

**Aviation Safety Investigation Report  
199002021**

**Beechcraft V35-MK2 (BONANZA)  
Blanik L13 A1**

**2 November 1990**

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**Occurrence Number:** 199002021  
**Location:** Tocumwal NSW  
**Date:** 2 November 1990  
**Highest Injury Level:** Fatal  
**Injuries:**

**Occurrence Type:** Accident

**Time:** 1319

	Fatal	Serious	Minor	None
Crew	2	0	1	1
Ground	0	0	0	-
Passenger	0	0	0	0
<b>Total</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>1</b>

<b>Aircraft Details:</b>	Beechcraft V35-MK2 (BONANZA)	Blanik L13 A1
<b>Registration:</b>	VH-CAG	VH-GXO
<b>Serial Number:</b>	D9783	173906
<b>Operation Type:</b>	Aerial Work	Private
<b>Damage Level:</b>	Destroyed	Substantial
<b>Departure Point:</b>	Tocumwal NSW	Tocumwal NSW
<b>Departure Time:</b>	1316	1312
<b>Destination:</b>	Sydney NSW	Tocumwal NSW

**Approved for Release:** 16th December 1991

### Circumstances:

VH-CAG had taken off from runway 27, turned left, and was climbing through about 1700 ft on the downwind leg when it collided with glider VH-GXO, which was turning right in thermalling flight. The Bonanza lost its right 'Vee' tail on impact and entered an inverted spin, which continued until ground impact. The glider, although sustaining substantial damage to the right wing and lower fuselage, was able to be flown to a safe landing. Tocumwal Aerodrome is provided with sealed runways in the 18/36 and 09/27 directions. Powered aircraft normally use the sealed runways. Gliding operations are conducted during daylight hours from grass strip 18/36 situated west of runway 18/36, or grass strip 09/27 situated north of runway 09/27, dependent on wind conditions at the time. During daylight hours, for traffic separation purposes, contra-rotating circuits are in operation. Right hand circuits apply to runways 09 and 36, and to gliding strips 18 and 27. All other circuits are in a left hand direction. The aerodrome is uncontrolled and operational information is provided by Melbourne Flight Information Centre on a radio frequency of 118.6 MHz. In addition, gliders operating at Tocumwal monitor a frequency of 122.9 MHz. Radio communications on 118.6 MHz are automatically recorded. The recorded radio communications of VH-CAG were consistent with normal operational procedures. Radio communications on the local glider frequency were not recorded. No evidence was found to indicate that VH-CAG made any transmissions on that frequency in the period leading to the accident. Details of special procedures in use at Tocumwal at the time of the accident were provided in Enroute Supplement Australia (ERSA), a document issued by the Civil Aviation Authority. Although the glider frequency was published in ERSA, there was no requirement for powered aircraft to listen out or broadcast on the glider frequency. On the day of the accident, weather conditions were bright and sunny with no obstructions to visibility. Witnesses reported that the surface wind was light, mostly from the south but occasionally backing to the west. Gliding operations had been conducted throughout the day from strip 18, utilising a right hand circuit

direction. The pilot of VH-GXO had been authorised to undertake thermalling flight to the south-west of the aerodrome. At the time of the collision, the glider was being operated in accordance with that authorisation. The Bonanza had commenced to taxi from the western end of the aerodrome at about the time the glider was aero-towed from strip 18. A few minutes later, the aircraft was observed to backtrack on runway 27 before commencing a take-off roll from the beginning of the runway. Witnesses later reported that, at the time, the wind was from the west at up to 12 kts. The pilot-in-command of the Bonanza was aware that gliding operations using strip 18 had been conducted earlier in the day. After take-off the Bonanza turned left onto an easterly heading, directly into the glider circuit. Why the crew of the Bonanza did not sight the glider can only be surmised; however, a number of factors may have been relevant, including a lack of contrast between the glider and the sky background; the size of the glider as a target; the low rate of movement relative to the Bonanza; the absence of any traffic alert concerning the presence of the glider; and possible distraction from a known inbound aircraft to the north-east of the aerodrome. The pilot of the glider was unaware of the presence of the departing Bonanza, having heard no radio calls concerning VH-CAG on the glider frequency. He also did not see the Bonanza as the glider was turning right, although this could have been difficult as the Bonanza presented a head-on view and would have blended into the ground background as it climbed.

**Significant Factors:**

The following factors were considered relevant to the development of the accident

1. The crew of VH-CAG were unaware of the presence of the glider.
2. No communications from VH-CAG were heard on the gliding frequency.
3. The pilot of VH-GXO was unaware of the presence of VH-CAG.
4. Fluctuating wind conditions.
5. Conflicting circuit directions.
6. The crew of VH-CAG was possibly distracted by known inbound traffic.
7. Poor conditions for target discrimination, (both aircraft).
8. The pilot-in-command of VH-GXO failed to see the approaching Bonanza.
9. The crew of VH-CAG failed to see and avoid the glider.