

ACCIDENT

Aircraft Type and Registration:	Grob G109B, G-UILD	
No & Type of Engines:	1 Grob 2500-D1 piston engine	
Year of Manufacture:	1986	
Date & Time (UTC):	3 April 2010 at 0930 hrs	
Location:	Wing Farm, Warminster, Wiltshire	
Type of Flight:	Private	
Persons on Board:	Crew - 1	Passengers - None
Injuries:	Crew - None	Passengers - N/A
Nature of Damage:	Propeller, both wings and hangar damaged	
Commander's Licence:	Private Pilot's Licence	
Commander's Age:	58 years	
Commander's Flying Experience:	680 hours (of which 104 were on type) Last 90 days - 2 hours Last 28 days - 2 hours	
Information Source:	Aircraft Accident Report Form submitted by the pilot and subsequent enquiries by the AAIB	

Synopsis

The aircraft overran the runway and collided with trees and a hangar during an attempted takeoff in conditions in which the aircraft performance was marginal.

History of the flight

The pilot had planned to fly from Wing Farm to nearby Compton Abbas to refuel, before departing on a cross-country flight. Wing Farm has a 500 m long grass runway, oriented 09/27, with a 2.2% downslope on Runway 09. Each runway direction has a 350 m marker and pilots are expected to abort the takeoff if the aircraft is not airborne on reaching the marker. Located just beyond the end of Runway 09 are 20 ft high trees, a hangar and a bungalow.

The pilot inspected the runway on his arrival, noting that the grass was short and damp and that the ground was soft in places. The wind was around 5 kt from the south-east. He elected to carry out a trial run on Runway 09 to assess the aircraft's acceleration. Starting a quarter of the way down Runway 09, he achieved 35 kt at the 350 m marker before reducing power to slow down. He chose this runway as it was into-wind and slightly downhill. He then taxied back to the start of Runway 09 for takeoff.

Prior to takeoff the pilot checked the engine parameters, which appeared normal. He applied carburettor heat, to which the engine responded normally, before reselecting

cold air. The takeoff run seemed sluggish at first, although the engine rpm was satisfactory. The pilot considered abandoning the takeoff, but the aircraft reached 40 kt just before the 350 m marker and became airborne at the marker and so he maintained full power. Shortly after that, the aircraft settled back onto the ground and he was forced to abandon the takeoff. He reduced power to idle and applied the brakes, but these were ineffective on the damp grass and he switched off both magnetos to stop the engine. He was unable to prevent the aircraft from overrunning and colliding with the trees and hangar beyond the end of Runway 09. The aircraft was extensively damaged, but the pilot was uninjured.

Prior to the flight the pilot had checked that the weight and balance of the aircraft were within limits. He was aware that even with dry, hard ground conditions the takeoff performance of the Grob 109B from this strip in a light wind is marginal. He commented that having operated the aircraft from the strip for several years, he had become accustomed to the small performance margin and that in retrospect he had become less appreciative of the implications of this with time.