



# Seahawk in Afterburner

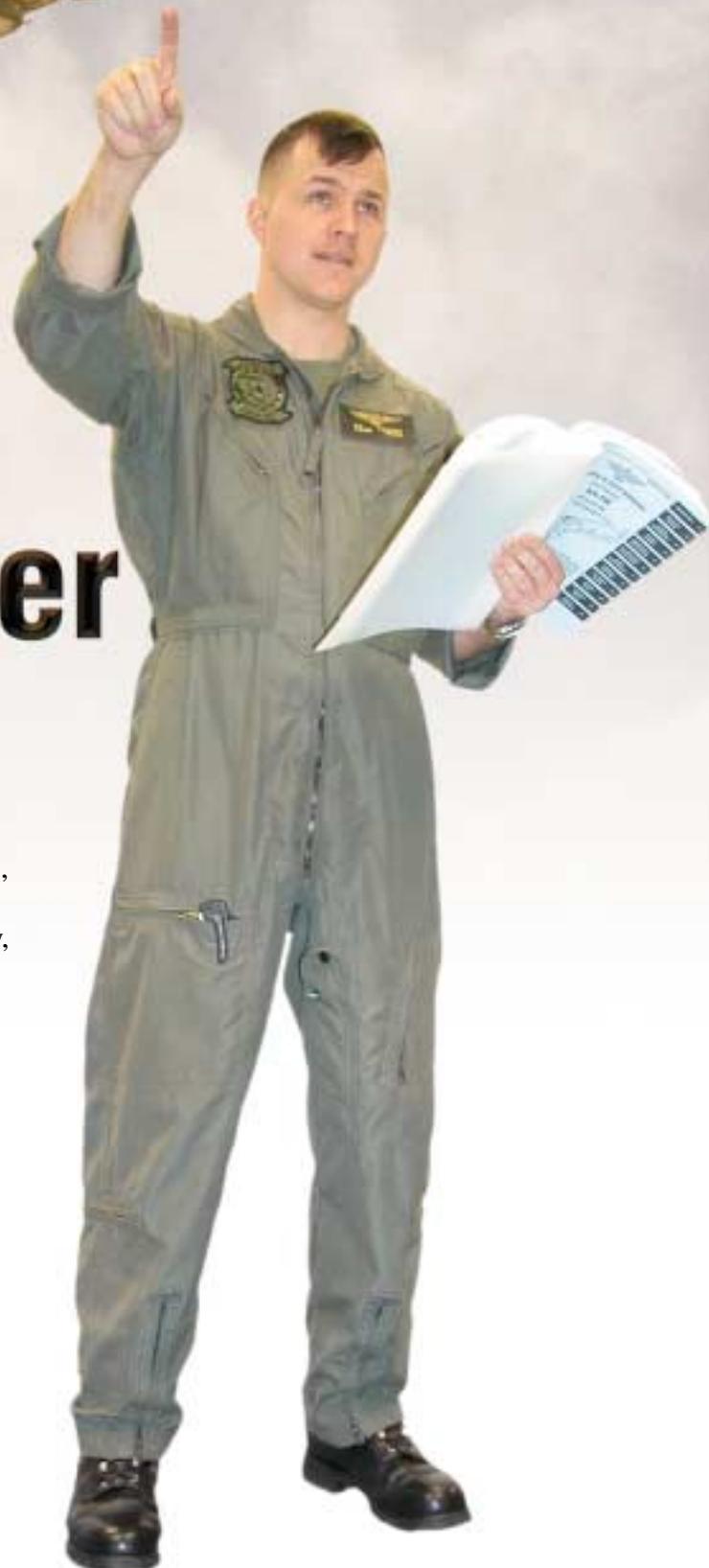
By LCdr. Bert Race

It was 0720, Feb. 7, 1994, my second underway period as a relatively new H2P. Our LAMPS detachment just had completed six weeks of flight-intensive Haitian operations, and I felt comfortable flying the mighty Seahawk around our FFG. The weather was typical Caribbean: warm and breezy, with two-to-three-foot seas.

The aircrew included the junior aircrewman and my OinC, who seemed much older at the time. I briefed NATOPS procedures, then we preflighted, strapped in, and soon were ready for the takeoff checklist. I had the controls. We had no way of knowing our routine ASW flight was about to become much more interesting.

The LSO released the RSD beams and issued a green deck. I lifted into a stable hover, maneuvered up and aft to 40 feet, turned into the wind, pulled power, and began to dip the nose when I heard, “kaboom...boom...boom.” Three distinct concussions had shaken the airframe. Time slowed down.

I immediately felt us descend as the main rotor slowed. I already was in an accelerating attitude, so I maintained cyclic position and cracked collective, hoping translational lift



would take effect before Nr and altitude ran out. Within two seconds, the engine-out and low-rotor warning lights came on. Out the corner of my eye, I could see a tall strip of red on VIDS, indicating skyrocketing TGT. The aircraft continued to descend, and so did Nr.

I looked at my OinC, who, to my surprise, was scanning the instruments. We were at 20 feet and still descending. He stated the low Nr situation and helped me on the controls by further lowering collective. Water entry appeared inevitable as we descended at 85 percent Nr, with full left pedal. Airspeed indicated zero knots, but we were near 15 knots groundspeed. I started to flare the aircraft at 15 feet in preparation for our swim.

The flare maneuver caused Nr to increase slightly. We stopped descending just below 10 feet. My OinC said, "I have controls."

## It was as if I were reading NATOPS for the very first time.

I promptly replied, "You got 'em" and placed my hand on the window-release handle. I then realized we were scooping this thing out, albeit precariously close to the water, with zero extra horsepower. I jettisoned the sonobuoys—for the record, this feature works 4.0—and activated the fuel dump. We began to accelerate and build Nr; time then resumed normal speed.

We declared an emergency as we gained altitude, completed the emergency procedures, and agreed to perform a shipboard, single-engine recovery. The aircrewman said he had pulled his window-jettison handle, but he never jettisoned it. Our OinC made a perfect approach to a no-hover, bull's-eye landing. I never felt any rush of panic or nervousness until I stepped out of the aircraft—that's when my knees went weak.

The postflight inspection revealed the No. 2 engine had suffered catastrophic destruction. The engine sounded like a blender full of marbles when someone manually rotated it with a wrench. The LSO and bridge watchstanders all heard the series of explosions. Witnesses later commented that hot-metal sparks, similar to a welder's cutting torch came from the tailpipe in a long, blue flame. The LSO said, "It looked like No. 2 was in afterburner."

I should have been happy, knowing we had beat the odds and had recovered from a single-engine failure, while heavy in a 40-foot hover. I was troubled, however, knowing we had deviated from the procedures we had briefed for single-engine failure. Our NATOPS brief called for the non-flying pilot's hand to be on the fuel-dump switch during takeoff, so, in case of engine failure, fuel dumping rapidly would shed weight, making single-engine recovery more likely. Also, we never discussed anything about swapping controls.

With these thoughts weighing heavily on my mind, I set out to reread my NATOPS manual. After reading the first few sentences of the procedure section for single-engine failure, I wondered if I was reading the right book. It was as if I were reading NATOPS for the very first time. I could tell the author of the single-engine-failure procedures had experienced one for real. Every word was placed strategically. This person knew what an engine failure was all about and described it well. I hadn't been able to really appreciate my NATOPS manual until I had experienced a bonafide emergency. A fitting lyric comes from the hymn Amazing Grace: "...was blind, but now I see."

Afterwards I felt NATOPS had exonerated me from my self-perceived errors. I accepted that our immediate action and the order of execution had been vital to our success. Besides a few expletives uttered during our 10-second tour at very low altitude, our cockpit communication and crew-coordination procedures were on the mark.

An emergency will happen when least expected during the worst possible circumstances. Know your procedures and aircraft systems. Rehearse "what ifs" at every opportunity, and immerse yourself in the imaginary world of worst possible situations. Be mentally prepared to make the right decisions and to react instinctively, especially when you have to deviate. Now, I anticipate engine failure on every takeoff.

Postflight assessment of this event led to another conclusion: At low airspeed, dumping fuel in response to catastrophic engine failure could lead to fire. The shower of hot-metal sparks exiting our failed engine easily could have lit off a highly atomized cloud of JP-5. Good thing we didn't execute a seemingly good idea.

After our return to homeport, AIMD Mayport personnel looked at our ill-fated engine. Over one-third of the turbine blades on the second stage Ng rotor had failed and had departed downstream via the Np stages. The high-time, dust-laden engine simply had self-destructed. 

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