Microlight Accident and Incident Summary 01/2011

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.
BMAA Flight Event Report

<table>
<thead>
<tr>
<th>Event type:</th>
<th>Accident</th>
</tr>
</thead>
</table>

|---------------|------|------------------|----------------|------------|-------------|

<table>
<thead>
<tr>
<th>Aircraft type:</th>
<th>Fixed wing</th>
<th>Aircraft model:</th>
<th>Cyclone AX3</th>
<th>Flight phase:</th>
<th>Initial climb</th>
<th>Flight purpose:</th>
<th>Pleasure</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Pilot’s licence:</th>
<th>PPL</th>
<th>PIC Total:</th>
<th>346</th>
<th>PIC on type:</th>
<th>230</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Pilot injuries:</th>
<th>Minor</th>
<th>Passenger injuries:</th>
<th>Minor</th>
<th>Aircraft damage:</th>
<th>Severe</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Narrative report from:</th>
<th>AAIB Report as published</th>
</tr>
</thead>
</table>

AAIB Bulletin No 1/2009, page 34 refers:

The report was originally published in AAIB Bulletin 1/2009. However, following further investigation the report has now been reissued.

The pilot stated in his report that he had intended to practice a simulated engine failure after takeoff. However, the aircraft climbed too steeply before reaching a safe height to conduct the procedure, the airspeed reduced rapidly and the aircraft stalled, at about 100 ft in the pilot’s estimation. With insufficient height to recover fully, the aircraft landed heavily on the runway, nosewheel first. This resulted in substantial damage to the aircraft and injuries, initially classified as minor, to the occupants.

BMAA Comment:

Steep climbs close to the ground are potentially very dangerous. Following a take off the aircraft attitude should always be maintained at such that if the engine did fail a safe recovery can be made. In high powered aircraft flown at light weight this may mean a high airspeed in the climb to hold a shallow attitude or a reduced power in the climb to achieve the same result at a lower airspeed. As the height of the aircraft increases it can be gradually allowed to adopt a steeper climb attitude always ensuring that if the engine failed at any time a safe recovery could be made. Ideally it is best to practice EFATOs* with a qualified instructor who will be able to ensure that the aircraft is never put into a position from which a safe recovery cannot be made.

*Engine Failure After Take Off (EFATO)
The aircraft was flying at 600 ft agl when the engine suddenly stopped. The pilot chose a small field for a forced landing and landed downwind with a tailwind of 10 to 15 mph. The aircraft landed well into the field and the combination of a late touchdown with a high groundspeed and poor braking action on wet grass caused the aircraft to run on into a substantial wooden fence. Both the pilot and his passenger were injured in the accident.

**BMAA Comment:**

Whatever the motivation for flying at a particular level on any particular flight a pilot has less time, with less choices, to cope successfully with an engine failure when flying lower than when flying higher. A combination of low level, undulating ground below and a tail wind severely limited the pilot's options. An engine failure in a single engine aircraft will lead to a landing and pilots must make reasoned judgements and risk assessments when conducting all such flights.
Contact with the microlight was lost whilst it was over the English Channel en-route to Le Touquet Airport in France. The body of the pilot was recovered later the same day, but none of the aircraft or its equipment was found. With no aircraft wreckage to examine, the cause of the accident could not be positively determined, although adverse weather was a probable contributory factor.

For the full AAIB report please visit:


The BMAA are unable to offer any further comment. For the full AAIB report please use the link above.
During the approach the aircraft encountered turbulence whilst passing over trees short of the runway threshold, causing the touchdown to be later than planned. The pilot did not appreciate the need to execute a go-around sufficiently early and the aircraft collided with the far boundary hedge, embedded in which was a wire fence. This resulted in the aircraft suddenly coming to rest on its side, just beyond the hedge.

Another occasion when an early decision to go around may have saved the day. Pilots should look for possible problems and make that go-around decision early.
The aircraft was about to touch down when the pilot realised that he would be unable to stop within the remaining runway length ahead of him. He elected to go around, however the aircraft struck the top of a tree.

The aircraft was landing at Guy Lane Farm at Waverton, having completed a flight from Arclid Airfield. Just before touchdown the pilot realised that he was unlikely to be able to stop within the remaining length of runway, so he applied power for a go-around. The aircraft collided with the top of a tree at the edge of the field and collided with the tree, before falling approximately 15 ft to the ground. The pilot sustained several fractures, including four vertebrae fractures, and the passenger sustained minor injuries. The pilot, who is likely to make a near full recovery, considered that the aircraft’s climb performance was less than he expected possibly due to the lack of headwind, the additional weight of the passenger and his late decision to go around.

BMAA Comment:

Another occasion when an early decision to go around may have saved the day. Pilots should look for possible problems and make that go-around decision early. That said, if you are totally committed to landing, it may be better to hit the hedge on the ground under braking than at full power in the air.
The aircraft was approaching to land on Runway 31 at Abbeville. The wind was from between 280° and 300° at 5 kt, gusting to 15 kt, there was visibility of 25 km and few clouds at 4,000 ft. The pilot reported that the conditions were “bumpy” and that the wind was “gusty”. As the aircraft touched down, it turned over onto its right side and the engine stopped. The pilot was unhurt. He believed that immediately before touchdown the wind “got under” and lifted the left wing, causing the aircraft to turn slightly, touch down with some right drift and turn over.

**BMAA Comment:**

These were classic conditions for this sort of accident to occur. Remember, speed is control, so keep up the speed until safely on the ground and taxiing.
When reducing engine power after a powered takeoff the pilot experienced high levels of vibration followed by a loud bang, which was caused by the separation of the pylon mounted propeller from the motor glider. The pilot completed an uneventful glide approach and landing. The cause of the propeller loss was the failure of the aluminium propeller shaft. The shaft may have failed during one of two events where movement of the engine pylon structure was sufficient to allow the propeller to strike the engine bay doors whilst it was under power.

BMAA Comment:

The aircraft is a Single Seat De-Regulated (SSDR) Microlight and therefore not subject to UK British Civil Airworthiness Requirements (BCAR). The pilot should be congratulated for making a successful forced landing.
During the takeoff roll the student pressed the foot brake while making steering inputs. As a result the aircraft turned abruptly and rolled over.

The instructor planned to fly a dual instructional sortie with an inexperienced student who had not flown this aircraft previously and was not used to its responsive disk brakes. During the takeoff roll, at about 30 mph, the student inadvertently applied the right foot brake firmly while making steering inputs. As a result the aircraft turned abruptly to the right and rolled over. The aircraft came to rest on its left side, facing in the opposite direction to the takeoff roll, and was extensively damaged. Both occupants vacated the aircraft uninjured.

The instructor commented that on previous flights in other aircraft the student had not shown any tendency to use the brakes while taxiing or taking off. He added that in hindsight he should have given the student a more detailed briefing about the effectiveness of the disc brakes and more practice at taxiing and manipulating the foot controls prior to takeoff.

BMAA Comment:

During any conversion to a different aircraft with different systems it is important not to overlook a difference as being too small or insignificant. In this instance the instructor is correct that a safety brief and some ground practice with the different brake may have made all the difference.
The aircraft departed from Perranporth, Cornwall intending to fly along the coast to Land’s End. The weather conditions were good with a light south-westerly wind. Whilst flying at approximately cliff-top height over a deserted beach, the aircraft suddenly rolled to the right and it required full movement of the control bar to return the aircraft to a wings level attitude. The pilot was concerned by this sudden and unexpected departure from level flight and elected to make a precautionary landing to check that there was no fault with his aircraft. He identified an area on the deserted beach, near the waters edge, that looked suitable and flew an uneventful approach to the beach. When the aircraft landed, the nosewheel dug into soft sand and the aircraft flipped over before stopping. The nosecone and wing were damaged but both the aircraft’s occupants were uninjured and they vacated the aircraft. There was no fire.

The pilot later considered that the most likely reason for the unexplained roll to the right was air turbulence.

BMAA Comment:

Beach landings run the obvious risk of encountering soft rather than firm sand so there is an element of luck involved with these. Experience has also shown that it is often difficult to accurately judge height above the surface when holding off. Beach landings need to be treated with respect. Flight in the lee of higher terrain carries the risk of encountering turbulence, which was the start of events here.