

**Aviation Safety Investigation Report
199701493**

**Schweizer Aircraft Corp
269C-1**

08 May 1997

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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.

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: 199701493 **Occurrence Type:** Accident
Location: 4km S Kingscliffe, (ALA)
State: NSW **Inv Category:** 4
Date: Thursday 08 May 1997
Time: 1330 hours **Time Zone:** EST
Highest Injury Level: None

Aircraft Manufacturer: Schweizer Aircraft Corp
Aircraft Model: 269C-1
Aircraft Registration: VH-CBZ **Serial Number:** S0017
Type of Operation: Instructional Dual
Damage to Aircraft: Substantial
Departure Point: Coolangatta QLD
Departure Time: 1220 EST
Destination: Coolangatta QLD

Crew Details:

Role	Class of Licence	Hours on Type	Hours Total
Pilot-In-Command	Commercial	670.0	1993

Approved for Release: Tuesday, July 22, 1997

The pilot reported that he was in the Coolangatta training area practising forced landing procedures with a student pilot. An autorotation was entered by lowering collective initially, then the throttle was wound off. Carburettor heat was selected fully on, carburettor air temperature was indicating approximately 12 degrees Celsius, and the engine was idling. The pilot said he turned towards the forced landing area and was briefing the student on the wind direction. The rotor RPM was in the green range and indicated airspeed was 55 knots, the correct autorotation airspeed. The pilot said that at this stage he was downwind (5-10 knots approx) and was ready to turn into wind at approximately 300 ft AGL. The collective was raised and the throttle was opened fully, but the manifold pressure increased only to 14-15 inches, there was a definite lack of power and the rotor RPM decayed. He maintained heading and airspeed and re-entered autorotation heading for the forced landing area when he noticed the engine had stopped. He said he attempted a restart but at this stage he was too low to risk a turn and accepted his present direction. The landing was made onto a tree lined track. The main rotor contacted trees and the aircraft rolled over to the right on the sandy surface. The pilot suspected that carburettor icing may have been the problem.

The weather conditions at the time were light drizzle or rain with a temperature of 18 -20 deg C. These conditions were conducive to carburettor icing. The pilot said that he had experienced power loss with this type of helicopter in similar situations, but usually on the initial entry into the autorotation. The aircraft manufacturer carried a technical investigation and found no evidence of any failure or malfunction that may have led to the accident. The manufacturer stated that the carburettor heat fully applied in autorotation produces an indication on the carb air temp gauge of full scale deflection. However, this has not been the operators experience. The operator advised that with full carb heat the temperature remains in the mid (caution) range and pilots have been advised to terminate autorotations and apply power if the carb air temp falls below this value. The operator now requires pilots to practice autorotations over a clear landing site, so that a landing may be terminated should the situation recurr.

