

**Aviation Safety Investigation Report
199502346**

**Bellanca Aircraft Corp
Super Decathlon**

21 July 1995

Readers are advised that the Australian Transport Safety Bureau investigates for the sole purpose of enhancing transport safety. Consequently, Bureau reports are confined to matters of safety significance and may be misleading if used for any other purposes.

Investigations commenced on or before 30 June 2003, including the publication of reports as a result of those investigations, are authorised by the Executive Director of the Bureau in accordance with Part 2A of the Air Navigation Act 1920.

Investigations commenced after 1 July 2003, including the publication of reports as a result of those investigations, are authorised by the Executive Director of the Bureau in accordance with the Transport Safety Investigation Act 2003 (TSI Act). Reports released under the TSI Act are not admissible as evidence in any civil or criminal proceedings.

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: 199502346 **Occurrence Type:** Incident
Location: Innisfail, (ALA)
State: QLD **Inv Category:** 4
Date: Friday 21 July 1995
Time: 1755 hours **Time Zone:** EST
Highest Injury Level: None

Aircraft Manufacturer: Bellanca Aircraft Corp
Aircraft Model: 8KCAB
Aircraft Registration: VH-CID **Serial Number:** 271-76
Type of Operation: Instructional Dual
Damage to Aircraft: Nil
Departure Point: Innisfail
Departure Time: 1745 EST
Destination: Innisfail

Approved for Release: Monday, September 25, 1995

The pilot advised that shortly after the aircraft entered the first of what was to be a series of aerbatic manouvers, the aircraft's left rudder cable failed. After establishing what degree of flight control was still available, the pilot was able to make an uneventful landing.

Later examination found that the rudder cable had pulled through the rear swage fitting at the rudder horn end. The investigation found that both the left and right rudder cables were replaced at the last periodic maintenance inspection only three flight hours prior to the incident.

An examination of the manufacturers cable making processes revealed that the clamping tool used in the manufacture of the failed cable was not adjusted correctly. It was also found that there were significant wall thickness variations for the type of swage sleeves being used. All cables previously manufactured by the particular method used for the failed cable were identified and withdrawn from service. The manufactures cable making process for the failure type are currently under review by the CASA.