Piper PA-28RT-201, G-OMHC

AAIB Bulletin No: 12/2004	Ref: EW/G2004/10/01	Category: 1.3
Aircraft Type and Registration:	Piper PA-28RT-201, G-OMHC	
No & Type of Engines:	1 Lycoming IO-360-C1C6 piston engine	
Year of Manufacture:	1979	
Date & Time (UTC):	1 October 2004 at 0910 hrs	
Location:	Manchester (Barton) Aerodrome, Manchester	
Type of Flight:	Private	
Persons on Board:	Crew - 1	Passengers - 1
Injuries:	Crew - None	Passengers - None
Nature of Damage:	Nosegear damaged	
Commander's Licence:	Private Pilot's Licence with IMC and Night Ratings	
Commander's Age:	49 years	
Commander's Flying Experience:	336 hours (of which 138 were on type)	
	Last 90 days - 24 hours	
	Last 28 days - 9 hours	
Information Source:	Aircraft Accident Report Form submitted by the pilot	

The pilot had landed at Manchester (Barton) to collect a passenger and return to Tatenhill Airfield. Prior to undertaking the flights, he had completed performance calculations, which allowed an uplift of sufficient fuel for 4.5 hours endurance from Tatenhill.

After collecting his passenger at Barton, the pilot reviewed the available information for the return flight. Runway 27L was in use; this had a Take-Off Run Available (TORA) of 621 metres with a surface of damp grass. The surface wind was from 170°M at less than 5 kt. The pilot calculated that his take-off run would require 370 metres.

Using the full runway length, the pilot commenced takeoff with two stages of flap selected and full power. He had expected to initiate rotation at approximately ⅔ distance along the runway but at that point, the airspeed was just under 60 kt. The pilot believed that the aircraft would not be able to get airborne and clear some tall trees in the take-off path and decided to abort the takeoff. By now, he had travelled an additional 30 to 40 metres and he closed the throttle and applied full braking. The pilot was unable to stop G-OMHC before it overran the runway into some long grass.

Subsequent investigation revealed that the engine was operating normally and that the pilot's performance calculations were correct based on the available information. However, the pilot

considered that parts of the runway could have been wetter than he expected or that his visual assessment of the take-off path to clear the trees was incorrect. Nevertheless, he felt that his decision to abort the takeoff was correct at the time. In future, he intended to review his performance calculations more critically as he considered that less fuel on board might have given him more safety margin. General Aviation Safety Sense 7C, contained within LASORS 2004 includes comprehensive guidance on aeroplane performance.