

Flight Review

Low is Low

By Andy Dale, MCFI (2003 – 2007)

One a beautiful afternoon in early summer, I gave my primary student—let's call him Jerry—a vector from our towered airport in Winston-Salem, North Carolina, to take our Cessna 172 west across the Yadkin River to a rural area. We were looking for my favorite farmer's silo to practice turns around a point. I instructed Jerry to maintain 800 feet AGL, as he established a flight path at a proper distance from the silo.

After one complete circuit, our altitude had dropped about 150 feet, 50 feet below standard. I told Jerry to add power and climb back to 800 feet AGL to restart the maneuver.

Jerry pushed in the throttle and attempted to regain the altitude he had lost. Glancing at the altimeter, I noticed that we weren't making any progress in the climb. When Jerry complained that he couldn't seem to get the airplane to climb, I announced that I was taking the controls. Shortly thereafter, I had to confess that I couldn't do any better in getting the Cessna to climb. The prop was turning, the gauges looked good, and there weren't any unusual noise forward of the firewall. But something was wrong.

My first reaction was to look for the unmarked grass strip that I knew was located less than a mile from the silo. This was about the only suitable landing place for several miles around. In the western Piedmont region of North Carolina, trees are numerous and flat land is scarce.

As I turned from looking out the side window to looking through the windshield, I was startled by a yellowish milky oval that was expanding on the windshield right in front of me. I glanced at the

oil pressure gauge and confirmed my worst suspicions. I immediately realized we would be forced to land.

The grass strip was now our best option. Unfortunately, our turning flight path about the silo, combined with our low altitude, made finding the strip very difficult. I kept the engine running to maintain as much altitude as possible, while I desperately circled in an attempt to locate the grass strip. I dialed 121.5 on the radio and declared an emergency.

Just as I was about to give up find the grass strip, I caught sign of a cellular phone tower located near one end of the strip. Glancing to the right of it, I saw a small portion of the strip that was not blocked by the trees. Getting my bearings, I dove toward the strip on a left base. It was less than a half mile away, and I felt confident that I had enough altitude left. I turned my makeshift base to final.

By now the windshield was, for all practical purposes, opaque. Instinctively, I yanked the control wheel full left, jammed in full-right rudder, and pushed the nose down to put the airplane into a forwards slip. Now I could see the grass strip through the student's side window. It was only about 50 feet wide.

As we got close to the ground, I eased out right rudder and leveled the wings. We were flying blind. Staring out the right window for any visual reference that would help me control the airplane, I pitched up slightly for a flare and then held it, emulating a glassy water landing that I had learned as a seaplane pilot. After what seemed to be an eternity, the plane landed softly on the grass. We couldn't see a thing in front of us, so I didn't know if we would hit anything. At long last, we stopped rolling. I turned to my student, shook his hand, and told him to exit immediately. We were down safely without a scratch on us or the airplane.

It all happened so fast, I don't even know when the engine stopped. In order to maintain altitude as long as possible, I had left the engine running and concentrated on finding a suitable landing place. The mechanics later found a two-inch hole in the top of the crankcase and smaller hole in the bottom. Oil covered the fuselage and almost the entire vertical stabilizer.

Jerry and I learned at least two valuable lessons that day. First, be preparing for an engine-out emergency at any time, but particularly when you are practicing low-level maneuvers. The low altitude required by these maneuvers can severely disorient the pilot and limit options for a successful forced landing. Second, if there is oil on your windshield, expect that it can severely reduce or even eliminate your ability to see upon landing.

Fortunately, our shared emergency experience did not intimidate my student. We practiced turns around a point in a different Cessna at the same location two weeks later, and he did a good job maintaining his altitude. But while Jerry was flying in circles, you can be sure I kept a very close track on the emergency strip a few miles away.

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