

# Don't Worry, That **Never** Will **Happen**

By LCdr. Sean Maybee

**T**his story, like many aviation stories, could start, "It was just another normal day..." but many days that start normally don't end up that way.

We were scheduled for a zero-dark-30 (middle-of-the-night) preflight and launch on a 10-hour grinder of a mission. Our mid-December flight over Afghanistan was in support of Operation Enduring Freedom. I was the officer in charge of the EP-3E detachment and the mission commander on this flight. I also would be certifying a newly arrived crew on the special instructions and procedures related to our mission. The arriving crew was very seasoned and had plenty of theater experience.

We were airborne at 0330, started our transit toward on-station, and completed routine checks and system run-ups. After 45 minutes, and while cruising at our max-range altitude of FL190, I got up to use the head and to grab a cup of coffee. I barely had made it to the back of the plane when I heard the sound no pilot likes to hear come over the PA, "EWAC [*electronic warfare aircraft commander*] to the flight station!"

Having not achieved either of my goals, I hustled to the flight station to see the flight engineer (FE) pointing to a steadily dropping oil-quantity indicator for the No. 3 engine.

"Not a big deal," I thought, "we'll shut it down, go home, and I'll be in bed by 0600." I should have gone to the bathroom.

While strapping in, I called for the No. 3 emergency-shutdown handle, which the FE acknowledged, checked and pulled. The copilot, in the left seat, flew the plane while I strapped in, slid my seat forward, grabbed the checklist, and started to go over it.

EMERGENCY SHUTDOWN HANDLE.....PULL (FE)  
HRD (FIRE ONLY).....DISCHARGED (P, FE)  
CROSSFEED AND BOOST PUMPS.....CHECK (FE)  
PROPELLER.....FEATHERED (P, CP, FE)  
OIL TANK SHUTOFF VALVE CIRCUIT  
BREAKERS.....AS REQUIRED (P, FE)

The FE pulled the emergency-shutdown handle (the fire bottle was not required), the propeller feathered, and we reset the oil-tank shutoff-valve circuit breakers to prevent further oil leakage. Almost immediately, the No. 3 fire-warning light illuminated, and the loud, distinctive fire-warning horn sounded. We were surprised, since the engine already was shut down, and the propeller was feathered. We silenced the fire-warning horn and quickly revisited the checklist, hurrying to item No. 2:

HRD (FIRE ONLY).....DISCHARGED.

About this time, the events got interesting. To our even greater surprise and growing alarm, dispensing the fire bottle into the engine only extinguished the fire-warning light for about a second, which restarted the fire-warning horn. We continued the checklist.

ALTERNATE HRD (CONFIRMED FIRE ONLY).....AS  
REQUIRED (P, FE)

I called aft for somebody to look at the No. 3 engine.

Soon, the very calm and reassuring voice of our off-duty FE, who had more than 10,000 flight hours, said over the headset, “Yep, commander, we definitely have flames out here. Some are coming out the tailpipe, and a little is coming out the cowling.”

“Well,” I thought, “he doesn’t seem too excited, so it must not be that bad.”

We continued with the checklist. The FE selected the alternate fire bottle and discharged

forward and our flight-station crew quickly went through the procedures and checklists and coordinated with the back-end crew. But, we now were faced with a serious emergency not covered by NATOPS. Although I never have flown a tactical jet, it’s my understanding that, at the end of their engine-fire checklist, pilots have the option to eject.

So, there we were: 0415 in the morning, 19,000 feet, flying south over the southern Arabian Gulf, three engines, getting slow because we were 137,000 pounds (our max gross weight is 142,000 pounds), and no remaining fire bottles on the right side, but a pesky fire still burning on the No. 3 engine.



Photo by PH2 Michael Sandberg. Modified.

it into the engine, but nothing happened. The fire bottle had no effect on the fire. I recalled glancing at the FE and the copilot, and, for about half a heartbeat, we looked at each other with huge eyes and “What do we do now?” expressions.

Anticipating a bad button or circuitry, the FE immediately checked the circuit breakers. He then reached up and punched the fire-bottle-discharge button about 10 more times, while the words “You’ve got to be kidding!” escaped my mouth.

Until this point, the events were straight-

The off-duty FE then piped in with his very calm and reassuring voice, “Yes, sir. It looks like about 18 feet of flame out the tail and 9 feet of flame from the cowling, just aft of the turbine.”

Those of us in the flight station could not see the fire. Clearly, the FE’s words were not what we wanted to hear. To me, time stood still while I pondered a long-forgotten flight-school lesson about how a fire could burn through a wing in about 90 seconds. Then, the copilot, who calmly had been flying the plane and working with me and the FE on the checklists, pointed out we were slow.

Almost simultaneously, I remembered another lesson from T-34 trainers about how to put out a wing fire by accelerating and slipping the aircraft to starve oxygen from the fire. The copilot started to descend (to increase speed) and put in a slip, while the crew in the back secured their equipment.

Anyone who has flown in the middle of the night, in relatively remote areas, knows there is little air traffic, and the controllers tend to be tired, slow to respond, and about as happy to be up at that hour as you are. When overseas, this situation often can be compounded by language barriers. Fortunately, a British expatriate was controller working that night, and, though justifiably slow, tired and bored when we did our initial check in, he became the world's most-awake controller after I called him the second time.

"Control, this is BR-549. I am declaring an emergency. My No. 3 engine is on fire, and the fire will not go out—repeat—the fire will not go out. I have 24 souls on board and fuel for about 12 hours."

After a long pause, where he probably was making sure he heard what he thought he had heard, a very alert British accent replied, "Copy all bravo romeo. Say intentions."

We just had started our descent, and I was looking out the window at all the oil platforms, pipelines, and tankers in the southern Arabian Gulf, and I didn't yet know my intentions. I was wondering where to ditch when I heard good news.

"The flames seem to be dissipating. Definitely getting smaller," came the ever-calm voice in my headset.

I figured two things had happened. The slipping and speeding up were blowing out the flames, or all the oil that had leaked was burning away. Regardless, ditching was not my first choice anyway, so I decided to land immediately. I requested vectors to the closest field from the controller.

"You are cleared to Dubai, Abu Dhabi, or the military field," the British voice said.

With visions of another EP-3E international incident (like China) flashing before my eyes, I wracked my brain, thinking, "Military field, military field—what is he talking about?" After a few seconds, I realized I knew what field it was, and it definitely was the best choice for us.

Our situation was better with the fire dissipating and a place to go, but we still needed to land our plane, which currently was 20,000 pounds over the maximum recommended landing weight. I started to worry about

being so full of gas, so I called to dump fuel. The crew's permanent EWAC cautioned me about the flames still coming out the engine—even though the fuel dumps from the other side of the aircraft.

We compromised and waited to see if the fire died out as we descended. We eventually dumped about 5,000 pounds of gas while still over water. Our goal was to land as soon as possible because we had no idea of the actual state of the fire, other than the flames had receded into the tailpipe, which had a red-orange glow.

It took about two minutes from when we secured the engine to the time we initiated the descent and only about 15 minutes from the time of the emergency until we landed. During this time, everyone on the crew was busy securing equipment, reviewing procedures, and discussing possible scenarios once on deck. With all the classified material on board, we had discussed executing our emergency-destruction plan. Because of our choice of airfield and landing country, we decided not to destroy anything, but to take special care to account for all material.

At 3,000 feet and 15 miles from the field, we had reached a stable situation, so I swapped seats to the pilot side for the landing. The flight-station crew reviewed our normal and emergency checklists, while the crew in back reviewed their procedures. The United Arab Emirates approach and tower controllers were excellent, and the crash crew was rolling when we made an uneventful, 132,000-pound, three-engine landing.

The subsequent engineering investigation of the No. 3 engine revealed the oil leak was caused by an aft scavenge-pump-bearing failure, which punctured the pump casing. The fire erupted because of the increased temperature resulting from the decreased airflow through the engine after it was shut down.

How often do you hear people say, "Oh, that never will happen." But, unlikely things happen all the time. As aviators, we need to think, train and practice for events we think (or hope) never will happen: Don't get complacent. Crew coordination was a major factor in handling this emergency. Everyone involved knew their job, how their role fit, and everyone contributed.

This experience taught the men and women of Combat Reconnaissance Crew 6 that teamwork in the execution of NATOPS procedures, along with sound judgment, are critical to handling any emergency situation. Crew-resource management is the key to success. 🏆

LCdr. Maybee flew with VQ-1 at the time of this incident.