

Accident

Aircraft Type and Registration:	Aerosport Scamp, G-BOOW	
No & Type of Engines:	1 Volkswagen 1834 piston engine	
Year of Manufacture:	1988 (Serial no: PFA 117-10709)	
Date & Time (UTC):	10 February 2024 at 1344 hrs	
Location:	Near RAF Mona, Anglesey	
Type of Flight:	Private	
Persons on Board:	Crew - 1	Passengers - None
Injuries:	Crew - Serious	Passengers - N/A
Nature of Damage:	Aircraft destroyed	
Commander's Licence:	Airline Transport Pilot's Licence	
Commander's Age:	50 years	
Commander's Flying Experience:	4,876 hours (of which 2 were on type) Last 90 days - 2 hours Last 28 days - 1 hour	
Information Source:	Aircraft Accident Report Form submitted by the pilot	

Synopsis

The aircraft suffered a partial loss of power shortly after takeoff from Runway 04 at RAF Mona. Full power was briefly regained before the engine then stopped. The pilot was unable to reach the airfield or a suitable field, and carried out a forced landing into trees during which the aircraft was destroyed and the pilot sustained a serious injury. The cause of the power loss was not identified.

History of the flight

The pilot was making his fourth flight in the aircraft, which had recently undergone a major restoration. He intended to fly a series of four right-hand circuits from Runway 04 and the weather conditions were good. Pre-flight checks on the aircraft were normal and there was no contamination visible in the fuel sample drained from the fuel tank. The engine ran smoothly once started, and a test of the carburettor heat system showed a small rpm drop when selected, indicating that it was working.

The aircraft took off from Runway 04 but as it reached approximately 400 ft agl, the engine rpm decreased significantly, with some rough running. The pilot lowered the nose to maintain 65-70 kt airspeed, during which the aircraft descended to 300 ft. As he prepared to make a forced landing in a field beyond the end of Runway 04, the engine returned to full power without intervention from the pilot.

With the engine now producing power, the pilot decided to fly a tight right-hand circuit which he considered would also provide the opportunity to land downwind on Runway 22 if necessary. As the aircraft entered the downwind leg, at 600 ft agl, the engine power decreased to idle with significant rough running. The pilot lowered the nose below the horizon and, being too low to reach the airfield, selected a field to land in. He felt the aircraft stall with a right wing drop and he pitched the aircraft further nose down to recover, however he was now too low to reach his selected field. The engine then stopped. With a residential area ahead and a high rate of descent, he picked an open area of gardens with a line of trees to land in and intentionally stalled the aircraft into the tree line. The aircraft slid sideways from the trees, coming to rest on its right side (Figure 1). The pilot sustained a fractured wrist and some minor injuries. While he was wearing a helmet which provided some protection, the pilot sustained a minor head injury



Figure 1

G-BOOW accident site (used with permission)

Aircraft examination

The engine was examined by the pilot after the accident. All four cylinders had good compression and the crankshaft rotated freely. The oil level was normal and there was no sign of any electrical arcing of the ignition system, although it was not possible to perform any testing of the ignition. The fuel tank had been drained during the aircraft recovery and fuel was present in the tank.

Pilot's comments

The pilot commented that the loss of engine power may have been due to carburettor icing. He noted that the Aerosport Scamp is a high-drag, low-inertia light aircraft with a relatively small margin between the climb speed of 65 kt and the stall speed at 47 kt, and that the airspeed decayed quickly following the loss of power. He was not experienced on this type of aircraft and he stated that it was likely he experienced some 'startle effect' following the loss of engine power, during which the airspeed decayed.

He stated that as a commercial pilot, he had received upset prevention and recovery training (UPRT) which was reinforced during regular proficiency checks. He considered that this assisted his quick reaction in lowering the nose when the aircraft stalled, which probably prevented a more serious accident, as having regained control he had some additional time to decide where to set the aircraft down.

Analysis

The aircraft's engine suffered a partial loss of power after takeoff, after which it briefly produced full power before it then stopped. The changes in the available power, combined with the aircraft's low altitude and its relatively rapid deceleration following a loss of power created a challenging decision making environment for the pilot. As the cause of the power loss was not identified, it was not possible to state whether prompt application of carburettor heating may have improved the performance of the engine.

A recent AAIB report¹ highlighted the hazards associated with partial power loss. In addition to three safety recommendations made in the report, it also highlighted the importance of briefing emergencies prior to takeoff in helping to anticipate the decision making process.

The pilot's prompt recognition and response to the aircraft's stall allowed for a greater degree of control over the aircraft's flight path and time to decide where to land, which probably contributed to a less severe outcome that might have otherwise occurred.

Conclusion

The cause of the engine failure was not determined. Contributory factors to the resulting accident were a challenging decision making process due to the partial power loss and proximity to the ground, and the pilot's inexperience with the relatively high-drag, low-inertia aircraft type.

Footnote

¹ [Grumman AA-5, G-BBSA \(publishing.service.gov.uk\)](#) [accessed April 2024].