No: 7/84

Ref: EW/C870/01

Aircraft type and registration:	Rockwell Commander, G-BIUO and a Cirrus (Competition No 610) (a light single engined fixed wing aircraft and a sailplane)
Year of Manufacture:	1975/1976
Date and time (GMT):	12 May 1984 at 1435 hrs
Location:	Longdon, Nr Tewkesbury, Gloucestershire
Type of flight:	Private (pleasure)
Persons on board:	Crew — Rockwell: 1 Cirrus: 1 Passengers — Rockwell: Nil Cirrus: Nil
Injuries:	Crew — Rockwell: Minor Cirrus: Fatal Passengers — N/A
Nature of damage:	Rockwell: Structure damaged beyond repair Cirrus: Totally destroyed
Commander's Licence:	Rockwell pilot: Private Pilot's Licence Cirrus pilot: British Gliding Association 'Silver Badge'
Commander's total flying experience:	Rockwell pilot: 390 hours (of which 95 were on type) Cirrus pilot: 250 hours (of which 2 hours 50 minutes were on type)
Information source:	AIB Field Investigation

The Rockwell Commander was flying straight and level at 3000 feet, en-route between Cardiff and Humberside airports on a VFR plan. It had taken off at 1355 hrs and was southwest of the Defford danger area, tracking 055°M into a 20 kt headwind with an indicated airspeed of 125 kt.

The Cirrus took off from Bidford near Stratford-Upon-Avon at 1105 hrs on a 'Gold C' cross country and was returning from overhead Raglan Castle near Monmouth on an average track of 062°M into the same headwind, with an approximate airspeed of 70 kt.

The two aircraft were seen to collide at 1435 hrs, following which the port wing of the glider detached and the remainder of it spiralled earthwards, breaking up and ejecting the pilot. The Rockwell lost the complete propeller assembly and the upper engine cowling in the impact. The windscreen was crushed inwards and the tail empennage, as well as being distorted, suffered fractures of the supporting spar attachments to the fuselage. The rear fuselage also received a compression distortion on the left side.

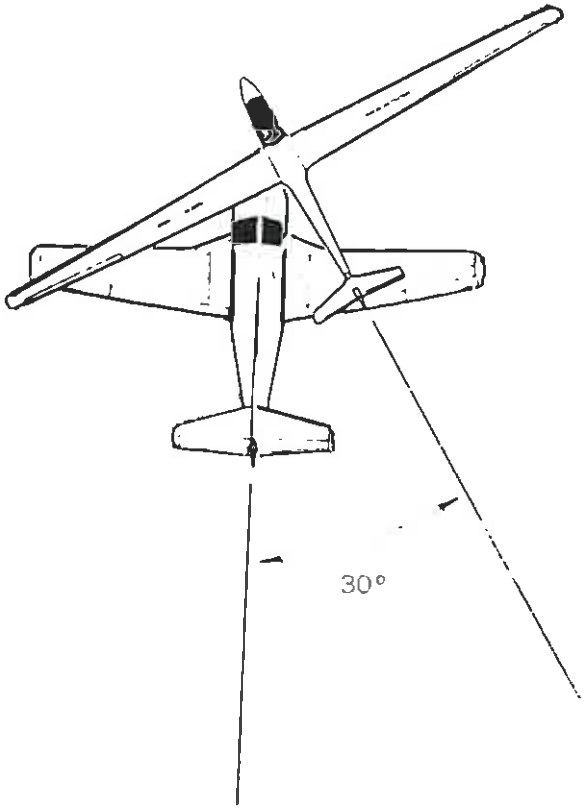
Despite the severity of the damage to the aircraft, the pilot of the Rockwell managed to regain control of it and execute a safe landing in a meadow. The aircraft undershot the intended shutdown point and consequently passed through a barbed wire and post fence, sustaining further, but comparatively minor damage. When the aircraft came to rest the engine was still running. The pilot closed the mixture control, switched off the magnetos and master switch, and left the aircraft via the passenger door on the right hand side. There was no fire, despite a considerable quantity of fuel spilling from the ruptured right hand tank.

It is not known whether the pilot of the Cirrus was conscious following the collision, but he was wearing a parachute and did not deploy it. However, the outer cable from the D-ring of the parachute was no longer stitched to the shoulder harness. Although there is evidence that it had originally been stitched just above the D-ring, and had subsequently been re-stitched, it is not possible to assess whether the final separation had occurred before the accident or as a result of it. The parachute was found to be otherwise fully operational.

Subsequent examination of the wreckage showed that, as the Rockwell was flying straight and level, the Cirrus had descended on top of it from the right-hand side. Propeller cuts in the wing and fuselage of the Cirrus indicated that the two aircraft had converged at an angle of 29° with the Rockwell overtaking the Cirrus with a relative velocity of 65 kts.

Blind areas caused by cockpit structure and the fact that, according to one witness, the Cirrus had just completed a turn, make it difficult to assess the visibility of one aircraft from the other. Also, the Cirrus which was coloured white would have been camouflaged against the white/grey cloud base. Both aircraft however were flying clear of cloud in uncontrolled airspace where the Visual Flight Rules applied.

ACCIDENT BETWEEN ROCKWELL COMMANDER 112A, REGISTRATION G-BIUO AND SCHEMPP-HIRTH CIRRUS GLIDER, BGA No 2138 ON MAY 12 1984.



PLAN VIEW OF THE AIRCRAFT AT THE COLLISION POINT

THE ROCKWELL, FOLLOWING THE FORCED LANDING