Quad City Challenger II UK, G-MYXV

AAIB Bulletin No: 7/98 Ref: EW/G98/02/12 Category: 1.4

Aircraft Type and Registration: Quad City Challenger II UK, G-MYXV

No & Type of Engines: 1 Rotax 503 piston engine

Year of Manufacture: 1997

Date & Time (UTC): 15 February 1998 at 1345 hrs

Location: Shobdon Aerodrome, Hereford and Worcester

Type of Flight: Private

Persons on Board: Crew - 1 - Passengers - None

Injuries: Crew -None - Passengers - N/A

Nature of Damage: Main landing gear legs fractured

Commander's Licence: Private Pilot's Licence (Microlight)

Commander's Age: 65 years

Commander's Flying Experience: 450 hours (of which 28 were on type)

Last 90 days - 12 hours

Last 28 days - 4 hours

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

AAIB inquiries

The aircraft is a high winged, two place microlight with conventional 3-axis controls powered by a pusher propeller. It is fitted with a tricycle landing gear with an additional tailwheel. The main landing gear legs consist of aluminium tubes supported by stay wires.

The aircraft had flown from Bewdley Farm Airstrip, Worcestershire to Shobdon, a distance of approximately 22 nm. The pilot reported that on arrival he descended the aircraft from 2,000 feet agl to land on the Southside Runway at Shobdon Airfield and joined the microlight circuit downwind at 500 feet agl. The airfield has an asphalt Runway 27 with a parallel grass runway on either side referred to as the Northside and Southside Runways. The Southside Runway is 280 m long. The descent was made with the engine at idle. The pilot reported that the throttle

was advanced somewhat to level out for the downwind leg, reduced after turning onto the base leg and then brought back to idle on the initial part of the final approach. When he advanced the throttle to reduce the descent rate the engine failed to respond and then stopped. The pilot informed Shobdon Radio of the problem and attempted to stretch the glide but was forced to make a heavy landing short of the runway in a ploughed field. The ground was soft and both main landing gear legs failed. The pilot, who was wearing a four-point harness, escaped injury.

A flying instructor who was on the approach to the Southside Runway behind G-MYXV was an eyewitness to the accident. He reported that G-MYXV arrived from the north-east and made a direct approach, without a circuit, before touching down approximately 30 m short of the Southside Runway threshold.

A Meteorological Office aftercast of the weather at the time of the accident showed that there was a high pressure area with a south-westerly airstream. It included a visibility of 10 km below a lowest cloud base of 12,000 feet and a wind of 30 kt from 240°T at 2,000 feet agl and of 5 kt from 180°T at the surface. The ambient temperature and relative humidity were 15°C/45% at 2,000 feet agl and 12°C/66% at the surface.

The pilot reported that the cruise fuel consumption rate was approximately 4 USG/hr and that he departed from Bewdley with full fuel of 10 USG. The track from Bewdley to Shobdon was almost directly into the 2,000 feet agl wind and, given the published cruise speed for the aircraft of 48 to 52 kt, the estimated fuel usage for a direct flight would have been in the order of 4 to 5 USG. The pilot estimated that his flight time had been 45 minutes and the fuel usage had been 3 to 4 USG.

The pilot reported that the weather at the time included a wind of 15 kt from the south-west, reasonable visibility and slight mist patches. He noted that the aircraft arrived with plenty of fuel and that 45 minutes after the accident the engine started without difficulty and ran with no problem. He attributed the problem to possible carburettor icing. He also noted that he considered that the idle speed of the engine may have been set too low, at around 1,500 RPM rather than a more suitable 2,000 RPM. The aircraft has subsequently been repaired and, with the engine idle speed set to approximately 2,200 RPM, has flown for around 2 hours with no further problem.