



# Federal Aviation Administration

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## Memorandum

Date: July 31, 2014  
To: Roberto Gonzalez, ATL FSDO Manager  
From: ASO ATL FSDO 11  
Prepared by: Steven Davidson, Avionics Inspector  
Subject: N524SL Accident Investigation

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On July 09, 2015 at approximately 1153 EST, N524SL Ayers Corporation S2R-T35 S/N T34203DC, departed VADA airport (GA42) which is a private air strip located at 158 Mt. Pleasant Church Rd. Climax, Georgia. This aircraft was being operated under Title 14 CFR Part 137 Agricultural Operation, when the aircraft experienced a loss of power on takeoff and crashed approximately 50 yards past the end of the runway in a corn field. The aircraft sustained substantial damage, with no injuries to the pilot or personnel on the ground.

An Inspector from the Atlanta FSDO was dispatched and arrived on the scene at approximately 1730 EST and began to conduct the investigation. The initial assessment showed that the aircraft had struck a wire fence at the end of the runway and was lying approximately 50 yards in a corn field at the east end of the airstrip. At the accident site the aircraft and surrounding area was submerged in a bluish colored substance that had leaked out from the aircraft chemical holding tanks. The aircraft displayed substantial damage to the fuselage and both main landing gears had been destroyed during the impact. The aircraft propeller displayed bend characteristics of an aircraft that was not making power on impact. During the interview with the pilot, he stated that he was on his third flight of the day to conduct an Agricultural Spraying Operation. The aircraft was completely loaded with a Fungicide chemical as he taxied to the west end of the runway to takeoff towards the east. The pilot stated that he confirmed all instruments and takeoff settings were normal and displayed the correct readings for flight. As he taxied down the runway he stated that the aircraft began to get airborne at the normal distance for approximately 2-3 seconds, and then all of a sudden the aircraft settled to the ground as if the propeller quit pulling. The aircraft engine was still running on impact and had to be shutdown manually by the pilot. The pilot stated that he was able to get out of the aircraft without injury and notified the Federal Aviation Administration of the accident.

Under the guidance and direction of the NTSB IIC and FAA, the aircraft was transported to Souther Field Aviation in Americus, Ga for further evaluation on July 13, 2015. On July 27, 2015 an Inspector from the Atlanta FSDO and a Pratt & Whitney Senior Field Representative out of Atlanta travelled to Souther Field Aviation in Americus, Ga to assess the damage. The following items were noted:

- Engine propeller could not turn and was seized.
- Gas generator compressor could turn through the AGB starter pad.
- Main engine oil filter removed – Filter was found clean (no debris noted) residual oil clean.
- Power Section Chip Detector and strainer removed – No debris on chip detector or strainer. Residual oil was found clean.
- PY & P3 sense lines were visually inspected and found to be in good condition. Positive torque was applied to all “B” nuts for the PY & P3 sense lines and all nuts found to be secured with no further torque on nuts required.
- L/H Exhaust stack was removed for power turbine blade inspection and found to be in intact and in good condition. Power section rotor could not rotate and was seized.
- Damage to the right & lower wings spar due to the main landing gear collapsing.
- The PT-6 Engine Gas Generator section could be freely turned through the starter pad.

At the request of the NTSB IIC, the aircraft engine is being transported to the Pratt & Whitney Canada facility for a further evaluation and to determine loss of power.

#### **Aircraft Inspection Status:**

1. Aircraft: 1994 Ayers Corporation, S2R-T34, S/N T34203DC
2. Engine: Pratt & Whitney PT6A-34, S/N 56452 Turbo Prop
3. Propeller: Hartzell, Model: HC-B3TN-3D
4. Current Registration: DOI June 4, 2014, EXP: June 30, 2017
5. Special Airworthiness Certificate: DOI R 05/07/1999
6. Annual Inspection was completed on 03/26/2015 A/C Hobbs 1987.1 and A/C T.T. 11,987.1
7. 100 Hr. Inspection was completed and returned to service on 06/18/2015 A/C Hobbs 2148.9 and A/C T.T 12,148.9
8. An Airworthiness Directive list was available and all AD's were signed off as to being complied with during last Annual Inspection 03/26/2015.
9. The Current aircraft total time is 12,195.3 Hours and 2195.3 Hobbs as of 07/09/2015.
10. The aircraft has operated 43 hours since the last 100 Hr. inspection on 06/18/2015 and 208.2 Hrs. since the last Annual Inspection on 03/26/2015.

#### **Pilot Inspection Status:**

1. Certificate # [REDACTED], DOI: 05/19/2010
2. Commercial Pilot: Airplane Single Engine Land
3. Current Second Class Medical: 04/22/2015
4. Total Hours Flying: 6986.8
5. Total Hours in Make and Model: 2000
6. Regulatory Check Ride: 4/1/2014
7. Recent Pilot Training: None
8. No previous EIS records reported.

#### **Environmental Conditions:**

1. Actual Weather: VMC
2. Runway Conditions: Dry

3. Precipitation: None
4. Temperature: 90 degrees F = 32.2 degrees C