



MEMORANDUM FOR RECORD

Douglass Brazy
Air Safety Investigator
Eastern Region Aviation

January 25, 2020

Subject: ERA20LA089, N41VK Runway Excursion on 1/25/2020 at Summerland Key, Florida.
Telephone Conversation with FAA Inspector Donald Casto.

Inspector Casto provided the following information:

The pilot reported that on the takeoff roll as the airplane reached its normal rotation speed (80 knots) the airplane would not rotate. As the speed increased to 90 knots, it still would not rotate. He then aborted the takeoff, applied the brakes, and intentionally veered to the side of the runway near the end, to avoid a canal that is off the end of the runway. The airplane struck trees and sustained substantial damage to the right-wing leading edge and the right aileron.

Mr. Casto responded to the scene about 1.5 hours after the accident, and noted that the elevator moved freely in both directions when moving the cockpit yoke, as well as when moving the elevator surface by hand. The right aileron moved about 1 inch when moving the aileron surface by hand, the left aileron was impinged by contact with the ground. The rudder pedals would not move, and the nose gear was collapsed and damaged. The left main gear and the nose gear was collapsed and damaged. There was no gust lock installed, he did not see a gust lock in the airplane. There was no baggage in the airplane. The pilot had gone home after the accident and before Inspector Casto arrived.

Mr. Casto authorized moving the airplane to a parking area at the airport.

-End-



RECORD OF CONVERSATION

Timothy W. Monville
Sr. Air Safety Investigator
Eastern Region

Date: April 2, 2020
Person Contacted: Raymond Crawford
NTSB Accident Number: ERA20LA089

Narrative:

Mr. Raymond Crawford was contacted by phone on February 28, 2020, at 1000 EST. He was called at [REDACTED]

At the beginning of the interview he was advised that the NTSB is a federal agency mandated by Congress to investigate aircraft accidents, and NTSB has no authority to take any action against any individual. He was also informed that the purpose of an NTSB investigation is for safety only, and any person NTSB talks with has the right to representation; he agreed to the interview without representation.

He indicated that he bought the airplane in March 2017, but that would need to be verified.¹ He estimated that he has flown it between 275 and 300 hours as pilot-in-command. He has two Stratus 2S, one of which is a backup. He also operates the airplane using ForeFlight which displays to an iPad that is yoke mounted, a Garmin GNS 530W transceiver, a JPI EDM900, which displays oil temp, cylinder head temperature (CHT), exhaust gas temperature (EGT), fuel flow, fuel burn, and time to destination that is interfaced with the GPS. At the time of the accident he did not have the iPad mounted on the pilot's control yoke, rather it was on the co-pilot's seat. He did have the capability to feed ADS-B data to his iPad, but he only uses it for weather. He does not use or feed ADS-B data for flight information.

He indicated that he has a house at Summerland Key, and was there for pleasure.

He indicated that he flew into Summerland Key Cove Airport (FD51) on January 24, 2020.

¹ According to FAA records, the Bill of Sale was dated March 2017.

He provided the following timeline for January 25, 2020 –

He arrived at FD51 about 20 to 25 minutes before his scheduled departure, and loaded his carry-on bag and hand tools into the back of the airplane. He performed a full preflight inspection which included a check of the engine oil, a check of the flight controls, and fuel. He parked his vehicle, then went back to the airplane which was parked on grass, and opened it up and got inside. He started the engine, allowed it to warm up, and “checked everything.” He allowed the airplane to roll forward, and then announced on the radio that the flight was taxiing. He taxied to runway 30, and reported the wind from Key West International Airport (EYW) and The Florida Keys Marathon International Airport (MTH) was from 310° at 8 knots with no gusts. He made a radio call and received no response, taxied to the end, and performed a full engine run-up. He announced on the radio that the flight was departing to the northeast from runway 30, and got into position on the runway. He applied full throttle and the airspeed began to increase, and during the takeoff roll he noted the airplane, “nosing down to the front.” He “bumped” the trim twice towards the airplane nose-up position, and at 85 knots he pulled on the control yoke but felt “resistance” from the elevator, that did not feel right. He aborted the takeoff at 95 knots, reduced throttle, and applied the brakes. Approaching the end of the runway with a canal ahead, he applied hard left rudder input, and turned in the area by the canal. The right wing clipped mangroves, and the airplane stopped shortly thereafter. He was not injured. He was wearing the lapbelt and single shoulder harness.

He indicated that he was at the airplane when it was examined by the Federal Aviation Administration inspector.

He was asked if the airplane was operated or had maintenance performed since his arrival the day before?

It was not operated, and no maintenance was performed. Further, no fuel was purchased

Since owning the airplane had he had any problems with the pitch flight controls?

No sir. He did indicate that the autopilot does not engage unless he turns it on and it was not turned on and the time of the accident.

Has there been any work done to the pitch flight control system since the time he has owned the airplane?

None that he could recall. In June 2019 was the airplane’s last annual inspection and since then he has flown the airplane many times with no issues related to the pitch flight controls.

What was the pitch trim setting on your arrival the day before?

He flew into Summerland Key between 1100 and 1200 hours, and he does not recall the specific pitch trim, but typically has it 2 notches above neutral in the nose-up direction.

What was the pitch trim setting for takeoff?

It was right by the “U.” He has rotated hundreds of times and had experienced nothing like occurred during the accident flight.

Did he perform a preflight inspection using the checklist?

He did not use a checklist for the outside portion of his preflight, which included a check of the engine oil, check of the fuel quantity in the tanks agrees with the gauges. The fuel was full when he left Pompano Beach Airpark (PMP), and he used fuel from the left tank on the flight the day before, which would have consumed about 17 gallons. The exterior portion of the preflight inspection included a check of the propeller for nicks, a check of the nose landing gear, the fuel caps, stall tabs, the end of the wings, ailerons, flaps. He then looked from the top down, and checked the static port, horizontal stabilizer, and moved the elevator flight control surface. He then repeated the process on the right side of the empennage, followed by a repeat of the inspection of the right wing. He then walked about 10 to 15 ft away from the airplane, and verified the chocks were removed. He entered the cabin, put on his seatbelt, and got out the airplane's checklist. He then started the engine.

As part of the run-up before departure what did you specifically do?

He methodically used the checklist, and verified that he had full travel of the elevator and aileron flight controls. He was positive that he performed a run-up in the run-up area.

From your vantage point could you see the elevator during the check of the elevator flight controls?

He does not recall. After 5 minutes after the accident he pulled the elevator up and down and felt no resistance. He shut off the fuel but reported there was no fuel leaking.

Explain his bumping of the elevator trim?

He doesn't use electric pitch trim, Rather, he manually uses the trim wheel. Since owning of the airplane he has only used the electric pitch trim once or twice. He considers himself "old school."

On his postaccident check of the elevator flight controls was there full travel?

The main thing to see is was it free. He reported it was not resisting any more. It wasn't pulling.

Could he qualify the resistance he felt with respect to the elevator flight control during takeoff?

He can't answer that. On his first pull it felt like it moved slightly. He tried again, and then aborted the takeoff. He locked the brakes.

Is there an accelerate and stop distance chart in the flight manual?

He does not recall. He gave the insurance adjuster all books including the POH, Maintenance Records, etc.

Describe how he uses the gust lock?

He uses the seatbelt to secure the elevator, but he did not use it when he landed the day before. His airplane has a gust lock.

Where was the gust lock?

It was in a plastic tub with a lid in the back of the airplane. It had been back there since he owned the airplane. The tub with a lid is 2 ft by 1.5 ft.

Did he lock the airplane after landing the day before?

Yes, because his headsets were left in the airplane.

Did anybody at Summerland Key have access to his airplane or a key to his airplane?

No, but since the accident he gave the airport manager his key.

Where is the location of the ignition switch in the airplane?

It is on the far left side.

Does the gust lock cover/hide the ignition switch when installed?

No, it is too far away.

Postaccident did he see the airplane's gust lock in the airplane cockpit?

No. Postaccident he took things out of the plastic tub, and put items back in there and put the lid back on the tub.

Did he move the pitch trim wheel postaccident?

Yes. He moved it, but did not move it a large amount. He only moved it to confirm it was free to rotate.

What direction (nose-up or nose-down) was your tendency to move the pitch trim during your check of it postaccident?

His tendency would be to go towards nose-up, if he had to guess.

Did he check the nose landing gear tire pressure as part of his preflight check?

Yes but only visually. He didn't check the pressure using a pressure gauge. All 3 tires "appeared to be reasonable or properly inflated." In the back of the airplane he did have a digital tire pressure gauge, and if he had perceived a tire to have low pressure, he could have used the gauge to check. He also had a Ryobi equipment in the airplane capable of delivering air pressure.

Did he notice any issue with the nose landing gear tire while taxiing?

He didn't feel anything unusual with the nose landing gear tire.

The call ended at 1057.

The digest was e-mailed to him for review on April 2, 2020. He replied on April 8, 2020, at 0940 EDT with, "Mr. Monville: I have reviewed the received typed notes and to the best of my recollection, the notes reflect my responses...."