

ACCIDENT

Aircraft Type and Registration:	Grumman AA-5 Traveller, G-BEZH	
No & Type of Engines:	1 Lycoming O-320-E2G piston engine	
Year of Manufacture:	1974 (Serial no: AA5-0566)	
Date & Time (UTC):	30 January 2019 at 1018 hrs	
Location:	Nottingham City Airport	
Type of Flight:	Training	
Persons on Board:	Crew - 2	Passengers - None
Injuries:	Crew - None	Passengers - N/A
Nature of Damage:	Damage to both wings, left main gear and nose gear detached	
Commander's Licence:	Commercial Pilot's Licence	
Commander's Age:	51 years	
Commander's Flying Experience:	4,706 hours (of which 18 were on type) Last 90 days - 92 hours Last 28 days - 29 hours	
Information Source:	Aircraft Accident Report Form submitted by the pilot and additional enquiries made by the AAIB	

Synopsis

Despite extensive use of carburettor heat prior to take off in conditions of high relative humidity, the engine stopped shortly after takeoff and a forced landing was made in an adjacent field. The landing gear sank into soft ground and the aircraft sustained extensive damage; the occupants were uninjured.

History of the flight

Prior to a training flight, as the conditions overnight had led to a ground frost, the instructor and student checked the surface conditions on the apron and an adjoining taxiway. The weather was good with a visibility of more than 10 km, no clouds and a light wind from 250° at 5 kt although the temperature of 0°C and dewpoint of -1°C indicated a high relative humidity. The pilots decided to proceed with their planned flight, whilst exercising caution, bearing in mind the ground conditions and the possibility of carburettor icing.

The aircraft was taxied for departure and the student carried out his power checks at the end of Runway 21. As part of this check, he selected carburettor heat and a drop in engine rpm was observed indicating the proper functioning of the carburettor heat system. A further check was then made on the airfield conditions with ATC and, during this period, carburettor heat was selected. The student then reselected carburettor heat at 2,000 rpm, whilst he

checked the engine temperatures and pressures, before setting full power for takeoff. The takeoff progressed normally until passing 150 ft aal when the engine made two popping sounds and the engine rpm rapidly reduced to zero.

The instructor immediately took control, turned the aircraft away from an area of housing, and performed a forced landing into a field next to the airport. During the ground roll over soft ground the nose and left main landing gear detached from the aircraft; both wings also sustained damage. After the aircraft had stopped, both occupants were able to exit the aircraft in the normal manner and without injury.

Despite the extensive use of carburettor heat, the instructor considered that carburettor icing may have caused the engine to stop but he could not rule out other possible causes.