AAIB Bulletin No: 5/2004

Ref: EW/G2003/08/50

Category: 1.3

Aircraft Type and Registration:	Maule MXT-7-180 Super Rocket, G-CROL	
No & Type of Engines:	1 Lycoming O-360-C1F piston engine	
Year of Manufacture:	1993	
Date & Time (UTC):	31 August 2003 at 1100 hrs	
Location:	Runway 26 at Compton Abbas Airfield, Wiltshire	
Type of Flight:	Private	
Persons on Board:	Crew - 1	Passengers - 1
Injuries:	Crew - None	Passengers - None
Nature of Damage:	Nose landing gear leg and propeller damaged. Further damage to supporting structure and lower fuselage skin	
Commander's Licence:	Private Pilot's Licence	
Commander's Age:	57 years	
Commander's Flying Experience:	371 hours (of which 74 were on type) Last 90 days - 11 hours Last 28 days - 1 hour	
Information Source:	Aircraft Accident Report Form submitted by the pilot	

History of the flight

The aircraft had flown from Oaksey Park to Compton Abbas. The pilot reports that he flew a normal approach to Runway 26 which has a grass surface, touching down just after the threshold, and that the aircraft bounced slightly. He heard a crack as the aircraft bounced again and the nose dropped as the aircraft skidded along the runway in a straight line, coming to rest after about 40 metres. The pilot and his passenger were able to leave the aircraft without any injury and there was no fire. The airfield fire tender attended the scene and assisted in manoeuvring the aircraft off the runway.

Aircraft examination

The collapse of the nose landing leg was rearwards and appeared to have been due to damage by landing gear loads to the supporting structure of the engine frame. The pilot commented that he did not understand why the failure had occurred on this particular landing. The landing speed had been normal, at about 45 kt and the surface wind had been light and westerly.

On the day of the accident the runway was dry and the surface was bumpy but the Maule, when equipped with its conventional tailwheel-type landing gear, is normally considered to be a rugged aircraft. In its tricycle configuration, however, the nose leg is considered by many maintenance engineers and enthusiasts to be vulnerable and there have been reports of other, similar, failures. The leg itself is reported to be identical to that fitted to a PA-28-160 Warrior but supported further forward, under the engine, whereas in the Warrior it is supported much closer to the plane of the firewall.

According to AAIB records, this particular aircraft had been damaged in two previous accidents, in 1996 and 1997, with nose leg damage in each case and all three accidents had occurred within a period of 200 flying hours.