

Mr. John M Stinson
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The 27th of November 2020

Mr. Robert Melcher
Aviation Safety Inspector
AFG Orlando FSDO-15
8427 Southpark Circle, Suite 500/FSDO-15
Orlando, Florida 32819
[REDACTED]

RE: N31720 Incident Dated 25 July 2020 at KFHB Fernandina Beach Municipal Airport – Summary of Pilot in Command of Incident Leading to Gear Collapse / Failure and Subsequent Damage to Aircraft

Dear Mr. Robert Melcher

First, thank you for your time speaking to me today about the referenced incident with my aircraft. I truly appreciate your concern for my safety and the damage to my aircraft.

Your email requests that I detail the specific events leading up to the gear collapse or failure and the resulting damage to the aircraft.

The aircraft referenced in this summary is a 1978 Piper PA-28R-201T, S/N 28R-7803297, displaying registration number N-31720.

Prior to the post-maintenance flight of the 25th of July 2020, the last time I flew the aircraft was the 2nd of February 2020. I flew the aircraft from Palatka, Florida, 28J to Fernandina Beach, Florida, KFHB. The purpose of that flight was to relocate the aircraft for maintenance and safety upgrades.

N31720 had several Airworthiness Directives and Service Bulletins that needed to be addressed and additional safety equipment was to be installed. An annual inspection was also scheduled to be performed since the last annual was completed on or about April 2019. The ADs and SBs were:

- 1) VSP_267A – Fuel Primer Diverter Valve Assembly
- 2) SB 1342 – Stabilator Fitting Inspection
- 3) SB 1280 – Rudder Pedal and Bar Assembly

Additional Service Bulletins were received while the aircraft was in for maintenance including:

- 1) SB 1345 – Main Wing Spar Inspection
- 2) SB 1242A – Rudder Pedal Assembly Inspection

The additional safety equipment to be installed was:

- 1) A new 406 MHz ELT
- 2) Pulsating Wingtip Landing / Recognition lights
- 3) Instrument panel upgrade to include iPad mount and new panel.

On Thursday, the 23rd of July 2020, the maintenance shop, Fernandina Beach Aircraft Maintenance notified me that all work had been completed and they preferred I take the aircraft for a post-maintenance test flight and return with the aircraft to allow the maintenance shop to check fuel pressures.

I arrived at the airfield and maintenance shop on Saturday, the 25th of July 2020 at about 0815 hours.

A short discussion with the owner of Fernandina Beach Aircraft Maintenance, Mr. Sherman Keller was held prior to pre-flighting the aircraft. Mr. Keller cautioned me to check full idle operation prior to take-off and to be cautious about moving to full idle position with the throttle until after the test flight was conducted.

I performed the pre-flight and did not note anything remarkable about the aircraft that would cause any concern.

The aircraft engine was started easily and shortly I departed to the departure end of Runway 13 for a run-up. I had checked the idle position of the throttle while sitting on the ramp and all operation and continued operation of the engine was normal.

The run-up tests were unremarkable, and no condition noted that I felt would induce or increase risk to the flight. Normal Piper run-up and pre-takeoff checklists were used to verify the aircraft was airworthy. Weather was wind 120 at 5 knots, visibility 10 miles, ceiling unlimited.

I self-announced on the CTAF my intentions to depart Runway 13 and taxied onto the threshold of the runway. I throttled the engine up and began my roll down Runway 13. I was alternately monitoring manifold pressure to stay around 30-32 in Hg until the turbocharger was operating. I noticed the aircraft seemed a bit slow to develop speed and I was using more runway than I thought or remembered the

aircraft using on takeoff. I rationalized that I was being more, gentle to the engine than I had in the past, and I added throttle to about 41 in Hg manifold pressure. Once I had added throttle, the aircraft smoothly rotated and began gaining altitude.

Over the numbers of the departure end of the runway, I raised the landing gear. I noticed the three green gear lights flicker just a bit but extinguish. I continued my climb out.

Still on a heading of 130, and about 400' AGL, the aircraft begin an intermittent shudder. I did not feel like it was the airframe, because it was not consistent. I checked the instruments, and all appeared ok. I reduced power slightly and the intermittent shudder quit as abruptly as it began. At this point I was about 500' AGL and made a left turn to crosswind for Runway 13. I continued to climb and announced I would be returning to the airfield using Runway 13 for a full stop. My intention was to return to the maintenance shop for further inspection.

My trip through the pattern was uneventful. Abeam the numbers for Runway 13, I slowed to about 90 KTAS, lowered flaps and gear and set for a descent. I lowered flaps to the second setting after turning base and again after turning final. My final approach was stable, and I was approaching just a bit high and around 85 KTAS.

I was intently watching the engine monitor and my targeted touch down spot. I add this to the summary because I do not recall seeing the three green lights indicating the gear was down and locked. But, the gear unsafe indicator directly in my vision was not glowing red.

About the safety bar stripes on the runway, I touched down on the left main gear. I slowed the engine to allow the aircraft to settle onto the right main gear.

I believe I felt the right gear touch and give way, but things began happening so fast at this point I can't be sure. It is quite possible the gear was not down or failed to support the aircraft at all. The right-wing tip dropped to the runway and I began sliding on the wingtip. I could only shut down electrical switches on the instrument panel. I had lost directional control of the aircraft at this point.

As the aircraft slowed a bit, the nose began drifting to the right and very soon I was sliding to the left side of the airplane. The airplane continued sliding and veering off the runway. The aircraft slid between two runway lights and then across Taxiway Bravo and into the grass. Once in the grass, I believe the aircraft slid over a drainage pipe manhole cover, collapsing the left main gear and nose gear.

Within feet of this manhole cover, the aircraft came to rest.

I do not remember releasing my seatbelt, I don't remember opening the door to exit. I remember standing on the right wing and looking down at the bent step and then I quickly moved to the taxiway.

Airport personnel were on the scene within a few minutes.

There isn't much left to tell other than what was observed when the aircraft was lifted from the ground by a crane and placed on a trailer to move the wreckage to the maintenance hangar.

The left main gear was broken, including the "lugs" or "dogs" that lock the gear into place. The nose gear was bent in the direction of the right wing. And the left gear was in the retracted position up inside the gear housing. One mechanic from the maintenance shop, lightly pulled on the gear and it fell free. I am not a mechanic, but I do believe it has broken linkages, but could not say for sure. I refer you to the maintenance shop personnel for more detailed and expert opinions on the condition of the right main gear.

As you may well imagine, I have replayed this event over and over in my mind. I can't settle on any one thing I should have or could have done different. Regardless, my aircraft may well be destroyed. But no one was injured except for my pride.

Thank you for indulging my longer than you may have wished summary.

[Redacted signature]

27 July 2020 2150 hrs