

Weighing *the* Options

Photo by PH2 Johnny Grasso
Photo modification by Allan Amen

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by Lt. Paul Crump

The preface of every aircraft NATOPS manual contains the following statement: “This manual contains information on all aircraft systems, performance data, and operating procedures required for safe and effective operations. However, it is not a substitute for sound judgment. Compound emergencies, available facilities, adverse weather or terrain, or considerations affecting the lives and property of others may require modification of the procedures contained herein.” I didn’t have a chance to put this statement to the test until a dark and overcast night a mere two days into WestPac-Arabian Gulf 99.

Because of low ceilings and poor visibility, CQ was painfully slow. The decision had already been made for the ship to steam west at the conclusion of the night’s

CQ period, even though many pilots wouldn't be finished. We thoroughly discussed CQ and first-week-on-cruise ORM issues. Then we manned up our E-2, which was spotted behind cat 1, and launched into the darkness.

At 1,000 feet, above the overcast layers, the visibility was superb. It was a beautiful night with a bright moon and a good horizon. We were five miles from mother and still climbing to our assigned altitude of 5,000 feet for a few minutes of comfort time. I looked over and saw the fire-warning light come on at full glow. I stared at the light in quiet disbelief. I thought, "Great! I can't believe I'm going to have to come aboard single-engine on the second night of cruise!" A quick scan of the instruments and a thorough examination of the port nacelle revealed no secondaries. I leveled off, turned back toward mother, and started going through the fire-warning-in-flight procedure. Starboard power-control lever to max. Port power-control lever to idle. The gear was already up. T-handle pull. As I reached for the T-handle to shut down the left engine, the fire-warning light went out.

E-2C NATOPS contains the following warning: "Any illumination of a fire-warning light, regardless of intensity, shall be interpreted as an actual indication of fire and shall be treated accordingly." According to the emergency procedures, then, I should immediately shut down the engine. But I took a couple of precious seconds to consider our situation. In so doing, I tested the statement found in the preface of every NATOPS manual.

With the ship heading west at high speed after flight ops, I didn't think there was any chance that the battle group's senior officers would let me divert to the beach, because that would mean losing one of their high-value assets. Second, while the weather was wonderful above the layer, below the overcast, the night was blacker than black, with no trace of a horizon. In other words, it was not a great night for a single-engine approach. Third, the E-2 has a notoriously unreliable fire-warning system. Countless times, Hawkeye pilots have shut down what would prove to be a perfectly good engine because of a faulty fire-warning system. By the time I'd made a decision, my copilot had told CATCC of our situation, and the skipper was standing by on the radio. I told the skipper I intended to keep the engine on-line until I saw secondaries or the light came back on. He replied that the deck would be clear in about 15 minutes. It would be quicker to launch the rest of the cycle off the angle than for the flight deck to make an emergency pull forward. I left the port engine at idle until around five miles. After that, I used the engine sparingly during an uneventful night pass. Not only were we safely aboard, but I was current again.

An inspection by maintenance personnel revealed why the port fire-warning light had illuminated. A small bleed-air leak in the nacelle had produced enough heat to trigger the system. We still don't know why the light went out. Perhaps by reducing power on the engine, I reduced the leak in the bleed-air line as well.

As expected, the incident generated a lot of discussion in our ready room. While hindsight is 20:20, the discussions gave me a chance to reevaluate my decisions that night. After all, I had gone against NATOPS emergency procedures. Would I do the same thing again? Maybe not, but as NATOPS stipulates in its opening lines, blindly following emergency procedures is neither a substitute for sound judgment, nor does it absolve one from managing risks. Emergencies don't happen in a vacuum. Arm yourself by knowing your NATOPS emergency procedures, by understanding your aircraft, and by ORMING the situation. You never know when you'll be put to the test! 

Lt. Crump flies with VAW-116. When he submitted this article, he had recently been accepted into the Navy Test Pilot School.