

N1JA Incident 5/15/2020

Previous to the day of the accident the pilot/customer Dave Smutsler had made an appointment for Friday 1/15/2020 to go over some configuration issues between his iPad and panel mounted avionics and for some in person tutoring on operation of the recently installed GPS and ADS-B transponder.

As per our appointment Dave arrived with N1JA "after lunch time" around 2:00 pm or so according to my time sheet (rough running record of daily activities). I met with Dave briefly and went over the items he was concerned about with one of my Technicians Pat Peterson, whom I directed to go out to the aircraft with Dave and address. I was busy with other tasks at hand on a busy Friday afternoon and attended to those duties.

At one point Dave came in my office and asked some specific questions about performing certain operations in his GPS so the two of us went to our company Skyhawk N733FG which is equipped with a similar GPS and we worked together through various tasks on the unit to answer his questions.

Shortly thereafter one of my guys (I assume Pat) pulled the airplane to the fuel pumps to be fueled, I was working with other customers but observed the airplane at the pumps with the pilot present. Later I tugged another aircraft to the pumps to be fueled before departure and sat with the airplane connected the tug to move it forward in the line (a Cessna 310, unable to be pulled easily by hand) while Dave finished fueling his 210. There was a V tail Bonanza in line after Dave and before the 310 I was working with. The pilot of the V-tail, the pilot of the 310, and I waited and talked while Dave finished fueling and fired up the airplane to taxi away.

I admit I wasn't paying too much attention to Dave throughout much of this except during our direct interactions. After I got the 310 into position at the pumps, I went back to the shop to attend to other things to begin closing up etc (this was around 4:45 or so). I don't recall if I watched Dave depart or not, but I knew he had taken off. Shortly thereafter while going out to stack the hangar (move aircraft) I observed N1JA come in and land normally on runway 29.

While finishing up putting the other aircraft in the hangar for the night Dave taxied up and shut down. When I greeted him, he explained that his HSI was not slaving properly but worked long enough to line up on the runway heading on take off but then froze there. The other employees were wanting to leave and start their weekends so I told them to leave and I would stay and deal with Dave myself.

I asked him to explain the issue in as much detail as he could then went out to the aircraft to look under the panel. I took an over all glance and didn't see anything out of sorts or abnormal, so I recommended we run the aircraft and taxi around so I could observe the behavior of the compass system. Dave agreed and we both climbed in the airplane and he started the engine which I noted started very easily and ran very smoothly/ well. We taxied and made some turns while I tried to diagnose the issue, during this time we noticed the airplane ammeter was over on discharge. We tried some troubleshooting of the alternator system and agreed the compass likely stopped functioning due to low voltage.

We taxied back to the shop and Dave shut down the airplane. I was going to test the alternator for field voltage, so I removed the pilots side cowling when I discovered the belt was missing from the alternator.

Dave happened to have a spare belt in the airplane to replace it with so I pulled the copilot cowling off, fished the old belt out (which was in bad shape and broken) and went about installing the replacement belt.

At this point my wife (Sue) arrived and I introduced Sue and Dave (Dave and I are casual friends; we have had lunch several times and enjoy each other's company. Because of this I've talked to my wife about Dave on multiple

occasions) so it was nice for them to meet and get to chat in person while I worked. It was a beautiful day; everyone was in good spirits and things were coming together nicely (the problem seemed to have an easy straight forward fix). Sue noted and asked Dave about a bandage on his head, to which he casually explained "he bumped it on something, and Sam (another mechanic) had bandaged him up". (I later found out from Sam that he saw him earlier with blood all over his head and pointed it out to Dave, to which Dave was surprised. Dave cleaned himself up and Sam put a bandage on his head for him). I didn't think much of this at all at the time. Through later reflection the combination of the bump on the head, blood thinners, and a pacemaker may be something to consider.

While installing the replacement belt I did not notice anything amiss with the engine installation at all. (Nor was I really looking at the engine for problems, Dave had no complaints about the powerplant, the airplane had just flown twice that day, and I was just in the airplane and remarked to myself about how well it ran). I did place my hand on each magneto and found that both mags were tight to the engine. I did not notice any oil, exhaust streaking, or anything that seemed out of the ordinary. As it was late on a Friday evening I noted to myself to pay special attention to not leave any items sitting on the engine (as so I wouldn't forget them), I noted each and every item I used to perform the work and accounted for them before installing the cowlings, no rags or towels were used out at the aircraft at any point during my work.

I verified the belt was tensioned satisfactorily, the bolts were tight and safetyed, and installed the cowlings and verified all fasteners were made. Then I inventoried my tools at the aircraft and cleaned up my equipment back to the shop. My wife was saying goodbye to Dave, and I bid my farewell with the instructions "Just start it up and verify it charges, if it does you should be all set and you can just head home. I'll mail the log entry with the bill" (Dave had mentioned that he was trying to make a 7:00 reservation at a restaurant with his wife, and that he was thinking of landing at a private grass strip closer to his home in Port Washington vs West Bend airport). I thought this was a reasonable course of action as I knew Dave was experienced and prudent enough to not take off unless all systems appeared to be functioning normally, and I trusted his judgment as to whether or not the alternator was charging and the compass was working. This was at roughly 6:00.

My wife watched Dave perform his run-up (which she said appeared and sounded normal) while I was putting away my tools and then I came out and joined her to watch Dave depart. The take off run appeared totally normal as far as my recollection goes right up to the point where I would have expected him to raise the landing gear. There were other airplanes around the area, so I wasn't able to hear the airplane as it was mostly down the runway but what I did hear did not strike me as abnormal.

About the point where I would have expected to see the landing gear retract, it didn't; rather he began a shallow right hand turn to the north (he departed on runway 29) and did not appear to be climbing normally for a Cessna 210. At this time I noticed another Cessna entering the pattern on an extended downwind above Dave as he departed, I wondered if that airplane was distracting him somehow and was puzzled why he didn't climb straight out, raise the gear and turn North behind the airplane entering the pattern.

Then I became aware that the gear was still down, and he was continuing to turn North shallowly and not really gaining much altitude when I lost sight of the airplane behind buildings. My wife and I had brief conversation to the effect that something didn't seem right, and I said lets go in and see if we can hear him on the radio so we went into the terminal (I understand all this was captured on video from surveillance cameras).

I noticed the airplane on the TV monitor in the terminal (I knew it was Dave because his Aircraft is ADS-B OUT and his N# showed up next to his Icon and I could observe his speed and altitude on the screen) and saw him flying East/Northeast. My wife says she saw his altitude change from 1000' to 1100' while she was looking at the monitor. I went over and squelched the radio to verify I could hear transmissions and heard the other airplane make a position call in the pattern. I then looked back at the monitor and saw N1JA was clearly heading Easterly (indicating remaining in the pattern to land) and I saw his speed and altitude at 1200' / 87 kts. Mental math told me he was only at 400' and just barely maintaining. About that time I heard another call out from the other airplane and figured Dave was

not going to be making any radio calls, and I didn't want to be a distraction to him so I thought it best to go back out to observe him from the ramp. (I later learned from Gary Meisner the other airplane in the pattern heard him call every leg in a "calm, normal tone") Experience has taught me, going to the back of the building usually only provides a glimpse of an airplane in the pattern and then you can't see them land so we went into the hangar and out onto the ramp.

My wife said she saw him "On Base" so I walked out further but could not see him from my location. There was an airplane (RV) running up on the ramp so all I could hear was that airplane. I walked out to near the neighbor's gazebo and that is when I regained visual contact with the airplane. I observed it on a stable straight in approach for 29 appearing low and slow but steady.

As he approached I could tell he was very low and very slow, as he got closer he continued to get lower until he began to sink below the tree line, at that moment I observed the nose quickly and abruptly pitch up, the airplane clearly stalled and it nosed over with the copilot wing lower than the left and disappeared in the trees beginning to turn to the right (copilot side). My wife immediately yelled "911!!??" and I yelled back "Yes, call 911!" I kept watching the location where the plane went down for smoke and saw none. While she was on the phone with 911, I offered some additional information on how to explain the location of the airplane to the operator.

At no point did I ever see smoke from the airplane, but while on final it did not appear to have any reserve power available; the gear was down, and I believe the flaps were partial. (I do not recall if he used flaps on takeoff).

Once I was pretty sure there was no fire I went into the shop and reverified I had all my tools, which I do, and retrieved my cell phone from my office and called our company president Jake Remington and related the events to him over the phone as best I could.

It was my feeling at the time that the airplane was suffering from partial power for some reason, Jake felt that there was a strong possibility of a medical issue or incapacitation. During this time, we could hear Emergency vehicles enroute and actually saw a fire engine try to drive over the trestle bridge, so I knew they had the location pinpointed. Operations at the airport continued as if nothing happened as far as air traffic goes, we observed for a short time, to make sure EMS was on scene then I closed up the shop and my wife and I drove to our hangar, parked, and then walked out on the ramp to observe for a while.

At that point she talked with a hangar neighbor who had been driving by and talked to police (thinking the airplane could be her husband) and they told her the pilot was conscious, moving, and talking, and that he was being transported to the nearest hospital and she saw the ambulance driving away. At that point, about 7:00, my wife and I left the airport, and Gary Meisner (the airport manager) called me for details on what was happening which I related as best I could.

~Erich Rempert, Director of Piston Maintenance & Avionics Burlington Air Center Inc.

5/18/2020