

## Accident of N435RB 9/22/18

I departed KGGE with CFI Jim Troutman shortly after 14:00 local time, for the purpose of working towards my High performance / complex equipment endorsement. Our plans were to have me work through various emergency procedures in the Bonanza N435RB. After departure on Runway 11 we climbed to 3,500 feet as we departed the area to the southeast. After reaching the coast line I preformed several clearing turns to clear the area as usual and to help regain a feel for the aircraft. We started with slowing the aircraft down as if approaching the pattern per usual but simulated a gear extension failure and I performed a manual gear extension. Afterwards I had Jim confirm that I had properly disengaged the crank handle then we cycled the gear normally. After reconfirming the area was still clear we set the aircraft up into a landing approach configuration, gear down, 50% flaps. At this point we exchanged controls and Jim demonstrated a couple of turning stalls to the left, and a couple of turning stalls to the right. We then transferred controls back to me where Jim instructed me to demonstrate turning stalls to the left, after completing 4 turning stalls to the left I was asked to switch to the right. I then completed 4 turning stalls to the right, after completion and recovery of the 4th turning stall to the right and I had the aircraft stabilized, I wanted a brief break so I requested Jim to take the controls. After the control exchange I located my water bottle stored in the pocket at the base of my seat, then began to take a drink when I heard a pop and felt a bump in the aircraft. Jim asked "what was that?" I responded "I don't know, I was hoping you did that." During a brief pause I looked and confirmed that I was not touching nor had I accidentally bumped any of the controls. Jim stated "I'm keeping the controls something is wrong, it is trying to roll over, we are headed back." I then stated to Jim "I understand, let me know how I can help." Jim then raised the flaps and said "that's a little better." As we flew back I started scanning the cockpit for anything wrong when Jim commented "I'm having to use full pedal to keep it from rolling." I looked at his feet and saw he had both feet fully depressing the right pedal, I then looked and saw that the pedals on my side matched, the right pedal appeared to be fully forward. It felt to me as if something was definitely wrong, having not spotted anything in the cockpit I began to scan outside the aircraft, I looked at the left wing, aileron seems to be functioning properly, flap up. I looked at the right wing all seems well. I looked behind me at the ruddervator on my side, I could clearly see the stabilizer and what appeared to be proper movement of the actual control surface. I then looked behind me on the right and leaned over so I could see the right ruddervator, I could clearly see the the stabilizer but saw no movement from the control surface. I watched it for a while, rechecked left and back to the right still no sight of control surface. I stated "not sure if we have a broke cable, or if the right ruddervator control surface departed the aircraft. I see no sign of it, movement or otherwise." I continued watching for a bit when Jim called "Wind?" I flipped to the AWOS reset the altimeter and finally heard "130 at 7kts" we agreed runway 11 was best. Then Jim Stated "pattern calls" I flipped the radio back to CTAF and made the calls. We turned base to final, it was a bit wide but we seemed to be getting lined up. Jim called "gear" I looked and stated "gear still down and locked confirmed." as we were approaching short final it was obvious we were drifting to the right and no longer going to be lined up with 11. I stated "our line up is getting off. do we need to go around?" Jim responded, "I don't believe we have that option." "Just be ready to pull power out when I say." shortly before touch down beside runway 11 Jim said "Pull power" and I immediately did. I felt the mains touch down and we started to veer right. I don't remember feeling the the nose wheel touch down just that we were now sideways and going towards the woods. After impacting some trees and coming to a stop Jim asked "Are you ok?" I responded "I don't know, I think so, we need to get out." Jims response was "yes, shut everything down" as he exited the aircraft I went to shut the fuel valve off it seemed jammed, so I cut the mags, battery, alternator and pulled the mixture out and exited the aircraft. While waiting outside the aircraft a pair of mechanics came from the airport they pulled the cowl to disconnect the battery and used a wrench to shut the fuel valve off. as well as remove and replace a couple of inspection panels.

Karl Wilder