

No: 10/89

Ref: EW/C1132

Category: 1c

**Aircraft Type
and Registration:**

Colibri MB2, G-BFBV

No & Type of Engines:

One Volkswagen 1835 cc piston engine

Year of Manufacture:

1977

Date and Time (UTC):

23 August 1989 at 1757 hrs

Location:

Overton, 6 nm west of Basingstoke, Hampshire

Type of Flight:

Private (pleasure)

Persons on Board:

Crew - 1

Passengers - None

Injuries:

Crew - 1 (fatal)

Passengers - N/A

Nature of Damage:

Aircraft destroyed

Commander's Licence:

Private Pilot's Licence

Commander's Age:

30 years

**Commander's Total
Flying Experience:**

252 hours (of which 187 were on type)

Information Source:

AAIB Field Investigation

History of the flight

The pilot had achieved his civil flying licence on 21 January 1989 and then bought the Colibri, which he flew for the first time on 8 April. He kept the aircraft in a hangar at Popham airfield, Hampshire, where he was reported as being an enthusiastic pilot who flew nearly every day, weather permitting.

When he arrived at Popham, at 1645 hrs on 23 August, he met an instructor who had just been flying and who briefed him on the local weather conditions: wind south westerly at 20 kt and gusting, good visibility and no significant cloud. The instructor states that the pilot was in good health and cheerful and said to him that he was going to do a local flight. The aircraft was cleared for spinning and manoeuvres up to 2g. The pilot had four entries in his flying logbook recording stalling and spinning exercises in the Colibri.

The aircraft had been refuelled the previous evening and so the pilot signed out of the club at 1720 hrs and, having wheeled out his aircraft, carried out an external inspection and taxied to the run-up point adjacent to the clubhouse. Having completed the run-up checks, he taxied to the threshold of runway 26. At about 1735 hrs the aircraft took off and, as was lately the pilot's custom, he flew a low pass at some 30 feet over the airfield, followed by a steep pull-up. There is a conflict of opinion amongst the witnesses as to whether he performed this manoeuvre once or twice, however, the aircraft then climbed away to the west.

The aircraft was later seen passing over a house in Crux Easton, flying in a south easterly direction at 300-400 feet agl. Crux Easton is situated on a ridge about 1000 feet high and lies 5 nm to the northwest of the accident site. The witness, who is also a pilot, states that the aircraft sounded as if the throttle was being opened and closed, as if the pilot was practising stalls but not allowing the aircraft's nose to drop. The next sighting was as the aircraft passed over Kingsclere, flying in a southerly direction, at about 4000 feet agl. Kingsclere is situated 3 nm north northeast of the accident site and 5 nm east of Crux Easton. However, neither witness is sure of the exact time of their respective sighting. Although this evidence suggests that the aircraft flew a roughly triangular course from Popham to Crux Easton to Kingsclere to the accident site, such recorded times as are available suggest that the aircraft did not fly in a direct line between those points. There are, however, no witnesses as to the aircraft's manoeuvres immediately prior to the separation of the wing.

The two remaining witnesses, who were within a few hundred metres of the accident site, saw the fuselage, attached to only one wing, fall vertically to the ground followed a few seconds later by the other wing, with debris falling from it.

A post-mortem examination carried out on the pilot revealed no evidence that medical factors had been contributory to the accident.

Examination of the wreckage

The aircraft, less the right wing and the canopy, had struck the ground at high speed from an almost vertical descent. The right wing, largely intact and complete with main landing gear, was approximately 400 metres north of the main accident site; it had failed in overload under positive g, the upper and lower spar booms showing the characteristics of compressive and tensile failures respectively. No evidence was found of material or construction defects, neither were any pre-existing defects found in the flying controls. During the examination of the wreckage a scarf joint was found in the main spar of the left wing indicating that a repair had been carried out, however, the joint was intact and was not a factor in this accident.

Light debris comprising canopy perspex, the right aileron and light structure from the inboard section of the right wing was found in an area 300 metres to the east of the main aircraft site. The distribution of this debris had been influenced by wind drift. Although the rear canopy frame was found with the aircraft wreckage, the majority of the perspex recovered was found amongst the items subjected to wind drift. Several fragments bore smears of green paint, indicating that the canopy was damaged *in situ*, probably having been struck by the departing right wing, rather than having detached as a whole.

A wind drift analysis was carried out on some of the perspex fragments and gave their release altitude as between 1250 and 1500 feet, this was corroborated by a similar analysis on the right aileron .