
ACCIDENT

Aircraft Type and Registration:	Brantly B-2, N276SA	
No & Type of Engines:	1 Lycoming IVO-360-AIA	
Year of Manufacture:	1967	
Date & Time (UTC):	17 October 2007 at 1340 hrs	
Location:	Flixton Airfield (Disused), near Bungay, Suffolk	
Type of Flight:	Training	
Persons on Board:	Crew - 2	Passengers - None
Injuries:	Crew - 1 (Minor)	Passengers - N/A
Nature of Damage:	Aircraft destroyed	
Commander's Licence:	Airline Transport Pilot's Licence	
Commander's Age:	66 years	
Commander's Flying Experience:	9,330 hours (of which 85 were on type) Last 90 days - 76 hours Last 28 days - 12 hours	
Information Source:	Aircraft Accident Report Form submitted by the examiner and statement made by the operator	

Synopsis

The pilot and examiner were carrying out a practice engine failure as part of a Licence Proficiency Check, when the engine stopped. The examiner took control and made an engine-off landing during which the skids dug into soft ground, causing the aircraft to roll on its side. The cause of the engine failure has not been identified but was probably due to mishandling of the throttle. A mechanical failure cannot be ruled out as the operator did not provide maintenance records for the aircraft.

History of the flight

The pilot had engaged an examiner to carry out his Licence Proficiency Check (LPC). The aircraft departed Beccles Airfield, where it was based, at about 1300 hrs

and flew to a private site 3 nm from the airfield to commence the test. The wind at the time was from the north-west and reported at 10 kt by the examiner and in excess of 28 kt by the pilot under test. Visibility was good with FEW clouds at 2,500 ft.

At the private site the pilot conducted various landings under the supervision of the examiner. The examiner then requested the pilot to carry out an engine-off landing at the site but the pilot was concerned about the presence of some wires and so the examiner instructed him to fly to a disused airfield at Flixton to carry out the exercise instead.

With the aircraft over the disused airfield at 1,500 ft agl, the examiner asked the pilot to carry out a practice engine failure. The pilot did so, recovering from the autorotation at about 600 ft agl before climbing back to 2,000 ft agl. The examiner believed the pilot had not used the throttle appropriately during the first practice engine failure and after having briefed him, instructed him to carry out the exercise again. It appears that there was disagreement between the two pilots over the proper use of the throttle for the exercise. The pilot entered a further autorotation, during which the engine stopped.

Once the examiner realised the engine had stopped he took control and continued the autorotation with the intention of carrying out an engine-off landing on the disused airfield. The examiner stated he commenced a flare at about 100 ft agl, judging that the aircraft was going to touch down just short of a taxiway which was running across its path. He was concerned that the aircraft skids might hit a raised edge to the taxiway whilst running on and so decided to attempt to clear it by stopping the flare. The aircraft cleared the taxiway before touching down and running on for a short distance. The front of the skids then dug into the soft ground, rolling the aircraft onto its side, the main rotors cutting through the tail and hitting part of the canopy. The examiner received minor injuries as a result of the impact but both pilots were able to vacate the aircraft unaided before contacting the emergency services by mobile telephone. The pilot reported that the emergency services arrived approximately 20 minutes later, having had difficulty locating and accessing the accident site due to the disused status of the airfield.

Aircraft maintenance and insurance status

The pilot could not provide any evidence that the aircraft had either valid insurance or had been maintained in

accordance with the necessary requirements. He stated that whilst he was the operator, the aircraft was owned by a trust in the USA with which he had no connection and to which he made no financial contribution to be able to use the aircraft. The aircraft was also registered in the USA.

The pilot stated that the owners would send an engineer over from the USA to carry out scheduled maintenance, but that he had no information available to him informing him when such maintenance was due. Similarly, he stated that the aircraft's insurance was dealt with by the trust and again, he had no information about it.

Enquiries by the AAIB revealed that the aircraft was owned by a trust based in Cornwall, UK which is used by various people to register N registered aircraft operating in the UK. Article 8(1) of the Air Navigation Order (ANO) requires an aircraft flying in the UK to be registered and in possession of a valid Certificate of Airworthiness. The USA Certificate of Airworthiness is non-expiring and for aircraft of this weight, is normally rendered valid by an appropriate annual inspection/check. The pilot was unable to provide evidence of when the last inspection/check was conducted.

Brantly Flight Manual

Under a section entitled 'POWER OFF LANDINGS' the manual states the following:

'The throttle should not be cut back to idle as it might result in engine stoppage. An engine speed of 2,000 RPM is recommended. Abrupt throttle changes should be avoided.'

CAA Flight Examiners' Handbook (Helicopters)

This handbook provides a reference for examiners to ensure flight tests are carried out using current

and standardised procedures. Annex 6 relates to the LPC and requires the examiner to check aircraft documentation prior to conducting the test and for the pre-flight briefing to include instructions on how the throttle should be used during simulated malfunctions.

ANO 2005 Article 126

This requires that all flight instruction and testing for the purpose of becoming qualified for the grant of a pilot's licence or the inclusion of an aircraft rating must be carried out at a licensed aerodrome or at a UK Government aerodrome. Testing for the renewal of an existing rating does not fall under the provision of this article.

Analysis

Statements by both the examiner and the pilot suggest the engine stoppage was caused by the incorrect use of the throttle during autorotation. However, at the time of writing there has been no inspection made of the engine, which itself was possibly overdue maintenance action and a mechanical failure cannot therefore be ruled out.

Had a complete pre-flight brief been conducted any difference in opinion about the operation of the throttle should have been resolved prior to the flight taking place. Equally any deficiency in the aircraft's insurance or maintenance status would have become apparent had the appropriate documents been checked.

Whilst it might be argued a lack of insurance has no direct flight safety implications, a lack of appropriate cover can have devastating effects on those who suffer the consequences of an accident.

Finally, the forced landing resulting from the engine failure might have been more successful had it been conducted over an area with a surface more suited to run-on landings. This, combined with the presence of dedicated emergency services, makes the use of a licensed airfield for such exercises prudent whether required by the regulations or not.