Microlight Accident and Incident Summary 01/2012

This accident report summary is collated by the BMAA from information gathered. The information sources used are the Air Accident Investigation Branch of the Department for Transport (AAIB), the Civil Aviation Authority Mandatory Occurrence Reports (CAA MOR) and reports made directly to the BMAA by members and operators.

The individual reports within the accident summary are taken from the information available to the BMAA and where the BMAA has made comment this is clearly shown.

The BMAA does not investigate accidents and incidents, this role being the responsibility of the AAIB and the CAA who have the expertise, experience and funding for investigation.

All pilots reading the reports should try to make their own assessment of underlying causes and use the experience of others to enhance their own knowledge to help them become safer pilots.

ACCIDENT

Aircraft Type and Registration:	Cyclone AX3/503
No & Type of Engines:	1 Rotax 503 piston engine
Year of Manufacture:	1995
Date & Time (UTC):	14 June 2011 at 1030 hrs
Location:	
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.

BMAA Comment
An aircraft should always be flown so that in the event of an engine failure at any time during the flight the pilot can maintain control and make a safe landing.

ACCIDENT

Aircraft Type and Registration:	Quik GT450
No & Type of Engines:	1 Rotax 912ULS piston engine
Year of Manufacture:	2008
Date & Time (UTC):	28 September 2011 at 1515 hrs
Location:	
Type of Flight:	Private
Persons on Board:	Crew - 1 Passengers - 1
Injuries:	Crew - None Passengers - None
Nature of Damage:	Nosewheel, pod and keel tube
Commander's Licence:	National Private Pilot's Licence
Commander's Age:	58 years
Commander's Flying Experience:	321 hours (of which 321 were on type) Last 90 days - 8 hours Last 28 days - 3 hours
Information Source:	Aircraft Accident Report Form submitted by the pilot

The aircraft experienced windshear whilst on final approach and descended rapidly from approximately 20 ft. The pilot was unable to arrest the high rate of descent, despite adding full power, and the aircraft landed heavily, nosewheel first and bounced. The second touchdown was in a normal attitude but the nosewheel assembly collapsed during the ground roll. The two occupants were uninjured. The wind direction was reported as varying between 180 and 230° at 15 kt with gusts up to 20 kt. The pilot subsequently discussed the event with instructors based at the airfield and concluded that he may have not have made a sufficient adjustment to his final approach airspeed for the prevailing gusty conditions.

No BMAA Comment

ACCIDENT

Aircraft Type and Registration:	X'Air R100(1)
No & Type of Engines:	1 BMW R100RS piston engine
Year of Manufacture:	2000
Date & Time (UTC):	11 July 2011 at 1950 hrs
Location:	
Type of Flight:	Private
Persons on Board:	Crew - 1 Passengers - None
Injuries:	Crew - None Passengers - N/A
Nature of Damage:	Nose landing gear, propellor, engine and pod damaged
Commander's Licence:	Private Pilot's Licence
Commander's Age:	70 years
Commander's Flying Experience:	380 hours (of which 215 were on type) Last 90 days - 18 hours Last 28 days - 4 hours
Information Source:	Aircraft Accident Report Form submitted by the pilot

Whilst in level flight at cruise power, the engine suddenly coughed, began to run roughly and suffered a significant power drop. The pilot reduced the throttle setting to minimise the roughness, placed the aircraft in a glide at about 55 mph and searched for a suitable location for a forced landing. With limited options available, he chose a long field of barley crop ahead of him. He was aware of power lines near each end of the field. Once he could see the nearest and was confident of clearing it, he closed the throttle and switched off the master switch. He held off at a height of approximately 10 ft and gently flared the aircraft. As it contacted the dense crop it slowed suddenly and pitched forward, causing the nose gear to hit the soft ground and collapse. After sliding about 40 ft the aircraft gently pitched over inverted, coming to rest on top of the crop. The pilot was uninjured.

Subsequent examination revealed that the head of the exhaust valve on the left cylinder had become detached from its stem, causing extensive internal damage to the engine.

No BMAA Comment

ACCIDENT

Aircraft Type and Registration:	Pegasus XL-Q
No & Type of Engines:	1 Rotax 462 HP piston engine
Year of Manufacture:	1990
Date & Time (UTC):	29 October 2011 at 1200 hrs
Location:	
Type of Flight:	Training
Persons on Board:	Crew - 1 Passengers - None
Injuries:	Crew - 1 (Minor) Passengers - N/A
Nature of Damage:	Extensive damage
Commander's Licence:	Student
Commander's Age:	49 years
Commander's Flying Experience:	45 hours (of which 45 were on type) Last 90 days - 15 hours Last 28 days - 1 hour
Information Source:	Aircraft Accident Report Form submitted by the pilot

The student pilot was on a solo navigation flight when he began to experience difficulty controlling the aircraft in the gusty wind conditions. The forecast indicated wind from 200° at 20 kt, but the pilot's impression was that it was stronger. He decided to land in a field but the aircraft touched down heavily and overturned. The pilot was unhurt.

The pilot reported that he had been unable to control the aircraft during the landing in the gusty conditions.

BMAA Comment
On consideration we question the suitability of the forecast conditions for any student pilot.