

# Divert to Shemya



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By Cdr. Karin Kulinski

**A**fter completing a successful tsunami-relief detachment from Atsugi, Japan, we boarded our C-130 for the first leg of our flight home to NAF Washington at Andrews Air Force Base. As the det OinC, I commended the 22 crew members on how well our aircraft had held up and the large amount of cargo and passengers we had moved. Once we had wheels in the well, I looked forward to a long, relaxing flight, followed by an RON (remain overnight) in Alaska.

Flight planning from Atsugi to Elmendorf AFB always was a bit tricky, especially in January. The 10.5-hour flight required almost a full bag of gas: 62,000 pounds. We could reduce some of the required contingency fuel for engine or pressurization losses if we could rely on several divert airfields along the way. However, we couldn't count on good weather at divert airfields during wintertime, and we'd pass over most of the fields during closed hours. Shemya Island, at the end of the Aleutian Island chain, advertised a closing time of 1700L. Out of curiosity, two days before our departure, I called Shemya's tower and found out that, contrary to the Enroute Supplement listing, they were open "24/7." That's nice-to-know information, but I doubted I'd ever end up anywhere that remote.

The transport aircraft commander (TAC) for that leg of flight obtained a thorough preflight weather briefing. Takeoff and divert weather for northern Japan's airports were good. Not surprisingly, though, Shemya had bad weather. Adak Island was predicting adequate but not great conditions. Cold Bay and King Salmon airfields were forecast to have progressively better weather. VFR conditions were supposed to greet us at our destination in Anchorage.

About three hours into the flight, the loadmasters noticed the No. 2 propeller leaking fluid. Experienced operators of the Hamilton Standard prop know that the prop seals tend to leak a little more in cold weather, but this leak looked worse than usual. The flight engineer predicted it only was a matter of time before the prop low-oil light would come on.

The TAC started a discussion of whether to turn back toward good weather in Japan. He obtained an updated weather brief, which indicated snow in Misawa and adequate weather in Adak; Shemya still was dismal. With no guarantee that the annunciator light would come on and with tailwinds already pushing us toward Alaska, we continued east.

Two hours later, the prop low-oil light came on, requiring an engine shutdown. We were about an

hour from Shemya and an hour and a half from Adak. Because Cold Bay was two-plus hours of flying with three engines, we felt it would be unwise to pass up the closer landing option. The crew secured the engine, and we initiated the radio comms to head toward Adak. Using our satphone, the TAC convinced the Adak airfield manager to keep the field open.

I received current weather observations from Elmen-dorf, and the information was not a cause for celebration. Adak's winds were gusting to 43 knots, with a scattered layer at 100 feet, a broken layer at 1,000 feet, and overcast at 1,900 feet. Although it sounded exciting to shoot an approach into low ceilings amidst mountainous terrain, with strong gusts, the crew thought it would be a disservice not to check out the other airfields. Shemya's overcast layer at 700 feet, two miles visibility in rain, and winds 40 degrees off the runway, gusting only to 28 knots, sounded better—not great—but much more comfortable. Eareckson Airfield on Shemya has a 10,000-foot runway, with no significant terrain in the vicinity, and, as promised on the phone two days earlier, Shemya was open for business. They approved our emergency landing; our destination was set.

Forty-five minutes from the airfield, I climbed into the left seat and briefed the three-engine TACAN approach. The flight engineer calculated we'd only be three knots under our wet-runway crosswind limit. The TAC hopped into the right seat and verified Shemya's 28.26 altimeter setting. This barometric altimeter setting yielded a 400-foot difference, with the radar altimeter in the uncomfortable direction. The approach would take us to within 500 feet of the water on the radar, which would put the barometric altimeter within an unnerving 100 feet of the water. To prevent any confusion, I briefed that we'd fly off the radar altimeter only.

We posted extra personnel in the flight station during the approach and landing to help us find the field. On descent for the approach, our overheat-detection system (ODS) light came on, indicating an internal bleed-air leak somewhere. Although we had no secondary lights or warnings, this malfunction requires landing as soon as possible, which we hoped wouldn't prove to be easier said than done.

Through heavily scattered clouds and at 500 feet AGL, the TAC spotted the rabbit lights 30 degrees off the nose. Thankful for a PAPI (precision-approach-position indicator), I dove for the runway lights, and we kept the field

in sight. We touched down uneventfully, and the 20-knot crosswind nicely offset the dead engine during the reversal. With only two engines to reverse, it was nice to have 10,000 feet of runway.

We spent 12 hours unsuccessfully trying to duplicate our prop leak and ODS warning light. The leak may have been caused by temporary debris in a seal or a previously rolled seal. The ODS light apparently was a result of wires incorrectly bundled behind the weather radar. We added three quarts of fluid to the propeller and analyzed our options for reaching home.

We waited a day for consistent, good divert weather all the way to Anchorage. We relaunched during daylight hours to better keep an eye on the prop. We successfully reached NAF Andrews 18 hours later.

I'm glad our crew had the good sense to thoroughly analyze divert options along a route we routinely fly. I plan to always proactively obtain and update divert weather like the TAC did. I learned it was worthwhile to pick up the phone and call several divert airfields beforehand.

I more fully appreciate the scan of the radar altimeter I developed during many years of flying P-3s at several hundred feet over the water. The excessively low altimeter setting immediately alerted me to cross-check my altimeter. Had a crew blindly followed the barometric altimeter, they easily could've ended up in the water.

Last, I am thankful for the amazing transient support on Shemya Island. In spite of the short notice and late hour, every emergency vehicle on Shemya greeted us. The airfield personnel towed our aircraft into a warm hangar within 20 minutes of arrival. Before we walked off the plane, they had 23 nice rooms reserved. Transportation through the pouring cold rain was standing by, and the island's only galley was reopened for us. Despite the wretched weather, this type of welcome makes Shemya one of my favorite divers. 🦅

Cdr. Kulinski flies with VR-53.

*My guess is there are dozens of stories like this in your ready room—stories of flights that were “not quite right” but ended on a happy note. There are lessons in all of them. Are you sharing your stories? Are you recording the lessons for the new guys? In the words of Emil Faber, “Knowledge is good.” Pass it on.—Capt. Ken Neubauer, aviation safety director, Naval Safety Center.*