

Worst-Case

By Derek Nelson

Shirley Temple sang a song called “Be Optimistic,” but I don’t think the average aviator was her target audience. Aviation often demands the opposite attitude.

Put yourself in the following situation. The location: the Bahamas. The weather: sunny, 90 degrees, clear skies. You’re flying a Black Hawk helicopter on a post-maintenance check flight. You and your copilot want to take your wives for a quick spin around the island. You want to show them why you love flying helicopters, and this looks like a rare chance. Yes, you’ll be breaking the rules (a two-star has to approve civilian passengers), but the local powers-that-be seem lax. There’s an abandoned runway near the hangars. You and an aircrew member can take off and check the repairs. You can use the old runway to pick up the wives and drop them off after the tour, then return to base.

Here’s the best case: a smooth flight, beautiful views of the gorgeous Caribbean. The wives get a taste of how much fun it is to fly; they ooh and ah. You drop them off, and you don’t get caught. Here’s the worst case: something goes wrong. You and the other pilot each have two children. You’re just two years away from retirement. So what you say? Would you be optimistic or pessimistic?

Several years ago, two Army chief warrant officers counted on the best-case scenario. They seized the opportunity described above, and everything went fine until the helicopter neared the runway at the end of the flight. A couple of soldiers standing behind the hangar saw the

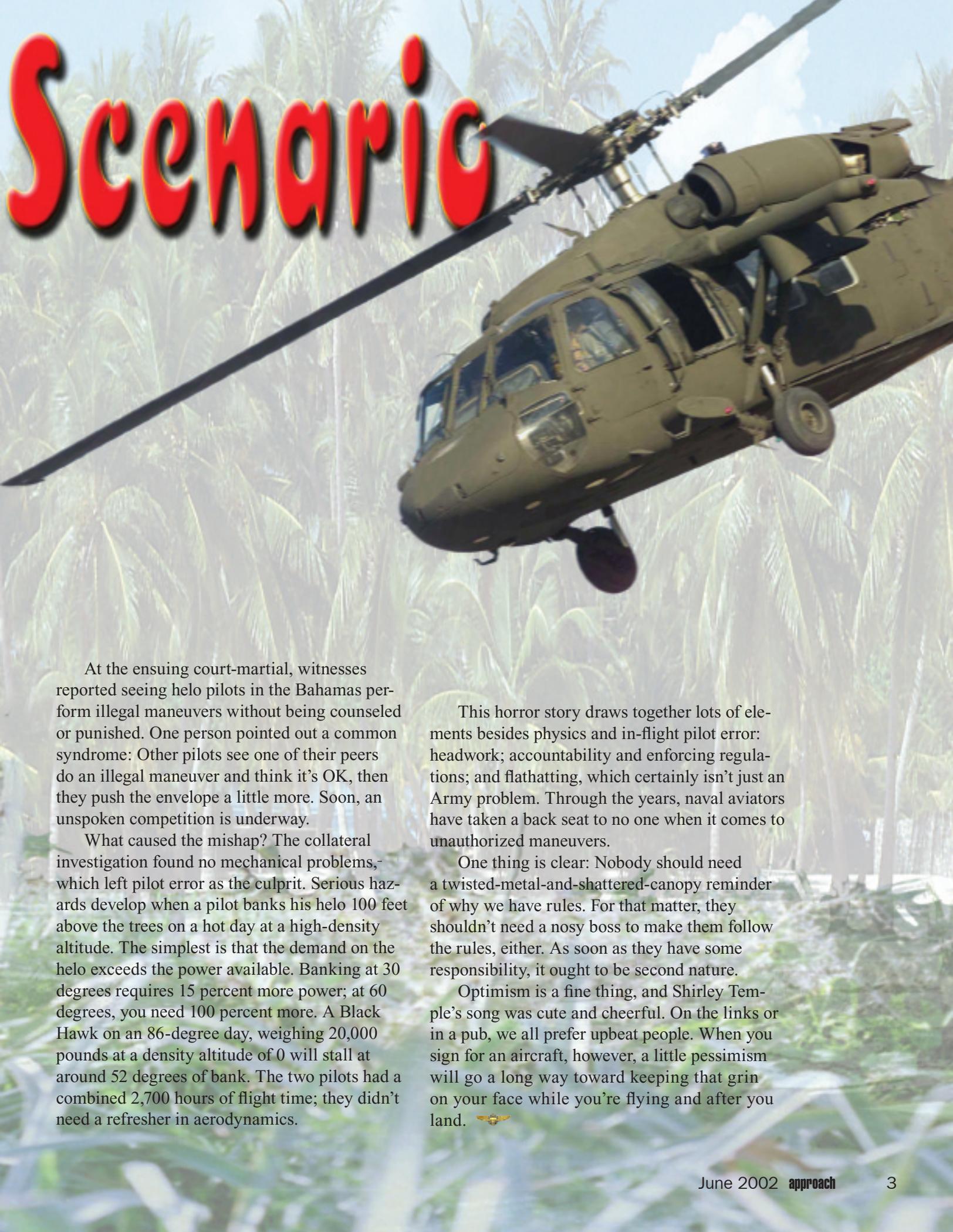
helo’s tail snap to the right and heard a loud whine. The helo shuddered, pitched nose up, rolled left, and plunged into the jungle, 700 yards away.

Losing control and slamming into the trees happened in a blur. The aftermath was excruciatingly opposite. The copilot came to, heard the pilot screaming, and fought his way out of the cockpit through branches and vines. His right arm was broken. Crumpled metal pinned his wife inside. The acting crew chief was trapped against the helo’s ceiling by his seat (he had a broken nose, and his right leg almost had been amputated).

A rescue helo had to land at the abandoned runway. The rescue team battled its way through dense undergrowth to reach the site. The first rescuer who saw the bodies of the two women immediately—and correctly—assumed they were dead. Gradually, police, medics and a minister showed up. Someone called for a Coast Guard rescue helicopter from Nassau, which arrived and lowered a basket to the crash site for one of the survivors. It took four hours to get the bodies of the wives out of the wreckage.

The worst thing imaginable had happened, but the emotional and legal ordeal was just beginning. The two pilots had to tell the parents and the children. They faced a total of 37 disciplinary and legal charges, including involuntary manslaughter, wrongful appropriation of a military aircraft, and destruction of government property (most charges were dropped later, but the prospect of prison was real).

Scenario



At the ensuing court-martial, witnesses reported seeing helo pilots in the Bahamas perform illegal maneuvers without being counseled or punished. One person pointed out a common syndrome: Other pilots see one of their peers do an illegal maneuver and think it's OK, then they push the envelope a little more. Soon, an unspoken competition is underway.

What caused the mishap? The collateral investigation found no mechanical problems, which left pilot error as the culprit. Serious hazards develop when a pilot banks his helo 100 feet above the trees on a hot day at a high-density altitude. The simplest is that the demand on the helo exceeds the power available. Banking at 30 degrees requires 15 percent more power; at 60 degrees, you need 100 percent more. A Black Hawk on an 86-degree day, weighing 20,000 pounds at a density altitude of 0 will stall at around 52 degrees of bank. The two pilots had a combined 2,700 hours of flight time; they didn't need a refresher in aerodynamics.

This horror story draws together lots of elements besides physics and in-flight pilot error: headwork; accountability and enforcing regulations; and flathatting, which certainly isn't just an Army problem. Through the years, naval aviators have taken a back seat to no one when it comes to unauthorized maneuvers.

One thing is clear: Nobody should need a twisted-metal-and-shattered-canopy reminder of why we have rules. For that matter, they shouldn't need a nosy boss to make them follow the rules, either. As soon as they have some responsibility, it ought to be second nature.

Optimism is a fine thing, and Shirley Temple's song was cute and cheerful. On the links or in a pub, we all prefer upbeat people. When you sign for an aircraft, however, a little pessimism will go a long way toward keeping that grin on your face while you're flying and after you land. 