Microlight Accident and Incident Summary 03/2012

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: Shadow Series CD, G-MYOS
No & Type of Engines: 1 Rotax 503-2V piston engine
Year of Manufacture: 1994
Date & Time (UTC): 15 September 2011 at 1805 hrs
Location: Craysmarsh Farm, Wiltshire
Type of Flight: Private
Persons on Board: Crew - 1 Passengers - 1
Injuries: Crew - None Passengers - None
Nature of Damage: Tail boom collapsed
Commander’s Licence: Private Pilot’s Licence
Commander’s Age: 65 years
Commander’s Flying Experience: 233 hours (of which 233 were on type)
Last 90 days - 5 hours
Last 28 days - 3 hours
Information Source: Aircraft Accident Report Form submitted by the pilot

During the flight, the pilot encountered difficulty trimming the aircraft and reported that in order to maintain straight and level flight, a higher than usual power setting and significant levels of nose-up trim were required. When reducing power in preparation for landing, the control stick became heavy and the aircraft pitched rapidly downwards. The pilot was able to maintain control until just prior to flaring, when the nose pitched rapidly up and the aircraft dropped to the ground, landing heavily. Post-flight inspection by the pilot revealed that the tail boom had collapsed. The pilot considered that a runaway trim condition may have accounted for the control difficulties encountered during the flight. The repair agency checked the operation of the electrically operated elevator trim tab and although it functioned normally when tested, the trim system was replaced as a precaution.

No BMAA Comment
ACCIDENT

Aircraft Type and Registration: Gemini Flash IIA, G-MVSN
No & Type of Engines: 1 Rotax 503 piston engine
Year of Manufacture: 1989
Date & Time (UTC): 17 March 2012 at 1310 hrs
Location: Eshott Airfield, Northumberland
Type of Flight: Training
Persons on Board: Crew - 1  Passengers - None
Injuries: Crew - 1 (Serious)  Passengers - N/A
Nature of Damage: Aircraft destroyed
Commander’s Licence: Student pilot
Commander’s Age: 44 years
Commander’s Flying Experience: 51 hours (of which 7 were on type)
Last 90 days - None
Last 28 days - None
Information Source: Aircraft Accident Report Form submitted by the pilot and CCTV footage

Synopsis

The microlight’s engine ran to full power on start-up. The student pilot was unable to stop the aircraft accelerating and abandoned it, sustaining injury. The microlight became airborne for a short while before crashing.

Description of the event

The student pilot, who part-owned the microlight, was preparing it for an instructional flight. The weather was fine and calm. The pilot had moved the microlight from its hangar to a suitable area and, while waiting for his instructor who was airborne at the time, carried out the pre-flight checks and prepared to start the engine. His normal practice was to start the engine prior to flight to let it warm up, and he had done this about 30 minutes earlier, running it successfully for about 10 minutes.

After priming the engine again, the student pilot sat in the microlight to start it. Part of the pre-start checks was to ensure the hand operated throttle was closed and the foot operated throttle was clear. However, on pulling the start cord, the engine started and immediately ran up to full power. The brakes were applied but did not prevent the aircraft moving forward. The pilot manipulated the throttle control but without obvious effect.

As the pilot was not intending to fly straight away, he was not strapped in or wearing a protective helmet.
With the aircraft accelerating towards a hangar, he chose to abandon it rather than risk injury if it struck the hangar. He threw himself out of the left side, sustaining a broken leg and torn ligaments when the aircraft’s left wheel ran over his right knee.

The aircraft missed the hangar but continued and became airborne. Footage from a CCTV camera showed the microlight climbing steeply before stalling and entering a dive. It then performed a low-level looping manoeuvre, striking the ground at relatively high speed before the manoeuvre was completed. The aircraft was destroyed in the accident and a wire fence was also damaged. A small fire broke out, causing localised damage to an area of grass and small trees.

**BMAA Comment**
Reference is made to the Microlight Flying Magazine article (MAY 2012) - 'Some aircraft go out of control'

An essential part of becoming qualified as a pilot is undertaking training in the preparation and operation of an aircraft before, during and after flight (NPPL syllabus - Exercises 1 & 2). Such instruction will include practices for the safe starting and running of engines, actions to be taken in the case of a "runaway". There have been many instances of runaway aircraft, some of which have led to severe injury. This period of aircraft operation should not be treated casually.
ACCIDENT

Aircraft Type and Registration: Pegasus Quantum 15, G-MYLC
No & Type of Engines: 1 Rotax 503-2V piston engine
Year of Manufacture: 1993
Date & Time (UTC): 19 February 2012 at 1405 hrs
Location: Kirkbride Airfield, near Carlisle
Type of Flight: Private
Persons on Board: Crew - 1 Passengers - None
Injuries: Crew - None Passengers - N/A
Nature of Damage: Damage to windshield; damage to parked aircraft’s wing, wheel spat and propeller
Commander’s Licence: Private Pilot’s Licence
Commander’s Age: 79 years
Commander’s Flying Experience: 346 hours (of which 89 were on type)
Last 90 days - 3 hours
Last 28 days - 1 hour
Information Source: Aircraft Accident Report Form submitted by the pilot and photographs of the scene

Synopsis

The pilot lost control of the flex-wing microlight during taxi and it struck a fixed-wing microlight which was parked adjacent to the taxiway.

Description of the event

The aircraft, a flex-wing microlight, was being taxied, prior to flight, along a narrow and constricted taxiway. A second, fixed-wing microlight was parked adjacent to the taxiway but clear of it. It had reportedly been moved further back from the taxiway to provide additional clearance for the flex-wing to pass.

The flex-wing pilot reported that his aircraft was controlled on the ground by a pivoting cross-bar connected directly to the nosewheel, and on which the pilot’s feet rested. To steer to the right, the pilot would press with his left foot. Connected to the left side of the cross-bar was a foot-operated brake, and on the right side was a foot-operated throttle.

At engine idle speed, the aircraft moved across the hard surface at a jogging pace. In order to slow down as the microlight approached the parked aircraft, the pilot attempted to operate the brake by pressing forward with his left foot. This was not wholly effective, so he pressed harder. This still did not slow the microlight, but did cause it to turn to the right, towards the parked aircraft. To counter this, the pilot pressed forward with
his right foot but, instead of reversing the turn as he intended, his foot operated the throttle and accelerated the microlight towards the parked aircraft.

The microlight struck the parked aircraft at an angle of about 45°, pushing it backwards a short distance until its left wheel spat contacted concrete blocks behind. An initial inspection showed only light damage to the flex-wing. The fixed-wing microlight suffered a damaged wheel spat, damage to its left wing leading edge and pitot tube (believed to have been caused through contact with the flex-wing’s ‘A’ frame), and light damage to the propeller, believed to have been caused by the flex-wing’s flying wires.

**BMAA Comment**

Reference is made to the Microlight Flying Magazine article (MAY 2012) - ‘Some aircraft go out of control’
ACCIDENT

Aircraft Type and Registration: Thruster T600N 450, G-CBIO

No & Type of Engines: 1 Jabiru Aircraft Pty 2200A piston engine

Year of Manufacture: 2002

Date & Time (UTC): 17 January 2012 at 1150 hrs

Location: Near Compton Abbas Airfield, Dorset

Type of Flight: Private

Persons on Board: Crew - 1  Passengers - 1

Injuries: Crew - None  Passengers - None

Nature of Damage: Fuselage tube, nose pod and nose landing gear leg, empennage, right wing, propeller and engine damaged

Commander’s Licence: National Private Pilot’s Licence

Commander’s Age: 63 years

Commander’s Flying Experience: 269 hours (of which 47 were on type)
Last 90 days - 5 hours
Last 28 days - 2 hours

Information Source: Aircraft Accident Report Form submitted by the pilot and further inquiries by the AAIB

Synopsis

Following a reduction in engine power due to carburettor icing, the pilot made a forced landing in a field during which the aircraft turned over. The aircraft’s carburettor heat system had been modified in an unapproved manner, rendering the aircraft more susceptible to carburettor icing. Two safety actions are being implemented as a result of this accident.

History of the flight

The aircraft was flying from Sandown Airfield to Compton Abbas. At 1,400 ft amsl (600 ft aal) he tried to open the throttle to level off, but found that although the throttle lever moved, the engine power did not respond. He retarded the throttle slightly, which reduced the engine rpm, but when he tried to open the throttle again the engine power still did not increase. At this point the aircraft was approximately 1 nm north east of Compton Abbas Airfield and, deciding that he was too low to reach the runway, the pilot transmitted a MAYDAY message and selected a field to land in. After touching down the aircraft rapidly decelerated due to soft ground conditions and turned over, coming to rest inverted (Figure 1). Both occupants were uninjured and were able to vacate the aircraft without difficulty.
Meteorology

An aftercast was provided by the Met Office for the Compton Abbas area at the time the accident occurred. It estimated that, at 1,700 ft altitude, the air temperature was +2°C and the dewpoint was +1°C. These conditions were conducive to serious carburettor ice formation at any power setting (Figure 2).

Aircraft inspection

Shortly after the accident the pilot moved the throttle control forwards to the OPEN position and observed that the Bowden-type throttle cable formed a bow between the throttle lever and the point where the cable entered the fixed outer sheath, indicating resistance in the throttle control circuit.

The aircraft was recovered from the field three hours after the accident by an aircraft maintenance engineer familiar with the aircraft type. He noted that the throttle butterfly spindle was free to rotate and the throttle cable between the throttle lever and the butterfly spindle was mechanically intact, and moved freely within the outer sheath.

Carburettor heat system

The aircraft was fitted with a carburettor heat system comprising an electrically heated jacket fitted to the inlet throat of the carburettor body, Figure 3(a). This differed from the production standard carburettor heat system installed when the aircraft was manufactured in 2002, in which hot engine oil is circulated through a hollow jacket attached to the exit throat of the carburettor body, in close proximity to the throttle butterfly Figure 3(b).
The ability of the electric heater jacket to warm the carburettor throttle butterfly valve was tested by cooling the entire carburettor in a refrigerator to 1°C and applying 12 Volts to the heater jacket electrical terminals. Thermocouples were attached to the electric heater jacket and the butterfly valve, allowing the temperature of both components to be monitored. The results showed that after three minutes of heat application, the heater jacket had reached a temperature of 30°C, whereas the butterfly valve temperature had risen by only 1°C, to 2°C. After six minutes the heater jacket had reached 45°C and the butterfly valve temperature had risen to just 6°C. The test was performed in static airflow conditions and without fuel evaporation from the carburettor jet, both would cause a large cooling effect at flight conditions. Therefore the butterfly valve’s small temperature rise measured during the test would be very significantly reduced in the conditions encountered during the accident flight.

Aircraft records

The aircraft manufacturer confirmed that when the aircraft was built in 2002, the carburettor had been fitted with a production standard oil-heated jacket mounted downstream of the carburettor body, directly adjacent to the throttle butterfly valve. The engine fitted to G-CBIO at the time of the accident was confirmed, by
engine serial number, to be the same engine installed at the original build date. No details of the approved carburettor heat system were contained in either the aircraft maintenance manual or the CAA-issued Microlight Type Approval Data Sheet (TADS) for the Thruster T600N 450.

The aircraft logbook contained an entry in December 2003 stating that an electric carburettor heat system had been installed, although no additional details or part numbers were recorded, nor was the reason for the change in carburettor heat system. As the Thruster T600N 450 is a CAA Type Approved microlight, modifications to the aircraft may only be approved by either the aircraft manufacturer or the BMAA. Both organisations confirmed that, in relation to alteration of the carburettor heat system on G-CBIO, no such modification approval had been sought or granted.

The aircraft had undergone a total of seven ‘permit to fly’ maintenance inspections following modification of the carburettor heat system. The aircraft records did not contain any written findings regarding this non-conformance with the aircraft’s production standard configuration.

**Airworthiness requirements**

The aircraft was approved to BCAR Section S airworthiness requirements, which do not contain any specific requirements relating to either engine reliability or induction system ice protection systems. Therefore the installation of the production-standard oil jacket carburettor heater was an enhancement of the aircraft over and above BCAR Section S requirements. A survey of AAIB accident records for Jabiru 2200A-powered Thruster T600N aircraft over a 10-year period between 2002 and 2012 revealed only one other accident in which carburettor icing may have been a factor. The UK fleet of this mark of Thruster aircraft currently stands at 64 and the low incidence of previous carburettor icing accidents suggests that the production-standard
The carburettor heating system is effective in preventing serious carburettor ice formation.

**Discussion**

The cause of the reduction in available engine power in G-CBIO was probably due to the formation of ice within the carburettor, restricting the opening movement of the throttle butterfly valve. The possibility that water may have been present in the throttle control Bowden cable which subsequently froze during flight, replicating the reported throttle symptoms, was considered unlikely due to the air temperature being above 0ºC at the aircraft’s operating altitude. By the time the pilot had recognised the power loss, the aircraft was too far away from the runway to allow a landing at Compton Abbas Airfield, resulting in a forced landing. Pilots are reminded that the presence of carburettor icing may become evident when power changes are made, particularly a reduction in power. In conditions where carburettor icing is likely, it is advisable to make power reductions at locations and heights from which a successful forced landing may be made.

The vulnerability of the carburettor to icing was significantly increased by the installation of an unapproved electrical carburettor heat system. Testing conducted by the AAIB demonstrated that this unapproved system was unlikely to be effective at melting ice within the carburettor.

The aircraft had undergone seven ‘permit to fly’ maintenance inspections between installation of the electric carburettor heat system and the accident flight and the non-conformity remained undetected during this period. Neither the TADS nor the aircraft maintenance manual contained details of the production standard system and therefore the only remaining safety barrier in place was the Thruster T600N 450 type-specific knowledge of the BMAA inspectors conducting the annual inspections. Thus, in this instance, the presence of a carburettor heat system (of an unapproved and inappropriate type) combined with the lack of available technical information may be considered to have been a contributory factor in the resulting accident.

**Safety actions**

The BMAA will issue a defect alert to their inspectors to highlight the issue of unapproved modifications in general, and remind inspectors of the approved type of Thruster T600N 450 carburettor heat system. The aircraft manufacturer will also amend the Thruster T600N 450 TADS to include details of the approved carburettor heat system on this aircraft.

---

**BMAA Comment**

Both the BMAA and LAA raised a difference of opinion with this AAIB report. Our comments were considered in the Addendum below.
BULLETIN ADDENDUM

Aircraft Type & Registration
Thruster T600N 450, G-CBIO

Date & Time (UTC):
17 January 2012 at 1150 hrs

Location:
Near Compton Abbas Airfield, Dorset

Information Source:
Aircraft Accident Report Form

AAIB Bulletin No 8/2012, page 60 refers

Following the publication of this AAIB Bulletin, the LAA (Light Aircraft Association) and the BMAA (British Microlight Aircraft Association) both wrote to the AAIB on issues concerning the electrical carburettor heat system installed in G-CBIO.

In the ‘Carburettor heat system’ section of the Bulletin, details of the electrical carburettor heat system installed on G-CBIO were provided. The LAA and the BMAA both stressed to the AAIB that such systems are designed to be operated throughout the duration of a flight and are intended to prevent the formation of carburettor ice, not to melt it once formed. This is in contrast to conventional heated air intake systems that require pilot operation during certain phases of flight, such as throttling back before landing. In the accident to G-CBIO, the pilot reported that he had turned on the aircraft’s electrical carburettor heat system at the start of his descent into Compton Abbas.

The LAA and the BMAA re-iterated the comment (made in the ‘Airworthiness requirements’ section of the AAIB Bulletin, G-CBIO, 8/2012) that BCAR Section S does not contain any requirements for induction system icing protection or for specific levels of engine reliability.

Regarding the ‘Safety actions’ section of the AAIB Bulletin, the BMAA commented:

‘The safety actions on the BMAA at the end of the report have not been agreed by the BMAA. The BMAA has already written to inspectors, and in its magazine to members, of the importance of having modifications approved if required by regulation. The second action on the BMAA to advise inspectors of the approved type of carburettor heat systems would include an electric heater now fitted as a standard to this type of engine.’

The LAA also stressed that the aircraft owner remains primarily responsible for the modification standard of an aircraft. The AAIB accepts that this situation was not clearly stated in the Bulletin account.

This addendum was included in the online version of this report on 10 February 2013.
ACCIDENT

Aircraft Type and Registration: Skyranger 912(2), G-CCBJ
No & Type of Engines: 1 Rotax 912-UL piston engine
Year of Manufacture: 2004 (Serial no: BMAA/HB/262)
Date & Time (UTC): 25 May 2012 at 1055 hrs
Location: Shuttleworth (Old Warden) Aerodrome, Bedfordshire
Type of Flight: Private
Persons on Board: Crew - 1  Passengers - None
Injuries: Crew - 1 (Minor)  Passengers - N/A
Nature of Damage: Damage to engine and propeller, undercarriage and tail
Commander’s Licence: National Private Pilot’s Licence
Commander’s Age: 66 years
Commander’s Flying Experience: 141 hours (of which 37 were on type)
Last 90 days - 14 hours
Last 28 days - 2 hours
Information Source: Aircraft Accident Report Form submitted by the pilot

The pilot carried out a standard overhead join for Runway 03 at Old Warden. The weather was generally fine, with a forecast surface wind from 090º at 10 to 15 kt. Whilst overhead, the pilot saw the windsock and estimated that the surface wind was blowing from about 030º, in line with the runway. He flew a normal circuit and approach, but encountered rough air as he crossed the threshold, which caused the aircraft to roll to the left. The pilot applied full power, full opposite aileron and right rudder, but was unable to correct the situation before the aircraft struck the ground to the left of the runway. The airfield fire and rescue service attended the scene and the pilot, who was wearing a full harness and who suffered only a minor injury, was able to vacate the aircraft through the left door.

The pilot considered that the windsock had not been showing the true, steady wind when he viewed it from the overhead, but had been indicating a temporary gust. The actual wind was mainly blowing across the runway from the right.

BMAA Comment
Reference is made to the Microlight Flying Magazine article (AUG 2012) - ‘Skill yourself don’t kill - training’
ACCIDENT

Aircraft Type and Registration: Pegasus Quik, G-CEVG
No & Type of Engines: 1 Rotax 912 ULS piston engine
Year of Manufacture: 2007 (Serial no: 8319)
Date & Time (UTC): 1 July 2012 at 1131 hrs
Location: Manchester Barton Aerodrome
Type of Flight: Private
Persons on Board: Crew - 1 Passengers - 1
Injuries: Crew - 1 (Minor) Passengers - None
Nature of Damage: Damage to wing, propeller blades, pylon, engine, front wheel strut and right mainwheel

Commander’s Licence: National Private Pilot’s Licence
Commander’s Age: 53 years
Commander’s Flying Experience: 316 hours (of which all were on type)
      Last 90 days - 23 hours
      Last 28 days - 5 hours

Information Source: Aircraft Accident Report Form submitted by the pilot

The aircraft was landing on grass Runway 27L after an uneventful local flight. The weather was good, with the wind from 250° at 11 kt but reported as “gusty”. The final approach had gone smoothly but, as the pilot flared the aircraft for touchdown, a gust of wind blew it to the right and the left mainwheel made premature contact with the ground. The aircraft bounced and the pilot found that he could not level its attitude or climb away. The aircraft struck the ground on its right side, destroying the propeller blades and causing the engine to overspeed, because the pilot could not change the throttle setting or reach the magneto switches. The engine eventually stopped and although a considerable quantity of smoke was generated by oil leaking onto the hot exhaust, there was no fire. The emergency services attended and the occupants were helped from the wreckage. The pilot sustained minor injuries.

The pilot considered that the accident was the result of the gust of wind just as he was about to touch down.

BMAA Comment
Reference is made to the Microlight Flying Magazine article (AUG 2012) - ‘Skill yourself don't kill - training’
ACCIDENT

Aircraft Type and Registration: Tanarg/iXess 15 912s(1), G-TEAS

No & Type of Engines: 1 Rotax 912ULS piston engine

Year of Manufacture: 2006 (Serial no: BMAA/HB/489)

Date & Time (UTC): 29 May 2012 at 1143 hrs

Location: Calton Moor Airfield, Derbyshire

Type of Flight: Private

Persons on Board: Crew - 1  Passengers - 1

Injuries: Crew - 1 (Serious)  Passengers - None

Nature of Damage: Extensive

Commander’s Licence: National Private Pilot’s Licence

Commander’s Age: 59 years

Commander’s Flying Experience: 83 hours (of which 83 were on type)
Last 90 days - 15 hours
Last 28 days - 5 hours

Information Source: Aircraft Accident Report Form submitted by the pilot

The pilot reported that he had taken off in a north-westerly direction from the airfield at Calton Moor. The weather conditions were fine, with a light south-westerly surface wind. The temperature was 21°C and the pilot described the conditions as “thermic”. The takeoff had been normal until a height of about 80 ft, when the microlight (which was near the maximum takeoff weight) stalled. The left wing dropped and the aircraft descended in a spiral to the ground. The pilot, who was wearing a lap strap, suffered serious leg and internal injuries, while the passenger, who was wearing a lap strap and diagonal harness, suffered no injuries. Both occupants were wearing protective helmets.

No BMAA Comment
ACCIDENT

Aircraft Type and Registration: Thruster T600N 450, G-MGTV

No & Type of Engines: 1 Jabiru Aircraft PTY 2200A piston engine

Year of Manufacture: 2002

Date & Time (UTC): 30 March 2012 at 1330 hrs

Location: Tandragee Airstrip, Portadown

Type of Flight: Private

Persons on Board: Crew - 1  Passengers - 1

Injuries: Crew - None  Passengers - None

Nature of Damage: Collapsed nosewheel and cracked pod and windscreen

Commander’s Licence: Private Pilot’s Licence

Commander’s Age: 55 years

Commander’s Flying Experience: 250 hours (of which 30 were on type)
   Last 90 days - 4 hours
   Last 28 days - 2 hours

Information Source: Aircraft Accident Report Form submitted by the pilot

Synopsis

The aircraft took off with an estimated 10 kt tailwind and stalled shortly after becoming airborne.

History of the flight

The pilot had planned to undertake a local flight with a passenger. The forecast indicated good weather, with northerly winds of 5-10 kt. The pilot reported that when he took off the wind conditions had become gusty with an estimated wind speed of 10 kt.

The airstrip is constructed of crushed stone and is orientated north-south, with a downhill gradient in the southerly direction. A hedge and a number of trees present obstacles at the edge of the airfield to the north. In order to take advantage of the runway slope and to avoid the obstacles at the northern end, the pilot chose to take off in the southerly direction. He reported that shortly after becoming airborne at a height of 10-20 feet, the right wing dropped and, before he could react, the aircraft hit the ground. The pilot shut down the engine, which remained running after the impact, before he and the passenger vacated uninjured from the aircraft.

Pilot’s assessment of the cause

In choosing the southerly direction for takeoff the pilot judged that the advantages conferred by the downhill slope and lack of obstacles outweighed the loss of performance due to the tailwind, but did not calculate the relative affects. He believed that insufficient airspeed
at takeoff, especially in view of the gusty conditions, led to the aircraft stalling at a height at which he could not react effectively to the situation.

Comment

Useful information for assessing aircraft performance, especially when operating from airstrips, is available in the CAA Safety Sense leaflets 7 - ‘Aircraft Performance’, and 12 - ‘Strip Sense’, which are available from the CAA website at www.caa.co.uk/safetysense.

BMAA Comment

Taking-off downwind is not good practice especially if there is a likely chance of climbing into the wind gradient (i.e. tailwind component will increase during initial climb out). Groundspeed will also be increased.
ACCIDENT

Aircraft Type and Registration: X’AIR Falcon 133(1), G-CCNL
No & Type of Engines: 1 Verner 133M piston engine
Year of Manufacture: 2004
Date & Time (UTC): 5 July 2012 at 1845 hrs
Location: Near Sandy, Bedfordshire
Type of Flight: Private
Persons on Board: Crew - 1 Passengers - None
Injuries: Crew - None Passengers - N/A
Nature of Damage: Damage to left landing gear and rear fuselage
Commander’s Licence: Private Pilot’s Licence
Commander’s Age: 48 years
Commander’s Flying Experience: 70 hours (of which 70 were on type)
Last 90 days - 6 hours
Last 28 days - 1 hour
Information Source: Aircraft Accident Report Form submitted by the pilot

The aircraft was descending through about 1,500 ft prior to joining the circuit at Sandy Airfield when the engine lost power. The pilot carried out the appropriate actions to restore normal power, but without success. Although the engine continued to run, it would not produce more than 1,800 rpm.

The pilot selected an area of common ground in which to make a landing. The landing itself was successful, but the aircraft encountered an unseen ditch which caused damage to the landing gear and airframe. Upon inspecting the engine, it was found that part of a valve rocker on the inlet valve side had sheared off.

BMAA Comment
The pilot did well to successfully land the aircraft, but was very unfortunate to encounter the ditch.
ACCIDENT

Aircraft Type and Registration: Dynamic WT9 UK, G-EECC
No & Type of Engines: 1 Rotax 912 ULS piston engine
Year of Manufacture: 2007 (Serial no: DY189)
Date & Time (UTC): 10 July 2012 at 1630 hrs
Location: West Lydford, Somerset
Type of Flight: Private
Persons on Board: Crew - 1 Passengers - None
Injuries: Crew - None Passengers - N/A
Nature of Damage: Left wing, right wing root, nosegear and propeller
Commander’s Licence: National Private Pilot’s Licence
Commander’s Age: 55 years
Commander’s Flying Experience: 720 hours (of which 390 were on type)
Last 90 days - 13 hours
Last 28 days - 1 hour
Information Source: Aircraft Accident Report Form submitted by the pilot

Synopsis

Whilst changing between fuel tanks, the fuel selector lever detached as it was moved to the FUEL OFF position. The pilot was unable to restore the fuel supply to the engine and landed the aircraft in a field but impacted a fence and hedge. The pilot was uninjured. The UK CAA advised that a Service Bulletin relating to the failure of the fuel selector lever is to be issued.

History of the flight

The aircraft is equipped with two fuel tanks which are selected within the cockpit by a three position lever. The intermediate lever position is FUEL OFF. Whilst routing within the northern boundary of the Yeovilton MATZ at a height of about 500 ft, the pilot tried to select the left fuel tank, but as he moved the selector lever from the right tank, through the FUEL OFF position, the lever detached from the valve assembly. The pilot attempted to reattach the lever and also move the valve with his fingers, but he was unsuccessful and the engine stopped several seconds later. At this time Yeovilton ATC contacted the pilot and he declared a PAN, whilst also positioning the aircraft to land in a field ahead. Shortly after, the pilot realised that he would not make the selected field and repositioned to land downwind in a field to his left. The aircraft landed longer than expected and struck a fence and hedge before coming to a stop. The pilot was restrained by a full safety harness and exited the aircraft normally. The pilot stated that in hindsight, he had been distracted from concentrating on the forced landing when responding to ATC.
The UK CAA advised that a Service Bulletin relating to the failure of the fuel selector lever is to be issued.

**BMAA Comment**

Due to this accident a Mandatory Permit Directive (MPD) was published by the CAA, please find the link below: http://www.caa.co.uk/docs/33/20121024MPD2012004E.pdf