Aviation Safety Investigation Report 199503293

Schempp-Hirth GmbH & Co. KG CIRRUS 75

07 October 1995

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NOTE: All air safety occurrences reported to the ATSB are categorised and recorded. For a detailed explanation on Category definitions please refer to the ATSB website at www.atsb.gov.au.

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The Bureau did not conduct an on scene investigation of this occurrence. The information presented below was obtained from information supplied to the Bureau.

Occurrence Number: 199503293 **Occurrence Type:** Incident
Location: Central Mangrove
State: NSW **Inv Category:** 4
Date: Saturday 07 October 1995
Time: 1525 hours **Time Zone** EST
Highest Injury Level: None

Aircraft Manufacturer: Schempp-Hirth GmbH & Co. KG
Aircraft Model: CIRRUS 75
Aircraft Registration: VH-XQZ **Serial Number:**
Type of Operation: Non-commercial Pleasure/Travel
Damage to Aircraft: Minor
Departure Point: Central Mangrove NSW
Departure Time: 1200 EST
Destination: Central Mangrove NSW

Crew Details:

Role	Class of Licence	Hours on Type	Hours Total
Pilot-In-Command		70.0	205

Approved for Release: Thursday, May 2, 1996

The glider was nearing the end of a 190 km cross country flight. The weather was fine, with good visibility and light west to north westerly winds. At about five km from the airfield the pilot decided to descend from 3,500 ft by increasing airspeed to 116 kt, some 3 kt less than the maximum airspeed limit.

The pilot reported that initially the glider was flying normally at this speed, but suddenly the control stick was pulled from his grasp and vibrated back and forth, banging against its stops. He managed to regain his hold on the stick and began to raise the nose of the aircraft to reduce airspeed. At this point the glider rolled into an inverted attitude.

Believing that the aircraft had suffered a major structural failure, the pilot elected to escape from the cockpit and make a parachute descent. Initially, he experienced difficulty in releasing the canopy, but once open he fell freely from the glider. The pilot made a successful parachute descent, whilst the glider proceeded to land in bushes, sustaining minimal damage.

During a subsequent airworthiness inspection by the gliding authority, it was found that the mass balance of the tailplane was beyond limits. The out of balance condition had apparently occurred some three years previously when the glider had been rebuilt. As a result, elevator flutter had occurred as the aircraft reached its maximum airspeed limit. Under normal circumstances the critical airspeed for the onset of elevator flutter should have been well in excess of the maximum airspeed limit.

The gliding authority has advised that it has taken action to prevent a recurrence by issuing an airworthiness directive, and conducting surveillance of the maintenance organisation concerned.