night. The search area was broad, from the northern tip of the island to just past the midpoint, which is about 25 miles along the western coast. Not the best of conditions, but the task was manageable.

We searched the coastline first, and then set up half-mile spacing for a parallel search, as the Coast



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Guard requested. Out to the west, we found it nearly impossible to see anything. Looking toward the east, back at the island, there was enough cultural lighting to see very well. The automatic-flight-control system (AFCS) was not working well: The controls were sloppy with pitch and roll oscillations, and the ball randomly kept sliding out and had to be forced back to center.

About 20 minutes into the search, we spotted a boat that matched the description we were given, except it was under power traveling south. We told the Coast Guard, who then sent out Guam Fire and Rescue (GFR) to investigate the boat. While we continued searching, we were told that boat wasn't our target. We kept looking until we reached our bingo.

We arrived back at Andersen AFB for our hot-pit. The HAC's goggles had intermittent problems, and my lip light was weak, so we also got an extra set of goggles and two AA batteries. Our corpsman ran out into the rain and grabbed some waters.

We launched for the second time after an abnormally long delay in the hot-pits. The Coast Guard wanted us to recheck the coast, so we started the search again. It still was raining hard, and the [ceilings were getting a little lower](#).

Coming up on our second leg, the swimmer called, "I have a boat passing under us right now!"

We swung around, and there it was, nearly impossible to see—an outstanding catch by our swimmer. We lowered the swimmer, and she called up, "They don't want to leave the boat."

The HAC told the Coast Guard, and they said they would send a boat out to tow them in. In the meantime, our swimmer, having not heard the conversation with the Coast Guard, convinced the two very large men the safest thing to do was to let us pull them out and leave behind the unseaworthy boat. Just to make things interesting, these two men could not swim, were afraid of the water, had no life vests, and refused to go in the water. With great crew coordination, we pulled them directly out of the unstable boat, which was getting pushed around by the rotor wash. Finally,

with them inside, we headed to the hospital. Everything was going great.

At the naval hospital, the helo pad was not lit up as we set down and disembarked our survivors. By now, it was **0130**, and there was no ambulance waiting. We received a call from the Coast Guard that GFR was trying to recover the boat. They requested we go back out and guide them to it, even though we already had given them the GPS coordinates.

With the rain coming down extremely hard now, we figured it was from a random cell passing through, unlike the steadier, hard rain off the coast that is common in Guam. We reviewed our situation, discussed our options, and checked to make sure we had plenty of fuel before the HAC decided we would launch once the cell had passed.

Some [miscommunication](#) occurred while the crew chief was out of the helo giving something to our corpsman. Suddenly, chocks were pulled as the crew chief came back in, and, instead of waiting, we were lifting. Our HMI stayed behind with the two men and waited for the ambulance. We planned to return for him.

I had the controls, as we turned offshore. I called, "I can't see anything." We were IMC and on goggles.

"Slow down, slow down," the HAC said. I already was trying to do that.

The radalt hold was on at 500 feet, and we were 120 to 130 knots. I probably had slight vertigo; I tried really hard to get the nose back and slow down, but I had a tough time. I slowed to 80 to 90 knots. The HAC's keyset was not working, so I passed the controls to get bearing and range to the mark-on-top position of the boat—288 degrees at two miles from our present position. We could see the light of the GFR vessel and made radio contact. Visibility was so bad they couldn't see us until we flew right over them. We gave them bearing and range from their position: 283 degrees at four miles. They requested we lead them because they couldn't use the position we gave them, and they lost sight of the coast. We turned toward the position going 60 knots.

The GFR boat asked us to slow down because they couldn't keep up. So the HAC pulled back and turned to the right to swing back around to them; we were definitely IMC.

"We're getting slow," I said, "... watch your descent... the ball's out to the left... 1,000 feet per minute [*climb*]."

He made what seemed to be correct inputs; we just got slow in a turn, and it was taking a few seconds to correct,

"... 1,000 feet [*descent*]... 1,500 feet... ball... ball," I called.

I was on the controls now with him. The nose was pitching, and things were getting worse, not better. The ball was deflected fully to the left.

"Do you have it? Do you have it? I have the controls... I have it... I have it," I shouted.

Once I got it stabilized, with wings level, nose on the horizon, and ball centered, we climbed at around 800 fpm through 1,000 feet, with no airspeed indicated.

The crew chief then called, "You're climbing."

"I know. I know. I'm nosing over for airspeed," I replied.

It seemed so easy to identify what was wrong and the inputs to make when I was not on the controls and didn't have vertigo; and it *was* that easy. But, now, with me on the controls and with *vertigo*, we had a different story.

I am not sure what happened or how, but the next thing I heard was, "The ball is out... the ball is out!"

The ball was deflected fully to the left. I tried to center the ball and continue to gain airspeed.

I just remembered flashes; all the details were not exact (we pieced together this part of the flight at the debrief). After I took the controls and also got vertigo, the HAC took back the controls. Then some good inputs were made; then it got worse, and I again took the controls. Then I heard, "Oh God! I have the controls," from the HAC, as I'm yelling, "I don't have it. I don't have it. Do you have it? Do you have it?"

The controls were passed back and forth as we tried to recage ourselves, fight the vertigo, and follow the crew chief calls. Over those couple of minutes, we went through some extreme attitudes and out-of-control flight: possibly as bad as 60 to 80 degrees angle of bank. There also were changes in pitch—as much as 40 degrees

nose up and 10 to 20 degrees down—with the ball fully deflected to the left and the HSI spinning like a roulette wheel. We also climbed and descended at least 2,000 feet per minute each, and, at one point, the torques and TGTs all were yellow with a low-rotor rpm. We somehow had gotten really out of control really fast.

At one point, I even thought we might turn over the helo and have no way out. Procedurally, we knew what inputs to make—between fighting the vertigo, trying not to overcorrect, and how bad it had gotten—but our situation seemed impossible. We had not reached a point where I was ready to give up trying to recover, but I had given up all hope of survival. Our situation felt like I was in the simulator, faced with an impossible situation where the gyro is spinning and you're trying to recover. You always die, then laugh about it, thinking, "Wow, I don't ever wanna see something like that in the aircraft."

There was no question in my mind: We were going in the water, we were going to hit hard, and no one would survive. I thought, "So, this is how it happens when a bird goes into the water."

Then I reflected on the crew, how they rely on the pilots to be in control, and how they were going to die because of us up front. They were in the back, just watching and sensing what was going on, trying to talk us out of it, without any control over their destiny. I can't imagine how frightened they were, or possibly, weren't.

Finally, the HAC took the controls and was able to fight through it and get us out of a tough spot. We were under control at about 1,400 feet, in IMC, and shaken.

The HAC said, "Wow, that was... that was bad."

A somber reply of, "Yeah" came from everyone else; then there was silence.

Our crew chief recommended an instrument approach, and we all agreed. We called Agana for an instrument pickup and an ILS approach to 6L. We also told GFR we were done. I asked for the approach plates to discover we didn't have a nav bag. Fortunately, I remembered the ILS and TACAN frequencies, and the final-approach course. We verified the ILS approach with center and finally picked up a glide slope and course. Coming down through 800 feet, we started to break out over land. We decided to cancel IFR and continued in VMC to the hospital. We picked up our corpsman and arrived home near minimum planned fuel at 0230.

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Given the specifics of this scenario on any board, I don't think even one individual ever would say, "Yeah, I'd go out for the sinking, old 14-foot boat with no working motor, in those conditions." But, every minute detail led us there. Everything had been going great. We had been flying in the rain all night and previously had had no issues with the visibility; we just couldn't see out to the west. We planned on waiting on the helo pad at the hospital before launching, but chocks were out, and the rain had seemed to lighten a little from a few minutes earlier. The Coast Guard had passed GFR's request that we help find the boat since it was only a couple of miles out, "Why not just go, get it over with, and get home?" we thought. There we were: We pushed to locate an inanimate object after the rescue had been complete, and we inadvertently went IMC on goggles.

ORM broke down when we didn't implement our own controls of waiting on the pad. What were we thinking? Our decisions made sense at the time.

During the debrief, the HAC and I stated, "I *really* thought we were going to die." I'm not sure if the crew knew how close we were to not making it back.

Some aggravating factors that may have contributed to our event are:

- Copilot was very new to the squadron, with only

20 hours of flight time over the previous five months from flights at the FRS and the three months at HSC-25.

- The HAC recently was designated.
- Bad weather: heavy rain, strong winds, low light, on goggles (Oh yeah... there was no Hoffman 20/20 available at the time for focusing).
- Comfort level from the high heat and humidity. The ECS was fogging the cockpit, so we kept it off. We were all drenched in sweat; the scuppers were open for airflow, with rain coming in and soaking our legs. My helmet liner separated from the bubble pad and, along with the sweat, had my helmet moving around throughout the flight.
- An aircraft with AFCS issues.
- Operating near the nadir of the circadian rhythmic cycle.
- Initial adrenaline rush of going out and getting the rescue, followed by a lull after dropping off the victims at the hospital, while still having a desire to contribute more and recover the boat, along with get-home-itis.

- Mission creep.
- Abrupt control inputs during IMC.
- Fatigue. 

Ltjg. Petrasanta flies the MH-60S for HSC-25.