

NTSB: CHECK THOSE FUEL CAPS

"The airplane had just been fueled by the lineman at the fixed-base operator (FBO), who secured the fuel caps after the service. During the climb after takeoff, the right-wing fuel cap came off of the wing, remaining attached only by the chain. An estimated 11 gallons of fuel was siphoned from the wing before the pilot returned to the airport and taxied back to the FBO. The pilot secured the cap and conducted a visual inspection of the right wing, before attempting to start the engine again.

"The right engine backfired, followed by a loud bang and whoosh sound; flames then rose from the right wing. A post-accident examination of the right wing revealed that the internal blast was a result of the backfire igniting fuel vapors that remained after the siphoning. The blast caused the upper wing skin to expand and separate from the retaining rivets. A soot trail originated at the exhaust pipes and traveled in an aft direction to the trailing edge of the wing.

"Examination of the fuel cap revealed that the outer O-ring was dry and cracked, a washer was missing, the cap leaked under pressure, and that the force required to secure the cap exceeded the manufacturer's specification."

