

## Not Quite the Massage at the MGM Grand

By LCdr. Drew Krasny

Just another standard day in the Eastern Pacific op area: hot. Wow, it was hot! We were in the third week of a three-month counter-drug-op deployment aboard USS *Valley Forge* (CG-50). This cruise was to be her last time underway—decommissioning loomed.

We had launched our SH-60B on a daytime detection and monitoring (D and M) mission. The basic scenario was to elevate to about 2,500 feet, turn on the radar, and see who was

who in the zoo.

We have a crew of three, including the pilot, airborne tactical operator (ATO), and SENSO—an enlisted rate manned by an air-warfare operator (AW).

We found our first contact 20 minutes into the flight. “120 true at 23, sir,” was the call from my SENSO.

We approached the contact at 200 feet and 80 knots. The standard procedure was to establish the aircraft in a hover, train the forward-



### ORM Corner

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looking-infrared radar (FLIR) to the contact, and downlink the picture via our HAWK or data link. HAWK allowed the transfer of a real-time FLIR picture to the ship's CIC. The Coast Guard watchstander also would look at the FLIR picture and decide if the contact was a target of interest (TOI). We quickly determined the contact was a Taiwanese long-liner fishing boat that had crossed the Pacific to bring back a catch of fish to sell in Taiwan.

To get a good picture to the ship, I completed the automatic approach checklist and put the aircraft in an 80-foot hover. The minute we were established, I noticed a pronounced one-per-vibration. To explain this sensation, I have to be honest: Helicopters vibrate. I know, you're shocked, but, there are some vibrations that indicate failure of a dynamic system. In this case, the rotor head vibrated. I asked the crew if they had felt anything, and nobody else did. I departed the hover, and, as we started to gain airspeed, the vibe became more pronounced, and the rest of the crew agreed something wasn't right.

The problem was clear to me: The aircraft had experienced a damper failure. A damper is a little shock absorber mounted horizontally on the blade support that allows the blade to lead and lag. Without pulling out the slide rule, helicopter blades are very dynamic; they lead and lag, and the flap equals up and down. The damper allows the blade to lead and lag effectively in flight. Once we had the damper failure, the blade had trouble being in the same space as the rest of the blades during the rotation of the rotor head. That's when the helo began to do a cruddy low-rider impression.

We established a forward airspeed of 80 knots as recommended by NATOPS. At this speed, the blades are least likely to do all of that dynamic stuff, and, as a result, the ride became smoother. The ship followed the emergency procedures (EPs) and got calm winds over the

deck; we also had a level deck. The EP then recommended a degraded control RA (RAST-assisted) recovery.

This recovery has you hover over the deck and drop a wire out of the helicopter. The deck crew then takes a heavier wire from the ship and attaches it to the helicopter wire. At this point, the SENSO winches in the helo's cable and secures it with an anchoring device inside the helicopter. A pilot in the LSO shack initiates a process where he winches down the helo to the deck with about 4,000 psi of tension.

This point is where I decided NATOPS was not a "substitute for sound judgment." Let's see: Get an aircraft that already has degraded control characteristics into a hover, fly it over a confined area, and have people get under it so the pilot can land the bird. It's like asking if you'd like to stand against the wall while some dude throws daggers at you. I told the crew I did not want to do that type of landing, and I felt comfortable landing unassisted on a free deck.

Our plan was to obtain landing clearance, get the bird on deck, and immediately shut down. We had looked at the risks and decided the benefit of landing without the RA outweighed the risk of landing with the assistance of an RA cable with a crew on deck. We came aboard with no deck crew on deck. The landing went smoothly.

What my crew learned that day are the same things you learn every time something does not go according to plan. Remain calm; all is well. Lose your cool and only unwanted drama can and usually does follow.

Consider all the variables. Your experience and ability to think out of the box are valuable assets. You can and usually will turn an unstable situation into a very manageable and controllable scenario. Above all else, sound cool on the radios. 

LCdr. Krasny flies with HSL-43.