
ACCIDENT

Aircraft Type and Registration:	Nord NC858S, G-BPZD	
No & type of Engines:	1 Continental C90-14F piston engine	
Year of Manufacture:	1947	
Date & Time (UTC):	1 July 2006 at 1236 hrs	
Location:	London City Airport	
Type of Flight:	Private	
Persons on Board:	Crew - 1	Passengers - 1
Injuries:	Crew - None	Passengers - None
Nature of Damage:	Both propeller blades broken off, right landing gear leg collapsed, damage to front cowling and damage to right wing strut and tip	
Commander's Licence:	Private Pilot's Licence	
Commander's Age:	39 years	
Commander's Flying Experience:	147 hours (of which 17 were on type) Last 90 days - 10 hours Last 28 days - 5 hours	
Information Source:	Aircraft Accident Report Form submitted by the pilot and subsequent enquiries by the AAIB	

Synopsis

Immediately after touchdown the aircraft veered to the right. In trying to regain the runway centreline the pilot applied excessive left brake causing the aircraft to momentarily tip on its nose and the right landing gear leg to collapse.

History of the flight

At the time of the accident London City Airport was operating as an unlicensed aerodrome and was preparing for an air display associated with a charity event. The pilot was flying to the airport where he was due to assist with the display. At the time of his arrival the weather was good with a headwind of about 10 kt and little or no crosswind component.

The pilot flew an uneventful approach to Runway 10 and made a three-point landing but immediately after touchdown the aircraft veered to the right. He applied left rudder and left wheelbrake in an attempt to compensate at which point the tail of the aircraft rose into the air, causing the propeller blades to strike the runway surface and break off. The aircraft continued to tip forwards until the underside of the engine cowling hit the runway. The tail then dropped back down to the ground with the aircraft coming rapidly to a halt, pointing slightly to the left of the centreline, and with the right landing gear leg collapsed underneath the fuselage.

There was no damage to the cockpit area and the pilot and his passenger were able to leave the aircraft by their respective doors unaided and uninjured. Although the airport was operating as an unlicensed aerodrome, full AFRS cover was available and emergency vehicles attended the scene.

Description of damage to the landing gear

The main landing gear leg consisted of a gas filled oleo supported by two struts. Inspection by the pilot after the accident revealed the oleo had ‘snapped’ and that one of the supports had bent. There appeared to be no signs of corrosion in the area where the break had occurred.

Aircraft history and description

The aircraft was built in 1947 in France where it was initially operated by the military. About four years later, and after various modifications by the manufacturer, the aircraft passed into private ownership. It was acquired by one of the current group owners about 20 years ago.

The aircraft has a tail wheel undercarriage and two seats, side by side. One of the owners described the brakes as ‘powerful’.

Pilot background

The pilot had accumulated about 100 hours experience on tail-wheeled aircraft including the Tiger Moth and Piper Cub. The majority of this flying had been from

grass runways and he estimates that he had only operated from hard surfaced runways about five times.

Analysis

From the evidence presented it is unclear why the aircraft swung to the right after landing. The pilot was unaware of having any right brake applied on landing but conceded that it was possible that he had inadvertently applied right brake before touchdown. The brakes on his aircraft were highly effective and it appears that in an attempt to get the aircraft straight, the pilot may have applied excessive left brake. The resultant deceleration had the immediate effect of causing the tail to rise. It rose uncontrollably and so the propeller and underside of the engine struck the runway. The secondary effect of the asymmetric braking could have been to apply considerable lateral force to the right undercarriage leg. The absence of any visible corrosion or fatigue symptoms on the oleo leg suggests that this force exceeded the designed limit for the leg resulting in its collapse.

Whilst the majority of the pilot’s flying had been on tail-wheeled aircraft of various types, this was almost exclusively on grass airfields where the braking effects would have been different to those experienced at London City Airport. This, combined with the powerful nature of the brakes, is likely to have contributed to the excessive application of left brake after touchdown.