



December 30, 2020

Subject: N6327F Accident Synopsis – Airworthiness

To Whom It May Concern:

I arrived at Pottstown Municipal Airport (N47) during the afternoon of December 29, 2020 for the investigation into the accident involving N6327F, a Cessna (Textron) CE-182-P fixed-wing aircraft. Upon arrival, the aircraft was found upside down next to a concrete drainage culvert. Due to the substantial damage noted below, this has been classified as an accident by the airworthiness inspector. The pilot (sole occupant) received minor injuries.

While performing a general visual inspection of the aircraft, there were no findings indicative of a contributing airworthiness factor to the accident.

A continuity check of the primary flights controls determined that the flight control systems were all intact and maintained continuity between the cockpit controls and primary flight controls (elevator, aileron, and rudder).

The aircraft brake system was visibly inspected and found to be in a satisfactory condition. A brake functional check was not performed as there was no indication of brake malfunction contributing to the accident; however, hand pressure on the pilot's brake pedals revealed hydraulic back-pressure (firm pedal) indicating a closed, functional system.

Investigation was continued through direct inspection of the remainder of the accident aircraft. In accordance with FAA Order 8900.1, Volume 7, Chapter 1, Section 1, and FAA Order 8020.11D, aircraft sustained substantial damage during the event, elevating this to an accident. Inspection of accident aircraft noted damage to, but not limited to, the following:

1. Left and right elevator aft tips
2. Buckling of the left and right lower wing skins (upper surface not visible)
3. Bucking of left wing strut
4. Damage to the top of the vertical stabilizer and rudder
5. Empennage buckling fwd. of horizontal stabilizer leading edge
6. Right wingtip droop fairing, including metal structure and leading edge
7. Nose landing gear wheel and fork assembly broken from strut
 - a. Engine experienced sudden-stoppage indicated by slash marks in accident path, and tip erosion and damage to propeller

I conducted an interview with the accident pilot, Mr. Paul William Baldwin, FAA Private Pilot certificate [REDACTED] who stated that he was returning VFR from a scheduled, then postponed

Instrument Check-ride in Doylestown, PA (DYL) with flaps at 20 degrees, landed on Runway 26 at centerline just past taxiway Charlie, the aircraft settled for approximately 2 seconds and then slightly lifted again and veered left off the runway. He stated that it was definitely an aerodynamic lift and pull to the left caused by a direct crosswind, and that there was no indication of mechanical failure. He stated that once the aircraft turned and departed the paved surface, he could not recover it, and doesn't recollect further details until the aircraft was at a rest.

There was one eye witness, Mr. Barry Cossaboon, who identified himself as the pilot's acquaintance and instructor. During interview, Mr. Cossaboon stated that there was a direct crosswind at 15/23 knots. He stated that he was outside watching as the aircraft returned from DYL, and witnessed the aircraft land on centerline and settle at approximately taxiway Charlie, then lift and pull to the left, veering off the runway, crossing taxiway Bravo, and flipping past the culvert. He stated that the aircraft was settled for approximately 2 seconds, and that the lift to be aerodynamic, not a bounce. He assisted in extracting Mr. Baldwin from the aircraft.

Investigation at the scene revealed tire marks, but not skid marks exiting the runway past taxiway Charlie at approximately a 15 degree angle from centerline. A brief skid mark was found in grass in the path of the left main wheel in a low, damp area between taxiways Bravo and Charlie, consistent with continued braking after exit from the runway. Three tire tracks lead to the concrete culvert, where a mark at the opposite edge, followed by a deep rut and furlough are consistent with the nose wheel contacting the edge of the culvert, embedding into soft earth, breaking the nose wheel and fork from the strut, which progressively embedding itself in the soft earth along an approximately 40 ft. distance causing the aircraft to flip over. The engine controls were found at idle cut-off, however three propeller slash marks along with the above noted propeller tip erosion and damage are consistent with the engine making power just prior to the aircraft flipping.

The total distance from runway exit to aircraft resting area was approximately 525 ft.

Photos of the aircraft during this inspection and scene of the accident are available as required, and provide additional detail of the above damage noted.

Sincerely,

Gary L. Brown
Digitally signed
by Gary L. Brown
Date: 2020.12.30
15:12:07 -05'00'

Gary L. Brown
Aviation Safety
Principal Maintenance Inspector