Being creative can be lethal

BY BARRY SCHIFF

The hazard of building a better mousetrap

RICK AND I WERE CLOSE FRIENDS. We shared a high-school locker and were members of the same Hi-Y club. I got him an after-school job as a line boy at the airport and eventually became his flight instructor. He was a good pilot.

Rick became an extraordinarily gifted graphic-arts designer. He was so talented that he was retained to create corporate imaging that included the FedEx logo; the display structure for the *Spruce Goose* in Long Beach, California; and an "erotic" shape for the Carlsberg beer bottle.

He was as meticulous as he was creative. All of his airplanes were maintained so well that they always appeared showroom-new. He would not tolerate any imperfections or blemishes. This attitude, however, seems to have led to tragedy.

While overseas and riding in the jump seat of a foreign-built airliner, Rick noticed that the crew taxied for departure with the control lock in place. When he inquired about this, he was told that this prevented the elevator from banging around (especially when taxiing over rough surfaces) and damaging the control hinges.

Rick appreciated this logic and concluded that this would be a smart way to protect the controls of his own airplane, a Cessna 340A. The control lock on his airplane—as on most Cessnas—incorporated a rectangular metal flag that covered the magneto switches. With the control lock and its flag in place, you could not gain access to the mags. You had to remove the control lock to start the engines, a clever idea that might have originated with Cessna. This is when Rick got creative—he cut off the metal flag so that he could start the engines and taxi out with the control lock in place.

I had flown Rick's airplane a number of times and queried him about his jury-rigged control lock. Each time he insisted that this protected the elevator and even the ailerons. "But this makes it possible to forget to remove the locking pin," I said admonishingly.

"There's no way," Rick replied insistently, "that I would ever forget to remove a control lock."

During an early evening in the autumn of 2001, Rick and I and a few friends gathered for hors d'oeuvres—including exotic and edible insects—at the Typhoon Restaurant at the Santa Monica Airport. (There had been no drinking.) I had to leave early, but others stayed long enough to see Rick and his passenger hop into N2RR and taxi out to SMO's Runway 21. It was reported that he never stopped long enough to make a complete runup.

The aircraft was then seen accelerating southwesterly. It continued to do so well beyond the area where liftoff normally would occur. Speed became increasingly excessive. Eventually the throttles were retarded and aggressive braking began with only 1,000 feet of runway remaining, not nearly enough to stop the speeding twin. The airplane skidded off the end of the runway, vaulted over an embankment, nosed into a guardrail, and burst into flame. Neither Rick nor his passenger survived.

An NTSB investigator found that the control lock had not been removed.

Speculation, backed up by performance data obtained from another Cessna 340, indicates that Rick likely did not discover that the elevator was frozen in position until attempting to rotate. At that point it appears likely that he attempted to remove the control lock while still accelerating. Dynamic pressure against the elevator, however, made removing the modified control lock so difficult that he finally gave up and attempted the abort.

This is a sad and classic case of how being creative and modifying established standards and procedures can be lethal.

Although it might be tempting at times to be creative, we need to remind ourselves that the established standards and procedures involved in flying an airplane evolved during more than a century of aviating (including countless accidents). Almost everything we do procedurally is for good reason, even though we might not always understand why.

Another example of creative flying practiced by some pilots involves retracting the wing flaps during a landing flare. One reason for doing this is that it makes it easier to touch down at a specific point along the runway (such as during a spot-landing contest). Another is that this reduces lift and shortens the landing roll.

The rapid change in lift, drag, and required elevator force can challenge a pilot beyond his ability to cope. The FAA strongly discourages this landing technique because it also is easy for a pilot flying a retractable-gear airplane to inadvertently raise the landing gear instead of the flaps. The administrator concedes, however, that such an error certainly would quickly and substantially reduce landing distance. **AOPA**

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