

ACCIDENT

Aircraft Type and Registration:	Cessna 150M, G-NWFA	
No & Type of Engines:	1 Continental Motors Corp O-200-A piston engine	
Year of Manufacture:	1975	
Date & Time (UTC):	19 August 2010 at 1048 hrs	
Location:	Andrewsfield, Essex	
Type of Flight:	Training	
Persons on Board:	Crew - 1	Passengers - None
Injuries:	Crew - None	Passengers - N/A
Nature of Damage:	Nose landing gear and propeller	
Commander's Licence:	Student	
Commander's Age:	20 years	
Commander's Flying Experience:	18 hours (of which 18 were on type) Last 90 days - 6 hours Last 28 days - 6 hours	
Information Source:	Aircraft Accident Report Form submitted by the pilot and AAIB enquiries	

Synopsis

The aircraft bounced on landing and during the second touchdown the nosewheel broke away and the aircraft then bounced into the air for a second time. The student pilot was able to fly a go-around and after being briefed by his instructor, over the radio, diverted to North Weald where he landed safely.

History of the flight

G-NWFA was based at North Weald, which is an unlicensed airfield, and when used for flying training the aircraft would normally be flown to, and operated out of, Andrewsfield, which is a licensed airfield. The student involved in this accident was familiar with operating out of North Weald.

This was the student's fifth solo flight and he was returning to Andrewsfield after having completed his first solo navigation flight. The student reported that the weather was fine and the approach was normal. As he started to flare the aircraft it suddenly sank and landed on its main wheels before bouncing back into the air. The student maintained the attitude of the aircraft and allowed it to settle back onto the runway. However, the aircraft made a firm touchdown and the student heard a noise as it once again bounced into the air. At this point he commenced a go-around and at the same time heard his instructor, who was monitoring the student on a portable radio, informing him that the nosewheel had separated from the aircraft. The air / ground operator

asked the student for his fuel state and enquired if he had any other problems with the aircraft. As the student responded in a calm manner, and stated that he had plenty of fuel and there were no other apparent problems, he was advised to continue flying the circuit pattern while they considered the best course of action.

The airfield manager, student's instructor and an engineer discussed the situation and felt that in landing at Andrewsfield the nose landing gear leg might dig into the grass runway causing the aircraft to turn over. Consideration was given to advising the student to fly to Southend; however the student was unfamiliar with this airfield and the navigation would have placed him under additional pressure. It was, therefore, felt that a safer option would be for the student to fly to North Weald, which had a long asphalt runway and from where he had flown on a number of occasions.

While the airfield manager contacted North Weald and informed them of the situation, the student's instructor departed Andrewsfield in a second aircraft piloted by another instructor. This second aircraft escorted G-NWFA to North Weald and during the transit the student's instructor briefed him on the actions he should

take to land the aircraft with the nosewheel missing. The instructor's aircraft landed first while the student was instructed to fly the circuit pattern until the emergency vehicles were in place. The student made a normal approach with full flap selected. Once the main wheels touched the runway he closed the throttle and mixture lever, and held the nose of the aircraft up for as long as possible. The aircraft came safely to a halt on the runway.

Engineering examination

The nose landing gear fork had failed where it attached to the nose oleo and the right hand side of the fork, along with the nosewheel, had separated from the aircraft at Andrewsfield. The left side of the fork remained attached to the oleo and was badly abraded during the subsequent landing at North Weald. The AAIB were advised that there was no visible signs of damage to the nose landing gear supports or the engine firewall and the only other visible damage was to the tips of the propeller blades. A metallurgist inspected the fracture surfaces of the fork and could find no evidence of any pre-existing damage and commented that the failure was consistent with the fork failing as a result of a heavy landing.