

Inspectors Statement

My Name is Cornelius J. Baker, I am an Aviation Safety Inspector assigned to the West Columbia Flight Standards District Office.

On Sunday October 10, 2021 at 1314, I received a call from Front Line Manager (FLM) Pendleton. Mr. Pendleton informed me that I would be receiving a call from Regional Operations Center (ROC) about an aircraft in a tree near Greenville Downtown Airport (GMU). At 1320 I received the call from ROC and N121YT a Light Sport Aircraft (LSA) had lost his engine and deployed the aircraft's parachute. The accident site was located 2 miles northwest of GMU airport. The aircraft came to rest in a tree behind the residence at 100 Highview Drive, Greenville, SC 29609. The pilot has been rescued from the tree and appears to be uninjured. I was put into contact with Ken Koch [REDACTED] [REDACTED] the GMU Operations Manager. Mr. Koch was on scene and asking permission to remove the aircraft from the tree. I gave him permission and inquired about the condition of the pilot and aircraft. He stated Mr. Kemper the owner/ pilot was fine and refusing medical assistance, from the ground the aircraft appears to be in good shape. He gave me Mr. Kemper's wife cell phone number [REDACTED] [REDACTED] as his phone was still in the aircraft. I called Mr. Kemper and asked how he was doing. Mr. Kemper stated he was ok. I asked if he could explain what happened. Mr. Kemper stated I just picked up my aircraft from its annual condition inspection in Trenton, SC and was returning home to Hendersonville, NC and flying at 5500 feet. The aircraft was running great and after about 45 minutes I lost oil pressure rather quickly. Called GMU and informed them about the oil pressure problem and requested to land. A few minutes later the engine seized before I could reach the airport. At about 500 feet above to ground I pulled the chute. As soon as the chute deployed I was hitting the tree. After it came to rest the left wing was up and fuel was dripping onto the cockpit so I exiting the aircraft through the broken left side window and hugged the tree until rescued. I asked Mr. Kemper if the aircraft's maintenance records were in the aircraft and he stated they were.

I got back with Mr. Koch and requested when able if he would search for the maintenance records and secure them. I also asked him to ensure the ELT was not going off and to take pictures. I then contacted our FLM and explained the situation and it was decided not to respond until Tuesday due to the holiday and no injuries.

On Tuesday October 12, 2021, I drove to the GMU airport and met with Mr. Koch and inspected the aircraft. Took pictures of the aircraft and documents. Damage to the aircraft is substantial, the left composite wing was damaged by impact with the tree and the wing attachment point has compression damage at fuselage to wing root, also damaged to the winglet, damage to the left flap, there is a hole punched through the left door and side Plexiglas window is broken, the right horizontal stabilizer tip is damaged, the right wing flap and aileron are binding and there is no clearance between the aileron and winglet. There is evidence of engine oil down the right side of the aircraft from the engine cowling to the horizontal stabilizer. Damage from the parachute deployment was evident on the top right of the fuselage. Mr. Koch pointed out that they had not disconnected the

two left side Kevlar harness straps and the absence of left side fuselage damage is further evidence they were not connected. I called Mr. Kemper and asked about what the parachute opening was like. Mr. Kemper said it was loud and violent, when the chute opened the nose of the aircraft pitched down and then it hit the tree. He felt like he had opened to late. I also asked about putting the aircraft in a hanger due to the side window being broken out and wanting to protect the avionics. Mr. Kemper stated the aircraft belonged to the insurance company now and gave me their number, Chris Wright [REDACTED]. Spoke with Mr. Wright and put him in touch with Mr. Koch about putting the aircraft in a hangar.

The top cowling was removed and on the right side of the engine there were two of four hoses disconnected from a component. There is evidence that oil had departed these disconnected hoses. Not knowing what the component was I contacted Bob Gretz with NTSB and asked for an engine contact. Mr. Gretz provided Jordan Paskevich [REDACTED] with Rotax engines. Mr. Paskevich stated it was an oil thermostat and with those lines disconnected the engine would seize up after about 3 or 4 minutes at max power setting. Mr. Paskevich asked about the avionics installed in the aircraft and said that the units installed would capture the engine parameters. I asked Mr. Paskevich how much pressure you would expect to see in those lines. Mr. Paskevich stated, "Those hoses are under vacuum as they are on the suction side of the oil system." The hoses had to come off in flight and to have both come off at the same time is perplexing. I requested a copy of the engine manuals for the Rotax engine. Being that the aircraft just came from maintenance a visit to the mechanic will be scheduled. I contacted Flight Design the manufacturer of the aircraft and spoke with Tom Peghiny [REDACTED] and asked for a copy of the aircraft inspection requirements before I visited the mechanic. I told Mr. Peghiny about the parachute harness not being connected on the left side. Mr. Peghiny stated that he is currently working on a service bulletin concerning the proper installation of the BRS system. A review of the airframe logbook found the BRS system had been replaced in February of 2021. Returned to the office and reviewed both the engine and airframe manuals and could not find anything about the thermostat installation.

On Wednesday October 13, 2021, I and inspector Jernigan drove to Trenton, SC to Twin Lakes Airport (S17) and spoke with Dana Linn [REDACTED]. Mr. Linn is the mechanic that return N121 YT to service after the annual condition inspection. Mr. Linn appears to be well organized and very knowledge about the Rotax engine and the LSA. He has the proper maintenance manuals and checklists available in the facility. When asked about the hoses Mr. Linn stated he had not touched the hoses. During our discussion Mr. Linn raised the question did something fail inside the thermostat that caused pressure to be on the return side. Not having any information in the maintenance manuals about the thermostat, that question can not be answered at this time. I further questioned about inspecting the BRS system. Mr. Linn stated that Mr. Kemper had asked him to look at the installation and Mr. Linn stated, "I failed him in that I was not able to detect it. I could only reach up blindly to try to determine if the connections were proper." We returned to the office.

On Thursday October 14, 2021, placed a call to John Fadok [REDACTED] the mechanic who installed the BRS system back into the aircraft on February 16, 2021. Mr. Fadok was asked about the installation and especially the harness connection. Mr. Fadok felt like he had connected all four but could not be completely positive. Mr. Fadok stated that the owner Mr. Kemper assisted him in the installation it was very tight and hard to see making the installation. I counseled Mr. Fadok about the importance as verifying the work performed. The installation was 8 months ago and it is possible someone else was in that area or the two left side harnesses had fallen away during installation.

The aircraft is on its way to Atlanta Air Salvage for further investigation.

Cornelius J. Baker
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