

I still was not happy about the configuration, and its many negatives: a high approach speed, very unforgiving stall characteristics, and multiple warnings in NATOPS not to get slow on final. We had another huge problem: The field was hard IMC, with the two F-16s going around in front after executing a missed approach. As all of this information sunk in and the light came on, I knew the situation was getting exciting.

Our crew reviewed everything and tried not to lose sight of the big picture. We had fuel for approximately two approaches if we started immediately, but we still needed to quickly complete the EP checklist. Hopefully, we could improve our current configuration with the emergency-flap-extension system.

Step two of the checklist called for us to slow to 180 knots and lower the flaps via the emergency method. “No problem,” I thought, “I’ve done this in the simulator many times, with similar failures.” As we neared 180 knots, the jet was combat loaded and heavy—it didn’t want to fly much slower than 200 knots. The AOA was 13 units at 200 knots, the max AOA NATOPS recommends in this configuration. The jet was sluggish, with light buffeting, and I felt like it was trying to tell me, “Hey, I said no slower!”

I checked the fuel, and, yeah, we were sucking down the juice in a hurry. Our state was now 4,500 pounds. Step one of the EP is to burn down/dump to minimum. We hadn’t dumped, and I didn’t want to dump, because we needed the gas for the multiple approaches it might take to land. We burned down a bit more and completed other tasks, then I slowed again in search of 180 knots. We got down to 190 knots at 13 units.

We discussed climbing to increase our distance from the earth—we were at 3,500 feet AGL—but concluded the gas in our situation was too precious. Climbing another 5,000 feet easily would cost 500 to 700 pounds of fuel we couldn’t afford to lose. I was not going to exceed 13 units at 190 knots. I lowered the emergency-flap switch, exceeding the airspeed limit by 10 knots.

As ECMO 1 and I monitored the flap indicator, we saw they were moving, and the stab had begun to shift. The flaps came down, and the all-important stabilizer shift occurred. Now we

were in our normal-landing configuration, with the hook down, ready for the approach. Next, I made a quick call to approach, requesting vectors for the ILS eight-mile final.

Our fuel state was 3,700 pounds, enough for an ILS and one more approach—after that, it would get ugly. As we headed to final, the crew was silent. We realized the situation that had developed in a mere 10 minutes. This flight felt more like a NATOPS check in the simulator than a standard PSAB combat mission.

Aviators flying overseas must deal with foreign controllers. The controllers at PSAB are Saudi, and language barriers occur at times. With an emergency aircraft, I asked for an eight-mile vector to final. We exited holding to a right downwind, heading 170 for runway 35. As we passed eight miles abeam, I anxiously awaited the hook to get started on the first approach. But, because of miscommunication, we went out to 18 miles, instead of eight. I intended to ask for a shorter hook to final at 12 miles, but I had lost SA on the other aircraft and thought other low-fuel aircraft might be trying to land. I felt a request to change my approach could add confusion to the mix, and I didn’t want to overwhelm my Saudi controller. We flew out to 18 miles and finally got our turn to final.

With one last review of the landing checklist, everything was down and out. ECMO 1 reviewed the emergency checklist, and it was complete. ECMO 3 had the SOF rig the short-field gear. “OK, this isn’t so bad now—just a solid ILS, and we’ll break out and land, with no problem,” I thought.

Approach was calling variable one-quarter to one-mile visibility, with brownout conditions in effect. The long final actually worked out well, as the wind at altitude (now 3,100 feet) was a strong 60 knots and 40 degrees off our nose. The long final also gave me time to figure out the wind correction. I had in about a 25-degree crab to maintain the final approach course of 353. We ended up flying a solid approach, with good crew coordination throughout, and saw the field at one-half mile, 150 feet above our decision height. ECMO 1 saw the field first and talked my eyes onto it as I made the transition from inside to outside. We landed and took the short-field

gear without further incident.

Our crew had handled this EP fairly well. We may not have made all the right choices, but every aviator will have a different opinion. Ready room cowboying is encouraged.

Always monitor your aircraft during configuration changes. If something feels wrong, most likely it is. Weather (hard IMC) and any EP will add up real fast to excitement. Our situation in VMC conditions is a much simpler EP. I realize fuel considerations depend on the aircraft and situation, but, in general, always strive to keep extra gas for unknowns and contingencies. That little bit of extra juice may give you enough wiggle room when you need it most.

As an ASO, I would be remiss if I didn't put in a plug for ORM. I used "time-critical" ORM on this flight (I didn't give it conscious effort), specifically during the phase where we were lowering the flaps with the emergency method. Here's our five-step process:

- 1. Identify hazards**—Stall, departure at low altitude IMC with an aircraft in a very poor flying configuration.
- 2. Assess hazards**—I gave it a risk-assessment code of I, the most severe hazard.
- 3. Make risk decisions**—I felt this risk was required for the mission-emergency situation.

**4. Implement controls**—I set 13 units as an absolute no-slower-than speed to combat the hazard (administrative control).

**5. Supervise**—I used the aircraft instruments and flight characteristics as feedback to see if the control was effective.

ORM was a benefit in making the risk decision in the jet.

Prowler crews prebrief their roles during an EP, and, for us, it worked as each crew member proved vital. Arm yourself with knowledge of your team, your aircraft, your environment, and the risk associated with your situation. This will keep your SA high and your judgment sharp.

Had we not broke out on the first approach, we had many more items to discuss. Would we jettison stores, make a much shorter hook to final, or shoot an approach below minimums? Should we use the opposite runway, and accept the tailwind to have better visibility approaching from the north? We also would have discussed a controlled ejection. Our crew had thought of some of these items while airborne but chose to concentrate on the ILS once we were configured for landing. 

Lt. Valus flies with VAQ-134.

# Mishap-Free Milestones

HT-8	28 years	900,000 hours
VP-47	30 years	176,000 hours
HSL-42	17 years	135,054 hours
HSL-51	12 years	75,000 hours
VP-10	30 years	191,000 hours
VAQ-139	11 years	18,100 hours
HS-14	8 years	27,000 hours
VFA-83	9 years	37,900 hours