ACCIDENT

Aircraft Type and Registration:	Cyclone AX3/503, G-MYXH
No & Type of Engines:	1 Rotax 503 piston engine
Year of Manufacture:	1995
Date & Time (UTC):	14 June 2011 at 1030 hrs
Location:	Andrewsfield Airfield, Essex
Type of Flight:	Training
Persons on Board:	Crew - 2 Passengers - None
Injuries:	Crew - None Passengers - N/A
Nature of Damage:	Right main landing gear
Commander's Licence:	Private Pilot's Licence
Commander's Age:	35 years
Commander's Flying Experience:	230 hours (of which 175 were on type) Last 90 days - 60 hours Last 28 days - 30 hours
Information Source:	Aircraft Accident Report Form submitted by the pilot and additional inquiries by the AAIB

Synopsis

The right mainwheel separated from the aircraft after it landed heavily on the takeoff runway following a practice engine failure after takeoff (EFATO) demonstrated by the instructor.

History of the flight

The AX3/503 is a three-axis microlight aircraft. The pilot, who held an assistant flight instructor (AFI) Rating Microlights, was demonstrating an engine failure after takeoff (EFATO) to his student with the intention of landing ahead on the takeoff runway. The reported wind was from 210° at 5 kt. The takeoff run was normal and, at a height of about 100 ft and an airspeed of approximately 50 mph (the stall speed is 31 mph at MTOW), the instructor closed the throttle and applied nose-down pitch. He recalled that the airspeed appeared normal and at a height of approximately 30 ft he started to flare the aircraft. However, it touched down heavily and the right mainwheel separated. The aircraft stopped, halfway down the 800 m runway. The instructor and student were uninjured.

The BMAA Instructor and Examiner Guide (dated June 2006), which includes information on EFATO training, requires demonstrations to be carried out at both 50 ft and 200 ft. The instructor had flown practice EFATOs, in the same aircraft type, during his AFI training and stated that, on the day of the accident, he

had initiated the practice EFATO at 100 ft as, in his opinion, 50 ft was too low. He had recent experience of carrying out glide approaches from circuit height, but had not flown this particular practice EFATO exercise for about nine months.

Discussions with pilots, familiar with the AX3/503, indicate that the aircraft will lose airspeed rapidly when engine power is reduced, and the occurrence report, submitted by the instructor to the CAA stated that "on reflection round-out was too late….power should have been applied slightly earlier within seconds to counter drag".

The instructor considered that his recency had not been a factor in the accident.