AAIB Bulletin: 6/2013	G-AVGI	EW/G2013/02/06	
ACCIDENT			
Aircraft Type and Registration:	Piper PA-28-140	Piper PA-28-140 Cherokee, G-AVGI	
No & Type of Engines:	1 Lycoming O-3	1 Lycoming O-320-E2A piston engine	
Year of Manufacture:	1967 (Serial no:	1967 (Serial no: 28-22822)	
Date & Time (UTC):	15 February 201	15 February 2013 at 1345 hrs	
Location:	On takeoff from Airport	On takeoff from Runway 27, Liverpool John Lennon Airport	
Type of Flight:	Training		
Persons on Board:	Crew - 1	Passengers - None	
Injuries:	Crew - None	Passengers - N/A	
Nature of Damage:	Damaged beyond	Damaged beyond economic repair	
Commander's Licence:	Student	Student	
Commander's Age:	30 years	30 years	
Commander's Flying Experience:	32 hours (of whi Last 90 days - 32 Last 28 days - 20	32 hours (of which none were on type) Last 90 days - 32 hours Last 28 days - 20 hours	
Information Source:	Aircraft Acciden	Aircraft Accident Report Form submitted by the pilot	

## **Synopsis**

The student pilot was preparing to take off on his first solo flight. The first attempt was abandoned because he felt that the engine power reduced during the takeoff roll. On the second attempt, the aircraft became airborne but the engine lost all power at about 300 ft. The aircraft force-landed within the airfield perimeter and its nose landing gear collapsed.

## History of the flight

The student pilot was about to embark on his first solo flight, following a dual lesson after which his instructor considered that he was ready for a solo circuit. The instructor listened out on the radio in the flying school as his student performed power checks on the general aviation apron and heard him being given clearance to taxi, line up and take off on Runway 27. As the aircraft commenced its takeoff roll the instructor went outside to watch. There appeared to be some delay, so he went back inside to listen to the radio transmissions, where he learned that the student had been unhappy with the initial takeoff roll and had aborted the takeoff. Permission to backtrack and try again was granted but the instructor remained unaware of the reason for the abort: the student subsequently told him that he had felt that the engine lost some degree of power but, on the second attempt, the engine seemed normal and he thought he must have been mistaken. The student ran the engine up to 2,000 rpm 'on the brakes' before rolling for the second takeoff. The aircraft got airborne but, at a height of about 300 ft, the engine lost power. The student reacted in accordance with his training, broadcast a MAYDAY and lowered the nose to maintain flying speed, electing to land on the grass within the airfield boundary rather than risk ditching in the River Mersey. Having used rudder to turn right to avoid the approach light gantries, the aircraft came to rest some 50 metres from the threshold of Runway 09 but the nose landing gear had collapsed. The student disembarked from the aircraft normally, having shut down the fuel and electrics. He was uninjured.

The instructor commented that he had high regard for his student's flying skills, particularly his handling of the 'engine failure after takeoff' drill. His only regret was that, had he known the reason for aborting the first takeoff, he would have instructed the student to abandon the sortie. He states that his organisation has reiterated to all pilots flying with them that they must cancel their flight and return should any problems be experienced prior to takeoff. At the time of preparing this Bulletin, no reason for the engine failure has been established.