ACCIDENT

Aircraft Type and Registration:	Piper PA-28-161 Cherokee Warrior II, G-EMSL
No & Type of Engines:	1 Lycoming O-320-D3G piston engine
Year of Manufacture:	1982
Date & Time (UTC):	21 February 2009 at 1416 hrs
Location:	Rochester Airfield, Kent
Type of Flight:	Training
Persons on Board:	Crew - 2 Passengers - None
Injuries:	Crew - None Passengers - N/A
Nature of Damage:	Extensive damage to engine, landing gear, wings, lower rear fuselage
Commander's Licence:	Commercial Pilot's Licence
Commander's Age:	45 years
Commander's Flying Experience:	1,923 hours (of which 1,280 were on type) Last 90 days - 78 hours Last 28 days - 29 hours
Information Source:	Aircraft Accident Report Form submitted by both crew members and additional AAIB inquiries

Synopsis

The accident occurred during a check flight, with a PPL holder and an instructor on board. The crew had briefed for a 'touch-and-go' at Rochester Airport. However, the aircraft landed a long way into the runway and, although the pilot applied the brakes with the intention of stopping, the instructor took control and opened the throttle in an attempt to take off. By this time there was insufficient runway remaining; the aircraft struck some small trees and came to rest on an embankment at the airfield boundary.

Circumstances of the accident

The pilot in the left seat was a PPL holder with 158 hours experience of which only one hour was flown within the last 90 days. Her total time as pilot in command was 29 hours. The flying club required that a check flight be conducted for any pilot who had not flown within the previous 28 days. The aircraft took off from Biggin Hill with the intention of conducting such a check flight; the supervising pilot happened to be the same instructor who had taught the pilot during some of her PPL training.

Having conducted some general handling the crew briefed for a touch-and-go at Rochester Airport prior to returning to Biggin Hill. The aircraft joined overhead

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Rochester for Runway 20 Relief, which is an unmarked grass strip immediately to the left of Runway 20 Main. The entry into the circuit pattern, together with the turn onto base leg were, in the instructor's opinion, flown slightly too close to the runway, which resulted in the aircraft being high on the approach. In addition, there was initial confusion on the part of the pilot as to which runway to line up on, necessitating a correction during the approach. Touchdown was deep into the runway and the instructor expected an immediate application of power and takeoff; however, the pilot applied the brakes, having decided to stop the aircraft. The instructor decided that there was insufficient runway remaining in which to stop, so took control. Although he realised that it was marginal for a touch-and-go, he applied full power. It became apparent, however, that the aircraft was not going to complete the takeoff in the available distance, so the instructor maintained up elevator and prepared for impact. The aircraft struck a derelict car used for practice by the Airfield Fire Service, and some small trees beyond the end of the runway, slid down an embankment and came to rest close to a road that bordered the airfield. The occupants were uninjured although the aircraft was extensively damaged.

Subsequent investigation

After the accident, the pilot stated that she had considered going around at the point where the aircraft had become high on the approach but, reassured by the presence of the instructor, had kept these thoughts to herself and continued with the landing. Realising that the landing was long, she decided to attempt to stop the aircraft, again without communicating her intentions to the instructor, who was taken by surprise by this course of action.

The flying school conducted its own investigation into the accident; this focused on the human factor issues associated with the differences between instructing and supervising. The investigation included re-flying the exercise in another aircraft with the instructor and Training Director aboard.

Discussion

The problems began when the aircraft turned onto final approach and both crew members determined that they were slightly high. This was compounded by the confusion as to which of the two adjacent runways was in use. This confusion may have caused some distraction due to the necessity to realign the aircraft with the correct runway. Nevertheless, an accident was not inevitable at this stage, as the pilot could have elected to fly a missed approach. However, the reassurance provided by the presence of the instructor convinced her to continue. Her statement to this effect suggests that she had mentally reverted to being a student, a supposition made more plausible in that the instructor had taught her during her PPL training.

In a dual check flight, the pilot under supervision is being checked for his or her competence to act as pilot-in-command of a club aircraft. The requirement for such a flight in this case arose from a pilot who was not in current practice and who was also relatively inexperienced. There is a responsibility on the PPL holder to fly the aircraft in accordance with the agreed brief, with any intended deviation being communicated to the supervising pilot in a timely manner. However, it was apparent that there was a lack of communication during this flight between the pilot and instructor.

The expectations of the instructor will vary according to whether he is teaching or supervising, although he could be doing both during the course of a check flight; accordingly there will be different thresholds at which he will intervene. In this case, the accident occurred after the pilot took a different action from what was briefed, ie the attempt to halt the aircraft instead of conducting a touch-and go, leaving insufficient runway to achieve either. Notwithstanding the possible delay caused by the instructor being caught out by the pilot's decision to stop, it is likely that at some point during the approach, at least one of the options of a full stop or touch-and-go became unavailable. Following their investigation the flying school have re-briefed their instructors, with the instructor involved in this accident having additionally revised part of his Instructor's Rating, paying particular attention to student management.

The pilot has reported that the flying school were very supportive and she has undergone further training since the accident.