

ACCIDENT

Aircraft Type and Registration:	i) Piper PA-28-161 Cadet, G-EXON ii) Piper PA-28R-200 Cherokee Arrow II, G-RONG
No & Type of Engines:	i) 1 Lycoming O-320-D3G piston engine ii) 1 Lycoming IO-360-C1C piston engine
Category:	1.3
Year of Manufacture:	i) 1989 ii) 1973
Date & Time (UTC):	19 June 2005 at 0937 hrs
Location:	Elstree Aerodrome, Hertfordshire
Type of Flight:	i) Private (Training) ii) N/A
Persons on Board:	i) Crew - 1 Passengers - None ii) Crew - None Passengers - None
Injuries:	i) Crew - None Passengers - N/A ii) Crew - N/A Passengers - N/A
Nature of Damage:	i) Substantial ii) Starboard wing written off and damage to cowling
Commander's Licence:	i) Student Pilot ii) Not applicable
Commander's Age:	i) 33 years ii) Not applicable
Commander's Flying Experience:	i) 33 hours (of which 32 were on type) Last 90 days - 14 hours Last 28 days - 9 hours ii) Not applicable
Information Source:	Aircraft Accident Report Form submitted by the pilot, and AAIB enquiries

The student pilot had accumulated a total experience of 33 hours, with approximately 5 hours in command on type. She had been authorised for her second solo navigation exercise from Elstree to Southend, having flown the route with her flying instructor the previous day. The conditions were suitable for the flight, with the surface wind at Elstree reported as 180°/5 kt.

The pilot reports that she completed all the usual pre-start, power and pre-takeoff checks and was then instructed to take off at her discretion by the FISO. She then lined up on Runway 26 and began the take-off roll, applying the appropriate cross-wind take-off technique. As the aircraft just became airborne, at about 65 kt, she felt the aircraft move laterally to the left, into the crosswind, and

the left tyre make contact with the ground again. She felt that the aircraft was going to continue to roll left, and applied right rudder to regain control. The aircraft was now on the grass running parallel to the runway. The pilot closed the throttle and mixture controls and attempted to brake, however this was ineffective and the aircraft continued to drift left across the parallel taxiway, now tracking south west. The right wing then made contact with the wing of a Cherokee Arrow, G-RONG, which was parked to the south of the taxiway. This caused both aircraft to spin round through about 180° and G-EXON came to a stop. The pilot shut down the aircraft and vacated it without injury.

In a frank report the pilot considered that, although she had applied the correct crosswind technique, due to her inexperience she probably did not use enough rudder, and may have experienced a slight southerly gust. Her instructor reported that she was a very competent

student, thorough in all aspects of her flying, and that she had flown the route with him the previous day to her usual high standard.

The Meteorological office was asked to provide details of the surface wind conditions at the time. The charts for the day, and radiosonde data suggested that the wind at 2,000 ft had been about 180°/15 kt. No gusts had been reported, however gusts of less than 10 kt. above the mean wind speed are not included in METARs. In the meteorologist's opinion, the surface wind at Elstree was averaging between 6 and 10 kt with gusts perhaps as high as 10-12 kt, however there were no actual reports.

The demonstrated cross wind limit for the Cadet is 17 kt. Discussions with the maintenance organisation indicated that there was no pre-existing mechanical problem with the aircraft.